

				and applications; graphs of radical, quadratic and exponential functions; operations on polynomial, rational, and radical expressions.	in each of the following courses: (MAT055 and MAT056 and MAT057), OR a grade of C or better in (MAT090 or MAT091 or MAT092 or MAT095 or MAT096), OR an appropriate district placement.	may receive credit for only one of the following: MAT120, OR MAT121, OR MAT122 OR MAT126.		5.0 5.0	
MAT121	2019 Fall	Intermediate Algebra		Analysis of rational, radical, quadratic and exponential equations, functions and applications; graphs of radical, quadratic and exponential functions; operations on polynomial, rational, and radical expressions.	Prerequisites: A grade of C or better in each of the following courses: (MAT055 and MAT056 and MAT057), OR a grade of C or better in (MAT090 or MAT091 or MAT092 or MAT095 or MAT096), OR an appropriate district placement.	MAT121 students may receive credit for only one of the following: MAT120, OR MAT121, OR MAT122 OR MAT126.	Acad	LEC 4.0 4.0 4.0	S
MAT122	2019 Fall	Intermediate Algebra		Analysis of rational, radical, quadratic and exponential equations, functions and applications; graphs of radical, quadratic and exponential functions; operations on polynomial, rational, and radical expressions.	Prerequisites: A grade of B or better in each of the following courses: (MAT055 and MAT056 and MAT057), OR a grade of B or better in (MAT090 or MAT091 or MAT092 or MAT095 or MAT096), OR an appropriate district placement.	MAT122 students may receive credit for only one of the following: MAT120, OR MAT121, OR MAT122 OR MAT126.	Acad	LEC 3.0 3.0 3.0	S
MAT126	2019 Summer	Intermediate Algebra with Review		Analysis of rational, radical, quadratic and exponential equations, functions and applications; graphs of radical,	Prerequisites: None.	MAT126 students may	Acad	LEC 6.0	S

				quadratic and exponential functions; operations on polynomial, rational, and radical expressions.		receive credit for only one of the following: MAT120, OR MAT121, OR MAT122, OR MAT126. This course is designed for students that do not qualify for MAT120, MAT121, or MAT122, but need MAT12+ Intermediate Algebra to fulfill a degree requirement OR intend to complete MAT15+ College Algebra for their degree path. Review of MAT08+ Basic Arithmetic and/or MAT09+ Introducto	6.0 6.0	
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						ry Algebra as needed.			
MAT140	2021 Spring	College Mathematics		Working knowledge of college-level mathematics and its applications to real-life problems. Emphasis on understanding mathematical concepts and their applications. Topics include proportional reasoning, modeling, finance, probability, and statistics.	Prerequisites: An appropriate District placement or a grade of C or better in (MAT052, MAT053 and MAT055), or (MAT055, MAT056 and MAT057) or MAT085 or MAT09+ or MAT103 or MAT114 or MAT115 or MAT12+.	Students may receive credit for only one of the following: MAT140, MAT141, MAT142, MAT145, or MAT146. Students do not need to take all MAT classes in numerical order; please consult with an advisor for the appropriate math sequence for student educational goals. Course Attribute(s): General Education Designation: Mathematics - [MA] Arizona Shared Unique	Acad	LEC 5.0 5.0 5.0	S

						Number SUN# MAT 1142			
MAT141	2021 Spring	College Mathematics		Working knowledge of college-level mathematics and its applications to real-life problems. Emphasis on understanding mathematical concepts and their applications. Topics include proportional reasoning, modeling, finance, probability, and statistics.	Prerequisites: An appropriate District placement or a grade of C or better in (MAT052, MAT053 and MAT055) or (MAT055, MAT056 and MAT057) or MAT085 or MAT09+ or MAT103 or MAT114 or MAT115 or MAT12+.	MAT141 students may receive credit for only one of the following: MAT140, MAT141, MAT142, MAT145 or MAT146. Students do not need to take all MAT classes in numerical order; please consult with an advisor for the appropriate math sequence for student educational goals. Course Attribute(s): General Education Designation: Mathematics - [MA] Arizona Shared	Acad	LEC 4.0 4.0 4.0	S

						Unique Number SUN# MAT1142			
MAT142	2021 Spring	College Mathematics		Working knowledge of college-level mathematics and its applications to real-life problems. Emphasis on understanding mathematical concepts and their applications. Topics include proportional reasoning, modeling, finance, probability, and statistics.	Prerequisites: An appropriate District placement or a grade of C or better in (MAT052, MAT053 and MAT055) or (MAT055, MAT056 and MAT057) or MAT085 or MAT09+ or MAT103 or MAT114 or MAT115 or MAT12+.	MAT142 students may receive credit for only one of the following: MAT140, MAT141, MAT142, MAT145 or MAT146. Students do not need to take all MAT classes in numerical order; please consult with an advisor for the appropriate math sequence for student educational goals. Course Attribute(s): General Education Designation: Mathematics - [MA] Arizona	Acad	LEC 3.0 3.0 3.0	S

						Shared Unique Number SUN# MAT1142			
MAT145	2020 Summer	College Mathematics with Review		Working knowledge of college-level mathematics and its applications to real-life problems. Emphasis on understanding mathematical concepts and their applications. Topics include proportional reasoning, modeling, finance, probability, and statistics, along with review of arithmetic and introductory algebra, as needed.	Prerequisites: None.	MAT145 students may receive credit for only one of the following: MAT140, MAT141, MAT142, MAT145, or MAT146. This course is designed for students that do not qualify for MAT141 or MAT142, but intend to complete MAT14+ College Mathematics for their degree path. Review of Basic Arithmetic and Introductory Algebra as needed.	Acad	LEC 5.0 5.0 5.0	S

MAT146	2020 Summer	College Mathematics with Review		Working knowledge of college-level mathematics and its applications to real-life problems. Emphasis on understanding mathematical concepts and their applications. Topics include proportional reasoning, modeling, finance, probability, and statistics, along with review of arithmetic and introductory algebra, as needed.	Prerequisites: None.	MAT146 students may receive credit for only one of the following: MAT140, MAT141, MAT142, MAT145, or MAT146. This course is designed for students that do not qualify for MAT141 or MAT142, but intend to complete MAT14+ College Mathematics for their degree path. Review of Basic Arithmetic and Introductory Algebra as needed.	Acad	LEC 6.0 6.0 6.0	S
MAT150	2022 Fall	College Algebra/Functions		Analysis and interpretation of the behavior and nature of functions including linear, quadratic, higher-order polynomials, rational, exponential, logarithmic, power,	Prerequisites: A grade of C or better in MAT095, or MAT096, or MAT114, or MAT115, or	Students may receive credit for only one	Acad	LEC 5.0 5.0 5.0	S

				absolute value, and piecewise-defined functions; systems of equations, using multiple methods including matrices, and modeling and solving real world problems.	MAT12+, OR an appropriate district placement for MAT15+, OR permission of Department or Division Chair.	of the following: MAT150, OR MAT151, OR MAT152, OR MAT155, OR MAT156.			
MAT151	2022 Fall	College Algebra/Functions		Analysis and interpretation of the behavior and nature of functions including linear, quadratic, higher-order polynomials, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions; systems of equations, using multiple methods including matrices, and modeling and solving real world problems.	Prerequisites: A grade of C or better in MAT095, or MAT096, or MAT114, or MAT115, or MAT12+, OR an appropriate district placement for MAT15+, OR permission of Department or Division Chair.	Students may receive credit for only one of the following: MAT150, OR MAT151, OR MAT152, OR MAT155, OR MAT156.	Acad	LEC 4.0 4.0 4.0	S
MAT152	2022 Fall	College Algebra/Functions		Analysis and interpretation of the behavior and nature of functions including linear, quadratic, higher-order polynomials, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions; systems of equations, using multiple methods including matrices, and modeling and solving real world problems.	Prerequisites: A grade of C or better in MAT095, or MAT096, or MAT114, or MAT115, or MAT12+, OR an appropriate district placement for MAT15+, OR permission of Department or Division Chair.	Students may receive credit for only one of the following: MAT150, OR MAT151, OR MAT152, OR MAT155, OR MAT156.	Acad	LEC 3.0 3.0 3.0	S
MAT155	2022 Fall	College Algebra/Functions with Review		Analysis and interpretation of the behavior and nature of functions including linear, quadratic, higher-	Prerequisites: A grade of C or better in (MAT055,	Students may receive	Acad	LEC 5.0	S



				order polynomials, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions; systems of equations, using multiple methods including matrices, and modeling and solving real world problems.	MAT056, and MAT057), or MAT09+, or MAT114, or MAT115, or an appropriate district placement for MAT120 or MAT121 or MAT122, or permission of Department/Division Chair.	credit for only one of the following: MAT150, OR MAT151, OR MAT152, OR MAT155, OR MAT156. This course is designed for students that do not qualify for MAT150 or MAT151 or MAT152, but intend to complete MAT15+ College Algebra for their degree path. Review of MAT12+ Intermediate Algebra as needed.		5.0 5.0	
MAT156	2022 Fall	College Algebra/Functions with Review		Analysis and interpretation of the behavior and nature of functions including linear, quadratic, higher-order polynomials, rational, exponential, logarithmic, power, absolute value, and piecewise-	Prerequisites: A grade of C or better in each of the following: (MAT055, MAT056, and MAT057), OR	Students may receive credit for only one of the	Acad	LEC 6.0 6.0 6.0	S

				defined functions; systems of equations, using multiple methods including matrices, and modeling and solving real world problems, along with review of intermediate algebra, as needed.	MAT09+ or MAT114 or MAT115, OR an appropriate district placement for MAT120 or MAT121 or MAT122, OR permission of Department or Division Chair.	following: MAT150, OR MAT151, OR MAT152, OR MAT155, OR MAT156. This course is designed for students that do not qualify for MAT150 or MAT151 or MAT152, but intend to complete MAT15+ College Algebra for their degree path. Review of MAT12+ Intermediate Algebra as needed.			
MAT172	2019 Fall	Finite Mathematics		An introduction to the mathematics required for the study of social and behavioral sciences. Includes combinatorics, probability, descriptive statistics, matrix algebra, linear programming and the mathematics of finance. Includes applications of technology in problem-solving.	Prerequisites: A grade of C or better in (MAT150 or MAT151 or MAT151AA or MAT151AB or MAT151AC or MAT151AD or MAT152 or MAT155	Course Attribute(s): General Education Designation: Mathematics - [MA]	Acad	LEC 3.0 3.0 3.0	S

					or MAT156), OR MAT187, OR an appropriate district placement.				
MAT182	2019 Fall	Plane Trigonometry		A study of measures of angles, properties of graphs of trigonometric functions, fundamental identities, addition and half-angle formulas, inverse trigonometric functions, solutions of trigonometric equations, complex numbers and properties of triangle solution. May receive credit for only one of the following: MAT182 or MAT187.	Prerequisites: A grade of C or better in (MAT150 or MAT151 or MAT151AA or MAT151AB or MAT151AC or MAT151AD or MAT152 or MAT155 or MAT156), OR an appropriate district placement. Corequisites: (MAT150 or MAT151 or MAT151AA or MAT151AB or MAT151AC or MAT151AD or MAT152 or MAT155 or MAT156).	MAT182 students may receive credit for only one of the following: MAT182 or MAT187. Course Attribute(s): Course Attribute(s): General Education Designation: Mathematics - [MA] in combination with: MAT150 or MAT151 or MAT152 or MAT155 or MAT156	Acad	LEC 3.0 3.0 3.0	S
MAT187	2024 Fall	Precalculus		Topics in algebra and trigonometry in preparation for calculus.	Prerequisites: A grade of C or better in MAT15+, or an appropriate district placement.		Acad	LEC 5.0 5.0 5.0	S
MAT188	2023 Fall	Precalculus		Topics in algebra and trigonometry in preparation for calculus.	Prerequisites: A grade of C or better in MAT 15+, OR an	Students may receive credit for	Acad	LEC 4.0 4.0 4.0	S

					appropriate district placement.	only one of the following: MAT182 OR MAT187 OR MAT188. Course Attributes: General Education Designation: Mathematics - [MA]			
MAT206	2020 Summer	Elements of Statistics		Basic concepts and applications of statistics, including data description, estimation and hypothesis tests.	Prerequisites: A grade of C or better in MAT14+, or MAT15+, or MAT187, or equivalent, or an appropriate District placement, or permission of Department/Division Chair.	Course Attribute(s): General Education Designation: Computer/Statistics/Quantitative Applications - [CS] Course Attribute(s): Arizona Shared Unique Number SUN#: MAT 1160	Acad	LEC 3.0 3.0 3.0	S
MAT212	2020 Summer	Brief Calculus		Introduction to the theory, techniques and applications of the differential and integral calculus of functions with problems related to business, life, and the social sciences.	Prerequisites: A grade of C or better in MAT15+, or MAT187, or an appropriate District placement.	Students may receive credit for only one of the following: MAT212 or MAT213.	Acad	LEC 3.0 3.0 3.0	S

						Course Attribute(s): General Education Designation: Mathematics - [MA] Arizona Shared Unique Number SUN# 2212			
MAT213	2020 Summer	Brief Calculus		Introduction to the theory, techniques, and applications of the differential and integral calculus of functions with problems related to business, life, and the social sciences.	Prerequisites: A grade of C or better in MAT15+, or MAT187, or an appropriate District placement.	Students may receive credit for only one of the following: MAT212 or MAT213. Course Attribute(s): General Education Designation: Mathematics - [MA] Arizona Shared Unique Number SUN# 2212	Acad	LEC 4.0 4.0 4.0	S
MAT217	2021 Fall	Mathematical Analysis for Business		An introduction to the mathematics required for the study of business. Includes multivariable optimization, Lagrange multipliers, linear programming, linear algebra, probability, random variables, discrete and continuous distributions.	Prerequisites: A grade of C or better in MAT212, or MAT213, or MAT220, or MAT221.	Students may receive credit for only one of the following: MAT217	Acad	LEC 3.0 3.0 3.0	S

						or MAT218.			
MAT218	2021 Fall	Mathematical Analysis for Business		An introduction to the mathematics required for the study of business. Includes multivariable optimization, Lagrange multipliers, linear programming, linear algebra, probability, random variables, discrete and continuous distributions.	Prerequisites: A grade of C or better in MAT212, or MAT213, or MAT220, or MAT221.	Students may receive credit for only one of the following: MAT217 or MAT218.	Acad	LEC 4.0 4.0 4.0	S
MAT220	2023 Fall	Calculus with Analytic Geometry I		Limits, continuity, differential and integral calculus of functions of one variable.	Prerequisites: A grade of C or better in MAT187 or MAT188 or an appropriate District placement.	Course Notes: Students may receive credit for only one of the following: MAT220 OR MAT221. Course Attributes: General Education Designation: Mathematics - [MA] Arizona Shared Unique Number SUN# MAT 2220	Acad	LEC 5.0 5.0 5.0	S
MAT221	2023 Fall	Calculus with Analytic Geometry I		Limits, continuity, differential and integral calculus of functions of one variable.	Prerequisites: A grade of C or better in MAT187 or MAT188 or an appropriate District placement.	Students may receive credit for only one of the following: MAT220,	Acad	LEC 4.0 4.0 4.0	S

						or MAT221. Course Attributes: General Education Designatio n: Mathemati cs - [MA] Arizona Shared Unique Number SUN# MAT 2220			
MAT225	2021 Fall	Elementary Linear Algebra		Introduction to matrices, systems of linear equations, determinants, vector spaces, linear transformations and eigenvalues. Emphasizes the development of computational skills.	Prerequisites: A grade of C or better in MAT212 or MAT213 or MAT220 or MAT221, or equivalent.		Acad	LEC 3.0 3.0 3.0	S
MAT227	2020 Spring	Discrete Mathematical Structures		Course emphasizes discrete mathematics connections to computer science by exposing students to foundational concepts of set theory, logic, counting, induction, proof techniques, graph theory, and algorithms.	Prerequisites: A grade of C or better in MAT212, or MAT213, or MAT220, or MAT221, or permission of Department or Division Chair.		Acad	LEC 3.0 3.0 3.0	S
MAT230	2022 Fall	Calculus with Analytic Geometry II		Techniques of integration for both proper and improper integrals with applications to the physical and social sciences, elements of analytic geometry, and the analysis of sequences and series.	Prerequisites: A grade of C or better in MAT220 or MAT221 or equivalent.	Students may receive credit for only one of the following: MAT230 or MAT231 Course Attribute(s ): General Education Designatio n:	Acad	LEC 5.0 5.0 5.0	S

						Mathematics - [MA] Arizona Shared Unique Number SUN#: MAT 2230			
MAT231	2022 Fall	Calculus with Analytic Geometry II		Techniques of integration for both proper and improper integrals with applications to the physical and social sciences, elements of analytic geometry, and the analysis of sequences and series.	Prerequisites: A grade of C or better in MAT220 or MAT221 or equivalent.	MAT231 student may receive credit for only one of the following: MAT230 or MAT231. General Education Designation: Mathematics - [MA] Arizona Shared Unique Number SUN# MAT 2230	Acad	LEC 4.0 4.0 4.0	S
MAT240	2008 Fall	Calculus with Analytic Geometry III		Multivariate calculus including vectors, vector-valued functions, partial differentiation, multiple integration, and an introduction to vector fields.	Prerequisites: A grade of C or better in Grade of C or better in MAT230 or MAT231.	MAT240 student may receive credit for only one of the following: MAT240 or MAT241. Course Attribute(s): General Education	Acad	LEC 5.0 5.0 5.0	S



						Designation: Mathematics - [MA]			
MAT241	2011 Fall	Calculus with Analytic Geometry III		Multivariate calculus including vectors, vector-valued functions, partial differentiation, multiple integration and an introduction to vector fields.	Prerequisites: A grade of C or better in MAT230 or MAT231.	Students may receive credit for only one of the following: MAT240 or MAT241. Course Attribute(s): General Education Designation: Mathematics - [MA] Arizona Shared Unique Number SUN#: MAT 2241	Acad	LEC 4.0 4.0 4.0	S
MAT256	2021 Spring	Investigating Quantity: Number, Operations and Numeration Systems		Explore number, numeration systems and operations on numbers. Techniques of problem solving with an emphasis on exploring a variety of strategies. Use a variety of visualization techniques to develop a conceptual understanding of these topics.	Prerequisites: A grade of C or better in (MAT15+ or higher), or (MAT12+ and MAT14+), or [MAT14+ and (MAT114 or MAT115)], or (MAT14+ and an appropriate District placement into MAT150, MAT151, or MAT152), or permission of Department/Division Chair.	MAT256 is designed to meet requirements for prospective elementary education teachers.	Acad	LEC 4.0 4.0 4.0	S
MAT257	2020 Summer	Investigating Geometry,		Explores geometry, measurement, probability and statistics. Uses	Prerequisites: A grade of C or better	MAT257 is	Acad	LEC 4.0	S

		Probability and Statistics		visualization, technologies, problem solving, reasoning and proof to develop a conceptual understanding of these topics.	in MAT256 or permission of Department/Division Chair.	designed to meet the requirements for prospective elementary education teachers.		4.0 4.0	
MAT276	2009 Fall	Modern Differential Equations		Introduces differential equations, theoretical and practical solution techniques with applications. Problem solving using MATLAB.	Prerequisites: A grade of C or better in MAT230 or MAT231 or permission of Department/Division Chair.	Course Attribute(s): General Education Designation: Mathematics - [MA]	Acad	LEC 4.0 4.0 4.0	S
MAT277	2009 Fall	Modern Differential Equations		Introduces differential equations, theoretical and practical solution techniques with applications. Problem solving using MATLAB.	Prerequisites: A grade of C or better in MAT230 or MAT231 or permission of Department/Division Chair.	Course Attribute(s): General Education Designation: Mathematics - [MA]	Acad	LEC 3.0 3.0 3.0	S
MAT280	2022 Fall	Foundational Statistics for Engineers	ECE280	Fundamentals of probability, descriptive statistics, sampling distributions, parameter estimation, tests of hypotheses, regression analysis, analysis of variance, and design of experiments.	Prerequisites: A grade of C or better in MAT220, or MAT221, or equivalent.		Acad	L+L 3.0 5.0 5.0	T
MAT282AA	2014 Summer	Service-Learning Experience in Mathematics		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	MAT282A A may be repeated for a total of six (6) credit hours. Standard grading available according to procedure	Acad	LAB 1.0 1.0 0.0	L

						s outlined in catalog.			
MAT282AB	2014 Summer	Service-Learning Experience in Mathematics		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	MAT282A B may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 2.0 2.0 0.0	L
MAT282AC	2014 Summer	Service-Learning Experience in Mathematics		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	MAT282A C may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 3.0 3.0 0.0	L
MAT295	2020 Summer	Special Topics in Mathematics		Conceptual and computational aspects of a special topic in modern mathematics.	Prerequisites: Permission of Department/Division Chair.		Acad	LEC 1.0 1.0 1.0	S
MAT298AA	2020 Summer	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be	Prerequisites: Permission of Department/Division Chair.		Acad	LAB 1.0 1.0 0.0	Z

				combined to maximize student development.					
MAT298AB	2020 Summer	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Department/Division Chair.		Acad	LAB 2.0 2.0 0.0	Z
MAT298AC	2020 Summer	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Department/Division Chair.	MAT298A C may be repeated for a total of six (6) credit hours.	Acad	LAB 3.0 3.0 0.0	Z
MAT305	2025 Fall	Mathematics for Machine Learning	BAM305	Advanced mathematical concepts essential for understanding and applying techniques in machine learning using Python programming language. Focus on vector-based calculus, probability distributions, continuous optimization, and information theory.	Prerequisites: A grade of C or better in (AIM250 and MAT227) or permission of Program Director.		Acad	L+L 3.0 4.0 4.0	T
MCO120	2022 Fall	Media and Society		Study of historical and contemporary roles of media and its pervasiveness in society as it relates to culture, politics and education.	Prerequisites: Eligibility for ENG101 or ENG107 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0	S
MCO220	2016 Fall	Cultural Diversity and the Media		Images of the diverse cultures and gender issues within the U.S. media. Exploration of racial and gender roles which shape the media as well as media roles which influence U.S. race relations and racial change. Roles,	Prerequisites: A grade of C or better in ENG101 or ENG107.	Course Attribute(s): General Education Designation: Cultural Diversity -	Occ	LEC 3.0 3.0 3.0	S

				contributions, and challenges of the minority press in the United States.		[C] General Education Designation: Literacy and Critical Inquiry - [L]			
MCO296WA	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 1.0 5.0 0.0	Z
MCO296WB	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class		Occ	LAB 2.0 10.0 0.0	Z

					which is related to students major or career interest or with permission of Instructor.				
MCO296WC	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 3.0 15.0 0.0	Z
MCO296WD	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with		Occ	LAB 4.0 20.0 0.0	Z

					permission of Instructor.				
MCO298AA	2023 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z
MCO298AB	2023 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z
MCO298AC	2023 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z
MCP100	2022 Fall	Basics of Meat Cutting		Fundamentals of meat department safety and sanitation. Introduction to power and hand tools, equipment breakdown and setup, meat department operations, teamwork, and customer service.	Prerequisites: None.		CLK	146	
MCP101	2022 Fall	Introduction to Meat Clerk		Introduction to the retail meat environment, weight conversions,	Prerequisite: None.		CLK	146	

				meat processing, inventory control, basic knife skills, packaging, stocking, and merchandising skills. Emphasis on accuracy, quality, and productivity.					
MCP103	2022 Fall	Meat Fabrication		Reinforcement of skills for processing cuts of meat, including specialized cuts of meat. Course emphasizes sanitation, accuracy, quality, productivity, retail sales, and customer service.	Prerequisites: None.		CLK	176	
MCP104	2022 Fall	Merchandising		Advanced cutting, wrapping, weighing, and displaying retail cuts of meat. Topics include sanitation, accuracy, quality control, productivity, retail sales, and customer service.	Prerequisites: None.		CLK	176	
MDC103	2024 Fall	Introduction to Medical Assisting		This course develops the foundation of healthcare through an understanding of anatomy and physiology, medical terminology, application of basic pathophysiology as it relates to entry-level medical assisting, emergency preparedness, and demonstration of CPR completion. Medical terminology as it relates to structures, functions, diseases, procedures, and diagnostic testing. Building and analyzing terms using word parts. Medical abbreviations, symbols and correct spelling and pronunciation, Professionalism in healthcare to ensure students are ready to enter the professional workplace including etiquette, image, manners, communication, professional relationships, responsibility and accountability, respectfulness, patient privacy. Empathy, compassion and emotional maturity specific to the healthcare setting. Focus on development of personal and professional communication skills and an understanding of how effective communication skills promote teamwork. Additional focus on	Program admission, and successful completion of RDG100 or higher or appropriate reading placement into CRE101. Health and Safety Documentation uploaded to American DataBank and verified prior to being enrolled in the class.	Health and Safety Documentation Required - Documents listed below should be uploaded into American DataBank at least 3 weeks prior to class start and must be uploaded and verified before enrollment can occur: MMR (measles, mumps, rubella) Varicella	CLK	156	



				intercultural communication strategies.		(chickenpox) TDaP (tetanus, diphtheria, pertussis) Influenza (flu) Two Step TB (tuberculosis) Hep B Series (hepatitis B) Basic Life Support (BLS) Provider CPR certification Level One Fingerprint Clearance Card			
MDC104	2022 Fall	Fundamentals of Administrative Medical Assisting		This course explores fundamental administrative procedures in various healthcare settings. Overview of the daily operations, principles and procedures for administrative skills including: medical record management, introduction to the electronic health record (EHR), and application of insurance, coding and billing. Basic administrative office policies, procedures, appointment scheduling, telephone etiquette, patient reception, financial practices, third party payers, health insurance, and basic understanding of medical billing and coding. Health organization structure, patient rights and quality care. Definition and importance of values, basic understanding of medical law and ethics.	Prerequisites: MDC103.		CLK	159	

MDC105	2022 Fall	Fundamentals of Clinical Medical Assisting I		Overview of the daily operations, principles and procedures for clinical medical assisting, including: compliance with Occupational Safety and Health Administration (OSHA), the Centers for Disease Control and Prevention (CDC), and Clinical Laboratory Improvement Amendments (CLIA). Infection control practices including, proper disposal of biohazardous materials and sharps, aseptic handwashing, appropriate application of personal protective equipment (PPE), blood borne pathogens, fomites, chain of infection, setting up and maintaining a sterile field, surgical instrument identification and sterilization, sterile techniques, and application of sterile gloves. Definition, application and importance of performing vital signs accurately (blood pressure, pulse, respirations, temperature, pulse oximetry, height and weight). Basic understanding of the fundamental concepts of nutrition and diet as they relate to human health and disease.	Prerequisites: A grade of C or better in MDC104.		CLK	141	
MDC106	2020 Fall 1	Fundamentals of Clinical Medical Assisting II		This course explores all aspects of clinical medical assisting skills, concepts, and procedures in a simulated healthcare setting. Topics include medical specialty practices and basic point-of-care testing (POCT), specimen collection and handling while complying with state and federal government agencies. The course also explores principles and procedures for basic dosage calculation and medication administration specific to medical assisting. Theory and practice of basic phlebotomy procedures and equipment. This course prepares students for the medical assisting national credential examination, and	Prerequisites: MDC105.		CLK	205	

				provides tools and strategies for gainful employment.					
MDC106DC	2022 Fall	Fundamentals of Clinical Medical Assisting II		This course explores all aspects of clinical medical assisting skills, concepts, and procedures in a simulated healthcare setting. Topics include medical specialty practices and basic point-of-care testing (POCT), specimen collection and handling while complying with state and federal government agencies. The course also explores principles and procedures for basic dosage calculation and medication administration specific to medical assisting. Theory and practice of basic phlebotomy procedures and equipment. This course prepares students for the medical assisting national credential examination, and provides tools and strategies for gainful employment.	Prerequisites: MDC105.		CLK	174	
MDC130	2023 Fall	Medical Assisting Practicum		This course prepares and engages students in a practicum experience with an opportunity to apply both clinical and administrative skills and concepts which include the application of duties, procedures, and knowledge derived from program coursework.	Prerequisites: A grade of C or better in MDC106 or MDC120 with a P grade. Students are responsible to maintain the requirements of the background check, fingerprint clearance card, and health and safety documentation throughout the practicum experience.	Practicum hours are site-specific. The days of the week are Monday through Friday. The instructor will provide site assignment/location.	CLK	200	
MDL190	2015 Fall	Clinical Laboratory Operations		Overview of laboratory services, laboratory professionals, and the role of a medical laboratory technician (clinical laboratory technician). Understanding of health care reform, reimbursement, cost analysis, coding,	Prerequisites: Acceptance into the Medical Laboratory Science program and permission of Program Director.		Occ	LEC 2.0 2.0 2.0	S

				credentialing, accreditation, and regulatory agencies. Emphasis on process improvement, laboratory mathematics, statistics, documentation, medico-legal implications, education, management and personnel, and specimen integrity. Application of pre-analytical, analytical, and post-analytical principles, infection control, and laboratory safety. Recognition of acceptable quality control and quality management principles, phlebotomy principles, and lab equipment, glassware, labware, and water purification. Includes information systems and information management in laboratories. Importance of professional growth, communicating with the patient and public, and ethical conduct.					
MDL240	2018 Fall	Clinical Urinalysis and Body Fluid Analysis		Examines anatomy and physiology of the renal system, renal diseases, and renal function tests. Emphasis on interpretation, evaluation, and reporting of urinalysis and body fluid results, urine and body fluid collection techniques, types, specimen handling and preservation, and instrument calibration, maintenance, and quality control. Application of body fluid analyses, and chemical and microscopic analysis of urine.	Prerequisites: A grade of C or better in MDL190, acceptance into the Medical Laboratory Science program, and permission of the Program Director.		Occ	L+L 3.0 5.0 5.0	T
MDL241	2015 Fall	Practicum: Clinical Urinalysis and Body Fluid Analysis		Practicum experience in clinical urinalysis and body fluid analysis based in healthcare facilities or reference laboratories. Assessment of anatomy and physiology of the renal system, renal diseases, and renal function tests. Performance of interpretation, evaluation, and reporting of urinalysis and body fluid results, urine and body fluid collection techniques, types, specimen handling and preservation, and instrument calibration, maintenance, and quality	Prerequisites: A grade of C or better in MDL240, acceptance into the Medical Laboratory Science program, and permission of the Program Director.		Occ	LAB 1.0 6.0 0.0	C

				control. Performance of body fluid analyses and chemical and microscopic analysis of urine.					
MDL242	2018 Fall	Clinical Hematology and Hemostasis		Examines the anatomy and physiology of the hematopoietic and hemostasis systems, hematology and hemostasis case studies, anemia categories, and thrombocyte, hemostatic, and malignant and nonmalignant leukocyte disorders. Emphasis on interpreting, evaluating, and reporting hematology and hemostasis results, anticoagulant therapy, morphology, peripheral smear correlation with analyzer results and patient condition, erythrocyte indices, collection techniques, specimen handling, calibration, and quality control. Methods of analysis on hematology and hemostasis analyzers, and preventive maintenance.	Prerequisites: A grade of C or better in MDL240, acceptance into the Medical Laboratory Science program, and permission of the Program Director.		Occ	L+L 6.0 9.0 9.0	T
MDL243	2015 Fall	Practicum: Clinical Hematology and Hemostasis		Practicum experience in clinical hematology and hemostasis based in healthcare facilities or reference laboratories. Assessment of the anatomy and physiology of the hematopoietic and hemostasis systems, hematology case studies, anemia categories, and thrombocyte, malignant and nonmalignant leukocyte disorders. Application of interpreting, evaluating, and reporting hematology results, morphology, peripheral smear correlation with analyzer results, erythrocyte indices, collection techniques, specimen handling, calibration, and quality control. Emphasis on hematology and hemostasis analyzers, and preventive maintenance. Perform hematology and hemostasis analyses.	Prerequisites: A grade of C or better in MDL242, acceptance into the Medical Laboratory Science program, and permission of the Program Director.		Occ	LAB 1.0 6.0 0.0	C
MDL244	2018 Fall	Clinical Immunohematology and Immunology		Principles of immunity and immunologic testing. Causes of disorders of the immune system. Study of blood group antigens,	Prerequisites: A grade of C or better in MDL242, acceptance into the		Occ	L+L 6.0 9.0 9.0	T

				antibodies, and genetics. Understanding of donor blood collection, component preparation, and transfusion therapies. Performance of testing techniques and evaluation of data.	Medical Laboratory Science program, and permission of the Program Director.				
MDL245	2015 Fall	Practicum: Clinical Immunohematology and Immunology		Practicum in immunohematology and immunology in healthcare facilities or reference laboratories. Performance of clinical skills in immunity and immunologic testing, testing for disorders of the immune system, blood group antigens, antibodies, and genetics. Observation of donor blood collection, component preparation, and transfusion therapies. Performance of testing techniques and evaluation of data.	Prerequisites: A grade of C or better in MDL244, acceptance into the Medical Laboratory Science program, and permission of the Program Director.		Occ	LAB 1.0 6.0 0.0	C
MDL246	2018 Fall	Clinical Microbiology		Emphasis on microbial infectious and bioterrorism agents, classification, morphology, phenotyping, diseases, biotechnology and molecular technology, quality assurance and quality control, epidemiological significance, and regulatory standards. Application of antimicrobial, biochemical, and differential testing, drug resistance, selection, inoculation and incubation of culture media, isolation techniques, cell culture and viral detection tests, and macroscopic and microscopic evaluation. Emphasis on staining, rapid and commercial testing methods, safety precautions, specimen collection, handling, storage, and disposal of biological material, pretreatment, decontamination, and concentration techniques, specimen type, source, and common microbial flora, specimen acceptability, and instrumentation.	Prerequisites: A grade of C or better in MDL244, acceptance into the Medical Laboratory Science program, and permission of the Program Director.		Occ	L+L 6.0 9.0 9.0	T
MDL247	2015 Fall	Practicum: Clinical Microbiology		Practicum experience in clinical microbiology based in healthcare facilities or reference laboratories.	Prerequisites: A grade of C or better in MDL246,		Occ	LAB 1.0	C

				Emphasis on microbial infectious and bioterrorism agents, classification, morphology, phenotyping, diseases, biotechnology and molecular technology, quality assurance and quality control, epidemiological significance, and regulatory standards. Application of antimicrobial, biochemical, and differential testing, drug resistance, selection, inoculation and incubation of culture media, isolation techniques, cell culture and viral detection tests, and macroscopic and microscopic evaluation. Procedures for staining, rapid and commercial testing methods, safety precautions, specimen collection, handling, storage, and disposal of biological material, pretreatment, decontamination, and concentration techniques, specimen type, source, and common microbial flora, specimen acceptability, and instrumentation.	acceptance into the Medical Laboratory Science program, and permission of the Program Director.			9.0 0.0	
MDL248	2018 Fall	Clinical Chemistry		Principles and procedures of clinical chemistry and testing for diseases of protein, nonprotein nitrogen compounds, lipid, glucose, bilirubin, liver disease, cardiac and endocrine function, toxicology, therapeutic drug monitoring, acid base balance, electrolytes, and trace elements. Emphasis on quality assurance, quality control, mathematics and statistical analysis, specimen collection, and preanalytical processes. Study of immunoassays, nucleic acid probes, viral and tumor markers, automation of analytical techniques, spectrophotometry, genetic diseases and inborn errors of metabolism, and point-of-care testing. Use of reagents, equipment, supplies, and units of measure.	Prerequisites: A grade of C or better in MDL246, acceptance into the Medical Laboratory Science program, and permission of the Program Director.		Occ	L+L 6.0 9.0 9.0	T

MDL249	2015 Fall	Practicum: Clinical Chemistry		Practicum in clinical chemistry based in healthcare facilities or reference laboratories. Performance of clinical skills in clinical chemistry and testing for diseases of protein, nonprotein nitrogen compounds, lipid, glucose, bilirubin, liver disease, cardiac and endocrine function, toxicology, therapeutic drug monitoring, acid base balance, electrolytes, genetic diseases and inborn errors of metabolism, and trace elements. Application of quality assurance, quality control, mathematics and statistical analysis, specimen collection, and preanalytical processes. Performance of immunoassays, nucleic acid probes, viral and tumor markers, automation of analytical techniques, spectrophotometry, and point-of-care testing. Use of reagents, equipment, supplies, and units of measure.	Prerequisites: A grade of C or better in MDL248, acceptance into the Medical Laboratory Science program, and permission of Program Director.		Occ	LAB 1.0 9.0 0.0	C
MDL252	2018 Fall	Clinical Preparation I		Examines clinical laboratory testing in a simulated laboratory environment. Emphasis on interpretation, evaluation, and reporting of a variety of laboratory results, and includes instrument calibration, maintenance, and quality control.	Prerequisites: A grade of C or better in MDL244, acceptance into the Medical Laboratory Science program, and permission of Program Director.		Occ	L+L 0.5 2.5 2.5	T
MDL263	2018 Fall	Clinical Preparation II		Continuation of examination of clinical laboratory testing in a simulated laboratory environment. Emphasis on interpretation, evaluation, and reporting of a variety of laboratory results, and includes instrument calibration, maintenance, and quality control.	Prerequisites: A grade of C or better in MDL248, acceptance into the Medical Laboratory Science program, and permission of Program Director.		Occ	L+L 0.5 2.5 2.5	T
MDL290	2015 Fall	Medical Laboratory Science Program Review		Preparation for the professional practice national examinations. Topics include methodologies, techniques, and problem solving relative to urinalysis; body fluids, hematology, hemostasis, immunohematology, immunology,	Prerequisites: A grade of C or better in (MDL247 and MDL249), acceptance into the Medical Laboratory Science program and		Occ	LEC 2.0 2.0 2.0	S



				microbiology, and chemistry. Development of a professional practice resume, personalized test taking strategies and examination study plan. Maintenance of professional competency and lifelong learning and enhancing professional practice.	permission of Program Director.				
MDL291	2015 Fall	Medical Laboratory Science Program Capstone		Preparation for the professional practice national examinations. Topics include methodologies, techniques, and problem solving relative to urinalysis; body fluids, hematology, hemostasis, immunohematology, immunology, microbiology, and chemistry. Development of personalized test taking strategies and examination study plan.	Prerequisites: A grade of C or better in (MDL247 and MDL249), acceptance into the Medical Laboratory Science program and permission of Program Director.		Occ	LEC 1.0 1.0 1.0	S
MDL295AA	2011 Fall	Special Topics: Medical Laboratory Science		Explores a special topic related to medical laboratory science. Topics vary and include concepts relevant to those advancing or pursuing careers in medical laboratory science.	Prerequisites: Permission of Program Director.	MDL295A A may be repeated for a total of three (3) credit hours.	Occ	L+L 1.0 2.0 1.7	S
MDL295AB	2011 Fall	Special Topics: Medical Laboratory Science		Explores a special topic related to medical laboratory science. Topics vary and include concepts relevant to those advancing or pursuing careers in medical laboratory science.	Prerequisites: Permission of Program Director.	MDL295A B may be repeated for a total of six (6) credit hours.	Occ	L+L 2.0 3.0 2.7	S
MDL295AC	2018 Fall	Special Topics: Medical Laboratory Science		Explores a special topic related to medical laboratory science. Topics vary and include concepts relevant to those advancing or pursuing careers in medical laboratory science.	Prerequisites: Permission of Program Director.	MDL295A C may be repeated for a total of six (6) credit hours.	Occ	L+L 3.0 4.0 4.0	T
MEC101	2004 Spring	HVAC I: Principles and Trade Calculations		Basic principles of heating, ventilating and air conditioning (HVAC). Trade calculations, algebraic and geometric equations, and scientific notation. Use and maintenance of HVAC trade tools.	Prerequisites: Registered apprentice status or permission of Apprenticeship Coordinator.		Occ	LEC 5.0 5.0 5.0	S

MEC103	2004 Spring	HVAC II: Piping, Soldering, Brazing and Electrical		Application, preparation and joining of copper and plastic pipe. Soldering and brazing tools, materials, and procedures. Refrigeration cycle, furnace operation and maintenance. Use of multimeter and manometer. Electricity, electrical circuits, and electrical components. Measurement of voltage, current, resistance and circuit continuity. Ohm's Law.	Prerequisites: Registered apprentice status or permission of Apprenticeship Coordinator.		Occ	LEC 5.0 5.0 5.0	S
MEC105	2003 Summer I	Residential and Industrial Plumbing I		Plumbing practices, history, laws, codes, regulations and responsibility to the public. Usage and maintenance of hand and power tools. Workplace safety and Occupational Safety and Health Administration (OSHA) requirements. Application of basic plumbing calculations and principles of science as they relate to plumbing system installation and maintenance. Characteristics, advantages, disadvantages, and uses of pipe and tube. Fittings for cast-iron, glass, clay, concrete, copper, steel, plastic. Special materials and galvanic action. Piping connections	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 5.0 5.0 5.0	S
MEC106	2005 Spring	HVAC III: Systems		Air distribution systems, measurement instruments and venting and sizing. Gas-fired equipment, furnaces, heating, ventilating, and air conditioning (HVAC) systems, and electric heating systems. Alternating current (AC) motors, circuit components and testing instruments. Maintenance, safety, troubleshooting, and service techniques. Job documentation and customer relations	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 5.0 5.0 5.0	S
MEC107	2003 Summer I	Residential and Industrial Plumbing II		Application of advanced plumbing calculations to include percentages, conversions, fractions, decimals, square roots, circles, angles, measurement. First aid, personal safety, and Occupational Safety and Health Act (OSHA) guidelines. Materials handling, usage,	Prerequisites: A grade of C or better in MEC105.		Occ	LEC 5.0 5.0 5.0	S

				advantages, and disadvantages. Fixtures I, II, III, fittings, accessories, and valves. Blueprint reading and freehand, finished, and detailed sketching					
MEC108	2004 Spring	Residential and Industrial Plumbing III		Water piping materials. Sources and treatment of public, private, and individual water systems. Water distribution and supply systems. Cross-connection protection and pipe identification. Hot water heaters. Sanitary drainage systems. Plumbing calculations and blueprint reading.	Prerequisites: Registered apprentice status or permission of Apprenticeship Coordinator.		Occ	LEC 5.0 5.0 5.0	S
MEC118	2004 Fall	Residential and Industrial Plumbing IV		Properties of water and plumbing traps. Air, air chamber, and sizing. High and low level pressure measurement. Manometer, gauge selection and use. Vibration, turbulence, and water hammer. Roof, floor and area drains. Oil and gas fuel systems.	Prerequisites: Registered apprentice status or permission of Apprenticeship Coordinator.		Occ	LEC 5.0 5.0 5.0	S
MEC119	2003 Spring	Basic Safety	ABC119	Overview of safety rules and procedures for working on construction job sites	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0	S
MEC120	2020 Fall	Basic Calculations for Construction	ABC120 PNT120	Addition, subtraction, multiplication and division of whole, decimal, fraction and metric numbers. Percentage and fraction conversions. Metric units of length, weight, volume and temperature. Metric system as it relates to the construction trade. Basic algebra and geometry operations and equations. Area and volume calculations of shapes.	Prerequisites: None.		Occ	L+L 1.5 1.5 1.5	T
MEC121	2014 Fall	Introduction to Hand and Power Tools	ABC121 PNT121	Overview of the use, maintenance and safety procedures for common hand and power tools.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0	S
MEC122	2022 Fall	Rigging Safety and Equipment	ABC122	Rigging safety, equipment and inspection. Includes crane hand signals, common rope knots, types of	Prerequisites: Registered apprentice status or		Occ	LEC 1.0	S

				derricks and cranes and safety procedures for rigging and moving materials and equipment	permission of the Apprenticeship Coordinator.			1.0 1.0	
MEC124	2021 Fall	HVAC IV: Equipment, Devices, Compressors and Pumps		Heat transfer and human comfort. Humidifiers and humidity. Air filters and air filter friction loss. Metering devices and expansion valves. Thermal expansion valves. Compressors and heat pumps. Installation, adjustment, replacement, service, troubleshooting. Reverse-cycling. Leak detection, evacuation, recovery, and charging heating, ventilating, and air conditioning (HVAC) systems. Service equipment of HVAC systems.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 5.0 5.0 5.0	S
MEC201	2023 Fall	HVAC V: Maintenance and Troubleshooting		Tools, instruments, equipment, components, procedures, materials, and tasks for preventative maintenance and troubleshooting of heating, ventilating and air conditioning (HVAC) systems. Microprocessor, gas, electric, and oil heating systems. Furnaces, electric heater packages for cooling, and heat pumps.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 5.0 5.0 5.0	S
MEC203	2023 Fall	HVAC VI: Troubleshooting Heating and Cooling Systems		Cooling and heating systems; heat pumps, Heating, Ventilation and Air Conditioning (HVAC) systems and accessories. Commercial heating and cooling systems. Air and water balancing systems. Steam systems. Customer relations.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 5.0 5.0 5.0	S
MEC205	2005 Spring	Residential and Industrial Plumbing V		Gas and plumbing code requirements. Residential, commercial, industrial, institutional plumbing practices. Fixtures, appliances, fixture fittings, valves, and trim. Gas piping installation, pipe sizing, pipe fittings and connections, appliances, regulators, meters, controls, and corrosion. Advanced plumbing calculations. Specific plumbing systems and specialized water systems	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 5.0 5.0 5.0	S

MEC206	2023 Fall	HVAC VII: Air Quality and Energy Conservation		Advanced blueprint reading. Architectural, plumbing, mechanical, and electrical drawings. Submittal, transfer and design. Indoor air quality. Heating, Ventilating and Air Conditioning (HVAC) equipment, components, accessories and systems. Introduction to computers and computer networks. Energy conservation and management.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 5.0 5.0 5.0	S
MEC207	2005 Spring	Residential and Industrial Plumbing VI		Advanced plumbing calculations. Offsets, tank capacities, volume and weight, rations and proportions, sizing, and piping expansion. Energy, temperature, heat transfer, stratification, multiple heaters, and recirculation. Basic electricity and troubleshooting. Safety, current, motors, circuits, humidity and condensation. Plumbing, electrical, heating/ventilation/air conditioning (HVAC), and detail blueprints. Specialized plumbing	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 5.0 5.0 5.0	S
MEC208	2006 Spring	Residential and Industrial Plumbing VII		General considerations, leaks and drainage. Installation, repair, and service of residential, commercial, industrial, and institutional heating systems. In-ground and above-ground water piping, drainage, waste and vent. Fuel gas piping, lead products, water heaters, waste stoppages, and water hammer. Blueprint reading. Installation of waste systems. Interceptors and backwater valves. Heating systems. Water protection, and conservation in heating systems	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 5.0 5.0 5.0	S
MEC218	2006 Fall	Residential and Industrial Plumbing VIII		Hydraulic and plumbing theory. Pumps, uses, and design. Pump performance curves, pump installation, and maintenance. Advanced blueprint reading, sketching, and material estimating. Plumbing code. Installation code requirements. Specialty plumbing	Prerequisites: A grade of C or better in MEC208.		Occ	LEC 5.0 5.0 5.0	S

MEC224	2023 Fall	HVAC VIII: Water Treatment and HVAC Design		Water problems, remedies, maintenance, and treatment. Commercial water and steam systems. Inspection and evaluation. System start up and shutdown. Cooling towers; evaporative condensers, boilers, chillers, air handlers and forced air systems. Components, accessories and design factors. Refrigerants and oils. Load calculations. Commercial and industrial refrigeration.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 5.0 5.0 5.0	S
MFC101	2023 Fall	Technical Documentation		Analysis and interpretation of technical drawings (prints) common to manufacturing. Mathematical calculations for determining dimensions. Introduction and application of geometric dimensioning and tolerancing (GD&T).	Prerequisites: None.		CLK	84	
MFC110	2023 Fall	Inspection Techniques		Set-up and use of inspection tools and equipment per current industry standards. Selection, completion and interpretation of information from inspection forms.	Prerequisites: None.		CLK	72	
MFC111	2020 Fall 1	Geometric Dimensioning and Tolerance (GDT)		Controls of geometric dimensioning and tolerance (GDT) including the form, orientation, profile and location. Includes qualifying controls per engineering documentation for the American Society of Mechanical Engineers (ASME) Y14.5 2009 Standard.	Prerequisites: None.		CLK	102	
MFC113	2023 Fall	Coordinate Measuring Machines I		Fundamentals and general aspects of coordinate measuring machines (CMM). Basic measuring techniques and operation, including conformance to geometric dimensioning and tolerancing requirements using both manual and programmable (automatic) coordinate measuring machines.	Prerequisites: None.		CLK	84	
MFC120	2023 Fall	Introduction to Manual Machining		Introduces manual machining operations related to drilling, grinding, sawing, milling, and lathe processes. Development of fundamental skills, practices and safety applications in	Prerequisites: None.		CLK	168	

				working with manual machine tools, hand tools, and related equipment common to manufacturing. Provides theoretical and practical experiences related to the machining of various material types to produce a product to industry standards.					
MFC130	2020 Fall 1	CNC Machine Operator		Designed to provide a fast-track to fundamental knowledge and skills necessary for entry-level, machine operator positions. Introduction to print reading, inspection, and safe startup and operation of multi-axis computer numerical control (CNC) machines. Topics include two and three-axis program interpretation and application, qualifying tooling, and tool offsets to produce a product to industry standards.	Prerequisites: None.		CLK	150	
MFC131	2024 Fall	CNC Machining Level I		Introduction to safe startup and operation of multi-axis computer numerical control (CNC) machines. Topics include two and three-axis program interpretation and application, qualifying tooling, and tool offsets to produce a product to industry standards.	Prerequisites: None.		CLK	216	
MFC131DC	2023 Fall	CNC Machining Level I		Introduction to safe startup and operation of multi-axis computer numerical control (CNC) machines. Topics include two and three-axis program interpretation and application, qualifying tooling, and tool offsets to produce a product to industry standards.	Prerequisites: None.		CLK	216	
MFC140	2020 Fall 1	Manual CNC Programming		Introduction to manual computer numerical control (CNC) programming of word address language (G&M code) for CNC machine tools. Multi-axis CNC programming for CNC controlled machines. Computer based tool path verification, CNC controller tool path verification and CNC machine tool program verification.	Prerequisites: None.		CLK	67	
MFC140DC	2023 Fall	Manual CNC Programming		Introduction to manual computer numerical control (CNC) programming	Prerequisites: None.		CLK	67	

				of word address language (G&M code) for CNC machine tools. Multi-axis CNC programming for CNC controlled machines. Computer based tool path verification, CNC controller tool path verification and CNC machine tool program verification.					
MGT101	1996 Spring	Techniques of Supervision		Overview of the foundations of supervision and how to get things done within an organization through other people. The functions of planning, organizing, staffing, motivating and controlling presented	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
MGT105	2016 Fall	Leadership for Citizenship		Characteristics and types of leaders, responsibilities of leadership, and ethics of leadership as related to citizenship	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
MGT109	2018 Fall	Development of Professional Skills and Standards		Explores the skills and qualities necessary to develop and maintain a successful professional life. Topics include management/leadership skill development, effective job search, image development, career advancement, gender issues, professional conduct, time/financial management, and human relations	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0	T
MGT126	2018 Fall	Customer Service Skills and Strategies		Explores strategies to help improve job performance and develop a service-oriented philosophy. Uses practical training concepts and techniques to demonstrate how superior customer service can lead to competitive advantage and profitability in business. Focuses on both internal and external customers, interactions among people, processes, and systems within the organization and how to integrate these areas into a total quality delivery program	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0	T
MGT147	2003 Fall	Supply Chain Management		Supply chain management, including basic concepts and underlying principles of logistics and inventory management	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
MGT148	2018 Spring	Office Ethics and Culture		Ethical issues and standards in the office; making ethical choices.	Prerequisites: None.		Occ	LEC 2.0	S



				Relationships and attitudes in the office. Office politics.				2.0 2.0	
MGT157	2018 Fall	Introduction to Statistical Analysis of Clinical and Bioscience Data for Managers		Introduction to basic concepts and applications of statistics, including data description, estimation probability as techniques for managing, collecting, summarizing and interpreting data. Includes the use of statistical computer software (e.g., SAS) used for the management, analysis and reporting of clinical and bioscience informatics data.	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0	T
MGT160	2018 Fall	Project Management		Examination of concepts and methodologies for effective project management. Project planning and management from contract negotiations through project completion, including communications, human resources, management, and project scheduling as well as risk and financial management	Prerequisites: Permission of Department or Division.		Occ	L+L 3.0 3.0 3.0	T
MGT175	1994 Fall	Business Organization and Management		Covers basic principles of managing quality and performance in organizations. Covers management functions: planning, organizing, leading, and controlling. Emphasizes continual improvement, ethics, and social responsibility	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
MGT180	2015 Fall	Retail Management		The role of management in retailing and retail performance. Challenges and processes of retail management across various institutions.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
MGT227	2011 Spring	Training and Instructional Design for Health Information Technology		Overview of learning management systems, instructional design software tools, teaching techniques and strategies, evaluation of learner competencies, maintenance of training records, and measurement of training program effectiveness.	Prerequisites: Permission of Program Director or Instructor.		Occ	LEC 3.0 3.0 3.0	S
MGT228	2011 Spring	Management, Planning, and Leadership for Health Information Technology		Principles of leadership and effective management of teams for Health Information Technology. Emphasis on the leadership modes and styles best suited to IT deployment. Survey of health care and public health	Prerequisites: A grade of C or better in GBS110 or MGT251 or Corequisites: GBS110 or MGT251.		Occ	LEC 3.0 3.0 3.0	S

				organization and delivery in the United States, with an emphasis on professional roles, legal, ethical, and regulatory issues, and payment systems. Analysis of health reform initiatives in the U.S. Concept of "meaningful use" of electronic health records.					
MGT229	2014 Fall	Management and Leadership I		Covers management concepts and applications for business, industry, and government organizations.	Prerequisites: None.	Course Attribute(s): General Education Designation: Social-Behavioral Sciences [SB]	Occ	LEC 3.0 3.0 3.0	S
MGT230	2017 Spring	Management and Leadership II		Includes practical applications of activities, issues, and problems related to current managerial and supervisory skills and talents.	Prerequisites: A grade of C or better in MGT229 or permission of Department or Division.	Course Attribute(s): General Education Designation: Social-Behavioral Sciences [SB]	Occ	LEC 3.0 3.0 3.0	S
MGT242	2007 Summer I	Project Scope and Procurement Management		Scope management and procurement management in a project environment, including how a project's scope is planned, defined, and verified. Concepts of scope change management. Concepts of procurement management, including procurement planning, supplier solicitation, supplier selection, contract administration, and contract closeout	Prerequisites: A grade of C or better in TQM240 or permission of Instructor.		Occ	LEC 2.0 2.0 2.0	S
MGT243	2007 Summer I	Project Time and Cost Management		Time management and cost management in a project environment, including activity definition, sequencing and duration estimating. Schedule development and specific tools to support schedule creation and control. Project cost management including resource	Prerequisites: A grade of C or better in TQM240 or permission of Instructor.		Occ	LEC 2.0 2.0 2.0	S

				planning, cost estimation, cost budgeting, and cost control					
MGT244	2007 Fall	Project Risk and Quality Management		Risk management and quality management in a project environment, including risk identification, risk aversion, and risk response planning. Presents techniques to perform risk analysis and risk response planning on projects. Concepts of quality management including quality planning, quality assurance and quality control. Concepts of quality systems and their applicability to project management	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
MGT245	2007 Fall	Project, Human Resources and Communications Management		Concepts of human resource management and communications management in a project environment, including project organizational planning, staff acquisition and team development. Concepts of project communications planning, information distribution, performance reporting, and project closeout	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
MGT246	2007 Fall	Principles of Project Management		Project Management principles expected of a Project Management Professional (PMP). Includes an overview of exam format, topics, and study techniques. Focus is on project scope, procurement, time, risk, cost, quality, human resource, communication, and integration management	Prerequisites: A grade of C or better in TQM240 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0	S
MGT247	2024 Fall	Compensation and Benefits		Techniques and methodology for planning, coordinating and monitoring effective compensation and benefits programs within human resources.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
MGT251	1994 Fall	Human Relations in Business		Analysis of motivation, leadership, communications, and other human factors. Cultural differences that may create conflict and affect morale individually and within organizations.	Prerequisites: None. MGT101 or MGT175 or MGT229 suggested but not required.		Occ	LEC 3.0 3.0 3.0	S
MGT253	1994 Fall	Owning and Operating a Small Business		Starting, organizing, and operating a small business, including location, finance management processes,	Prerequisites: None.		Occ	LEC 3.0	S

				advertisement and promotion, credit, inventory control and ethics				3.0 3.0	
MGT270AA	2013 Spring	Management Internship		Management work experience in a business or industry. 80 hours of designated work per credit.	Prerequisites: Permission of Department or Division.	MGT270A A may be repeated for a total of three (3) credit hours.	Occ	L+L 1.0 1.0 0.0	C
MGT270AB	2013 Spring	Management Internship		Management work experience in a business or industry. 80 hours of designated work per credit.	Prerequisites: Permission of Department or Division.	MGT270A B may be repeated for a total of six (6) credit hours.	Occ	L+L 2.0 2.0 0.0	C
MGT270AC	2013 Spring	Management Internship		Management work experience in a business or industry. 80 hours of designated work per credit.	Prerequisites: Permission of Department or Division.	MGT270A C may be repeated for a total of six (6) credit hours.	Occ	L+L 3.0 3.0 0.0	C
MGT276	2022 Fall	Human Resources Management		Human resource planning, staffing, training, compensating, and appraising employees in organizations.	Prerequisites: None. MGT101 or MGT175 or MGT229 suggested, but not required.	MGT101 or MGT175 or MGT229 suggested but not required.	Occ	LEC 3.0 3.0 3.0	S
MGT277	1994 Fall	Labor Relations		Covers the historical, legal, and environmental parameters surrounding current labor/management relations, including contract negotiations and grievance procedures.	Prerequisites: None. MGT101 or MGT175 or MGT229 suggested but not required.		Occ	LEC 3.0 3.0 3.0	S
MGT286	1990 Summer I	Human Resource Employment Management		Techniques and methodology for coordinating and monitoring effective employment selection practices. Includes description of employment functions, staffing analysis, employment recruitment and advertising, applicant screening, interviewing and reference checking,	Prerequisites: A grade of C or better in MGT276 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0	S

				employee selection and placement within a human resources division					
MGT289	2008 Summer I	Professional in Human Resources Test Preparation		Preparation for testing for Professional in Human Resources (PHR) certification. Includes responsibilities of the PHR in the development, implementation and management of budgets, workforce planning and employee training. Also covers compensation and employee relations issues and responsibilities.	Prerequisites: None.	MGT289 is specifically intended to prepare students to sit for the PHR exam. Students are responsible for knowing the work-related requirements that the Human Resource Certification Institute (HRCI) has for all those who wish to take the certification exam.	Occ	LEC 3.0 3.0 3.0	S
MGT290	2022 Fall	Leadership Through Continuous Improvement: Leading Self		This course focuses on creating a culture of continuous improvement, problem solving and Kaizen thinking. Upon completion of this course the student will be able to create and facilitate a Huddle Board Meeting, conduct Gemba Walks, implement principles of total systems thinking, conduct 5S organizing principles, and problem solving techniques.	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0	T
MGT291	2022 Fall	Supervisor Essentials: Aspire to Lead		This course will introduce students to the essential tools and resources needed to be an effective supervisor. Emphasis on the important role	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0	T

				leaders play in the success of an organization through compliance training, knowledge of work culture, and demonstrating traits of effective leaders.					
MGT292	2022 Fall	Employee Coaching and Development: Leading Others		Upon completion of this course, students will be able to utilize leadership and coaching skills along with ADOT's development tools and resources to cultivate and improve employee skills and team development and reward success.	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0	T
MGT293	2023 Fall	Collaborative Leadership: Leading Teams		This course focuses on the framework for how to effectively hire the right people and create a positive, engaging, growth environment that promotes employee retention. Upon completion of this course the student will be able to utilize emotional intelligence and humble inquiry to improve accountability, performance, collegiality and morale among groups to build more effective and productive teams.	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0	T
MGT296WA	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 1.0 5.0 0.0	Z

MGT296WB	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 2.0 10.0 0.0	Z
MGT296WC	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 3.0 15.0 0.0	Z
MGT298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z

				and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.					
MGT298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z
MGT298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z
MHL130	2007 Summer I	Herstory: Women in Popular Music		Overview of the contributions made by women in the evolution of popular music and its industry	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
MHL140	2013 Fall	Survey of Music History		Study of composers, compositions, styles, and periods in music history.	Prerequisites: None.	Course Attribute(s): General Education Designation: Humanities, Arts and	Acad	LEC 3.0 3.0 3.0	S



						Design - [HU]			
MHL143	2001 Spring	Music in World Cultures		Non-European musical traditions including the study of music in rituals, musical instruments and the impact of cultures on musical styles	Prerequisites: None.	Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
MHL145	2014 Spring	American Jazz and Popular Music		The study of cultural and social contributions to the evolution of American jazz and popular music from the mid-1800's to present.	Prerequisites: None.	Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
MHL146	2021 Fall	Survey of Broadway Musicals		Survey of Broadway musicals traced from their origins to the present viewed in their cultural, political, and socioeconomic contexts. Emphasis on stylistic periods, composers, lyricists, directors, and choreographers.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
MHL147	2007 Summer I	Music of African-American Cultures		African-American music traced from its origin in Africa to the present.	Prerequisites: None.		Acad	LEC 3.0	S

				Includes spirituals, blues, gospel, jazz, and classical style.				3.0 3.0	
MHL153	2014 Spring	Rock Music and Culture		History of Rock music and how cultural, social, political, and economic conditions have shaped its evolution.	Prerequisites: None.	Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
MHL155	2014 Spring	Survey of American Music		History of the music of North America from the earliest American Indian music to the present. Introduction to the musical trends, composers, socioeconomic developments and trends, musical forms and styles that influence our modern American musical sense.	Prerequisites: None.	Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Historical Awareness - [H] General Education Designation: Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S

MHL156	2021 Fall	Music in Latin America and the Caribbean		To discuss the role of music in Latin and Caribbean cultures and the impact of these cultures on music. To present a historical survey to the evolution and development of musical styles from rumba to reggae. Among the topics, and to include: origins, gender, race, ethnicity, politics, elements of music, instruments, both sacred and secular music, and significant individuals influencing the evolution of many different genres of music in Latin America and Caribbean cultures.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
MHL194	2023 Fall	Music and Culture		Introduction to the study of multicultural music in its social, cultural, historical and economic contexts. Performance of music using percussion, rhythm, and the human body. Historical and social aspects of global cultures' musical expressions.	Prerequisites: A grade of C or better in MTC101 or a higher level MTC course; or Corequisites: MTC105 and MTC106 or permission of Instructor.	Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
MHL204	2016 Fall	Hip-Hop Music and Culture		A history of Hip-Hop's musical and artistic elements and how cultural, social, political, and economic conditions have shaped its evolution.	Prerequisites: A grade of C or better in ENG101, or ENG107, or permission of Instructor.	Course Attribute(s): General Education Designation: Literacy and Critical Inquiry - [L] General Education Designation: Cultural Diversity -	Acad	LEC 3.0 3.0 3.0	S

						[C] General Education Designatio n: Humanitie s, Arts and Design - [HU]			
MHL241	2011 Spring	Music History and Literature to 1750		In-depth study of music history from the primitive era through the Baroque period.	Prerequisites: A grade of C or better in MTC155 and MTC156 or Corequisites: MTC155 and MTC156 or permission of Instructor.	Course Attribute(s ): General Education Designatio n: Humanitie s, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
MHL242	2011 Spring	Music History and Literature 1750 to Present		In-depth study of music history from the Classical period through the Contemporary period	Prerequisites: A grade of C or better in MHL241 or permission of Instructor.	Course Attribute(s ): General Education Designatio n: Humanitie s, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
MHL295	2013 Spring	Topics in Music		Exploration of selected topics in music. Focuses on a theme, era, genre, concept, or critical approach. Analysis and interpretation of topic's representation, development, and significance in a variety subjects related to music humanities. Includes reading, listening analysis and interpretation of music and musical texts.	Prerequisites: A grade of C or better in ENG101, or ENG107, or permission of Instructor.	Course Attribute(s ): General Education Designatio n: Humanitie s, Arts and Design - [HU] MHL295 may be repeated	Acad	LEC 3.0 3.0 3.0	S

						for a total of nine (9) credit hours.			
MHL298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0	Z
MIC101	2021 Fall 1	Fundamentals of Healthcare Interpreting		This course introduces the field of interpreting, interpretation models, cognitive processes associated with interpretation, professional ethical standards, employment opportunities, bilingual customer service, and working conditions. Topics include pronunciation, medical vocabulary, resources, legal issues, code of ethics, standards of practice, certification, interpreter assessments/qualifications, and protocol associated with various settings. Upon completion, students should be able to interpret English/Spanish and Spanish/English simulated health care encounters, explain how to prepare for and manage an interpreted encounter, and apply ethical standards to a variety of working situations.	Prerequisites: 1. Successful completion of RDG100 or higher or appropriate reading placement into CRE101. 2. Receive a 'Pass' on the bilingual oral exam.		CLK	80	
MIC103	2021 Fall 1	Medical and Clinical Development		Basic anatomy, physiology, and medical terminology in Spanish and English for health care settings. Emphasis on pronunciation of commonly used medical abbreviations for medical specialists and branches of medicine. Students will analyze, define, and correctly spell medical terms and	Prerequisites: MIC101 or SPA205 with a C or better, or with Program Manager approval.		CLK	80	

				<p>abbreviations. Systems to be covered are: cardiovascular, respiratory, digestive, musculoskeletal, genitourinary, endocrine, immune, and nervous. Common test procedures for each system. Cancer and first response interpretation roles will also be covered. Students also participate in activities to prepare for clinical externships, taken by in-person simulation or in person at a clinical site. Students will review professional conduct, dress code, bilingual customer service, and downtime activities.</p>					
MIC104	2021 Fall 1	Medical Spanish/English Interpreting		<p>This course covers Spanish/English interpreting in a medical context and setting. The course introduces the field of interpreting, interpretation models, cognitive processes associated with interpretation, professional ethical standards, bilingual customer service and working conditions. Students will focus on pronunciations, medical terminology, resources, legal issues, code of ethics, standards of practice, certification requirements, interpreter assessments/qualifications and protocol associated with various settings. Students will also focus on review of professional conduct and first response interpretation. Upon completion, students should be able to interpret English/Spanish and Spanish/English simulated health care encounters, explain how to prepare for and manage an interpreted encounter, and apply ethical standards to a variety of settings. This course is designed and aligned with the purpose of preparing students to take the Certification Commission for Healthcare Interpreters (CCHI) certification exam and earn their CCHI certification.</p>	<p>Prerequisites: Program admission. Successful completion of RDG100 or higher or appropriate reading placement into CRE101. Receive a 'Pass' on the bilingual oral exam.</p>		CLK	80	

MIC105	2023 Fall	Medical Interpreter Clinical Practicum		Practical training and application of healthcare interpreting under direct supervision of clinical or hospital preceptor. Students will train with staff interpreters or dual-role interpreters. Documentation of daily interpreter attendance logs and a satisfactory performance evaluation are required to successfully complete the clinical. Students must meet the clinical facilities requirements prior to beginning. Clinical hours will vary and students are expected to travel and have reliable transportation.	Prerequisites: 1. A grade of C or better in (MIC101 and MIC103), or (SPA205 and SPA206), or MIC104, or permission of Program Manager. 2. Background check requirements in compliance with the Maricopa County Community College District Supplemental Background Check Policy. 3. Students also must provide a copy of an Arizona Department of Public Safety Level One Fingerprint Clearance Card. Students must maintain current fingerprint clearance throughout the clinical(s). 4. Complete and submit the Allied Health Student Health and Safety Documentation Checklist, with included documentation 5. Students are responsible to meet the requirements of the background check, fingerprint clearance card, and health and safety documentation.	Clinical hours are site specific and may require attendance any day of the week, including during unscheduled days and times. Students must have reliable transportation.	CLK	40	
MIC106	2023 Fall	Medical Interpreter Clinical and Simulated Hybrid Practicum		Practical training and application of healthcare interpreting through simulated clinical experiences. Students will conduct a total of 40	Prerequisites: A grade of C or better in (MIC101 and MIC103), or (SPA205	Simulated clinical hours are campus	CLK	40	

				hours of simulated clinicals where they will interpret on behalf of the patient and healthcare staff. Students will receive daily performance evaluations and must successfully complete all competencies and attendance requirements to successfully complete this course. Students who are enrolled in the Medical Interpreter-Spanish program or the Spanish Interpreting for Healthcare Professionals program are required to either complete a practicum at a clinical site or a simulated clinical interpreting experience as part of the certificate of competency as well as maintain eligibility for the national certification exam through the Commission of Certified Healthcare Interpreters (CCHI).	and SPA206), or MIC104, or permission of Program Manager.	location specific and conducted in a face-to-face or virtual modality. This may require attendance any day of the week, including evenings or weekends.			
MIS101	2017 Fall	Introduction to the United States Army		Introduces the personal challenges and competencies that are critical for effective leadership and communication. Students learn how the personal development of life skills such as cultural understanding, goal setting, time management, stress management and comprehensive fitness relate to leadership, officership and the Army profession. Focuses on developing basic knowledge and comprehension of Army leadership dimensions, attributes and core leader competencies while gaining an understanding of the Army ROTC program, its purpose in the Army, and its advantages for the student. Includes physical training assessments, tactical training, as well as lecture-based instruction.	Prerequisites: None.		Acad	LEC 4.0 3.0 0.0 LAB 0.0 2.0 0.0	Z
MIS102	2018 Spring	Foundation of Agile and Adaptive Leadership		Introduces the professional challenges and competencies that are needed for effective execution of the profession of arms and Army communication. Through this course,	Prerequisites: A grade of C or better in MIS101.		Acad	LEC 4.0 3.0 0.0 LAB	Z



				students learn how ethics and values shape the Army and the specific ways that these ethics are inculcated into Army culture. Explores the seven Army values and the warrior ethos, investigate the profession of arms and Army leadership as well as an overview of the Army, and gains practical experience using critical communication skills. Includes physical training assessments, tactical training, as well as lecture-based instruction.				0.0 2.0 0.0	
MIS201	2017 Fall	Army Leadership and Decision Making		Academically challenging course where students study, practice and apply the fundamentals of Army leadership, officership, Army values and ethics, personal development and small-unit tactics at the platoon level. Requires the student to demonstrate writing skills and present information briefings as preparation for development in becoming a successful future officer. Includes reading assignments, homework assignments, small group assignments, briefings, case studies, practical exercises, a mid-term exam and final exam. Also includes physical training assessments, tactical training, as well as lecture-based instruction.	Prerequisites: A grade of C or better in MIS101 and MIS102.		Acad	LEC 4.0 3.0 0.0 LAB 0.0 2.0 0.0	Z
MIS202	2018 Spring	Army Doctrine and Team Development		Academically challenging course where students study, practice and apply the fundamentals of the leadership, officer skills, Army values and ethics, personal development and tactics at the small-unit level. Focuses on cross-cultural competencies as they relate to Army doctrine and how they apply in a combatant commander's engagement strategies. Stresses Army values, teamwork and warrior ethos and their relationship to the law of land warfare and philosophy of military service. Covers the ability to lead and follow through	Prerequisites: A grade of C or better in MIS101, MIS102 and MIS201.		Acad	LEC 4.0 3.0 0.0 LAB 0.0 2.0 0.0	Z

				team building exercises in small units up to squad level. Requires the student to demonstrate writing skills and present information briefings as preparation for development in becoming a successful future officer. Also includes physical training assessment, tactical training, as well as lecture-based instruction.					
MIT106	2018 Fall	Industrial Safety	GTC106 OSH106	Safety, health management, and accident prevention in industrial work environment. Role of Occupational Safety and Health Administration (OSHA) act, materials handling, electrical safety, machine safety, first response to fire and medical emergencies, safety signs and color codes, recognition of safety and health hazards accident prevention, management responsibilities, and OSHA 10 certification.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
MIT120	2019 Fall	Industrial Technology Fundamentals		Theories and concepts in industrial technology basics and OSHA 10 certification. Introductory concepts in industrial math, hand and power tools, technical drawings, rigging, and materials handling. Emphasis on communication and employability skills. Included labs emphasize and anchor the course material. Safety and management expectations. Defense in depth strategy and conduct of verifications. Maintenance procedures. Work control process. Performance of work standards and documentation including pre-job preparation, pre-job notification, job review, job verification and job close out specific to nuclear power plant operations.	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0	T
MIT121	2018 Fall	Industrial Technology I-A		Principles of Industrial Maintenance Technology. Modules include theory and applications in tools of the trade, fasteners and anchors, oxyfuel cutting, gaskets and packing, technical mathematics, and technical	Prerequisites: A grade of C or better in MIT120 or Corequisites: MIT120 or permission of Instructor.		Occ	L+L 3.0 5.0 5.0	T

				drawings. Included labs emphasize and anchor the course material.					
MIT122	2018 Fall	Industrial Technology I-B		Principles of Industrial Maintenance Technology. Modules include theory and applications in pumps and valves, test instruments, rigging, mobile and support equipment, and lubrication. Included labs emphasize and anchor the course material.	Prerequisites: A grade of C or better in MIT120 or Corequisites: MIT120 or permission of Instructor.		Occ	L+L 3.0 5.0 5.0	T
MIT123	2018 Fall	Industrial Mechanical Technology II-A		Basic layout, introduction to piping components, copper and plastic piping practices, introduction to ferrous metal piping practices, identifying, installing and maintaining valves, hydrostatic and pneumatic testing, introduction to bearings, and low-pressure steam systems. Included labs emphasize and anchor the course material.	Prerequisites: A grade of C or better in MIT122 or permission of Instructor.		Occ	L+L 3.0 5.0 5.0	T
MIT124	2018 Fall	Industrial Mechanical Technology II-B		High pressure steam systems and auxiliaries, distillation towers and vessels, heaters, furnaces, heat exchangers, cooling towers, fin fans, and introduction to tube work. Included labs emphasize and anchor the course material.	Prerequisites: A grade of C or better in MIT122 or permission of Instructor.		Occ	L+L 3.0 5.0 5.0	T
MIT133	2018 Fall	Industrial Electrical and Instrumentation Technology II-A		Industrial safety for E and I technicians, introduction to the National Electrical Code, electrical theory, alternating current, electrical and instrumentation test equipment, flow, pressure, level, and temperature. Included labs emphasize and anchor the course material.	Prerequisites: A grade of C or better in MIT122 or permission of Instructor.		Occ	L+L 3.0 5.0 5.0	T
MIT134	2018 Fall	Industrial Electrical and Instrumentation Technology II-B		Process mathematics, hand bending, tubing, clean, purge, and test tubing and piping systems, instrument drawings and documents, conductors and cables, and conductor terminations and splices. Included labs emphasize and anchor the course material.	Prerequisites: A grade of C or better in MIT122 or permission of Instructor.		Occ	L+L 3.0 5.0 5.0	T
MIT209	2018 Fall	Automated Manufacturing	GTC209	Evolution of automation in manufacturing from fixed (hard) automation to Computer Integrated	Prerequisites: A grade of C or better in ELT131 or ELE131		Occ	L+L 3.0	T

				Manufacturing (CIM) is presented with numerical control (NC) ; computer-aided design/computer-aided manufacturing (CAD/CAM); automated material handling; automation communication protocol. Manufacturing management strategies include statistical process control (SPC); material requirements planning (MRP); manufacturing resource planning (MRPII); and just-in-time (JIT). Hands-on experience with programmable logic controllers (PLC) and robotics included	or GTC/MET206 or equivalent.			6.0 6.0	
MKT101	1994 Fall	Introduction to Public Relations		Emphasizes public relations techniques used both within and outside the business organization, including operation of a PR counseling firm	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
MKT109	2017 Fall	Introduction to Fashion Merchandising	TEC109	Explores the various levels and specialized segment of the fashion industry, the principles of fashion, the fundamentals of merchandising apparel, consumers' influence on demand and marketing activities.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
MKT110	2012 Summer I	Marketing and Social Networking		Theory and practice in the use of social media in marketing. Topics may include a history of social media, preparation for social marketing, the power of collective influence, and how to engage with social media. Reviews social mediums, social networks, platforms and other marketing tools used to create a social media campaigns.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
MKT111	2018 Fall	Applied Marketing and Social Networking		Examination of the strategic use of digital and social media marketing platforms and tools for global communication and networking, including analysis of various digital and social media platforms and tools for developing brands, creating professional networks and creating engaging content. Hands-on use of social media platforms and tools to conduct research, develop strategies	Prerequisites: A grade of C or better in MKT110.		Occ	L+L 3.0 4.0 4.0	T

				for creating, integrating, and evaluating social media marketing campaigns, and development of metrics to measure effectiveness.					
MKT112	1996 Fall	Retail Customer Service		Introduction to the field of retail sales. Emphasis on customer service and sales techniques	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
MKT114	1996 Fall	Retail Inventory Control		Retail inventory control procedures. Emphasis on the role of the professional sales associate within a retail company and in the handling of merchandise	Prerequisites: A grade of C or better in MKT112.		Occ	LEC 1.0 1.0 1.0	S
MKT151	2018 Fall	Display and Visual Merchandising	TEC151	An examination of the principles of design including line, color, balance, and texture as they relate to the display of merchandise. Participation in displays, field trips, and individual projects	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
MKT200	2005 Spring	Retail Buying	TEC200	Examines management/buyer role in investment, pricing, planning, controlling sales and inventories Any BPC/CIS spreadsheet course recommended.	Prerequisites: None. A grade of C or better in any BPC/CIS spreadsheet course recommended.		Occ	LEC 3.0 3.0 3.0	S
MKT263	1995 Fall	Advertising Principles		Introduces the advertising function within business, including media study, creative strategies, and advertising campaigns MKT271 suggested, but not required.	Prerequisites: None. MKT271 suggested but not required.		Occ	LEC 3.0 3.0 3.0	S
MKT267	2018 Fall	Principles of Sales		Analyzes and applies the steps and techniques used in personal selling. Highlights the role of the professional sales representative and his/her functions as they relate to the company's mission and customer expectations.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
MKT268	1991 Fall	Merchandising		Surveys structure and operation of retail organizations. Emphasizes merchandising to include price, location, time promotion and quantity.	Prerequisites: None. MKT271 suggested but not required.		Occ	LEC 3.0 3.0 3.0	S
MKT271	1994 Fall	Principles of Marketing		An analysis of the marketing process and environment with regard to the product, pricing, distribution, and communication in order to satisfy buyer needs	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S

MKT273	2004 Spring	Marketing Research		Planning and preparing for a marketing research effort and presentation of research findings in a professional manner. Includes the study of problem definition, sampling methods, statistical analysis, presentation techniques, and evaluation of data	Prerequisites: A grade of C or better in MKT271 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0	S
MKT274AC	2001 Fall	Fashion Merchandising Study Tour	TEC274AC	A tour of the fashion merchandising industry outside the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance awareness of this multifaceted career	Prerequisites: Permission of Department or Division.		Occ	LAB 3.0 15.0 3.0	F
MKT277	2018 Fall	Advanced Sales		Advanced selling and communication techniques.	Prerequisites: A grade of C or better in MKT267 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0	S
MKT280AA	2016 Spring	Marketing Internship		Marketing work experience in a business or industry. 80 hours of designated work per credit.	Prerequisites: Permission of Department or Division.	MKT280A A may be repeated for a total of four (4) credits.	Occ	L+L 1.0 1.0 0.0	C
MKT280AB	2016 Spring	Marketing Internship		Marketing work experience in a business or industry. 80 hours of designated work per credit.	Prerequisites: Permission of Department or Division.	MKT280A B may be repeated for a total of four (4) credits.	Occ	L+L 2.0 2.0 0.0	C
MKT280AC	2016 Spring	Marketing Internship		Marketing work experience in a business or industry. 80 hours of designated work per credit.	Prerequisites: Permission of Department or Division.	MKT280A C may be repeated for a total of six (6) credits.	Occ	L+L 3.0 3.0 0.0	C
MKT296WA	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals		Occ	LAB 1.0 5.0 0.0	Z

					(students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.				
MKT296WB	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 2.0 10.0 0.0	Z
MKT296WC	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor		Occ	LAB 3.0 15.0 0.0	Z

					Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.				
MKT296WD	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 4.0 20.0 0.0	Z
MKT298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z
MKT298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z



				expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.					
MKT298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z
MMT184	2023 Fall	Digital Animation I	AVC184	The art of animation (animated sequences, special effects, titles, etc.) using the computer. Construction characters, background graphics, color, scaling, storyboard, cells, timing, editing, and surface rendering. Screening and discussion of selected animated short films and videos.	Prerequisites: A grade of C or better in (ART111 or ART116) or permission of Instructor. Corequisites: AVC100 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T
MMT185	2023 Fall	3D Modeling and Animation I	AVC185	Basic concepts of 3D modeling. Anatomy of computer geometry; basic elements that make computer models-curves, surfaces, non-uniform rational basis spline (NURBS), and polygons. 3D translation, shading, materials, and rendering.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AVC100 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T
MMT186	2023 Fall	Modeling for Digital Media		Development of 3-D models for multimedia productions. 3-D logos, objects, and advanced animation projects using special effects.	Prerequisites: A grade of C or better in AVC/MMT184 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T
MMT190	2024 Fall	Art of Web Site Design	AVC190	Introduction to design production for websites. Layout, typography and presentation style for HTML (Hyper Text Markup Language). Design of	Prerequisites: A grade of C or better in AVC100, or		Occ	L+L 3.0 6.0 6.0	T

				mock-ups using digital design software to produce artistic form and content for the Web using Hyper Text Markup Language (HTML), digital text, and graphics. Discussion of color, proportion, typography and Web-specific design principles. Emphasizes design of cross-browser compatible interfaces that optimize usability, accessibility and browser interoperability.	permission of Instructor.				
MMT216	2018 Fall	Multimedia Project Management		Interactive video and multimedia project management including defining, analyzing, designing, and validating interactive/multimedia applications; building and managing development and production teams; planning, budgeting, and scheduling; interactive/multimedia authoring; project implementation; and writing RFPs (Request For Proposal).	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0	T
MMT285	2023 Fall	3D Modeling and Animation II	AVC285	Advanced techniques for 3D modeling and computer animation. Creating and applying 2D background and 3D model textures, creating and applying special effects to models and animation, designing, modeling, and animating a digital 3D character from a character study.	Prerequisites: A grade of C or better in AVC/MMT185.		Occ	L+L 3.0 6.0 6.0	T
MMT298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z
MMT298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z

				expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.					
MMT298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z
MNG300	2025 Fall	Management Principles		Overview of the opportunities and challenges involved in the management process. Exploration of the functions of management, business ethics and social responsibility, entrepreneurial mindsets, operations management, decision making, and human resources. Emphasis placed on managing for excellence in both performance and employee satisfaction.	Prerequisites: A grade of C or better in (ACC212, GBS205, GBS221, and GBS233), or permission of Instructor.		Acad	LEC 3.0 3.0 3.0	S
MNG305	2025 Fall	Organizational Management and Behavior		Overview of management skills and concepts as they relate to organizational culture and behavior. Focus on organizational structure and dynamics. Emphasis on leadership skills, communication, motivating employees, and decision making.	Prerequisites: A grade of C or better in (ACC212, GBS205, GBS221, and GBS233), or permission of Instructor.		Acad	LEC 3.0 3.0 3.0	S
MNG310	2025 Fall	Accounting for Managers		Examination of financial and managerial accounting concepts relevant to making business decisions based on financial information and for evaluation of company performance. Topics include accounting's conceptual framework, financial	Prerequisites: A grade of C or better in ACC212, or permission of Instructor.		Acad	LEC 3.0 3.0 3.0	S

				statement analysis, and managerial decision making.					
MNG405	2025 Fall	Applied Human Resource Management		Overview of human resources management, focusing on skills and knowledge necessary to effectively lead employees. Detailed coverage of jobs and labor, talent development, compensation, and employee relations. Emphasis on how human resource management enhances organizational performance and success.	Prerequisites: A grade of C or better in MNG300, or permission of Instructor.		Acad	LEC 3.0 3.0 3.0	S
MNG410	2025 Fall	Project Management Principles		Integrated introduction to Project Management. Examination of fundamental managerial and technical aspects of Project Management activities. Focus on initiating, planning, executing, and assessing projects.	Prerequisites: A grade of C or better in MNG300, or permission of Instructor.		Acad	LEC 3.0 3.0 3.0	S
MNG415	2025 Fall	Change Management		Overview of managing change within organizations. Emphasis on theories, processes, and applications. Explore strategies for leading and implementing change initiatives and managing employees through change.	Prerequisites: A grade of C or better in MNG300, or permission of Instructor.		Acad	LEC 3.0 3.0 3.0	S
MNG425	2025 Fall	Strategic Management		Overview of theory and application of strategic management principles. Exploration of an organization's position, capabilities, and resources used to gain a competitive advantage. Emphasis on the alignment of goals, strategies, and action plans with organizational objectives.	Prerequisites: A grade of C or better in (BUS305, MNG300, MNG305, and MNG310), or permission of Instructor.		Acad	LEC 3.0 3.0 3.0	S
MNG490	2025 Fall	Management Capstone		Demonstration of acquired knowledge and skills through analysis of complex business cases. Includes the development of a career plan, with a focus on career research, application materials, and the development of a career strategy. Students will present a portfolio featuring their academic works.	Prerequisites: A grade of C or better in (BUS305, BUS310, MNG300, MNG305, and MNG310), or permission of Instructor.		Acad	L+L 3.0 4.0 4.0	T
MNT110	2022 Fall	Nanotechnology: What It Is and Why It Matters		Designed to provide students with a strong fundamental understanding of the scientific principles, processing,	Prerequisites: None.		Occ	LEC 3.0	S

				and applications of nanotechnology. Includes the concepts of chemical bonding, quantum mechanics, and microstructure applied to various nanomaterials and their use in electronic devices, composites, computing, and various other biological, medical, energy-related, and current consumer applications. Introduces analytical techniques used in nanotechnology, as well as possible societal applications.				3.0 3.0	
MNT120	2022 Fall	Introduction to Microelectromechanical Systems (MEMS)		Overview of fundamentals of the scientific principles, processing, and applications of microelectromechanical systems (MEMS). Covers topics in applications, fabrication methods, characterization, and commercialization concepts as well includes surface micromachining, patterning, etching and deposition processes in addition to cleanroom protocol and safety. Also covers research and documentation types and applications.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
MNT130	2022 Fall	Introduction to Light and Lasers		Introduces the fundamentals of light, optics, and lasers. Covers the nature and properties of light (such as energy, amplitude, wavelength, frequency, period, phase, propagation). Addresses geometrical optics (reflection, diffraction, imaging, thin lens formula, lens maker's equation), wave optics (interference, diffraction, polarization), and the basic principles and practical applications of lasers. Covers optical handling and positioning, light sources, laser classifications and safety. Contributes to knowledge and skills required for the Photonics Technician Operator certification exam.	Prerequisites: A grade of C or better in MAT114, or MAT115, or MAT12+, or MAT15+ or higher, OR an appropriate district placement for MAT15+ or higher, OR permission of Instructor or Department/Division Chair.		Occ	L+L 4.0 6.0 6.0	T
MNT140	2022 Fall	Careers and Professional Skills in Nanotechnology		Introduction to professional skills unique to the field of nanotechnology fabrication. Emphasis on teamwork,	Prerequisites: None.		Occ	LEC 1.0	S

				problem solving, cultural diversity in the workplace, communication, and continuous professional development.				1.0 1.0	
MNT201	2022 Fall	Materials, Safety, and Equipment for Nanotechnology		Safety procedures and equipment used in the micro and nanotechnology industries. Covers chemical, biological, and energy safety protocol as well as infrastructure facilities and systems. Also includes an overview of the structural, chemical, and physical classification of materials.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
MNT210	2018 Fall	Basic Nanotechnology Processes		Introduction to basic nanotechnology processes and a comparison of top-down and bottom-up manufacturing processes. Covers characteristics of plasma and its application to additive and subtractive processes. Also includes basic pattern transfer processes, laser ablation, and chemical and physical vapor deposition.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
MNT215	2022 Fall	Micro and Nano Fabrication Tools and Techniques		Introduction to basic micro and nanotechnology tools and processes and a comparison of top-down and bottom-up manufacturing processes. Covers characteristics of plasma and its application to additive and subtractive processes. Also includes basic pattern transfer processes, laser ablation, and chemical and physical vapor deposition. Aligned with materials, synthesis, and processing standards recognized by ASTM International.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
MNT220	2018 Fall	Materials in Nanotechnology		Examination of material used in the field of nanotechnology. Covers colloids, nanoparticles, oxides, and quantum dots in addition to self-assembly applications. Also includes biocompatibility and the dry etch material fabrication process.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
MNT225	2022 Fall	Material Properties and Effects of Size		Examination of materials used in the field of nanotechnology. Covers nanoparticles, oxides, and dielectric materials selection and modification. Also includes biocompatibility and	Prerequisites: A grade of C or better in MNT201 or permission of Instructor.	MNT225 aligns with the Standard Guide for	Occ	L+L 3.0 4.0 4.0	T

				applications for macroscale surfaces and interfaces.		Nanotechnology Workforce Education in Materials Properties and Effects of Size established by ASTM International.			
MNT230	2018 Fall	Patterning for Nanotechnology		Overview of patterning processes in nanotechnology. Includes photolithography techniques, technology, and tools. Covers photoresist applications and unique lithography techniques, including block polymer patterning.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
MNT235	2022 Fall	Nanotechnology Characterization Tools and Techniques		Overview of characterization tools and techniques for nanotechnology structures and materials. Includes procedures for light, physical, and electron beam characterization. Also includes tools and processes for advanced Scanning Probe Microscopy (SPM) and surface analysis. Aligns with ASTM Nano-Characterization standards and its exam. Additional applications enable students to prepare for certification examinations.	Prerequisites: A grade of C or better in MNT201 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
MNT240	2018 Fall	Nanotechnology Applications		An introduction to the practical application of emerging technologies in nanoscience. Includes applications for health sciences, energy, manufacturing, electronics, the food industry, and the environment.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
MNT245	2023 Fall	Advanced Topics in Light and Lasers		Advanced principles and applications of light and lasers. Addresses Photonic Integrated Circuits (PIC) concepts, materials, fabrication technologies, and applications.	Prerequisites: A grade of C or better in MNT130, or OPT105, or permission of		Occ	L+L 3.0 4.0 4.0	T

				Describes silicon PIC and III-V semiconductor devices in addition to completion of applicable calculations. Addresses lasers and PICs in diverse applications in telecommunications, data servers, health and medical, and other fields.	Instructor. MAT182 is recommended but not required.				
MNT250	2018 Fall	Characterization of Nanotechnology Structures and Materials		Overview of characterization tools and techniques for nanotechnology structures and materials. Includes in-situ and ex-situ characterization as well as procedures for light, physical and electron beam characterization. Also includes tools and processes for advanced Scanning Probe Microscopy (SPM) and surface analysis.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
MPT101	2020 Fall	Technical Documentation		Analysis and interpretation of technical drawings (prints) common to manufacturing. Mathematical calculations for determining dimensions. Introduction and application of Geometric Dimensioning and Tolerancing (GD&T).	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0	T
MPT101MP	2020 Fall	Technical Documentation		Analysis and interpretation of technical drawings (prints) common to manufacturing. Mathematical calculations for determining dimensions. Introduction and application of Geometric Dimensioning and Tolerancing (GD&T).	Prerequisites: None.		Occ	LEC 3.0 1.0 1.0 LAB 0.0 4.0 4.0	T
MPT110	2020 Fall	Inspection Techniques		Setup and use of inspection tools and equipment per current industry standards. Selection, completion and interpretation of information from inspection forms.	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0	T
MPT110MP	2020 Fall	Inspection Techniques		Setup and use of inspection tools and equipment per current industry standards. Selection, completion and interpretation of information from inspection forms.	Prerequisites: None.		Occ	LEC 3.0 1.0 1.0 LAB 0.0 4.0 4.0	T



MPT111	2023 Fall	Geometric Dimensioning and Tolerance (GDT)		Controls of geometric dimensioning and tolerance (GDT) including the form, orientation, profile and location. Includes qualifying controls per engineering documentation for the American Society of Mechanical Engineers (ASME) Y14.5 2009 Standard.	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0	T
MPT111MP	2023 Fall	Geometric Dimensioning and Tolerance (GDT)		Controls of geometric dimensioning and tolerance (GDT) including the form, orientation, profile and location. Includes qualifying controls per engineering documentation for the American Society of Mechanical Engineers (ASME) Y14.5 2009 Standard.	Prerequisites: None.		Occ	LEC 3.0 1.0 1.0 LAB 0.0 4.0 4.0	T
MPT113	2023 Fall	Coordinate Measuring Machines I		Fundamentals and general aspects of Coordinate Measuring Machines (CMM). Basic measuring techniques and operation, including conformance to geometric dimensioning and tolerancing requirements using both manual and programmable (automatic) coordinate measuring machines.	Prerequisites: A grade of C or better in (MPT101 or MPT101MP) and (MPT110 or MPT110MP), or permission of Program Director.		Occ	L+L 3.0 4.0 4.0	T
MPT120	2023 Fall	Introduction to Manual Machining		Introduces manual machining operations related to drilling, grinding, sawing, milling, and lathe processes. Development of fundamental skills, practices and safety applications in working with manual machine tools, hand tools, and related equipment common to manufacturing. Provides theoretical and practical experiences related to the machining of various material types to produce a product to industry standards.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: (MPT101 or MPT101MP) and (MPT111 or MPT111MP), or permission of Program Director.		Occ	L+L 4.0 6.0 6.0	T
MPT120MP	2023 Fall	Introduction to Manual Machining		Introduces manual machining operations related to drilling, grinding, sawing, milling, and lathe processes. Development of fundamental skills, practices and safety applications in working with manual machine tools, hand tools, and related equipment common to manufacturing. Provides theoretical and practical experiences	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: (MPT101 or MPT101MP) and (MPT111 or MPT111MP), or		Occ	LEC 4.0 2.0 2.0 LAB 0.0 4.0 4.0	T

				related to the machining of various material types to produce a product to industry standards.	permission of Program Director.				
MPT130	2020 Fall	CNC Machine Operator		Designed to provide a fast track to fundamental knowledge and skills necessary for entry-level machine operator positions. Introduction to print reading, inspection, and safe start-up and operation of multi-axis Computer Numerical Control (CNC) machines. Topics include two- and three-axis program interpretation and application, qualifying tooling, and tool offsets to produce a product to industry standards.	Prerequisites: None.		Occ	L+L 6.0 10.0 10.0	T
MPT130MP	2020 Fall	CNC Machine Operator		Designed to provide a fast track to fundamental knowledge and skills necessary for entry-level machine operator positions. Introduction to print reading, inspection, and safe start-up and operation of multi-axis Computer Numerical Control (CNC) machines. Topics include two- and three-axis program interpretation and application, qualifying tooling, and tool offsets to produce a product to industry standards.	Prerequisites: None.		Occ	LEC 6.0 3.0 3.0 LAB 0.0 7.0 7.0	T
MPT131	2023 Fall	CNC Machining Level I		Introduction to safe start-up and operation of multi-axis Computer Numerical Control (CNC) machines. Topics include two- and three-axis program interpretation and application, qualifying tooling, and tool offsets to produce a product to industry standards.	Prerequisites: A grade of C or better in MPT120 or MPT120MP or permission of Program Director.		Occ	L+L 6.0 10.0 10.0	T
MPT131MP	2023 Fall	CNC Machining Level I		Introduction to safe start-up and operation of multi-axis Computer Numerical Control (CNC) machines. Topics include two- and three-axis program interpretation and application, qualifying tooling, and tool offsets to produce a product to industry standards.	Prerequisites: A grade of C or better in MPT120 or MPT120MP or permission of Program Director.		Occ	LEC 6.0 3.0 3.0 LAB 0.0 7.0 7.0	T
MPT132	2023 Fall	CNC Machining Level II		Safe setup and operation of multi-axis Computer Numerical Control (CNC) machines. Topics include multi-axis	Prerequisites: A grade of C or better in MPT130 or		Occ	L+L 3.0	T

				programming, qualifying tooling, and tool offsets to produce a product to industry standards.	MPT130MP or MPT131 or MPT131MP or permission of Program Director.			5.0 5.0	
MPT132MP	2023 Fall	CNC Machining Level II		Safe setup and operation of multi-axis Computer Numerical Control (CNC) machines. Topics include multi-axis programming, qualifying tooling, and tool offsets to produce a product to industry standards.	Prerequisites: A grade of C or better in MPT130 or MPT130MP or MPT131 or MPT131MP or permission of Program Director.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0	T
MPT140	2020 Fall	Manual CNC Programming		Introduction to Manual Computer Numerical Control (CNC) programming of Word Address Language (G&M Code) for CNC machine tools. Multi-axis CNC programming for CNC controlled machines. Computer based tool path verification, CNC controller tool path verification and CNC machine tool program verification.	Prerequisites: A grade of C or better in (MPT130 or MPT130MP) or (MPT131 or MPT131MP) or machine shop experience or permission of Program Director.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0	T
MPT150	2020 Fall	Introduction to SolidWorks		Introduction to CAD modeling, solid part generation, assembly of parts, and working drawing creation. Applications of CAD/CAM in Computer Integrated Technology (CIM).	Prerequisites: None.	Students interested in taking MPT250 Solid Design II: Advanced Part Modeling: SolidWorks are advised to take MPT151 Solid Design I: SolidWorks.	Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0	T
MPT151	2023 Fall	Solid Design I: SolidWorks		Introduction to solid modeling and parametric design of mechanical components. Use of SolidWorks commands. Creation of single part in two-dimensional (2D) sketch, three-	Prerequisites: A grade of C or better in (MPT101 or MPT101MP) and (MPT111 or		Occ	L+L 3.0 5.0 5.0	T

				dimensional (3D) solid. Feature based components and feature associativity. Initial preparation for the Certified Solid Works Associate (CSWA) exam.	MPT111MP), or permission of Program Director.				
MPT152	2023 Fall	Solid Design: Certified SolidWorks Associate/Certified SolidWorks Professional Test Preparation		Preparation for latest Certified SolidWorks Associate (CSWA) or Certified SolidWorks Professional (CSWP) exam. Includes exam objectives, solid design, assemblies, COSMOSXpress, and technical documentation in current version.	Prerequisites: Permission of Program Director.		Occ	L+L 1.0 2.0 2.0	T
MPT213	2023 Fall	Coordinate Measuring Machines II		Advanced techniques and operation of Coordinate Measuring Machine (CMM). Includes alignments, Computer-Aided Design (CAD) use, program control, scanning, and dimensioning. Offline programming for operation of CMM. Conformance to geometric dimensioning and tolerancing and manufacturing documentation. Implementation of measurement strategies and time-saving techniques for creating measurement routines.	Prerequisites: A grade of C or better in MPT113 or permission of Program Director.		Occ	L+L 3.0 4.0 4.0	T
MPT214	2023 Fall	3D Scanning and Reverse Engineering: Geomagic		Principles of digital 3D Scanning and reverse engineering. Data acquisition of organic and mechanical components. Transformation of data into solid model geometry to create parts of equal or superior quality for machining or 3D printing.	A grade of C or better required in all Prerequisites. Prerequisites: MPT113 or permission of Program Director. Prerequisites or Corequisites: MPT151 or permission of Program Director.		Occ	L+L 3.0 5.0 5.0	T
MPT215	2020 Fall	Workplace Quality Systems		History of quality systems and procedures. Benefits of ISO 9000 procedures. The twenty elements of ISO 9000. Components and requirements of the International Organization for Standardization (ISO) 9000 quality and periodic audits.	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0	T

MPT216	2023 Fall	Applied Statistical Process Control Methods		Identification of quality characteristics derived from variable and attribute data. Usage of statistical rules for interpretation of control charts. Analysis and recommendation of appropriate actions on factors affecting process variation.	Prerequisites: A grade of C or better in MPT215 or permission of Program Director.		Occ	L+L 3.0 4.0 4.0	T
MPT217	2020 Fall	Lean and Six Sigma Applied Concepts		Lean manufacturing and Six Sigma methodologies and application to an organization. Identification of waste and application of cost to poor quality process within an organization. Quality System tools and implementation. Emphasis on organizational buy in.	Prerequisites: A grade of C or better in MPT215 or permission of Program Director.		Occ	L+L 3.0 3.0 3.0	T
MPT218	2023 Fall	Advanced Quality Process Methods		High-level quality improvement process applied to manufacturing. Specific emphasis on experimental methods focused on waste reduction and general quality and process improvement. Understanding key process variables and decision-making methods based on established procedures. Applying statistical methods to process improvement.	Prerequisites: A grade of C or better in (MPT101, MPT110, MPT111, and MPT113), or permission of Program Director.		Occ	L+L 3.0 4.0 4.0	T
MPT220	2023 Fall	Manual Machining: NIMS Level I Certification		Preparation for latest National Institute for Metalworking Skills (NIMS) Machining Level I certification in Drill Press, Manual Milling, Turning, and Grinding.	Prerequisites: A grade of C or better in MPT120, or MPT120MP, or permission of Program Director.		Occ	L+L 6.0 6.0 6.0	T
MPT221	2023 Fall	Manual Machining: NIMS Level II Certification		Preparation for current National Institute for Metalworking Skills (NIMS) Machining Level II certification in Manual Milling, Turning, and Grinding.	Prerequisites: A grade of C or better in MPT220, or (Level I NIMS Certifications in: Drill Press, Lathe Between centers, Lathe Chucking, Mill, and Surface Grinding), or permission of Program Director.		Occ	L+L 3.0 5.0 5.0	T
MPT250	2023 Fall	Solid Design II: Advanced Part		Creating mechanical assemblies using SolidWorks design tools. Advanced feature tools including	Prerequisites: A grade of C or better in MPT151 or		Occ	L+L 3.0	T

		Modeling: SolidWorks		constraints and motion. Skill enhancement in the creation of advanced assemblies and part design, standard and advanced mates, and performing mass properties analysis.	permission of Program Director.			5.0 5.0	
MPT251	2023 Fall	Solid Design: Documentation/G D&T: SolidWorks		Creation of engineering drawings. Parts and assemblies using associative mechanical design software. Principles and applications presented in accordance with the American Society of Mechanical Engineers (ASME) Y14 series of standards. Drawing sheets and templates, views, projections, dimensions and annotations, Geometric Dimensioning and Tolerancing (GD&T), assembly drawings, Bill of Materials (BOM), and assembly configurations.	Prerequisites: A grade of C or better in MPT151 or permission of Program Director.		Occ	L+L 3.0 5.0 5.0	T
MPT252	2023 Fall	Solid Design: Simulation: SolidWorks		Principles of Finite Element Analysis (FEA), stress and gap analysis, and the Finite Element Method (FEM). Application of fixtures, loads, and connections to assemblies and models. Conducting static and dynamic simulation studies. Evaluation of simulation results and determination of Factor of Safety (FOS).	Prerequisites: A grade of C or better in MPT250 or permission of Program Director.		Occ	L+L 3.0 5.0 5.0	T
MPT253	2023 Fall	Solid Design: Surface Modeling: SolidWorks		Creation and manipulation of freeform shapes and surfaces using SolidWorks mechanical design software. Surface body design using 3D sketch geometry and solid features. Verification of surface integrity and quality.	Prerequisites: A grade of C or better in MPT250 or permission of Program Director.		Occ	L+L 3.0 4.0 4.0	T
MPT254	2023 Fall	Solid Design: Sheet Metal: SolidWorks		Design of sheet metal parts and assemblies. Creation of sheet metal production drawings. Conversion of solid models to sheet metal. Creation of welded structures with standard structural members using SolidWorks Weldments feature. Design of weld beads and weld joints.	Prerequisites: A grade of C or better in MPT250 or permission of Program Director.		Occ	L+L 3.0 4.0 4.0	T

MPT255	2023 Fall	Solid Design 3D Printing		3D printing/additive manufacturing with various additive manufacturing materials. Model orientation for optimal printing and 3D layer slicing, infill control, and orientation. Foundation and support structure design. Fused Deposition Modeling (FDM), Stereolithography Apparatus (SLA), and metal 3D printing.	Prerequisites: A grade of C or better in [(MPT111 or MPT111MP) and MPT250], or permission of Program Director.		Occ	L+L 4.0 5.0 5.0	T
MPT260	2023 Fall	Computer Aided Manufacturing (CAM) I		Introduction to Computer-Aided Manufacturing (CAM) system programming for Computer Numerical Control (CNC) machines using computer graphics for programming and tool path geometry. Computer programming for simultaneous 3-axis CNC machines, fourth and fifth positioning machining centers, and 2-axis turning centers.	Prerequisites: A grade of C or better in MPT130, or MPT130MP, or MPT131, or MPT131MP, or permission of Program Director.		Occ	L+L 3.0 5.0 5.0	T
MPT260MP	2023 Fall	Computer Aided Manufacturing (CAM) I		Introduction to Computer-Aided Manufacturing (CAM) system programming for Computer Numerical Control (CNC) machines using computer graphics for programming and tool path geometry. Computer programming for simultaneous 3-axis CNC machines, fourth and fifth positioning machining centers, and 2-axis turning centers.	Prerequisites: A grade of C or better in MPT130, or MPT130MP, or MPT131, or MPT131MP, or permission of Program Director.		Occ	LEC 3.0 1.0 1.0 LAB 0.0 4.0 4.0	T
MPT261	2023 Fall	MasterCam Certified Programmer Mill Level I: Test Preparation: CPgM1		Review of the latest Certified Programmer Mill Level I (CPgM1) exam in preparation for exam. Competency of geometry construction, tool plane and work plane construction, Computer Numerical Control (CNC), milling tool path generation, and tool path verification with core Mastercam software.	Prerequisites: Permission of Program Director.		Occ	L+L 1.0 2.0 2.0	T
MPT262	2023 Fall	Computer Aided Manufacturing (CAM) II		Advanced Computer-Aided Manufacturing (CAM) system programming for Computer Numerical Control (CNC) machines using computer graphics for programming and tool path geometry. Computer	Prerequisites: A grade of C or better in MPT260, or MPT260MP, or permission of Program Director.		Occ	L+L 3.0 5.0 5.0	T

				programming for mill turns and five axis simultaneous machining centers.					
MPT262MP	2023 Fall	Computer Aided Manufacturing (CAM) II		Advanced Computer-Aided Manufacturing (CAM) system programming for Computer Numerical Control (CNC) machines using computer graphics for programming and tool path geometry. Computer programming for mill turns and five-axis simultaneous machining centers.	Prerequisites: A grade of C or better in MPT260, or MPT260MP, or permission of Program Director.		Occ	LEC 3.0 1.0 1.0 LAB 0.0 4.0 4.0	T
MPT270	2023 Fall	Tooling, Fixtures, and Gauges		Various types of tools, fixtures, and gauges and their function as related to manufacturing processes. Clamping and workholding principles as well as use of appropriate hardware.	Prerequisites: A grade of C or better in [(MPT120, or MPT120MP, or four National Institute of Metalworking Skills (NIMS) in CNC Machining or Manual Machining) and (MPT150 or MPT151)], or CAD101, or CAD201, or Certified SolidWorks Associate (CSWA), or permission of Program Director.		Occ	LEC 3.0 3.0 3.0	S
MPT282AA	2020 Fall	Volunteerism for Manufacturing: A Service Learning Experience		Service-learning field experience within private/public agencies and citizen volunteer groups.	Prerequisites: Permission of Program Director.	MPT282A A may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. Repeats 6.0 6.0	Occ	LAB 1.0 1.0 0.0	L



MPT282AB	2020 Fall	Volunteerism for Manufacturing: A Service Learning Experience		Service-learning field experience within private/public agencies and citizen volunteer groups.	Prerequisites: Permission of Program Director.	MPT282A B may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. Repeats 3.0 6.0	Occ	LAB 2.0 2.0 0.0	L
MPT282AC	2020 Fall	Volunteerism for Manufacturing: A Service Learning Experience		Service-learning field experience within private/public agencies and citizen volunteer groups.	Prerequisites: Permission of Program Director.	MPT282A C may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. Repeats 2.0 6.0	Occ	LAB 3.0 3.0 0.0	L
MPT290AA	2020 Fall	Manufacturing Production Internship		Construction internship office/field experience with private/public agencies or citizen volunteer groups. Eighty (80) hours of designated work experience.	Prerequisites: Permission of Program Director.		Occ	LAB 1.0 6.0 0.0	C
MPT290AB	2020 Fall	Manufacturing Production Internship		Construction internship office/field experience with private/public agencies or citizen volunteer groups. One hundred and sixty (160) hours of designated work experience.	Prerequisites: Permission of Program Director.		Occ	LAB 2.0 12.0 0.0	C

MPT290AC	2020 Fall	Manufacturing Production Internship		Construction internship office/field experience with private/public agencies or citizen volunteer groups. Two hundred and forty (240) hours of designated work.	Prerequisites: Permission of Program Director.		Occ	LAB 3.0 18.0 0.0	C
MPT296WA	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average and be able to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of Program Director. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of Program Director.		Occ	LAB 1.0 5.0 0.0	C
MPT296WB	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average and be able to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of Program Director. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with		Occ	LAB 2.0 10.0 0.0	C

					permission of Program Director.				
MPT296WC	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average and be able to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of Program Director. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of Program Director.		Occ	LAB 3.0 15.0 0.0	C
MPT296WD	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average and be able to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of Program Director. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of Program Director.		Occ	LAB 4.0 20.0 0.0	C

MPT298AA	2023 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director.		Occ	LAB 1.0 1.0 0.0	Z
MPT298AB	2023 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director.		Occ	LAB 2.0 2.0 0.0	Z
MPT298AC	2023 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director.		Occ	LAB 3.0 3.0 0.0	Z
MRT298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z

				combined to maximize student development.					
MRT298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z
MRT298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z
MSP101	2024 Fall	Mortuary Science: Orientation and History		Designed to orient prospective students to the roles, functions, and responsibilities of funeral service professionals. Overview of the requirements, governing agencies, and employment outlook in the field. Includes a historical overview of funeral service with emphasis on individuals, events, and forces that have influenced contemporary funeral principles and practices.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
MSP105	2024 Fall	Cremation for Mortuary Science		Overview of cremation topics, including proper procedures, legal considerations, services, merchandise, trends, and the history of cremation.	Prerequisites: Permission of Instructor.	MSP105 is aligned with American Board of Funeral Service Education (ABFSE)	Occ	LEC 1.0 1.0 1.0	S

						standards. Does not meet the requirements for Arizona Department of Health Services crematory operator training.			
MSP201	2024 Fall	Mortuary Science, Sociology, and Religion		Survey of basic principles of sociology as they relate to funeral service. Emphasis on family structures, social structures, and social factors. Exploration of cultural and religious funeral customs.	Prerequisites: Admission to the Mortuary Science program.		Occ	LEC 3.0 3.0 3.0	S
MSP202	2024 Fall	Embalming		Study of the disinfection, temporary preservation and restoration of the deceased human body by physical and chemical means for the specific purpose to delay organic decomposition and apply practices for reverent care of the deceased.	Prerequisites: Admission to the Mortuary Science program.		Occ	LEC 3.0 3.0 3.0	S
MSP202LL	2024 Fall	Embalming Lab		Field experience involving observation and practice of embalming processes in a laboratory setting. Includes writing case study reports. Study of anatomical considerations for mortuary science students.	A grade of C or better required in all Prerequisites: Prerequisites or Corequisites: MSP202 and admission to the Mortuary Science program.		Occ	LAB 1.0 2.0 2.0	T
MSP203	2024 Fall	Microbiology for Mortuary Science		Survey of basic principles of microbiology. Emphasis on sanitation, disinfection, public health, and embalming practice.	Prerequisites: Admission to the Mortuary Science program.		Occ	LEC 3.0 3.0 3.0	S
MSP204	2024 Fall	Chemistry for Mortuary Science		Survey of the basic principles of chemistry as they relate to funeral service. Emphasis on the chemical principles and precautions involved in the preservation and disinfection of the deceased human body.	Prerequisites: Admission to the Mortuary Science program.		Occ	LEC 3.0 3.0 3.0	S

MSP205	2024 Fall	Funeral Directing I		Funeral directing, documentation procedures, and regulatory compliance from time of death to disposition. Includes establishing professional relationships with family members and funeral profession and allied colleague.	Prerequisites: Admission to the Mortuary Science program.		Occ	LEC 3.0 3.0 3.0	S
MSP206	2024 Fall	Funeral Directing II		Operation of the established funeral home, including principles and product knowledge in the area of funeral service management and merchandising.	Prerequisites: A grade of C or better in MSP205.		Occ	LEC 3.0 3.0 3.0	S
MSP207	2024 Fall	Mortuary Science Restorative Art		Care and restoration of the deceased human body to create natural form and appearance. Includes anatomical aspects and color theory.	Prerequisites: Admission to the Mortuary Science program.		Occ	LEC 3.0 3.0 3.0	S
MSP207LL	2024 Fall	Mortuary Science Restorative Art Lab		Care and restoration of the deceased human body to create natural form and appearance. Includes anatomical aspects and color theory.	A grade of C or better required in all Prerequisites. Prerequisites: Corequisites: MSP207 and admission to the Mortuary Science program.		Occ	LAB 1.0 2.0 2.0	T
MSP208	2024 Fall	Funeral Service Law: Legal, Ethical, and Regulatory Considerations		Exploration of funeral service regulation by state and federal government agencies. Includes cemetery code, dispositions, Federal Trade Commission (FTC), licensing, and crematory law. Examination of torts, wills, estates, contract law, liability, and probate considerations for the funeral service practitioner. Includes ethical considerations, rights, duties, and responsibilities for the funeral service practitioner.	Prerequisites: Admission to the Mortuary Science program.		Occ	LEC 3.0 3.0 3.0	S
MSP209	2024 Fall	Pathology for Mortuary Science		Study of disease processes and their impact on the human body, with emphasis on those conditions which relate to or affect the handling of human remains.	Prerequisites: Admission to the Mortuary Science program.		Occ	LEC 3.0 3.0 3.0	S
MSP210	2024 Fall	Psychology and Counseling for Mortuary Science		Survey of the basic principles of psychology and counseling, as they relate to funeral service. Includes psychological concepts in the areas of	Prerequisites: Admission to the Mortuary Science program.		Occ	LEC 2.0 2.0 2.0	S

				grief, bereavement, mourning, aftercare and crisis intervention with emphasis in the role of the funeral service practitioner.					
MSP211	2024 Fall	Compendium for Mortuary Science		Comprehensive review of exam skills and coursework prior to taking the National Board Exam for Mortuary Science. Analysis of skills and tasks an entry-level funeral practitioner would possess. This course develops skills for recall, application, and analysis of content in the domains of funeral service arts and funeral service sciences.	Prerequisites: Admission to the Mortuary Science program.		Occ	LEC 3.0 3.0 3.0	S
MSP282AA	2013 Fall	Service-Learning Experience in Mortuary Science		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	MSP282A A may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 1.0 1.0 0.0	L
MSP282AB	2013 Fall	Service-Learning Experience in Mortuary Science		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	MSP282A B may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 2.0 2.0 0.0	L



MSP282AC	2013 Fall	Service-Learning Experience in Mortuary Science		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	MSP282A C may be repeated for a total of six (6) credit hours. Standard grading available according to procedure s outlined in catalog.	Occ	LAB 3.0 3.0 0.0	L
MSP296WA	2003 Spring	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 1.0 5.0 0.0	Z
MSP296WB	2003 Spring	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job		Occ	LAB 2.0 10.0 0.0	Z

					may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.				
MSP296WC	2003 Spring	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 3.0 15.0 0.0	Z
MSP296WD	2003 Spring	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be		Occ	LAB 4.0 20.0 0.0	Z

					concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.				
MST140	2018 Fall	Microsoft Networking Essentials		Emphasis on local area network with overview of wide area networks. Includes terminology, hardware and software components, connectivity, network architecture, packet structure, topologies, communication standards and protocols, and security issues. Preparation for Microsoft certification examination.	Prerequisites: None. (BPC110 or CIS105 and CIS121AB) suggested but not required.		Occ	L+L 3.0 4.0 4.0	T
MST141	2018 Fall	Enterprise Desktop Support Technician		Troubleshooting and repairing problems with Microsoft Windows desktop operating systems. Basic knowledge of system architecture and security as needed to provide skills required to support users.	A grade of C or better required in all Prerequisites. Prerequisites: (CIS102 or any CIS102++ course) and CIS105 or permission of Instructor. Prerequisites or Corequisites: Any MST150++ course or permission of Instructor.	MST141 is preparation for the Microsoft Certified IT Professional: Enterprise Desktop Support Technician 7 (MCITP) certification examination, 70-685.	Occ	L+L 3.0 4.0 4.0	T
MST150EI	2020 Fall	Configuring Windows 8		In-depth exploration of how to effectively install and configure Windows 8. Includes features of Windows 8, virtualization with Hyper-V, network connectivity, access to resources, monitor and maintain Windows clients and backup and recovery. Designed to prepare students for the Microsoft Windows 8 certification examination (70-687).	Prerequisites: None. MST140 or CNT140++ recommended.		Occ	L+L 3.0 4.0 4.0	T

MST150SV	2021 Fall	Microsoft Windows 7 Configuration		Knowledge and skills necessary to perform installation and day-to-day administration and support of the Microsoft Windows 7 operating system. Preparation for the Microsoft certification examination.	Prerequisites: None. CIS190 or MST140 suggested but not required.		Occ	L+L 3.0 4.0 4.0	T
MST150WT	2020 Fall	Installing and Configuring Microsoft Windows 10		In-depth exploration of how to effectively install and configure Windows 10. Includes features of Windows 10, virtualization improvements, network connectivity, access to resources, monitor and maintain Windows clients and backup and recovery. Designed to prepare students for the Microsoft Windows 10 certification examination.	Prerequisites: None. CIS190 or CNT140AB suggested but not required.		Occ	L+L 3.0 4.0 4.0	T
MST152	2018 Fall	Microsoft Windows Server		Knowledge and skills necessary to install, configure, customize, optimize, network, integrate, and troubleshoot Windows Server. Preparation for Microsoft certification examination.	Prerequisites: A grade of C or better in any MST150 course or Corequisites: any MST150 course or permission of Instructor.		Occ	L+L 4.0 5.0 5.0	T
MST155DA	2018 Fall	Windows Server Network Infrastructure Configuration		Information and skills necessary to design a Microsoft Windows networking services infrastructure design. Includes network foundation design, Internet and private networks connectivity, in addition to functionality security and performance features of networking services.	Prerequisites: A grade of C or better in MST150, or any MST150++ course, or permission of Instructor.		Occ	L+L 4.0 5.0 5.0	T
MST155DB	2018 Fall	Configuring Advanced Windows Server Services		In-depth exploration of how to effectively install and configure Windows Server. Designed to prepare students for the Microsoft Configuring Advanced Windows Server Services examination (70-412).	Prerequisites: A grade of C or better in MST158DA or MST158DB or permission of Instructor.	Recommend that prerequisite course completed was for the same version of Windows server as will be taught in MST155DB.	Occ	L+L 4.0 5.0 5.0	T

MST155DC	2018 Fall	Installation, Storage, and Compute with Windows Server		This course focuses primarily on the installation, storage, and compute features and their functionality that is available within Windows Server. As Information Technology pushes towards more cloud based solutions and makes our classic approach obsolete, this course will help students prepare for a career within an Information Technology enterprise and help distinguish themselves in today's competitive job market. This course covers various topics like Windows Server installation, Hyper-V deployments and storage options in relation to this new cloud based reality.	Prerequisites: A grade of C or better in MST150++ or permission of Instructor.		Occ	L+L 4.0 5.0 5.0	T
MST157DA	2018 Fall	Active Directory Windows Server Configuration		Information and skills necessary to install, configure and administer Active Directory service. Covers tasks required to create users and groups, and to implement Group Policies which provide centralized management of users and computers.	Prerequisites: Any MST course or permission of Instructor.	MST157D A is a preparation for the Microsoft 70-640 professional certification test.	Occ	L+L 4.0 5.0 5.0	T
MST157DB	2018 Fall	Administering Windows Server		In-depth exploration of how to effectively manage Windows Server. Designed to prepare students for the Administering Microsoft Windows Server examination (70-411).	Prerequisites: A grade of C or better in MST158DA or MST158DB or permission of Instructor.	Recommend that prerequisite course completed was for the same version of Windows server as will be taught in MST157D B.	Occ	L+L 4.0 5.0 5.0	T
MST157DC	2018 Fall	Networking with Windows Server		This course focuses on the networking features and their functionality available within Windows Server. It builds upon the skills from the Installation, Storage, and	Prerequisites: A grade of C or better in MST155DC or permission of Instructor.		Occ	L+L 4.0 5.0 5.0	T

				Compute with Windows Server course (MST155DC) and will develop skills related to Software-Defined Networking (SDN) solutions within Hyper-V, remote connectivity with VPN and Direct Access, and providing Internet connectivity with Domain Name System (DNS), Dynamic Host Configuration Protocol (DHCP), and Internet Protocol Address Management (IPAM). This course helps prepare for the 70-741 industry certification test.					
MST158DA	2018 Fall	Windows Server Administration		Knowledge and skills necessary to install, configure, customize, optimize, network, integrate, and troubleshoot Windows Server.	Prerequisites: A grade of C or better in (MST155 or any MST155++ course) and (MST157 or any MST157++ course), or permission of Instructor.		Occ	L+L 4.0 5.0 5.0	T
MST158DB	2018 Fall	Installing and Configuring Windows Server		In-depth exploration of how to effectively install and configure Windows Server. Includes roles and features of Server, virtualization with Hyper-V, core network services, Active Directory, and Group Policy. Designed to prepare students for the corresponding Microsoft Windows Server Installation and Configuration examination (70-410).	Prerequisites: A grade of C or better in (MST140 or CNT140 or CNT140AA) and (MST150 or MST150SV or MST150VI or MST150XP) or permission of Instructor.		Occ	L+L 4.0 5.0 5.0	T
MST158DC	2019 Fall	Identity Management with Windows Server 2016		Prepares students to manage Windows Server 2016 tasks. Configure and manage multiple services, such as Identity Management and Active Directory. Learn how to install and configure domain controllers and create and manage users, groups, and computers within Organizational Units. Prepares students for the Microsoft exam, Identity with Windows Server 2016-70-742.	Prerequisites: A grade of C or better in MST157DC.		Occ	L+L 4.0 5.0 5.0	T
MST160	2022 Fall	Azure Administrator		Teaches IT professionals how to manage Azure subscriptions, secure	Prerequisites: A grade of C or better		Occ	L+L 4.0	T

				identities, administer the infrastructure, configure virtual networking, connect Azure and on-premises sites, manage network traffic, implement storage solutions, create and scale virtual machines, implement web apps and containers, backup and share data, and monitor solutions.	in MST150WT, or permission of Instructor.			5.0 5.0	
MST260	2022 Fall	Microsoft Azure Cloud Development and Operations		Designed to provide technical information and skills required to develop and operate Microsoft Azure cloud infrastructure environments. Describes the design processes and implementation strategies for application and infrastructure that enable continuous integration, testing, and delivery, as well as infrastructure as code and process monitoring. Emphasizes processes, and technologies required to increase software delivery velocity and improve service reliability. Helps to prepare students for the Microsoft AZ-400, Azure DevOps Engineer or DevOps Institute, DevOps Foundation exams.	Prerequisites: A grade of C or better in (CIS156 and MST160) or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
MST280CA	2018 Fall	Current Topics in Microsoft Computing		Critical inquiry of current topics in Microsoft Technology computing. Application of Microsoft Technology trends to solve problems and/or investigate issues.	Prerequisites: Permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
MTC098	2010 Fall	Music Theory Boot Camp		Intensive review of music theory fundamentals to develop and/or refresh skills necessary for advanced study.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
MTC101	1994 Spring	Introduction to Music Theory		Designed to develop written and aural skills necessary for advanced study of music theory and skills. Recommended for music majors	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
MTC103	2018 Fall	Introduction to Aural Perception		An introduction to the aural skills necessary to hear relationships of intervals, rhythms, melody, and harmony in music.	Prerequisites: None.	MTC103 may be repeated for a total of two (2) credit hours.	Acad	L+L 1.0 2.0 2.0	T

MTC105	2021 Summer	Music Theory I		The chronological study of music theory including: harmony, melody, texture, structure and timbre through analysis, original compositions and basic exercises to demonstrate musical concepts.	Prerequisites: A grade of C or better in MTC101 or permission of Instructor. Corequisites: MTC106.		Acad	LEC 3.0 3.0 3.0	S
MTC106	2018 Fall	Aural Perception I		The development of listening and performing skills through dictation, sight singing and keyboard harmony	Prerequisites: None. Corequisites: MTC105.		Acad	L+L 1.0 2.0 2.0	T
MTC110	2000 Fall	Music Notation for Songwriting		Basic musical notational system with emphasis on note reading, staff placement, meter, rhythmic patterns, basic harmonic patterns, chords and chord symbols, lead sheet forms, scales and keys	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0	S
MTC122	2021 Summer	Fretboard Harmony		An in-depth study of functional and theoretical practice as applied to the fretboard of the guitar through understanding of chord symbols, intervals and rhythm	Prerequisites: A grade of C or better in MTC101.		Acad	LEC 3.0 3.0 3.0	S
MTC130	2010 Fall	Jazz Theory		Develop written and aural theory skills necessary in the jazz idiom.	Prerequisites: A grade of C or better in (MTC101 and MTC103), or permission of Instructor.	MTC130 is recommended for students taking jazz improvisation, jazz composition and jazz combo.	Acad	LEC 2.0 2.0 2.0	S
MTC155	1995 Fall	Music Theory II		A continuation of Music Theory I with emphasis on harmony and part-writing procedures	Prerequisites: A grade of C or better in MTC105. Corequisites: MTC156.		Acad	LEC 3.0 3.0 3.0	S
MTC156	2021 Fall	Aural Perception II		A continuation of Aural Perception I, including harmonic practices.	Prerequisites: A grade of C or better in MTC106. Corequisites: MTC155.		Acad	L+L 1.0 2.0 2.0	T
MTC180	2019 Fall	Computer Literacy for Musicians		Instruction in basic computer literacy, including generic applications and	Prerequisites: A grade of C or better	General Education	Acad	L+L 3.0	T



				music-specific programs with hands-on experience. Ability to read music notation required.	in MTC101, or MTC105, or Corequisites: MTC105, or permission of Instructor.	Designation: Computer/Statistics/Quantitative Applications - [CS]		4.0 4.0	
MTC190	2018 Fall	Computer-Aided Music Notation		Introduction to computer-aided music notation, culminating in editing and producing publication-quality music scores. Ability to read music notation required	Prerequisites: Permission of Instructor.		Acad	L+L 3.0 4.0 4.0	T
MTC203	2008 Spring	Jazz Composition		Composition and analysis of standard song forms as well as other standard compositional practices and forms idiomatic to jazz	Prerequisites: A grade of C or better in MTC155 or MUP165 or permission of Instructor.		Acad	L+L 3.0 3.0 0.0	L
MTC205	2011 Fall	Music Theory III		The study of chromatic harmony and melody, modulation techniques and expanded chords. The analysis of formal structure	Prerequisites: A grade of C or better in MTC155. Corequisites: MTC206.	Course Attribute(s): Arizona Shared Unique Number SUN#: MUS 2222	Acad	LEC 3.0 3.0 3.0	S
MTC206	2021 Fall	Aural Perception III		A development of listening and performing skills, including an introduction of chromatic harmonic techniques and concepts of style.	Prerequisites: A grade of C or better in MTC156. Corequisites: MTC205.		Acad	L+L 1.0 2.0 2.0	T
MTC240	1990 Fall	Composition		Introduction to the basics of music composition, stressing techniques and procedures for developing original ideas.	Prerequisites: A grade of C or better in (MTC105 and MTC106 or equivalent) and permission of Instructor.	MTC240 may be repeated for a total of twelve (12) credit hours.	Acad	L+L 3.0 0.6 0.0	Z
MTC255	2011 Fall	Music Theory IV		A continuation of Music Theory III, including 20th century theories and techniques	Prerequisites: A grade of C or better in MTC205. Corequisites: MTC256.	Course Attribute(s): Arizona Shared Unique Number	Acad	LEC 3.0 3.0 3.0	S

						SUN#: MUS 2223			
MTC256	2021 Fall	Aural Perception IV		A continuation of Aural Perception III, including extended chords.	Prerequisites: A grade of C or better in MTC206. Corequisites: MTC255.		Acad	L+L 1.0 2.0 2.0	T
MTC298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional- type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0	Z
MTC298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional- type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0	Z
MTC298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional- type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0	Z
MUC109	2020 Fall	Music Business: Content Creation and Copyright		Designed to provide an overview of content creation and copyright considerations within the Music	Prerequisites: None.		Occ	LEC 3.0	S

				Industry. Topics include songwriting and music creation, copyright, publishing and licensing, studio production, media applications of music, business ownership and operations, and emerging technologies.				3.0 3.0	
MUC110	2020 Fall	Music Business: Marketing and Monetization		Designed to provide an overview of the marketing and monetization of music. Topics include music label operations; contracts; marketing, promotion, and merchandising; agents, managers, and attorneys; concert promotion and touring; and unions and guilds.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
MUC111	2020 Fall	Digital Audio Workstation I (DAW I)		Use of digital mixing and automation software in conjunction with editing and recording. Includes computer operation, troubleshooting, and file management.	Prerequisites: A grade of C or better in MUC195 or MUC195AA or FMP105 or permission of Instructor.		Occ	L+L 3.0 5.0 5.0	T
MUC112	2018 Fall	Digital Audio Workstation II (DAW II)		Use of digital mixing and automation software in conjunction with editing and recording. Includes computer operation, troubleshooting, and file management.	Prerequisites: A grade of C or better in MUC111, and (MUC195 or MUC195AA).		Occ	L+L 3.0 5.0 5.0	T
MUC114	2019 Spring	Song Publishing and Marketing		Publishing and marketing of songs including services that publishers provide and what to consider when choosing one, a summary of various aspects and types of contracts, working as a staff writer, publisher marketing, self marketing, and additional markets.	Prerequisites: None.		Occ	LEC 1.0 1.0 0.0	C
MUC115	2019 Spring	Song Copyrighting and Demos		Terms involved with copyright laws. Clarification of when copyright begins, ownership of copyright and registration, limitations of copyright, and when works become public domain. Phases of making a demonstration tape or CD. Promotion and presentation of a demo.	Prerequisites: None.		Occ	LEC 1.0 1.0 0.0	C
MUC120	2023 Fall	Introduction to Sound Design for Film and Video	FMT120	Basic principles of recording and mixing sound for film and video. Includes voice-over, automatic dialog	Prerequisites: A grade of C or better in (FMT100 and		Occ	LEC 3.0	S

				replacement (ADR), foley, ambience, special effects and music. Emphasis on analog and digital recording techniques in the field as well as in a controlled environment.	FMT136) or permission of Instructor.			3.0 3.0	
MUC122	2020 Fall	Sound Design I		Introduction to Sound Design and Audio Post-Production for Multimedia. Includes creating and editing Sound Effects, ADR, Foley, Music, and Ambience, such as Film, TV, Video Gaming, Theatre, and Dance. Emphasis on computer assisted production using Digital Audio Workstations and sound design techniques using industry-standard equipment.	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0	T
MUC135	2018 Fall	Introduction to Disc Jockey Techniques		Development of beginning level live-performance disc jockey techniques. Emphasis on understanding the construction of industry-formatted dance songs, cueing, segueing/mixing methods, the relationship of beats per minute to segueing, and programming songs to entertain a live audience. Covers the history of the live performance DJ and strategies for soliciting employment in the field.	Prerequisites: None.	MUC135 may be repeated for a total of six (6) credits.	Occ	L+L 3.0 3.0 3.0	T
MUC136	2018 Fall	Turntablism: The Art of the Scratch DJ		Covers the skills required in vinyl manipulation; examines the development of turntable techniques and the contributions made by individual turntable artists.	Prerequisites: None.	MUC136 may be repeated for a total of six (6) credits.	Occ	L+L 3.0 4.0 4.0	T
MUC137	2018 Fall	Digital DJ Performance Techniques		Covers the skills required for live performance employing digital media with an emphasis on programs such as Serato Scratch Live and Ableton Live.	Prerequisites: None.	MUC137 may be repeated for a total of six (6) credits.	Occ	L+L 3.0 4.0 4.0	T
MUC138	2018 Summer	Disc Jockey Laboratory		Operation, scope, roles and responsibilities in the commercial music production process.	Prerequisites: None.	MUC138 may be repeated for a total of six (6)	Occ	LAB 1.0 1.0 0.0	L

						credit hours.			
MUC139	2018 Fall	Introduction to Emcee-Rapping Techniques		Development of beginning level live-performance and recording emcee-rap techniques. Emphasis on understanding rhyme, structure, breath control, stage presence, and performance. Covers the history of the DJ/emcee and origins of the rapper, song structure, enunciation, vocal delivery, breath control, melody, and pacing while staying on beat.	Prerequisites: None.	MUC139 may be repeated for a total of six (6) credits.	Occ	L+L 3.0 4.0 4.0	T
MUC140	2023 Fall	Songwriting		An introduction to the art and craft of songwriting through the study and analysis of diverse songwriters and musical styles, and creation of original songs.	Prerequisites: A grade of C or better in MTC101, or MTC105, or permission of Instructor.	MUC140 may be repeated for a total of six (6) credits.	Occ	LEC 3.0 3.0 3.0	S
MUC145	2012 Summer II	Recording Studio Business Operations		Operation, scope, roles and responsibilities in the commercial music production process. Focuses on the business aspects and daily management of the professional recording studio. Includes strategies for project management, client service, marketing, equipment acquisition, staffing and employment.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
MUC180	2020 Spring	Computer Literacy for the Music Business		Basic computer literacy, including business applications used in the Music Industry, with hands-on experience.	Prerequisites: A grade of C or better in MUC109 or permission of Instructor or Department or Division Chair.	Course Attribute(s): General Education Designation: Computer/Statistics/Quantitative Applications - [CS]	Occ	L+L 3.0 3.0 0.0	L
MUC181	2023 Fall	Popular Music Orchestration and Arranging		Basic orchestration and arranging techniques as used in popular music genres including jazz, pop, and rock music for vocal and instrumental music performance ensembles. Idiomatic uses of harmony, melodic	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: (MTC155 or higher		Occ	LEC 3.0 3.0 3.0	S

				rhythm, voicing, tonal color and notation.	level of MTC music theory) and MTC180.				
MUC191	2023 Fall	Electronic Music I		An introduction to creating music with computers, utilizing the Musical Instrument Digital Interface (MIDI) protocol, synthesizers, digital audio software/hardware, and MIDI controllers.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
MUC192	2023 Fall	Electronic Music II		Continued study of creating music with computers, utilizing the Musical Instrument Digital Interface (MIDI) configurations, audio editing, and music software/hardware at the intermediate level. Emphasis on more complex configurations and their applications in compositions.	Prerequisites: A grade of C or better in MUC191.		Occ	L+L 3.0 4.0 4.0	T
MUC193	2023 Fall	Computer-Based Sound Synthesis		Principles of sound synthesis using computer-based methods. Synthesis methods include subtractive, additive, frequency modulation, sample and synthesis, and hybrid. Emphasis on synthesis techniques for use in electronic music.	Prerequisites: A grade of C or better in MUC191 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
MUC194	2021 Fall	Audio Mixing Techniques		Approaches in final mixing for different musical genres. Develop critical listening skills, and applying these techniques to students' projects. Professional-type facilities and equipment available for student use.	Prerequisites: A grade of C or better in MUC111 and MUC196, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
MUC195	2020 Fall	Studio Music Recording I		Basic principles of studio sound recording. Emphasis on musical acoustics, operation of recording equipment, studio setups, and multitrack recording. Includes studio session process and musical production decisions.	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0	T
MUC195AA	2020 Fall	Studio Music Recording I		Basic principles of studio sound recording. Emphasis on musical acoustics, operation of recording equipment, studio setups, and multitrack recording. Includes studio session process and musical production decisions.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0 LAB 0.0 2.0 2.0	T

MUC196	2020 Fall	Studio Music Recording II		Emphasis on signal-processing equipment, mixing consoles, and advanced musical recording session procedures, production, and engineering. Includes mix-down and resultant master tape of a musical recording session.	Prerequisites: A grade of C or better in MUC195 or MUC195AA.		Occ	L+L 3.0 5.0 5.0	T
MUC196AA	2020 Fall	Studio Music Recording II		Emphasis on signal-processing equipment, mixing consoles, and advanced musical recording session procedures, production, and engineering. Includes mix-down and resultant master tape of a musical recording session.	Prerequisites: A grade of C or better in MUC195 or MUC195AA.		Occ	LEC 3.0 3.0 3.0 LAB 0.0 2.0 2.0	T
MUC197	2020 Fall	Live Sound Reinforcement I		Basic principles of live sound engineering. Emphasis on signal flow, acoustic, sound reinforcement set-ups and installation, signal processing, microphone selections and placement. Includes setting up sound systems and mixing live music.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
MUC198	2020 Fall	Live Sound Reinforcement II		Emphasis on musical production decisions. Front-of-house and monitor console placement, loudspeaker arrangements, power considerations, program material and sound pressure levels. Includes setting up of sound system and mixing live performances with various styles of music. In addition to mixing at alternate locations.	Prerequisites: A grade of C or better in MUC197.		Occ	L+L 3.0 4.0 4.0	T
MUC209	2011 Fall	Music Industry Entrepreneurship		Operation, scope, and career opportunities in the music business. Focuses on music in the areas of entrepreneurship, visionary development and the collaboration process.	Prerequisites: A grade of C or better in MUC109 and MUC110 or permission of Instructor.		Occ	LEC 3.0 3.0 0.0	L
MUC210	2012 Summer I	Advanced Industry Topics: Concert Promotion and Touring		Operation, scope, and career opportunities in the music business. Focuses on advanced aspects of concert promotion, touring and festival production. Areas of focus include marketing, planning, operations, talent buying, and budgeting for profitable and	Prerequisites: A grade of C or better in MUC109 or permission of Instructor or Department or Division Chair.		Occ	LEC 3.0 3.0 0.0	L

				successful music-performance stage shows.					
MUC211	2012 Summer I	Advanced Industry Topics: Artist Management and Development		Operation, scope, and career opportunities in the music business. Focus on advanced aspects of artist management and development. Include roles and responsibilities of an Artist Manager, the nature and structure of the relationship between an Artist and Artist Manager, and the development of business, and career management techniques for Artist Managers.	Prerequisites: A grade of C or better in MUC109 or permission of Instructor or Department or Division Chair.		Occ	LEC 3.0 3.0 0.0	L
MUC215	2019 Spring	Music Industry Seminar: Innovation in Music Technology		Seminar in Music Industry technology with an emphasis on current product and service innovations. Emphasis on marketing and promotional uses of new technology.	Prerequisites: None.	MUC215 may be repeated for credit.	Occ	LEC 1.0 1.0 0.0	C
MUC216	2021 Spring	Music Workshop/Seminar		Workshop seminar in commercial music disciplines.	Prerequisites: None.	MUC216 may be repeated for credit.	Occ	LEC 1.0 1.0 0.0	C
MUC220	2023 Fall	Advanced Sound Design for Film and Video	FMT220	Explores techniques and advanced applications used in designing sound using original student footage on a non-linear editing system.	Prerequisites: A grade of C or better in FMT/MUC120 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0 LAB 0.0 2.0 2.0	T
MUC222	2023 Fall	Sound Design II		Intermediate level Sound Design and Audio Post-Production for Multimedia.	A grade of C or better required in all Prerequisites. Prerequisites: MUC122. Prerequisites or Corequisites: MUC191 or MUC111 or permission of Instructor.		Occ	L+L 3.0 5.0 5.0	T
MUC237	2023 Fall	Electronic Dance Music Production		Process and skills required for music production employing digital media, with an emphasis on producing music on digital audio workstations.	Prerequisites: A grade of C or better in MUC191 or permission of Instructor.	MUC237 may be repeated for a total of six (6) credits.	Occ	L+L 3.0 4.0 4.0	T



MUC240	2023 Fall	Creative Music Production		Operation, scope, roles and responsibilities in the commercial music production process. Focuses on creative aspects of commercial music production, including song selection, realization of artistic vision, studio selection, musician and vocal staff selection, coaching for optimal performance, analyzing song structure and sound quality and trouble-shooting problems in the overall artistic impression of the finished music product. Lab work includes creation and execution of a finished professional-quality music production.	Prerequisites: A grade of C or better in [(MTC101 and MTC103) or (MTC105 and MTC106)], and (MUC112, MUC192, and MUC295), or permission of Instructor.		Occ	L+L 4.0 5.0 0.0	L
MUC241	2017 Fall	Business Principles of Music Production		Operation, scope, roles and responsibilities in the commercial music production process. Focuses on business aspects of commercial music production, including project management, budgeting, production personnel, deal structures, revenue sources, copyright, publishing percentages and career strategies.	Prerequisites: A grade of C or better in (MUC109 and MUC110) or permission of Instructor.		Occ	LEC 3.0 3.0 0.0	L
MUC242	2017 Fall	Music Genres and Styles		Operation and development of creative skills in the commercial music production process. Geared towards music producers and emphasizing analysis and comprehension of commercial music styles and genres, including: pop, country, rock, soul, rhythm and blues, funk, and hip-hop. Study of the thematic organization of popular musical styles.	Prerequisites: None.		Occ	LEC 2.0 2.0 0.0	L
MUC261	2023 Fall	Modern Arranging I		Basic arranging techniques as used in jazz and rock idioms for combo and special ensembles. Idiomatic uses of harmony, melodic rhythm, voicing, tonal color and notation.	Prerequisites: A grade of C or better in MUP164 and MUP165 or permission of Instructor.	MUC261 may be repeated for a total of six (6) credit hours.	Occ	LEC 3.0 3.0 3.0	S
MUC262	2023 Fall	Modern Arranging II		Arranging for larger ensembles, including strings, jazz ensemble, woodwinds and synthesizers.	Prerequisites: A grade of C or better in MUC261 or	MUC262 may be repeated	Occ	LEC 3.0	S

				Detailed study of harmony, form and orchestration.	permission of instructor.	for a total of six (6) credit hours.		3.0 3.0	
MUC274	2017 Fall	Music Industry Study Tour		A tour of the music industry outside the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance awareness of professional opportunities and careers.	Prerequisites: None.	Additional expenses will apply students responsible for travel expenses. MUC274 may be repeated for a total of ten (10) credit hours.	Occ	LAB 2.0 2.0 0.0	L
MUC280	2018 Fall	Recording Studio Maintenance		Introduction to the techniques, electronics, and tools used to perform basic recording studio, live sound, and electronic musical instrument equipment maintenance	Prerequisites: A grade of C or better in MUC195AA or MUC111 or permission of instructor.		Occ	L+L 3.0 3.0 3.0	T
MUC281	2023 Fall	Electronic Music III		Continued study of the production of music using electronic processes. Emphasis on more complex configurations and their applications in live performance or studio use.	Prerequisites: A grade of C or better in MUC192.		Occ	L+L 3.0 4.0 4.0	T
MUC289	2020 Fall	Live Sound Reinforcement III		Focus on audio engineering and media production for performances and events. The course will cover advanced audio concepts and techniques, basic lighting, rigging, and media. Students will apply their knowledge assisting as part of productions, events, advanced projects or other activities related to the course material.	Prerequisites: A grade of C or better in MUC198.		Occ	L+L 3.0 6.0 6.0	T
MUC290AA	2017 Fall	Music Business Internship		Music Business Internship work experience. Perform a variety of activities, to fulfill the routines and responsibilities of the department or business where the internship is served. Eighty (80) hours of designated work per credit.	Prerequisites: Permission of Department or Division.	MUC290A A may be repeated for a total of twelve (12) credit hours.	Occ	L+L 1.0 1.0 0.0	C

MUC291AA	2014 Fall	Disc Jockey Internship		Disc Jockey (DJ) internship work experience, which may include emcee-rapping and/or electronic dance music production, under the supervision of an experienced industry professional. Perform a variety of activities to fulfill the routines and responsibilities of the department or business where the internship is served.	Prerequisites: Permission of Department or Division.	MUC291A A requires a minimum of eighty (80) hours of designated work per credit. MUC291A A may be repeated for a total of twelve (12) credit hours.	Occ	L+L 1.0 1.0 0.0	C
MUC292	2020 Fall	Sound Design III		Advanced Sound Design Production for Multimedia: Designed to provide an atmosphere of team research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use.	Prerequisites: A grade of C or better in MUC222, or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T
MUC293	2020 Fall	Self Promotion for Music		Designed to provide the skills and knowledge required for effective self-promotion. Focus on career goal development, market analysis, communication and networking skills, and the development of a self-promotional campaign.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
MUC294	2017 Fall	Portfolio for Music		Includes developing a portfolio that demonstrates music related skills and marketing of songs, recordings, and musical performances.	Prerequisites: A grade of C or better in MUC293.		Occ	LEC 1.0 1.0 0.0	L
MUC295	2018 Fall	Studio Music Recording III		Producing and engineering a recording project. Covers how recording studios work and how recording projects are organized from pre-production through delivery of the final mix.	Prerequisites: A grade of C or better in MUC196 and (MUC111 or permission of Instructor).		Occ	L+L 3.0 6.0 6.0	T
MUC296WA	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average		Occ	LAB 1.0 5.0 0.0	Z

					and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.				
MUC296WB	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 2.0 10.0 0.0	Z
MUC296WC	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals		Occ	LAB 3.0 15.0 0.0	Z

					(students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.				
MUC296WD	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 4.0 20.0 0.0	Z
MUC297AA	2020 Fall	Audio Production Internship		Music Internship work experience in a business or industry. Eighty (80) hours of designated work per credit.	Prerequisites: Permission of Department or Division.	MUC297A A may be repeated for a total of twelve (12) credit hours.	Occ	L+L 1.0 1.0 0.0	C
MUC297AB	2020 Fall	Audio Production Internship		Music Internship work experience in a business or industry eighty (80) hours of designated work per credit.	Prerequisites: A grade of C or better in MUC110.	MUC297A B may be repeated for a total of twelve	Occ	L+L 2.0 2.0 0.0	C

						(12) credit hours.			
MUC297AC	2020 Fall	Audio Production Internship		Music Internship work experience in a business or industry eighty (80) hours of designated work per credit.	Prerequisites: Permission of Department or Division.	MUC297A C may be repeated for a total of twelve (12) credit hours.	Occ	L+L 3.0 3.0 0.0	C
MUC298AA	2017 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z
MUC298AB	2017 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z
MUC298AC	2017 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z

MUE107	2019 Fall	Woodwinds Methods I		Practical class with emphasis on techniques of playing and teaching woodwind instruments including embouchure, breath control, tone, mouthpiece selection, and literature.	Prerequisites: None.		Acad	L+L 1.0 3.0 3.0	T
MUE108	2019 Fall	Percussion Methods I		Practical class with emphasis on techniques of playing and teaching percussion instruments including hand position, rudiments, stick control, and elements of reading rhythms.	Prerequisites: None.		Acad	L+L 1.0 3.0 3.0	T
MUE109	2019 Fall	Brass Methods I		Practical class with emphasis on techniques of playing and teaching brass instruments including embouchure, breath control, tone, and literature.	Prerequisites: None.		Acad	L+L 1.0 3.0 3.0	T
MUE110	2019 Fall	Strings Methods I		Practical class with emphasis on techniques of playing and teaching string instruments including tone control and literature.	Prerequisites: None.		Acad	L+L 1.0 3.0 3.0	T
MUE111	2019 Fall	Guitar Methods		Practical class with emphasis on both classical and popular techniques, methods, materials, solo/ensemble literature and repertoire used in all levels of guitar. Instructional approaches to the guitar as both a harmonizing instrument and in an ensemble setting.	Prerequisites: None.		Acad	L+L 1.0 3.0 3.0	T
MUE207	2019 Fall	Woodwinds Methods II		Continuation of Woodwinds Methods I with additional emphasis on skills including ensemble performance, transposition, increasing range and literature.	Prerequisites: A grade of C or better in MUE107 or permission of Instructor.		Acad	L+L 1.0 3.0 3.0	T
MUE208	2019 Fall	Percussion Methods II		Continuation of Percussion Methods I with additional emphasis on ensemble techniques and representative literature.	Prerequisites: A grade of C or better in MUE108 or permission of Instructor.		Acad	L+L 1.0 3.0 3.0	T
MUE209	2023 Fall	Brass Methods II		Continuation of Brass Methods I with additional focus on skills including ensemble performance, transposition, increasing range and solo literature.	Prerequisites: A grade of C or better in MUE109 or permission of Instructor.		Acad	L+L 1.0 3.0 3.0	T
MUE210	2019 Fall	Strings Methods II		Continuation of String Methods I with additional focus on skills including	Prerequisites: A grade of C or better in MUE110 or		Acad	L+L 1.0	T

				fingering and bowing techniques, and solo/ensemble literature.	permission of Instructor.			3.0 3.0	
MUE240	2019 Fall	Introduction to Choral Methods		Overview of techniques, methods, materials, style characteristics, and repertoire used in directing choral music at the secondary level including simulated teaching, conducting, and the demonstration of vocal and choral performance practices.	Prerequisites: None.		Acad	L+L 1.0 3.0 3.0	T
MUE250	2023 Fall	Vocal Pedagogy/Voice Methods		Study of the anatomy, physiology, and acoustics of singing as applied to healthy vocal function and the teaching of singing. Topics include: overview of techniques, materials, and literature used in teaching singing.	Prerequisites: None.		Acad	L+L 1.0 3.0 3.0	T
MUE296WA	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 1.0 5.0 0.0	Z
MUE296WB	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals		Acad	LAB 2.0 10.0 0.0	Z



					(students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.				
MUE296WC	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 3.0 15.0 0.0	Z
MUE296WD	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor.		Acad	LAB 4.0 20.0 0.0	Z

					Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.				
MUE298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0	Z
MUE298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0	Z
MUE298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0	Z

MUP100	2021 Fall	Introduction to Digital Musicianship		A music performance class that provides foundational skills in the use of digital concepts, tools, software applications, and technology to improve performance ability and music making concepts that align with current trends in the music industry.	Prerequisites: None.	MUP100 may be repeated for credit.	Occ	LEC 2.0 2.0 2.0	S
MUP101AA	2020 Fall	Private Instruction: Voice		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP101A A may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP101AD	2017 Fall	Private Instruction: Piano		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP101A D may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP101AG	2017 Fall	Private Instruction: Harpsichord		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP101A G may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z

MUP101AJ	2017 Fall	Private Instruction: Organ		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP101A J may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP101AM	2017 Fall	Private Instruction: Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP101A M may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP101AP	2017 Fall	Private Instruction: Trumpet		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP101A P may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP101AS	2017 Fall	Private Instruction: French Horn		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano,	Prerequisites: None.	MUP101A S may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z

				harpichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.					
MUP101AV	2017 Fall	Private Instruction: Trombone		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP101A V may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP101AY	2017 Fall	Private Instruction: Euphonium		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, euphonium, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP101A Y may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP101BB	2017 Fall	Private Instruction: Tuba		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP101B B may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z

MUP101BE	2017 Fall	Private Instruction: Flute		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP101B E may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP101BH	2017 Fall	Private Instruction: Oboe		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP101B H may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP101BK	2017 Fall	Private Instruction: Clarinet		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP101B K may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP101BN	2017 Fall	Private Instruction: Bassoon		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano,	Prerequisites: None.	MUP101B N may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z

				harpichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.					
MUP101BQ	2017 Fall	Private Instruction: Saxophone		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP101B Q may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP101BT	2017 Fall	Private Instruction: Violin		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP101B T may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP101BW	2017 Fall	Private Instruction: Viola		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP101B W may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z

MUP101BZ	2017 Fall	Private Instruction: Violoncello		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP101B Z may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP101CC	2017 Fall	Private Instruction: Contrabass		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP101C C may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP101CF	2020 Fall	Private Instruction: Popular Music Bass Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: None.	MUP101C F may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP101CI	2017 Fall	Private Instruction: Percussion		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements.	Prerequisites: None.	MUP101C I may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z



				Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.					
MUP101CJ	2017 Fall	Private Instruction: Harp		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP101C J may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP101CK	2020 Fall	Private Instruction: Popular Music Voice		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: None.	MUP101C K may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP101CL	2020 Fall	Private Instruction: Popular Music Piano		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion,	Prerequisites: None.	MUP101C L may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z

				harp, turntablism and electronic music.					
MUP101CM	2020 Fall	Private Instruction: Popular Music Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: None.	MUP101C M may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP101CN	2020 Fall	Private Instruction: Popular Music Drum		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: None.	MUP101C N may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP101CO	2020 Fall	Private Instruction: Popular Music Production		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: None.	MUP101C O may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP101CP	2020 Fall	Private Instruction: Popular Electronic		Private Instruction emphasizing developmental improvement of	Prerequisites: None.	MUP101C P may be	Occ	L+L 1.0	Z

		Music Performance		musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.		repeated for credit.		0.6 0.0	
MUP101CQ	2020 Fall	Private Instruction: Popular Music Turntablism		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: None.	MUP101C Q may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP102AA	2020 Fall	Private Instruction: Voice		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP102A A may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP102AD	2017 Fall	Private Instruction: Piano		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone,	Prerequisites: None.	MUP102A D may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z

				violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.					
MUP102AG	2017 Fall	Private Instruction: Harpichord		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP102A G may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP102AJ	2017 Fall	Private Instruction: Organ		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP102A J may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP102AM	2017 Fall	Private Instruction: Guitar		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP102A M may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP102AP	2017 Fall	Private Instruction: Trumpet		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP102A P may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z

MUP102AS	2017 Fall	Private Instruction: French Horn		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP102A S may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP102AV	2017 Fall	Private Instruction: Trombone		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP102A V may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP102AY	2017 Fall	Private Instruction: Euphonium		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, euphonium, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP102A Y may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP102BB	2017 Fall	Private Instruction: Tuba		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP102B B may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP102BE	2017 Fall	Private Instruction: Flute		Private Instruction emphasizing musicianship, literature, technique	Prerequisites: None.	MUP102B E may be	Occ	L+L 2.0	Z

				and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.		repeated for credit.		1.2 0.0	
MUP102BH	2017 Fall	Private Instruction: Oboe		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP102B H may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP102BK	2017 Fall	Private Instruction: Clarinet		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP102B K may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP102BN	2017 Fall	Private Instruction: Bassoon		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP102B N may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP102BQ	2017 Fall	Private Instruction: Saxophone		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university	Prerequisites: None.	MUP102B Q may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z

				transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.					
MUP102BT	2017 Fall	Private Instruction: Violin		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP102B T may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP102BW	2017 Fall	Private Instruction: Viola		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP102B W may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP102BZ	2017 Fall	Private Instruction: Violoncello		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP102B Z may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP102CC	2017 Fall	Private Instruction: Contrabass		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord,	Prerequisites: None.	MUP102C C may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z

				organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.					
MUP102CF	2020 Fall	Private Instruction: Popular Music Bass Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: None.	MUP102C F may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP102CI	2017 Fall	Private Instruction: Percussion		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP102C I may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP102CJ	2017 Fall	Private Instruction: Harp		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: None.	MUP102C J may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP102CK	2020 Fall	Private Instruction: Popular Music Voice		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors	Prerequisites: None.	MUP102C K may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z



				meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.					
MUP102CL	2020 Fall	Private Instruction: Popular Music Piano		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: None.	MUP102C L may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP102CM	2020 Fall	Private Instruction: Popular Music Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: None.	MUP102C M may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP102CN	2020 Fall	Private Instruction: Popular Music Drum		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn,	Prerequisites: None.	MUP102C N may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z

				tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.					
MUP102CO	2020 Fall	Private Instruction: Popular Music Production		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: None.	MUP102C O may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP102CP	2020 Fall	Private Instruction: Popular Electronic Music Performance		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: None.	MUP102C P may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP102CQ	2020 Fall	Private Instruction: Popular Music Turntablism		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion,	Prerequisites: None.	MUP102C Q may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z

				harp, turntablism and electronic music.					
MUP110	2017 Fall	Concert Music		Attendance at concerts, recitals and music lectures on and off campus. Required each semester for all music majors	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5	S
MUP127	2019 Fall	Class Guitar I		Emphasis on note-reading and folk-style harmonic accompaniment. Includes finger-style playing. Stresses development of efficient practice techniques and proper sitting and hand positions.	Prerequisites: None.		Occ	L+L 1.0 3.0 3.0	T
MUP128	2019 Fall	Class Guitar II		Note-reading range including second position and parts of higher positions. Classical, popular, Latin, and other styles of music. Theory including scales, keys, and chord construction. Technical exercises of both hands.	Prerequisites: A grade of C or better in MUP127 or permission of Instructor.		Occ	L+L 1.0 3.0 3.0	T
MUP130	2023 Fall	Introduction to Class Piano		Basic introduction to piano techniques and fundamentals of music including hand position, sight-reading of both melodic and harmonic materials, and the introduction of scale patterns. Designed for those with little or no piano experience.	Prerequisites: None.		Occ	L+L 1.0 3.0 3.0	T
MUP131	2023 Fall	Class Piano I		Development of beginning piano techniques and the fundamentals of music including basic hand position, music-reading skills of melodic and harmonic material, major scales, transposition, and harmonizations including the I, IV, V7 chords.	Prerequisites: None.		Occ	L+L 1.0 3.0 3.0	T
MUP132	2023 Fall	Class Piano II		Continuation of Piano I with emphasis on elementary piano techniques including major and minor scales, transposition, improvisation, and sight reading.	Prerequisites: A grade of C or better in MUP131 or permission of Instructor.		Occ	L+L 1.0 3.0 3.0	T
MUP133	2019 Fall	Class Voice I		Introduction to the fundamentals of vocal production. Emphasis on breathing techniques, tone production and performances in class of solo vocal literature.	Prerequisites: None.		Occ	L+L 1.0 3.0 3.0	T
MUP134	2019 Fall	Class Voice II		Continuation of Class Voice I including the elements of stage presence and diction.	Prerequisites: A grade of C or better in MUP133 or		Occ	L+L 1.0 3.0 3.0	T

					permission of Instructor.				
MUP135	2018 Fall	Class Native American Flute I		Practical class with emphasis on playing, including embouchure, breath control, finger control, reading from printed score and improvising songs.	Prerequisites: None.	MUP135 may be repeated for up to six (6) credits.	Occ	L+L 2.0 3.0 3.0	T
MUP140	2024 Fall	Elementary Piano Pedagogy		An overview of instructional methods, techniques, materials, and repertoire, intended for teaching piano students at the elementary level. Includes creating studio documents, teaching functional skills, peer piano teaching, and observing piano instruction.	Prerequisites: Permission of Instructor.		Occ	LEC 2.0 2.0 2.0	S
MUP141	2024 Fall	Intermediate Piano Pedagogy		Overview of techniques, methods, materials, stylistic characteristics, and repertoire used in teaching piano students at the intermediate and early advanced levels including peer piano teaching, performance and competition preparation, and observation of piano instruction.	Prerequisites: Permission of Instructor.		Occ	LEC 2.0 2.0 2.0	S
MUP149	2018 Fall	Gospel Chorus		A mixed chorus with emphasis on college/community participation and preparation of a variety of Gospel Music for public performance. Auditions may be required.	Prerequisites: None.	MUP149 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0	T
MUP150	2018 Fall	Community Chorus		A mixed chorus with emphasis on college/community participation and preparation of a variety of choral literature for public performance. Auditions may be required.	Prerequisites: None.	MUP150 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0	T
MUP151AA	2020 Fall	Private Instruction: Voice		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP101AA.	MUP151A A may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z

MUP151AD	2017 Fall	Private Instruction: Piano		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP101AD.	MUP151A D may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP151AG	2017 Fall	Private Instruction: Harpsichord		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP101AG.	MUP151A G may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP151AJ	2017 Fall	Private Instruction: Organ		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP101AJ.	MUP151A J may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP151AM	2017 Fall	Private Instruction: Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano,	Prerequisites: A grade of C or better in MUP101AM.	MUP151A M may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z

				harpichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.					
MUP151AP	2017 Fall	Private Instruction: Trumpet		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP101AP.	MUP151A P may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP151AS	2017 Fall	Private Instruction: French Horn		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP101AS.	MUP151A S may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP151AV	2017 Fall	Private Instruction: Trombone		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP101AV.	MUP151A V may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z

MUP151AY	2017 Fall	Private Instruction: Euphonium		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, euphonium, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, and percussion.	Prerequisites: A grade of C or better in MUP101AY.	MUP151A Y may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP151BB	2017 Fall	Private Instruction: Tuba		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP101BB.	MUP151B B may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP151BE	2017 Fall	Private Instruction: Flute		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP101BE.	MUP151B E may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP151BH	2017 Fall	Private Instruction: Oboe		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano,	Prerequisites: A grade of C or better in MUP101BH.	MUP151B H may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z

				harpichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.					
MUP151BK	2017 Fall	Private Instruction: Clarinet		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP101BK.	MUP151BK may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP151BN	2017 Fall	Private Instruction: Bassoon		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP101BN.	MUP151BN may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP151BQ	2017 Fall	Private Instruction: Saxophone		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP101BQ.	MUP151BQ may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z



MUP151BT	2017 Fall	Private Instruction: Violin		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP101BT.	MUP151B T may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP151BW	2017 Fall	Private Instruction: Viola		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP101BW.	MUP151B W may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP151BZ	2017 Fall	Private Instruction: Violoncello		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP101BZ.	MUP151B Z may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP151CC	2017 Fall	Private Instruction: Contrabass		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano,	Prerequisites: A grade of C or better in MUP101CC.	MUP151C C may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z

				harpichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.					
MUP151CF	2020 Fall	Private Instruction: Popular Music Bass Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP101CF.	MUP151C F may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP151CI	2017 Fall	Private Instruction: Percussion		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP101CI.	MUP151C I may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP151CJ	2017 Fall	Private Instruction: Harp		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP101CJ.	MUP151C J may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z

MUP151CK	2020 Fall	Private Instruction: Popular Music Voice		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP101CK.	MUP151C K may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP151CL	2020 Fall	Private Instruction: Popular Music Piano		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP101CL.	MUP151C L may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP151CM	2020 Fall	Private Instruction: Popular Music Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP101CM.	MUP151C M may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP151CN	2020 Fall	Private Instruction: Popular Music Drum		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course	Prerequisites: A grade of C or better in MUP101CN.	MUP151C N may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z

				sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.					
MUP151CO	2020 Fall	Private Instruction: Popular Music Production		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP101CO.	MUP151C O may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP151CP	2020 Fall	Private Instruction: Popular Electronic Music Performance		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP101CP.	MUP151C P may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP151CQ	2020 Fall	Private Instruction: Popular Music Turntablism		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet,	Prerequisites: A grade of C or better in MUP101CQ.	MUP151C Q may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z

				French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.					
MUP152AA	2020 Fall	Private Instruction: Voice		Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP102AA.	MUP152A A may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP152AD	2017 Fall	Private Instruction: Piano		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP102AD.	MUP152A D may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP152AG	2017 Fall	Private Instruction: Harpsichord		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP102AG.	MUP152A G may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP152AJ	2017 Fall	Private Instruction: Organ		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn,	Prerequisites: A grade of C or better in MUP102AJ.	MUP152A J may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z

				trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.					
MUP152AM	2017 Fall	Private Instruction: Guitar		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP102AM.	MUP152A M may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP152AP	2017 Fall	Private Instruction: Trumpet		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP102AP.	MUP152A P may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP152AS	2017 Fall	Private Instruction: French Horn		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP102AS.	MUP152A S may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP152AV	2017 Fall	Private Instruction: Trombone		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone,	Prerequisites: A grade of C or better in MUP102AV.	MUP152A V may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z

				violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.					
MUP152AY	2017 Fall	Private Instruction: Euphonium		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, euphonium, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP102AY.	MUP152A Y may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP152BB	2017 Fall	Private Instruction: Tuba		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP102BB.	MUP152B B may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP152BE	2017 Fall	Private Instruction: Flute		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP102BE.	MUP152B E may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP152BH	2017 Fall	Private Instruction: Oboe		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP102BH.	MUP152B H may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z

MUP152BK	2017 Fall	Private Instruction: Clarinet		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP102BK.	MUP152BK may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP152BN	2017 Fall	Private Instruction: Bassoon		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP102BN.	MUP152BN may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP152BQ	2017 Fall	Private Instruction: Saxophone		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP102BQ.	MUP152BQ may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP152BT	2017 Fall	Private Instruction: Violin		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP102BT.	MUP152BT may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z



MUP152BW	2017 Fall	Private Instruction: Viola		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP102BW.	MUP152B W may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP152BZ	2017 Fall	Private Instruction: Violoncello		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP102BZ.	MUP152B Z may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP152CC	2017 Fall	Private Instruction: Contrabass		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP102CC.	MUP152C C may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP152CF	2020 Fall	Private Instruction: Popular Music Bass Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion,	Prerequisites: A grade of C or better in MUP102CF.	MUP152C F may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z

				harp, turntablism and electronic music.					
MUP152CI	2017 Fall	Private Instruction: Percussion		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP102CI.	MUP152C I may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP152CJ	2017 Fall	Private Instruction: Harp		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP102CJ.	MUP152C J may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP152CK	2020 Fall	Private Instruction: Popular Music Voice		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP102CK.	MUP152C K may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP152CL	2020 Fall	Private Instruction: Popular Music Piano		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet,	Prerequisites: A grade of C or better in MUP102CL.	MUP152C L may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z

				French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.					
MUP152CM	2020 Fall	Private Instruction: Popular Music Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP102CM.	MUP152C M may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP152CN	2020 Fall	Private Instruction: Popular Music Drum		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP102CN.	MUP152C N may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP152CO	2020 Fall	Private Instruction: Popular Music Production		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion,	Prerequisites: A grade of C or better in MUP102CO.	MUP152C O may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z

				harp, turntablism and electronic music.					
MUP152CP	2020 Fall	Private Instruction: Popular Electronic Music Performance		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP102CP.	MUP152C P may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP152CQ	2020 Fall	Private Instruction: Popular Music Turntablism		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP102CQ.	MUP152C Q may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP153	2019 Fall	Concert Choir		A mixed choir designed to emphasize choral techniques and performance of all styles of choral literature. Public performances are scheduled each semester.	Prerequisites: None.	MUP153 may require auditions. MUP153 may be repeated for credit.	Occ	L+L 1.0 5.0 5.0	T
MUP154AA	2018 Fall	Jazz Vocal Ensemble		Practical and performing experience in vocal jazz. Includes music from the 1920's through the present.	Prerequisites: Auditions required or permission of Instructor.	MUP154A A may be repeated for credit.	Occ	L+L 1.0 3.0 3.0	T
MUP154AB	2018 Fall	Jazz Vocal Ensemble		Practical and performing experience in vocal jazz. Includes music from the 1920's through the present. Requires participation in various public	Prerequisites: Auditions required and two semesters in A Cappella Choir or	MUP154A B may be repeated for credit.	Occ	L+L 2.0 5.0 5.0	T

				performances on campus and in the community throughout the semester.	permission of Instructor.				
MUP155	2018 Fall	Handbell Choir (Bell Canto)		Emphasis on practical and performing skills in bell ringing. Preparation of all styles of bell literature. Scheduled public performances during the year.	Prerequisites: None.	MUP155 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0	T
MUP157	2021 Summer	Treble Choir		A high voice chorus designed to emphasize choral technique and performance of all styles of appropriate choral literature. Public performances are scheduled during the year. Auditions may be required.	Prerequisites: None.	MUP157 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0	T
MUP158	2018 Fall	Rock Band		Emphasizes instrumental and vocal techniques and the preparation of all styles of rock band literature. Introduces music business. Requires participation in public and private performances throughout the semester.	Prerequisites: Auditions are required.	MUP158 may be repeated for a total of four (4) credits.	Occ	L+L 1.0 3.0 3.0	T
MUP159	2018 Fall	Community Orchestra		Emphasis on college/community participation and the preparation of orchestral literature for public performance. Auditions may be required.	Prerequisites: None.	MUP159 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0	T
MUP160	2019 Fall	Orchestra		A class designed to emphasize orchestral ensemble techniques and the preparation of all styles of orchestral literature. Public performances are scheduled during the year. Auditions may be required.	Prerequisites: None.	MUP160 may be repeated for credit.	Occ	L+L 1.0 5.0 5.0	T
MUP161	2018 Fall	Community Band		Emphasis on college/community participation and the preparation of band literature for public performance. Auditions may be required.	Prerequisites: None.	MUP161 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0	T
MUP162	2019 Fall	Band		Designed to emphasize instrumental techniques and the preparation of all styles of band literature for ensemble performance. Includes public performances.	Prerequisites: None.	MUP162 may require auditions. MUP162 may be repeated for credit.	Occ	L+L 1.0 5.0 5.0	T
MUP163	2018 Fall	Jazz Ensemble		Practical and performance experience in various jazz styles. Open to all students on the basis of auditions.	Prerequisites: None.	MUP163 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0	T

						Open to all students on the basis of auditions. Auditions may be required.			
MUP164	2019 Fall	Jazz Improvisation I		Theoretical and performance skills in many styles of jazz improvisation.	Prerequisites: None.	MUP164 may be repeated for a total of six (6) credit hours.	Occ	L+L 2.0 3.0 3.0	T
MUP165	2019 Fall	Jazz Improvisation II		Intermediate theoretical and performance skills in many styles of jazz improvisation.	Prerequisites: A grade of C or better in MUP164 or permission of Instructor.	MUP165 may be repeated for a total of six (6) credit hours.	Occ	L+L 2.0 3.0 3.0	T
MUP166	2018 Fall	Jazz Piano I		Introduction to basic jazz piano skills, including chord construction, chord voicings, accompanying and solo piano arrangements.	Prerequisites: A grade of C or better in MUP131 or permission of Instructor.	MUP166 may be repeated for a total of four (4) credit hours.	Occ	L+L 1.0 2.0 2.0	T
MUP167	2018 Fall	Jazz Piano II		Continued development of jazz piano techniques with emphasis on voicing formulas for ninth, eleventh, thirteenth, and altered dominant chords	Prerequisites: A grade of C or better in MUP166 or permission of Instructor.		Occ	L+L 1.0 2.0 2.0	T
MUP168	2018 Fall	Mariachi Band		Emphasis on college and community participation and the preparation of mariachi band literature for public performance. Auditions may be required.	Prerequisites: None.	MUP168 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0	T
MUP169	2023 Fall	Guitar Ensemble		Ensemble of the entire guitar family that may include standard, requinto, alto, bass, and contrabass guitars that emphasizes guitar techniques and the preparation of all styles of guitar ensemble literature. Literature will	Prerequisites: None.	Auditions may be required. MUP169 may be	Occ	L+L 1.0 3.0 3.0	T

				include modern and historical guitar ensemble repertoire, new works, arrangements, and transcriptions from various musical periods and traditions as well as guitar literature from a diverse number of world musical traditions. Guitar techniques are studied and refined as they relate to the literature performed. Emphasis placed on reading and listening skills, rehearsal and preparation, conducting and performance cues, and performance experience in various guitar styles. Concerts presented throughout the semester.		repeated for credit.			
MUP171	2018 Fall	Opera Workshop		A workshop in the study and performance of operatic literature.	Prerequisites: None.	MUP171 may be repeated for credit. Open to all students on the basis of auditions. Auditions may be required.	Occ	L+L 2.0 5.0 5.0	T
MUP181	2018 Fall	Chamber Music Ensembles		Practical and performance experience in instrumental, vocal, and mixed ensembles.	Prerequisites: None.	MUP181 may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T
MUP182	2018 Fall	Chamber Singers		Practical and performance experience in various styles of vocal music.	Prerequisites: None.	MUP182 may be repeated for credit. Open to all students on the basis of auditions. Auditions may be required.	Occ	L+L 1.0 3.0 3.0	T

MUP183	2021 Fall	Jazz Combo		Jazz Combo participation provides an opportunity for students to develop improvisational skills in a variety of styles from historical and contemporary jazz practice, while offering a creative outlet for composers and arrangers.	Prerequisites: None.	MUP183 may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T
MUP185	2021 Fall	Flute Choir		Ensemble of the entire flute family that may include piccolo, E flat flute, C flutes, alto flutes, and bass flute. Literature will include commissioned works, original works for standard flute choir, and transcriptions from various musical periods.	Prerequisites: None.	Auditions may be required. MUP185 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0	T
MUP190	2021 Fall	Percussion Ensemble		Practical and performance experience in various percussion styles. Percussion literature from a diverse number of world musical traditions. Western European art music, various African traditions, Indian music, Japanese music, Indonesian music, Mexican, Central, and South American music, and percussion compositions from the American Experimental Tradition rehearsed and performed. Concerts presented throughout the semester. Percussion techniques are studied and refined as they relate to the literature performed. Emphasis placed on reading and listening skills, increased aesthetic discrimination. Informed performance practice and skills on all percussion instruments and traditions.	Prerequisites: None.	MUP190 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0	T
MUP201AA	2017 Fall	Private Instruction: Voice		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello,	Prerequisites: A grade of C or better in MUP151AA.	MUP201A A may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z



				contrabass, bass guitar, harp and percussion.					
MUP201AD	2017 Fall	Private Instruction: Piano		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP151AD.	MUP201A D may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP201AG	2017 Fall	Private Instruction: Harpsichord		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP151AG.	MUP201A G may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP201AJ	2017 Fall	Private Instruction: Organ		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP151AJ.	MUP201A J may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP201AM	2017 Fall	Private Instruction: Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors	Prerequisites: A grade of C or better in MUP151AM.	MUP201A M may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z

				meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.					
MUP201AP	2017 Fall	Private Instruction: Trumpet		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP151AP.	MUP201A P may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP201AS	2017 Fall	Private Instruction: French Horn		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP151AS.	MUP201A S may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP201AV	2017 Fall	Private Instruction: Trombone		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello,	Prerequisites: A grade of C or better in MUP151AV.	MUP201A V may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z

				contrabass, bass guitar, percussion, and harp.					
MUP201AY	2017 Fall	Private Instruction: Euphonium		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, euphonium, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP151AY.	MUP201A Y may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP201BB	2017 Fall	Private Instruction: Tuba		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP151BB.	MUP201B B may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP201BE	2017 Fall	Private Instruction: Flute		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP151BE.	MUP201B E may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP201BH	2017 Fall	Private Instruction: Oboe		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors	Prerequisites: A grade of C or better in MUP151BH.	MUP201B H may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z

				meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.					
MUP201BK	2017 Fall	Private Instruction: Clarinet		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP151BK.	MUP201BK may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP201BN	2017 Fall	Private Instruction: Bassoon		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP151BN.	MUP201BN may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP201BQ	2017 Fall	Private Instruction: Saxophone		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello,	Prerequisites: A grade of C or better in MUP151BQ.	MUP201BQ may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z

				contrabass, bass guitar, percussion, and harp.					
MUP201BT	2017 Fall	Private Instruction: Violin		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP151BT.	MUP201B T may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP201BW	2017 Fall	Private Instruction: Viola		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP151BW.	MUP201B W may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP201BZ	2017 Fall	Private Instruction: Violoncello		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP151BZ.	MUP201B Z may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP201CC	2017 Fall	Private Instruction: Contrabass		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors	Prerequisites: A grade of C or better in MUP151CC.	MUP201C C may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z

				meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.					
MUP201CF	2020 Fall	Private Instruction: Popular Music Bass Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP151CF.	MUP201C F may be repeated for credit. Repeats 99.0 99.0	Occ	L+L 1.0 0.6 0.0	Z
MUP201CI	2017 Fall	Private Instruction: Percussion		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP151CI.	MUP201C I may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP201CJ	2017 Fall	Private Instruction: Harp		Private Instruction emphasizing developmental improvement of musicianship, and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello,	Prerequisites: A grade of C or better in MUP151CJ.	MUP201C J may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z

				contrabass, bass guitar, percussion, percussion, and harp.					
MUP201CK	2020 Fall	Private Instruction: Popular Music Voice		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP151CK.	MUP201C K may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP201CL	2020 Fall	Private Instruction: Popular Music Piano		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP151CL.	MUP201C L may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP201CM	2020 Fall	Private Instruction: Popular Music Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP151CM.	MUP201C M may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z

MUP201CN	2020 Fall	Private Instruction: Popular Music Drum		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP151CN.	MUP201C N may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP201CO	2020 Fall	Private Instruction: Popular Music Production		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP151CO.	MUP201C O may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP201CP	2020 Fall	Private Instruction: Popular Electronic Music Performance		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP151CP.	MUP201C P may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP201CQ	2020 Fall	Private Instruction: Popular Music Turntablism		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course	Prerequisites: A grade of C or better in MUP151CQ.	MUP201C Q may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z



				sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.					
MUP202AA	2017 Fall	Private Instruction: Voice		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP152AA.	MUP202A A may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP202AD	2017 Fall	Private Instruction: Piano		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP152AD.	MUP202A D may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP202AG	2017 Fall	Private Instruction: Harpsichord		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP152AG.	MUP202A G may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP202AJ	2017 Fall	Private Instruction: Organ		Private Instruction emphasizing musicianship, literature, technique and performance. Four course	Prerequisites: A grade of C or better in MUP152AJ.	MUP202A J may be	Occ	L+L 2.0	Z

				sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.		repeated for credit.		1.2 0.0	
MUP202AM	2017 Fall	Private Instruction: Guitar		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP152AM.	MUP202A M may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP202AP	2017 Fall	Private Instruction: Trumpet		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP152AP.	MUP202A P may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP202AS	2017 Fall	Private Instruction: French Horn		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP152AS.	MUP202A S may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP202AV	2017 Fall	Private Instruction: Trombone		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction	Prerequisites: A grade of C or better in MUP152AV.	MUP202A V may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z

				provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.					
MUP202AY	2017 Fall	Private Instruction: Euphonium		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, euphonium, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP152AY.	MUP202A Y may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP202BB	2017 Fall	Private Instruction: Tuba		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP152BB.	MUP202B B may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP202BE	2017 Fall	Private Instruction: Flute		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP152BE.	MUP202B E may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP202BH	2017 Fall	Private Instruction: Oboe		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn,	Prerequisites: A grade of C or better in MUP152BH.	MUP202B H may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z

				trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.					
MUP202BK	2017 Fall	Private Instruction: Clarinet		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP152BK.	MUP202BK may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP202BN	2017 Fall	Private Instruction: Bassoon		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP152BN.	MUP202BN may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP202BQ	2017 Fall	Private Instruction: Saxophone		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP152BQ.	MUP202BQ may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP202BT	2017 Fall	Private Instruction: Violin		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone,	Prerequisites: A grade of C or better in MUP152BT.	MUP202BT may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z

				violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.					
MUP202BW	2017 Fall	Private Instruction: Viola		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP152BW.	MUP202B W may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP202BZ	2017 Fall	Private Instruction: Violoncello		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP152BZ.	MUP202B Z may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP202CC	2017 Fall	Private Instruction: Contrabass		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP152CC.	MUP202C C may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP202CF	2020 Fall	Private Instruction: Popular Music Bass Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello,	Prerequisites: A grade of C or better in MUP152CF.	MUP202C F may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z

				contrabass, bass guitar, percussion, harp, turntablism and electronic music.					
MUP202CI	2017 Fall	Private Instruction: Percussion		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP152CI.	MUP202C I may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP202CJ	2017 Fall	Private Instruction: Harp		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP152CJ.	MUP202C J may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP202CK	2020 Fall	Private Instruction: Popular Music Voice		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP152CK.	MUP202C K may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP202CL	2020 Fall	Private Instruction: Popular Music Piano		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano,	Prerequisites: A grade of C or better in MUP152CL.	MUP202C L may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z

				harpichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.					
MUP202CM	2020 Fall	Private Instruction: Popular Music Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP152CM.	MUP202C M may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP202CN	2020 Fall	Private Instruction: Popular Music Drum		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP152CN.	MUP202C N may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP202CO	2020 Fall	Private Instruction: Popular Music Production		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello,	Prerequisites: A grade of C or better in MUP152CO.	MUP202C O may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z

				contrabass, bass guitar, percussion, harp, turntablism and electronic music.					
MUP202CP	2020 Fall	Private Instruction: Popular Electronic Music Performance		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP152CP.	MUP202C P may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP202CQ	2020 Fall	Private Instruction: Popular Music Turntablism		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP152CQ.	MUP202C Q may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP209	2017 Fall	Elements of Conducting		Essentials of conducting techniques used in choral and instrumental ensembles including terminology, interpretation, and styles	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
MUP217	2020 Spring	Music Theatre: Broadway Solos		Study and in-class performance of scenes and solos from Broadway musical literature.	Prerequisites: None.	MUP217 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0	T
MUP218	2018 Fall	Audition Techniques: Music Theater		Practice in the techniques of auditioning for musical theater. Identification and illustration techniques of the vocal and acting music theater audition.	Prerequisites: None.		Occ	L+L 1.0 3.0 3.0	T



MUP227	2019 Fall	Class Guitar III		Additional fingerboard positions. Ensemble techniques and performance.	Prerequisites: A grade of C or better in MUP226 or permission of Instructor.		Occ	L+L 1.0 3.0 3.0	T
MUP228	2019 Fall	Class Guitar IV		Advanced fingerboard positions. Duet and trio performances. Advanced ensemble techniques.	Prerequisites: A grade of C or better in MUP227 or permission of Instructor.	MUP228 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0	T
MUP231	2023 Fall	Class Piano III		Development of intermediate piano techniques including selected solo literature, transposition of harmonic patterns, and secondary dominants.	Prerequisites: A grade of C or better in MUP132 or permission of Instructor.		Occ	L+L 1.0 3.0 3.0	T
MUP232	2023 Fall	Class Piano IV		Continuation of Piano III including modulation techniques, improvisation of piano accompaniments, advanced chromatic harmony, and sight reading of advanced literature.	Prerequisites: A grade of C or better in MUP231 or permission of Instructor.	MUP232 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0	T
MUP233	2019 Fall	Class Voice III		Interpretive singing through a closer examination of coloring, tone production, dynamics, and tempo indications.	Prerequisites: A grade of C or better in MUP134.		Occ	L+L 1.0 3.0 3.0	T
MUP234	2019 Fall	Class Voice IV		Emphasis on the preparation of solo vocal literature for the purpose of evaluation and the integration of the music with the drama of the music.	Prerequisites: A grade of C or better in MUP233 or permission of Instructor.	MUP234 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0	T
MUP240	2024 Fall	Piano Literature		A chronological study and analysis of the repertoire for piano and other keyboard instruments from the late sixteenth century to the twenty-first century. Emphasis on the evolution of the piano, musical periods, and characteristics of the musical forms found in keyboard repertoire. Includes historical and biographical context related to major piano composers.	Prerequisites: A grade of C or better in MUP140 or permission of Instructor.		Occ	LEC 2.0 2.0 2.0	S
MUP241	2010 Spring	Piano Artistry		Overview of topics and issues including practice skills, rhythm, technique, musicianship such as dynamics, ornamentation, pedaling, touch, phrasing, articulation, voicing, balance, and the manipulation of time, necessary for pianists and piano	Prerequisites: A grade of C or better in MUP240 or permission of Instructor.		Occ	LEC 2.0 2.0 2.0	S

				teachers in working for expression, finesse and artistry.					
MUP250AA	2023 Fall	Survey of Diction for Singers (English)		Introduction to the use of phonetics in the study of English song literature.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0	T
MUP250AB	2023 Fall	Survey of Diction for Singers (Italian/Latin)		Introduction to the use of phonetics in the study of Italian/Latin song literature	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0	T
MUP250AC	2023 Fall	Survey of Diction for Singers (German)		Introduction to the use of phonetics in the study of German song literature.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0	T
MUP250AD	2023 Fall	Survey of Diction for Singers (French)		Introduction to the use of phonetics in the study of French song literature.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0	T
MUP251AA	2017 Fall	Private Instruction: Voice		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP201AA.	MUP251A A may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP251AD	2017 Fall	Private Instruction: Piano		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP201AD.	MUP251A D may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z

MUP251AG	2017 Fall	Private Instruction: Harpichord		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP201AG.	MUP251A G may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP251AJ	2017 Fall	Private Instruction: Organ		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP201AJ.	MUP251A J may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP251AM	2017 Fall	Private Instruction: Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP201AM.	MUP251A M may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP251AP	2017 Fall	Private Instruction: Trumpet		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano,	Prerequisites: A grade of C or better in MUP201AP.	MUP251A P may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z

				harpichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.					
MUP251AS	2017 Fall	Private Instruction: French Horn		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP201AS.	MUP251A S may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP251AV	2017 Fall	Private Instruction: Trombone		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP201AV.	MUP251A V may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP251AY	2017 Fall	Private Instruction: Euphonium		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpichord, organ, guitar, trumpet, French horn, trombone, euphonium, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP201AY.	MUP251A Y may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z

MUP251BB	2017 Fall	Private Instruction: Tuba		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP201BB.	MUP251B B may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP251BE	2017 Fall	Private Instruction: Flute		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP201BE.	MUP251B E may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP251BH	2017 Fall	Private Instruction: Oboe		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP201BH.	MUP251B H may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP251BK	2017 Fall	Private Instruction: Clarinet		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano,	Prerequisites: A grade of C or better in MUP201BK.	MUP251B K may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z

				harpichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.					
MUP251BN	2017 Fall	Private Instruction: Bassoon		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP201BN.	MUP251B N may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP251BQ	2017 Fall	Private Instruction: Saxophone		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP201BQ.	MUP251B Q may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP251BT	2017 Fall	Private Instruction: Violin		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP201BT.	MUP251B T may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z

MUP251BW	2017 Fall	Private Instruction: Viola		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP201BW.	MUP251B W may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP251BZ	2017 Fall	Private Instruction: Violoncello		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP201BZ.	MUP251B Z may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP251CC	2017 Fall	Private Instruction: Contrabass		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP201CC.	MUP251C C may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP251CF	2020 Fall	Private Instruction: Popular Music Bass Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano,	Prerequisites: A grade of C or better in MUP201CF.	MUP251C F may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z

				harp, turntablism and electronic music.					
MUP251CI	2017 Fall	Private Instruction: Percussion		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP201CI.	MUP251C I may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP251CJ	2017 Fall	Private Instruction: Harp		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP202CJ.	MUP251C J may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP251CK	2020 Fall	Private Instruction: Popular Music Voice		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion,	Prerequisites: A grade of C or better in MUP201CK.	MUP251C K may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z



				harp, turntablism and electronic music.					
MUP251CL	2020 Fall	Private Instruction: Popular Music Piano		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP201CL.	MUP251C L may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP251CM	2020 Fall	Private Instruction: Popular Music Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP201CM.	MUP251C M may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP251CN	2020 Fall	Private Instruction: Popular Music Drum		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP201CN.	MUP251C N may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z

MUP251CO	2020 Fall	Private Instruction: Popular Music Production		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP201CO.	MUP251C O may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP251CP	2020 Fall	Private Instruction: Popular Electronic Music Performance		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP201CP.	MUP251C P may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP251CQ	2020 Fall	Private Instruction: Popular Music Turntablism		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP201CQ.	MUP251C Q may be repeated for credit.	Occ	L+L 1.0 0.6 0.0	Z
MUP252AA	2017 Fall	Private Instruction: Voice		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university	Prerequisites: A grade of C or better in MUP202AA.	MUP252A A may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z

				transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.					
MUP252AD	2017 Fall	Private Instruction: Piano		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP202AD.	MUP252A D may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP252AG	2017 Fall	Private Instruction: Harpsichord		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP202AG.	MUP252A G may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP252AJ	2017 Fall	Private Instruction: Organ		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP202AJ.	MUP252A J may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP252AM	2017 Fall	Private Instruction: Guitar		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord,	Prerequisites: A grade of C or better in MUP202AM.	MUP252A M may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z

				organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.					
MUP252AP	2017 Fall	Private Instruction: Trumpet		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP202AP.	MUP252A P may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP252AS	2017 Fall	Private Instruction: French Horn		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP202AS.	MUP252A S may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP252AV	2017 Fall	Private Instruction: Trombone		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP202AV.	MUP252A V may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP252AY	2017 Fall	Private Instruction: Euphonium		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, euphonium, tuba, flute,	Prerequisites: A grade of C or better in MUP202AY.	MUP252A Y may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z

				oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.					
MUP252BB	2017 Fall	Private Instruction: Tuba		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP202BB.	MUP252B B may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP252BE	2017 Fall	Private Instruction: Flute		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP202BE.	MUP252B E may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP252BH	2017 Fall	Private Instruction: Oboe		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP202BH.	MUP252B H may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP252BK	2017 Fall	Private Instruction: Clarinet		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone,	Prerequisites: A grade of C or better in MUP202BK.	MUP252B K may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z

				violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.					
MUP252BN	2017 Fall	Private Instruction: Bassoon		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP202BN.	MUP252B N may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP252BQ	2017 Fall	Private Instruction: Saxophone		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP202BQ.	MUP252B Q may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP252BT	2017 Fall	Private Instruction: Violin		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP202BT.	MUP252B T may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP252BW	2017 Fall	Private Instruction: Viola		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP202BW.	MUP252B W may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z

MUP252BZ	2017 Fall	Private Instruction: Violoncello		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP202BZ.	MUP252B Z may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP252CC	2017 Fall	Private Instruction: Contrabass		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP202CC.	MUP252C C may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP252CF	2020 Fall	Private Instruction: Popular Music Bass Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP202CF.	MUP252C F may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP252CI	2017 Fall	Private Instruction: Percussion		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone,	Prerequisites: A grade of C or better in MUP202CI.	MUP252C I may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z

				violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.					
MUP252CJ	2017 Fall	Private Instruction: Harp		Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp.	Prerequisites: A grade of C or better in MUP202CJ.	MUP252C J may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP252CK	2020 Fall	Private Instruction: Popular Music Voice		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP202CK.	MUP252C K may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP252CL	2020 Fall	Private Instruction: Popular Music Piano		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP202CL.	MUP252C L may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP252CM	2020 Fall	Private Instruction: Popular Music Guitar		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors	Prerequisites: A grade of C or better in MUP202CM.	MUP252C M may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z



				meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.					
MUP252CN	2020 Fall	Private Instruction: Popular Music Drum		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP202CN.	MUP252C N may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP252CO	2020 Fall	Private Instruction: Popular Music Production		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP202CO.	MUP252C O may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP252CP	2020 Fall	Private Instruction: Popular Electronic Music Performance		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn,	Prerequisites: A grade of C or better in MUP202CP.	MUP252C P may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z

				tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.					
MUP252CQ	2020 Fall	Private Instruction: Popular Music Turntablism		Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music.	Prerequisites: A grade of C or better in MUP202CQ.	MUP252C Q may be repeated for credit.	Occ	L+L 2.0 1.2 0.0	Z
MUP270	2023 Fall	Musical Theatre Workshop	THO270	Workshop in the study and performance of Musical Theatre repertoire. Includes audition techniques, stage directions, character role development, rehearsal techniques, vocal acting styles and vocal technique, stage movement, crew roles, and performance.	Prerequisites: None.	MUP/THO 270 may be repeated for credit.	Occ	L+L 2.0 5.0 5.0	T
MUP270AA	2023 Fall	Musical Theatre Workshop	THO270AA	Workshop in the study and performance of musical theatre repertoire. Includes audition techniques, stage directions, character role development, rehearsal techniques, vocal acting styles and vocal technique, stage movement, crew roles, and performance.	Prerequisites: None.	MUP/THO 270AA may be repeated for a total of two (2) credits.	Occ	LAB 1.0 3.0 3.0	T
MUP273	2020 Fall	Musical Theatre Production	THP273	Principles and techniques for musical theatre production performance. Includes audition techniques, stage directions, character role development, rehearsal techniques, vocal acting styles and vocal technique, stage movement, crew roles, and performance.	Prerequisites: By audition.		Acad	LAB 1.0 5.0 5.0	T
MUP282AA	2017 Fall	Volunteerism for Music: A Service		Service-learning field experience within private/public agencies, citizen volunteer groups, and on-campus	Prerequisites: None.	MUP282A A may be repeated	Occ	LAB 1.0	L

		Learning Experience		sites. 50 hours of designated work per credit. Standard grading available according to procedures outlined in catalog.		for a total of six (6) MUP282 credit hours; may not repeat specific agency assignment for more than four (4) credit hours.		1.0 0.0	
MUP282AB	2017 Fall	Volunteerism for Music: A Service Learning Experience		Service-learning field experience within private/public agencies, citizen volunteer groups, and on-campus sites. 50 hours of designated work per credit. Standard grading available according to procedures outlined in catalog.	Prerequisites: None.	MUP282A B may be repeated for a total of six (6) MUP282 credit hours; may not repeat specific agency assignment for more than four (4) credit hours.	Occ	LAB 2.0 2.0 0.0	L
MUP282AC	2017 Fall	Volunteerism for Music: A Service Learning Experience		Service-learning field experience within private/public agencies, citizen volunteer groups, and on-campus sites. 50 hours of designated work per credit. Standard grading available according to procedures outlined in catalog.	Prerequisites: None.	MUP282A C may be repeated for a total of six (6) MUP282 credit hours; may not repeat specific agency assignment	Occ	LAB 3.0 3.0 0.0	L

						nt for more than four (4) credit hours.			
MUP288	2017 Fall	Basics of Piano Accompanying Vocal		Introduction to piano accompanying with emphasis on basic skills needed to accompany solo voice, choral singing, and congregational singing.	Prerequisites: A grade of C or better in MUP151AD or MUP231 or permission of Instructor.	MUP288 may be repeated for a total of four (4) credit hours.	Occ	LEC 2.0 2.0 2.0	S
MUP289	2017 Fall	Basics of Piano Accompanying Instrument		Introduction to piano accompanying with emphasis on basic skills needed to accompany solo instruments, chamber music and musicals.	Prerequisites: A grade of C or better in MUP151AD or MUP231 or permission of Instructor.	MUP289 may be repeated for a total of four (4) credit hours.	Occ	LEC 2.0 2.0 2.0	S
MUP296WA	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 1.0 5.0 0.0	Z
MUP296WB	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain		Occ	LAB 2.0 10.0 0.0	Z

					a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.				
MUP296WC	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 3.0 15.0 0.0	Z
MUP296WD	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job		Occ	LAB 4.0 20.0 0.0	Z

					may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.				
MUP298AA	2017 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z
MUP298AB	2017 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z
MUP298AC	2017 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z

				combined to maximize student development.					
MWR101	2021 Fall	Introduction to Millwrighting		Fundamental millwright trade skills, employee/employer roles and responsibilities, and safe work practices needed for entry-level performance in the construction industry. Emphasis on attaining standard industry safety credentials, practical experience using terminology and basic measuring techniques. Response to environmental and energy efficient building concepts through green construction methods. Training for job site hazard recognition, accident prevention, and safe tool and equipment operation.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0	T
MWR102	2021 Fall	Millwrighting Safety and Health Certifications		Construction hazard awareness and individual responsibility for workplace safety and health, including assessing danger, employing prevention measures, and responding to emergencies. Safe and proper use of hand and power tools, first aid, and cardiopulmonary resuscitation (CPR), and Occupational Safety and Health Administration (OSHA) regulations.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0	T
MWR103	2021 Fall	Machinery Installation and Erection I		Fundamental machinery installation skills including industry standard practices such as general and assembly drawing interpretation, site inspection criteria, communication skills, pre-installation inspection, storage, and staging. Includes tools and techniques for moving, lifting, elevating machines, and equipment placement. Emphasis on measuring and layout accuracy. Jobsite safety and following instructions will be stressed.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0	T
MWR104	2021 Fall	Machinery Installation and Erection II		Machinery installation skills used in manufacturing applications. Disassembling machinery for inspection and maintenance. Review equipment manufacturers' operating	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0	T

				and maintenance guides and assembly instructions. Identification of component locations; measurements and tolerances; installation requirements; and alignment of parts using machine drawings. Review of safety, precision measuring tools, rigging tasks, and following instructions.					
MWR105	2021 Fall	Millwrighting General Skills		Overview of hand and power tools, and stationary machinery general skills used in millwright trade. In-depth review of standard tools including identification, safe operating, inspection, and manufacturer guidelines. Routine cutting, shaping and smoothing of materials with emphasis on measuring and layout accuracy in precision bench skills and field operations. Review of project drawings to promote development of job planning, preparation, and math skills. Shop safety during bench layout, drill press, band saw, and grinder operation.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0	T
MWR106	2018 Fall	Math for Millwrighting, Hand, Power and Precision Tools		Fundamental operations with whole numbers, common fractions, decimals, percentages, and ratio and proportion. Measurement tools. Fundamentals of Algebra, linear equations, includes applied math problems. Use, maintenance and safety procedures for common hand and power tools used in the construction industry.	Prerequisites: A grade of C or better in (MWR103 and registered apprentice status) or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0	T
MWR107	2021 Fall	Drives, Pulleys and Belts		Identification, application, and installation skills for typical power drive systems. Demonstrations and practice exercises on the belt, chain and gear drives. Review of safety, rigging tasks, machinery fastening methods, and mechanical shop drawings.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0	T
MWR108	2021 Fall	Reading Mechanical Prints		Types of blueprints, sketching, and basic print reading. Symbols for materials, construction details,	Prerequisites: Apprentice status or permission of the		Occ	L+L 2.0	T



				standards, and specifications. Interpretation of two-dimensional views to convey shape, characteristics, construction, and scope of project. Standard drawing methods and how to read visual and verbal cues. Recognizing shop drawings, locating machinery, calculating dimensions, equipment layout, and views.	Apprenticeship Coordinator.			2.0 2.0	
MWR109	2021 Fall	Turbine Familiarization		Function and performance of a General Electric Frame 5 Gas Turbine. Component descriptions and machine drawings, assembly/disassembly tasks and key bolting procedures.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0	T
MWR110	2021 Fall	Cutting and Burning		Overview of cutting and burning skills using oxygen/acetylene torch equipment. In-depth review of torch cutting principles will cover parts identification, gas characteristics, torch accessories and tips, safe operating and inspection criteria, and manufacturers' guidelines for use and care.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0	T
MWR111	2021 Fall	Tools and Equipment Applications		Discuss the safe and appropriate use of fall protection and emergency response procedures. Tool applications to provide opportunities for tool skill mastery and equipment operation.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0	T
MWR115	2021 Fall	Millwright General Skills B - Millwright Apprenticeship		Hand and power tools, shop equipment, and precision instruments to complete various machining operations. Provides millwright skills and experience using stationary machining equipment.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0	T
MWR121	2021 Fall	Structural Welding A - Millwright Apprenticeship		Careful examination of applicable codes. Includes terminology, shielded metal arc welding (SMAW) processes, equipment and safety requirements, electrode identification and applications, welding positions and deposits. Practical experience to include symbol identification, print interpretation, code citation, safe	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0	T

				equipment setup and operation, and recognition/remediation of welding flaws. Course will focus on the written examination and production of practical test plates required for American Welding Society (AWS) D1.1 certification.					
MWR131	2021 Fall	Structural Welding B - Millwright Apprenticeship		Provides practical experience for structural welding skills used in commercial and industrial construction. Review of welding terminology, welding processes, welding equipment, and safety requirements. Discusses electrode characteristics and metal inert gas/tungsten inert gas (MIG/TIG) welding applications. Course focuses on the written examination and production of practical test plates required for American Welding Society (AWS) D1.1 certification.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0	T
MWR201	2021 Fall	Shaft Alignment I		Terms, characteristics, and operating principles for the transit and laser levels. Procedures for establishing machinery and equipment elevation and alignment using precision optical instruments and installation procedures. Topics include transit and jig transit characteristics, instrument increments of measurement and accuracy, site inspection, setting up levels, determining benchmarks, and taking and recording elevation readings.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0	T
MWR202	2021 Fall	Conveyor Systems		Proper layout and component alignment of machinery, equipment, and conveyor systems. Identification of proper alignment procedures. Belt splicing. Analysis of effects of improper installation on maintenance and lifespan of equipment and conveyor systems.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0	T
MWR203	2005 Spring	Speciality Machinery I		Fundamentals and theory of hydraulics and pneumatics. Types, components, construction, and assembly of pumps and compressors.	Prerequisites: (Registered apprentice status and a grade of C or better		Occ	LEC 5.0 5.0 5.0	A

				Inner workings of industrial pumps and compressors. Auxiliary equipment and accessories.	in MWR202) or permission of the Apprenticeship Coordinator.				
MWR204	2005 Spring	Speciality Machinery II		Design, terminology, installation and operation of centrifugal and axial draft fans, monorail systems, steam turbines and generators. Layout and fabrication of monorail hangers, turns, and dips	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 5.0 5.0 5.0	A
MWR205	2021 Fall	Shaft Alignment II		Terms, characteristics, and methods for aligning machine shafts. Comprehensive review of alignment principles including conventional dial indicator and computer-aided. Setting up indicators, taking and recording indicator readings, and determining alignment correction.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0	T
MWR206	2021 Fall	Rigging Hardware and Procedures		Lifting theory and practical rigging methods and procedures. Rigging attachment procedures, lifting equipment, limits of operation, and communication practices. United Brotherhood of Carpenters (UBC) rigging qualification cards.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0	T
MWR207	2018 Fall	Advanced Precision Alignment Instruments		Computer aided transit and laser levels. Procedures for using Computer-aided Design (CAD), Global Positioning System (GPS) and Satellite instruments and computer programs using metric circle, GPS coordinates, degrees, minutes, and seconds on veneer scales. Utilization of computer programs for layout.	Prerequisites: A grade of C or better in (MWR201 and registered apprentice status) or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0	T
MWR208	2021 Fall	Compressor Theory and Maintenance		Fundamentals and theory of hydraulics and pneumatics. Types, components, construction, and assembly of pumps and compressors. Inner workings of industrial pumps and compressors. Design and installment of auxiliary equipment and accessories.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0	T
MWR209	2018 Fall	Introduction to Wind Turbines		Design, function and installation of wind turbine equipment. Methods, sequences and procedures for housings, bolting, power, drive	Prerequisites: A grade of C or better in (MWR109 and registered apprentice		Occ	L+L 2.0 2.0 2.0	T

				assembly and other components. Jobsite safety, print interpretation, material identification, and use of system devices and maintenance criteria. Completion of hands-on component installation projects.	status) or permission of the Apprenticeship Coordinator.				
MWR210	2021 Fall	Solar Installer		Characteristics, design, and installation of concentrated photovoltaic (CPV) components. Methods, sequences, and procedures for layout, assembly, mounting, and elevating/positioning for solar array construction. Includes industry overview and outlook for renewable energy production.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0	T
MWR218	2021 Fall	Compressor Theory and Maintenance - Millwright Apprenticeship		Operating theory and components of types of positive displacement compressors. Compressor configuration, operating parameters, safety, and maintenance procedures are examined.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0	T
MWR219	2021 Fall	Turbine Maintenance - Millwright Apprenticeship		Explores the machines and auxiliary equipment used in the power production industry. Highlights the function and performance of a typical gas turbine, and includes hydraulic bolting procedures.	Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0	T
MWR298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z
MWR298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z

				for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.					
MWR298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z
NAV101	2005 Fall	Elementary Navajo I		Basic grammar, pronunciation, and vocabulary of the Navajo language. Practice of listening, speaking, reading, and writing skills. Includes the study of the Navajo culture with participation in an off-campus Navajo cultural event	Prerequisites: None.		Acad	LEC 4.0 4.0 4.0	S
NAV102	2014 Fall	Elementary Navajo II		Continued study of grammar, pronunciation, and vocabulary of the Navajo language. Emphasis on listening, speaking, reading, and writing skills.	Prerequisites: A grade of C or better in NAV101 or permission of Department or Division. Completion of prerequisites within the last three years is required.	NAV102 includes the study of the Navajo culture with participation in an off-campus Navajo cultural event.	Acad	LEC 4.0 4.0 4.0	S
NAV115	2007 Fall	Beginning Navajo Conversation I		Beginning conversational Navajo with emphasis on basic listening and speaking skills, including basic pronunciation, vocabulary, sentence structure, and cultural awareness	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
NAV116	2014 Fall	Beginning Navajo Conversation II		Continued development of speaking and listening skills for effective communication in Navajo. Focuses on	Prerequisites: A grade of C or better in NAV115 or		Acad	LEC 3.0	S

				vocabulary for home, community, schools, and businesses	permission of Department or Division. Completion of prerequisites within the last three years is required.			3.0 3.0	
NAV201	2014 Fall	Intermediate Navajo I		Continued study of the Navajo language. Continued practice and development of listening, speaking, reading, and writing skills. Emphasis on fluency and accuracy of the Navajo language. Includes continued study of Navajo people and cultures.	Prerequisites: A grade of C or better in NAV102 or permission of Department or Division. Completion of prerequisites within the last three years is required.	Course Attribute(s): General Education Designation: Cultural Diversity - [C]	Acad	LEC 4.0 4.0 4.0	S
NAV202	2014 Fall	Intermediate Navajo II		Continued study of the Navajo language. Continued practice and development of listening, speaking, reading, and writing skills. Emphasis on fluency and accuracy of the Navajo language. Includes continued study of Navajo people and cultures.	Prerequisites: A grade of C or better in NAV201 or permission of Department or Division. Completion of prerequisites within the last three years is required.	Course Attribute(s): General Education Designation: Cultural Diversity - [C]	Acad	LEC 4.0 4.0 4.0	S
NAV298AA	2023 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0	Z
NAV298AB	2023 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0	Z

				combined to maximize student development.					
NAV298AC	2023 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0	Z
NCE101	2013 Spring	Introduction and Overview of Cancer Disease		Introduction and overview of the disease and treatment of cancer including cancer origin, development, pathology, staging, hematopoiesis, epidemiology, diagnosis modalities, treatment options, cancer research and differentiation of solid tumors versus nonsolid tumors. Effective analysis, synthesis, and evaluation of topics through written discourse.	Prerequisites: Health care professional or permission of Department or Division.	Under the terms and conditions as specified in a legal agreement between GateWay Community College and Banner Health Systems, instructors of NCE101 must be an Oncology Certified Nurse and employed by Banner Health Systems.	Occ	LEC 2.0 2.0 2.0	S
NCE102	2016 Spring	Exploring the World of Nursing for the High School Student (Summer Camp)		Overview of the philosophy, core values, policies, competencies and curricular components of the Maricopa Community College District Nursing Program (MCCDNP).	Prerequisites: None. Corequisites: HCC/RES109.	NCE102 is designed for High	Occ	LAB 1.5 4.5 4.5	G

				Introduce the use of the nursing process, utilization of critical thinking skills, and sound decision-making principles in the clinical setting. Examine the communication process, time management, stress reduction, and the transition in role expectations between High school and College Students. Explore the roles of Licensed Practical Nurse (LPN), Registered Nurse (RN) and advance practice nursing. Clinical experience (job shadowing) will be held in participating hospitals.		School students.			
NCE103	2024 Fall	Behavioral Health Technician		Students learn to care for patients with a wide variety of mental illnesses to include anxiety, mood, personality and psychotic disorders, as well as post-traumatic stress syndrome and behavioral issues. Behavioral health technicians follow physician/nurse instructions and hospital procedures. Identification of modalities to monitor patient's mental and emotional status, physical symptoms related to mental disorders, and recognition of medication side effects. A variety of therapies will be covered to include rehabilitation and treatment programs, as well as recreational activities used as treatment options.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: NUR158, or NCE150, or permission of Division or Department Chair.		Occ	LEC 4.0 4.0 4.0	S
NCE105	2011 Spring	Job Preparation for the Health Care Professional		Designing and creating resumes/curriculum vitae, job interview skills, electronic portfolio, and job searching in the health care market. Appearance, dress, and questioning skills emphasized. Role-playing exercises of correct interviewing techniques.	Prerequisites: None.	NCE105 may be repeated for a total of two and one-half (2.5) credits.	Occ	LEC 0.5 0.5 0.5	S
NCE110	1996 Spring	Basic First Aid		Basic first aid principles and interventions for the lay person. Topics include lacerations and bleeding control, seizures, chest pain, heat related problems, orthopedic injuries, and treatment of bites, stings, and burns	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5	S



NCE112	2001 Spring	Wilderness First Aid		Knowledge and skills to care for an injured or suddenly ill person in remote locations. Treatment of wounds, bone, joint and soft-tissue injuries. Treatment and immobilization for head and neck injuries. Signs, symptoms and treatment for a seizure and animal bites and stings. Assessment and treatment of patients with chest pain, diabetes and asthma. Treatment for specific environmental emergencies	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
NCE115	2014 Summer	Nursing Healthcare Transition and Safe Passage		Overview of American nursing practice, including historical and current perspectives. Key components of transitioning to Registered Nurse role in the United States. Contrasting Registered Nurse roles in US and in other countries. Career development and successful transitioning to role of nurse in the United States.	Prerequisites: Permission of Instructor.		Occ	LEC 2.0 2.0 2.0	S
NCE118	2005 Spring	Ventilator Management for Nurses		Nursing care and management of the mechanically ventilated patient. Adjuncts to airway management including types and indications for use. Initiation, management and weaning of mechanical ventilation.	Prerequisites: Registered nurse or licensed practical nurse or respiratory therapist.		Occ	LEC 0.5 0.5 0.5	S
NCE131	2014 Summer	Recognizing Skin Rashes in the School Aged Child		Recognition of common childhood rashes, identify allergic rash manifestations, communicable rashes and infectious rashes.	Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or permission of Instructor.		Occ	LEC 0.5 0.5 0.5	S
NCE150	2020 Fall	Advanced Placement: Nurse Assisting		Prepares the advanced placement nursing assistant student for the Certified Nursing Assistant (CNA) certification or Licensed Nursing Assistant (LNA) examination. The student will care for clients across the wellness/illness continuum within the scope of practice of the CNA/LNA. Includes basic problem solving processes specific to meeting the basic and holistic needs of clients,	Prerequisites: One year full-time employment OR two years part-time employment of direct patient care within the past five years OR students who have successfully completed course work that included		Occ	L+L 2.0 4.4 4.0	R

				therapeutic communication skills, as well as interventions to ensure the needs and safety of the client. Provides opportunity for the student to show proficiency in the performance of basic nursing assistant skills and procedures through laboratory activities and participation in the care of clients. Licensing is the exclusive responsibility of the Arizona State Board of Nursing.	direct patient care experiences in allied health, medicine or nursing in the past five years, OR permission of the Division Chairperson.				
NCE153	2021 Spring	Restorative Nursing Assistant		Additional skills for nurse assisting in restorative care settings, such as reinforcing client performance of Activities of Daily Life and assistive efforts for optimizing client independence.	Prerequisites: Permission of Department or Program Director, or a grade of C or better in NCE150 or NUR158 or current CNA certificate. CNA certificate must remain in active status throughout the term of the course.	NCE153 may be repeated for credit.	Occ	L+L 1.75 1.75 1.75	T
NCE161	2013 Fall	Foundation in Patient Advocacy		Foundational knowledge and skills needed for the emerging profession of patient Advocacy. Role of the patient advocate, health care delivery methods, best practices, consumer and provider perspectives, insurance benefits and costs, and legal implications.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
NCE165	2010 Fall	Legal Aspects of Nursing		Principles of legal aspects in nursing, rules of liability, negligent conduct and principles of malpractice. Review of the scope of nursing practices, and other legal matters.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
NCE168	2009 Summer I	End of Life Care Training		Nursing care at the end of life, pain management, symptom management, ethical issues, communication, cultural considerations, loss, grief and bereavement. Achievement of quality palliative care and preparation for and care at the time of death	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
NCE170	1994 Summer I	Pharmacology for Nurses		Review and update of selected pharmacological classifications.	(Current license as Practical Nurse or Registered Nurse) or		Occ	LEC 3.0	S

				Includes dosages, administration methods and reactions	registered as student nurse or permission of Instructor.			3.0 3.0	
NCE173	2019 Summer	Venipuncture		Development of clinical skills for venipuncture. Emphasis on review of anatomy and physiology of vasculature of the arm, medical asepsis, and procedure.	Prerequisites: Permission of Instructor.		Occ	LEC 1.0 0.5 0.5 LAB 0.0 24.0 1.5	T
NCE175	2018 Fall	Licensed Practical Nurse Update		Role and responsibilities of the Licensed Practical Nurse. Application of nursing care for medical-surgical patients, use of the nursing process and administration of medications. Includes expanded role of the Licensed Practical Nurse, principles of safe nursing practice, legal/ethical issues, human growth and development, therapeutic communication and physical assessment skills. For Licensed Practical Nurses returning to active nursing in the acute care setting.	Prerequisites: Current license as a Practical Nurse.		Occ	LEC 10.0 6.0 6.0 LAB 0.0 12.0 12.0	T
NCE200	2011 Spring	Contemporary Leadership Concepts for Health Care		Introduction to leadership and management concepts for work-readiness in health care fields. Professional role development of the beginning registered nurse. Includes organizational design and governance as well as leadership and management theories and qualities for the health care employee.	Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or permission of Instructor.	NCE200 may be repeated for a total of five (5.0) credits.	Occ	LEC 1.0 1.0 1.0	S
NCE201	1995 Fall	Physical Assessment		Basic health assessment by collecting health histories and performing physical examinations. Relationship of sciences and humanities to holistic aspects of health. Assessment for normal, variations of normal, and deviations from normal findings	Current Practical Nurse (PN) or Registered Nurse (RN) license or permission of Instructor.		Occ	LEC 3.0 3.0 3.0	S
NCE202	2012 Fall	Overview of Physical Assessment of the Adult Client		Overview of interviewing techniques and approaches to documenting a comprehensive health history and physical examination assessment techniques. Emphasis on the nursing	(Current Nursing or Allied Health student, or current Arizona Registered Nurse (RN) license, or		Occ	LEC 1.0 1.0 1.0	S

				process and health assessment skills. Performance of beginning level physical assessment.	Licensed Practical Nurse (LPN) license, or recent graduate of an accredited nursing program) and permission of Instructor.				
NCE203	2002 Spring	Interpretation of Laboratory Diagnostic Examinations		Utilization of laboratory diagnostic examination results for evaluation of patient conditions. Normal results for selected body fluids. Abnormal results related to pathophysiological conditions of adults. Incorporation of results of examinations to assess, modify, and evaluate therapy for patients with specific conditions.	Prerequisites: Registered Nurse or Licensed Practical Nurse Nursing students or permission of Instructor.		Occ	LEC 0.5 0.5 0.5	S
NCE204	2000 Summer I	Hemodynamics		Events of the cardiac cycle related to normal hemodynamic waveforms and pressures. Purpose, procedure and potential complications related to hemodynamic invasive lines. Trouble shooting and preventative procedures for hemodynamic invasive lines. Normal and abnormal pressure forms related to various forms of pathophysiology. Treatments and interventions for specific cardiac diseases. Impact of paced rhythms, and intraaortic balloon pumps on normal hemodynamic waveforms. Safe removal procedure for hemodynamic devices.	Prerequisites: Registered nurse (RN) respiratory therapist or cardiovascular technician with knowledge of dysrhythmia recognition.		Occ	LEC 1.0 1.0 1.0	S
NCE205	2000 Spring	Emergency Room Nursing		Roles of emergency health team. Medical/legal issues specific to emergency room care. Triage classifications for specific emergency room/department situations, nursing care for selected conditions, trauma, and disease processes. Organ donation issues, discharge procedures and client education.	Prerequisites: Registered Nurse (RN) or Licensed Practical Nurse (LPN) or currently enrolled in a nursing program or permission of Instructor.		Occ	LEC 4.0 4.0 4.0	S
NCE207	2016 Spring	Recognition and Nursing Management of the Deteriorating Patient		This course will provide a scenario/simulation-based problem solving approach to recognize and manage the patient who has the potential for a deteriorating status in a	Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed Practical		Occ	LEC 0.5 0.5 0.5	S

				wide variety of concept-oriented conditions. The ultimate goal is to prevent or reverse the clinical deterioration and achieve optimum patient outcomes.	Nurse (LPN) license or registered as student nurse or permission of Instructor.				
NCE208	2004 Summer I	Neonatal Pathophysiology		Pathophysiology and physiologic adaptations of the neonate to include assessment and management of respiratory, cardiac, hematological, immunological, neurological and fluid and electrolyte disorders. Acid-base regulation and hemodynamic dysfunction.	Prerequisites: Registered therapist registered nurse (RN) or pharmacist with neonatal experience.		Occ	LEC 3.0 3.0 3.0	S
NCE209	1998 Fall	SCHOOL HEALTH ASSISTING		The role of the school health assistant. Legal issues related to the school health setting. Performance of vision, hearing, and scoliosis screenings. Documentation, vital signs, triage guidelines in the school health setting. Common diseases that affect school-age children. Child abuse issues and protocol. Common medications and their side effects. Documentation and procedures related to drug administration	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
NCE210	1995 Summer I	School Nurse Emergency Assessment Skills		Update of emergency assessment in the school setting. Includes emergency assessment of seizures, asthma, head and neck injuries, heat-related problems, bites, stings, and burns, and orthopedic injuries	School nurse school health aide other health professionals or permission of Instructor.		Occ	LEC 1.0 1.0 1.0	S
NCE211	2025 Fall	Advanced Mental Health Assessment Skills for Healthcare		Comprehensive study of mental health first aid, trauma-informed care, and motivational interviewing. Preparation for certifications in motivational interviewing and mental health first aid.	Prerequisites: Healthcare professional license or certification, or permission of Instructor.	NCE211 may be repeated for credit.	Occ	LEC 1.0 1.0 1.0	S
NCE212	2011 Spring	Patient Education		Current concepts relevant to planning and implementing a teaching plan, and the role the nurse has in patient education. Patient education instructional methods, educational theories, nursing process and case management in patient education. Focus on patient advocacy through education.	Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or permission of Instructor.	NCE212 may be repeated for a total of five (5.0) credits.	Occ	LEC 0.5 0.5 0.5	S

NCE213ND	1999 Fall	Long-Term Care Nursing Update		Medicare and insurance documentation procedures for the long-term care patient. Medical-legal issues that pertain to the long-term care patient. Specific nursing procedures performed for the long-term care patient.	Prerequisites: Registered nurse (RN) licensed practical nurse (LPN) or health worker currently employed in a long-term care setting.		Occ	LEC 0.5 0.5 0.5	S
NCE214CA	2019 Summer	Basic Electrocardiogram Interpretation		Focuses on recognition of common cardiac rhythms. Includes major and minor reportable occurrences which affect a patient's status and priority interventions.	Prerequisites: Permission of Instructor.		Occ	LEC 1.0 1.0 1.0	S
NCE214ME	1996 Spring	Advanced Metrology and IV Drug Therapy		Advanced course in intravenous and pediatric calculations. Preparation for NCLEX-RN exam and Registered Nurse review of complex medication calculations. Emphasis on safe clinical practice using the nursing process to analyze and calculate pediatric fractional doses and critical care medications.	Prerequisites: Registered nurse or current student in Associate Degree Nursing program.		Occ	LEC 1.0 1.0 1.0	S
NCE214MF	2006 Fall	Advanced IV Drug Therapy		Advanced course in drug calculation and administration using the ratio/proportion and dimensional analysis methods. Focus on intravenous medications and titrations for critical care, pediatric and high risk obstetric medications	Current student in Associate Degree Nursing program or permission of Instructor.		Occ	LEC 0.5 0.5 0.5	S
NCE214MI	2007 Summer I	Math and Medications for Intermediate Nursing Students		Focus on basic mathematical concepts to calculate metric-apothecary conversion, dosage problems, intravenous flow rates using the ratio/proportion and dimensional analysis methods. These calculations will focus application to acute care, long-term care, and pediatric specialty areas	Current student in Nursing program or permission of Department or Division.		Occ	LEC 0.5 0.5 0.5	S
NCE214MM	1995 Fall	Math/Methods of Drug Calculation		Focuses on basic mathematical concepts using decimals and fractions to calculate fractional and metric-apothecary conversion dosage problems and intravenous flow rates. Emphasis on the dimensional analysis problem solving method	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S

NCE214MO	2006 Fall	Math/Methods for Beginning Nursing Students		Focus on basic mathematical concepts to calculate metric- apothecary conversion, dosage problems and intravenous flow rates. Includes calculation problems with oral, parenteral, and reconstitution medications. Emphasis on the ratio/proportion and dimensional analysis problem solving methods	Current student in Associate Degree Nursing program or permission of Instructor.		Occ	LEC 0.5 0.5 0.5	S
NCE214ND	1997 Summer I	Nursing Developmental Skills for Health Providers		Updating specific nursing areas in order to enhance success in nursing courses and/or employment.	Prerequisites: Previous coursework or experience in nursing related skills or permission of Instructor.	NCE214N D may be repeated for a total of ten (10) credit hours.	Occ	LEC 1.0 1.0 1.0	S
NCE214OP	2023 Summer	Orientation to Nursing Program		Overview of the philosophy, mission, vision, Nurse of the Future Competencies, student learning outcomes, and the constructivist framework of the Maricopa Nursing program. Student expected to be prepared with basic concepts of therapeutic communication, the nursing process, pharmacology, introductory concepts of intravenous therapy and knowledge of fundamental concepts. Primary content areas: nursing process, with emphasis on the use of the nursing process to develop a plan of care; utilization of critical thinking skills; problem-solving strategies, the communication process; psychiatric nursing competencies and role transition between LPN and RN scope of practice.	Prerequisites: Designee/advanced placement into the Nursing Program or permission of the Nursing Director.	NCE214O P designed for advanced placement students (i.e., transfer students, returning students, and/or Practical Nurses).	Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0	T
NCE214PO	2009 Fall	Tutored NCLEX Review For Nursing Students		Brief review of nursing care by systems using an NCLEX review book. Focus on nursing process, prioritizing, and critical thinking related to application of nursing care in case study situations. Also practice multiple-choice questions.	Prerequisites: Currently enrolled nursing student, or permission of Instructor.	NCE214P O may be repeated for a total of six (6) credit hours.	Occ	LEC 2.0 2.0 2.0	S
NCE215AA	2002 Fall	Nursing Update: Pain Management		Comprehensive pain assessment and pain management. Pharmacological	Prerequisites: Registered Nurse or	NCE215A A may be	Occ	LEC 0.5	S

				agents, treatment modalities, and delivery systems. Regulatory agency policies, standards of care, and documentation guidelines.	Licensed Practical Nurse or currently enrolled in a nursing program or permission of Instructor.	repeated for a total of five (5) credit hours.		0.5 0.5	
NCE215AB	2002 Fall	Nursing Update: Wound and Skin Care		Wound and skin assessment and documentation guidelines. Skin care protocols and interventions to prevent pressure ulcers and promote optimal healing. Wound care products and treatment options.	Prerequisites: Registered Nurse or Licensed Practical Nurse or currently enrolled in a nursing program or permission of Instructor.	NCE215A B may be repeated for a total of five (5) credit hours.	Occ	LEC 0.5 0.5 0.5	S
NCE215AC	2002 Fall	Nursing Update: Stoma Care		Care of the patient with fecal and urinary diversions. Appliance selection, stoma care, and management of potential complications. Includes nutritional, psychological, and educational aspects of care.	Prerequisites: Registered Nurse or Licensed Practical Nurse or currently enrolled in a nursing program or permission of Instructor.	NCE215A C may be repeated for a total of five (5) credit hours.	Occ	LEC 0.5 0.5 0.5	S
NCE215AD	2005 Spring	Nursing Update: Advances in Diabetes Management		Diabetes management and implications. Risk factors of diabetes and lifestyle modifications. Medication updates and new technological advances for the treatment of Type I and Type II diabetes.	Prerequisites: None.	NCE215A D may be repeated for a total of five (5) credit hours.	Occ	LEC 0.5 0.5 0.5	S
NCE215AE	2006 Spring	Nursing Update: Cardiac Care		Provides nurses with up-to-date information on prevention, diagnosis, and treatment of cardiovascular and related diseases.	Prerequisites: Registered Nurse (RN) or Licensed Practical Nurse (LPN) or other licensed personnel working with cardiac patients.	NCE215A E may be repeated for a total of ten (10) credit hours.	Occ	LEC 0.5 0.5 0.5	S
NCE215ND	1997 Summer I	Nursing Skills Update		Enhancement and reinforcement of specific nursing skills. Special needs patients, patient assessment techniques, medicolegal responsibilities, and diagnostic procedures.	Prerequisites: None.	NCE215N D may be repeated for a total of ten (10) credit hours.	Occ	LEC 0.5 0.5 0.5	S
NCE216AA	2002 Fall	School Health Update: Assessment Skills		Assessment skills for the school health setting. Assessment and management of selected school	Prerequisites: Registered Nurse or Licensed Practical	NCE216A A may be repeated	Occ	LEC 0.5	S



				health problems including abdominal pain, head and spinal cord injuries, and environmental hazards.	Nurse or currently enrolled in a nursing program or permission of Instructor.	for a total of five (5) credit hours.		0.5 0.5	
NCE216ND	2002 Spring	School Nurse Skills Update		Enhancement and reinforcement of specific skills encountered in the school health setting. Special needs of physically and emotional disabled children. Review of special procedures and medications used with special children populations.	Prerequisites: Current school nurse or school health aide.	NCE216ND may be repeated for a total of ten (10) credits.	Occ	LEC 0.5 0.5 0.5	S
NCE218	2015 Fall	Ventilator Management for Critical Care and Emergency Room Nurses		Patient care including indications, management and complications in mechanically ventilated patients. Types of mechanical ventilation, pharmacological management, care of the mechanically ventilated patient, intubation and extubation, and tracheostomy management.	Prerequisites: Health care professional, or permission of Department or Division.		Occ	LEC 0.5 0.5 0.5	S
NCE219	2005 Fall	Advanced First Aid for School Health Staff		Advanced first aid principles and interventions for staff working in a school health setting. Topics include assessment and management of medical emergencies such as asthma, anaphylaxis, environmental emergencies, seizures and playground trauma	(Basic first aid training or experience) or permission of Instructor.		Occ	LEC 0.5 0.5 0.5	S
NCE220	1995 Spring	Advanced IV Therapy Skills for RNs		Intravenous (IV) therapy skills utilized by the Registered Nurse in home health, long term care, and the acute care setting. Includes principles of care for specific central venous catheters, and infusion pumps. Also, legal implications of advanced IV practice	Current license as registered nurse or enrolled in an accredited RN program or permission of Instructor.		Occ	LEC 0.5 0.5 0.5	S
NCE221	2019 Summer	Patient Care Technician Skills		Patient care technician skills and techniques which include: drawing blood, performing a variety of specimen collections, observing and reporting patient status, assisting in patient preparation and electrode placement for electrocardiograms, suctioning patients, performing urinary catheterizations, documentation and reporting of skill	Prerequisites: Certified Nurse Assistant (CNA), Nurse Assistant course or equivalent within the past year, and permission of Continuing Education Program Director and/or Instructor.		Occ	LEC 3.0 2.5 2.5 LAB 0.0 24.0 1.5	R

				completion, maintaining patient confidentiality, and recognizing legal and ethical commitments related to patient care technician skills.					
NCE223	2019 Summer	LPN-IV Therapy and Medication Skills		Terminology and anatomy related to intravenous therapy. Drug response factors, dosage, calculations, intravenous site dressing change, intravenous administration equipment, and initiating intravenous therapy. Documentation and procedures for laboratory check lists. Meets state nursing board requirements for initiating intravenous therapy and administering intravenous medications.	Prerequisites: Current license as Practical Nurse or permission of Instructor.		Occ	LEC 2.5 2.0 2.0 LAB 0.0 24.0 1.5	R
NCE224	1996 Summer I	Nursing Case Management		Case management and managed care responsibilities, insurance strategies, utilization management, legal and ethical issues, quality improvement and discharge planning.	Prerequisites: Registered Nurse (RN) Licensed Practical Nurse (LPN) social worker or permission of Instructor.		Occ	LEC 3.0 3.0 3.0	S
NCE225	2012 Fall	Introduction to School Nursing		Registered nursing skills necessary to prepare for employment in a School Health Setting. Triage, school health office management skills, and legal issues and scope of practice of the school nurse. Health screening basics and immunization protocols, emergency response skills, and health teaching.	Current Arizona Registered Nurse (RN) license, or Licensed Practical Nurse (LPN) license, or recent graduate of an accredited nursing program, or permission of Instructor.		Occ	LEC 2.0 2.0 2.0	S
NCE226	2019 Summer	Pediatric Nursing Clinical Skills		Clinical application of nursing theory to the pediatric patient. Focuses on effective physical assessment techniques, and changes in nursing skills for the pediatric patient.	Prerequisites: Registered Nurse (RN), or Licensed Practical Nurse (LPN), or permission of Instructor. Corequisites: NCE227.	NCE226 is designed for the experienced nurse who is considering transferring to a pediatric unit of an	Occ	LAB 1.0 45.0 3.0	R

						acute care hospital. NCE226 may be repeated for a total of five (5.0) credits.			
NCE227	2011 Summer I	Science of Pediatric Nursing		Preparation for relocation to the pediatric unit the hospital nurse. Application of pediatric nursing theory based upon the nursing process.	Prerequisites: Registered Nurse (RN), or Licensed Practical Nurse (LPN), or permission of Instructor. Corequisites: NCE226.	NCE227 may be repeated for a total of five (5.0) credits	Occ	LEC 1.0 1.0 1.0	S
NCE228	2023 Fall	Holistic Nursing Fundamentals-Certification Exam Preparation		Preparation for the holistic nursing certification examination. Includes holistic nursing philosophy, foundations, core values, standards, and principles. Covers self-care and self-reflection, theories, Integrative Health and Wellness Assessments (IHWA), in addition to development of, goals, and strategies for implementation of individualized care plans. Also includes complementary modalities as well as theories and research in the field of holistic nursing.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
NCE230	2019 Summer	PICC Line Insertion		Overview of the care, maintenance and insertion of Peripherally Inserted Central Catheter (PICC) lines. Advantages of PICC lines, legal implications, types, as well as anatomy and physiology for proper insertion.	Prerequisites: Current license as a Registered Nurse.		Occ	L+L 0.5 24.0 1.5	R
NCE231	2003 Fall	Pharmacology for Critical Care and Emergency Room Nurses		Pharmacology update for emergency department and critical care personnel on new drug therapies and related patient care protocols. Pharmacological management of cardiac and respiratory system disorders, complications, and emergency interventions. Patient	Prerequisites: Registered Nurse or permission of Instructor.		Occ	LEC 1.0 1.0 1.0	S

				management protocols for conscious sedation. New pharmacological agents for the treatment and management of diabetes and other endocrine disorders.					
NCE232	2004 Spring	Health Assessment of the School Age Child		Comprehensive health assessment foundation. Development of interviewing skills, obtaining health histories, and conducting physical examinations on the school age child. Identification and management of minor illnesses and health problems common to school age children	School nurse or current Registered Nurse (RN) licensure.		Occ	LEC 3.0 3.0 3.0	S
NCE233	2004 Summer I	Nursing Care of the Special Needs Child		Overview of congenital and acquired pediatric conditions, chronic illnesses and physical challenges that may lead to developmental delay or educational dysfunction. Application of the nursing process to provide care for the special needs child. Developmental assessment tools, skilled nursing interventions and environmental factors. Resources for disabled and chronically ill children through family, educational system and the community	School nurse or current registered nurse (RN) licensure.		Occ	LEC 3.0 3.0 3.0	S
NCE234	2004 Summer I	Fundamentals of School Nursing Practice		Assessment, development, implementation and evaluation of school health programming. Focus on nursing theory as it relates to school health programming. Program management, professional development, dealing with change, health education, interdisciplinary interaction and the role of the professional nurse in the school setting	School nurse or current registered nurse (RN) licensure.		Occ	LEC 3.0 3.0 3.0	S
NCE235	2004 Summer I	Conscious Sedation		Conscious sedation criteria and protocols. Nursing responsibilities and interventions pre-, intra- and post-procedure. Medications commonly used for conscious sedation, monitoring equipment, potential complications and required documentation.	Prerequisites: Registered nurse (RN) or permission of Instructor.		Occ	LEC 0.5 0.5 0.5	S

NCE237	2011 Summer I	Care and Management of Vascular Access Devices		Types of vascular catheters, types of clients who use them and clinical indications for each. Care for the different devices, differences in tip locations and the types of infusion therapies infused through each device.	Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or registered as student nurse or permission of Instructor.		Occ	LEC 0.5 0.5 0.5	S
NCE242	2001 Spring	Twelve Lead Electrocardiogram (EKG) Interpretation		Normal and abnormal wave forms of the cardiac cycle. Normal and abnormal heart axis. Differences between ventricular and supraventricular tachycardia. Various types of blocks. Identification of heart chamber enlargement. Injury, ischemic and necrotic heart patterns. Effect of specific drugs and electrolyte disorders on electrocardiograms (EKG)	Basic electrocardiogram (EKG) experience or previous course work in dysrhythmia interpretation or permission of Instructor.		Occ	LEC 0.5 0.5 0.5	S
NCE243	2019 Summer	Nursing Skill and Competency Review		Resume writing, interpersonal and therapeutic communication, teamwork concepts, IV Skills and pharmacological review. Central line catheter care, nutritional management, urinary catheterization, NG insertion and suctioning, respiratory management, basic wound care, and patient assessment skills.	Prerequisites: Permission of Instructor.		Occ	LEC 3.5 2.5 2.5 LAB 0.0 90.0 6.0	R
NCE245	2011 Summer I	Introduction to Holistic Nursing		Philosophy and theories of holism applied to nursing practice. Focus on the physical, emotional, psychological, social, and spiritual needs of the client. Emphasis on application of the nursing process from a holistic perspective. Healing relationship model, self-care concept, nurse-patient communication, health care ethics, therapeutic environment, and cultural sensitivity.	Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or permission of Instructor.	NCE245 may be repeated for a total of five (5.0) credits	Occ	LEC 1.0 1.0 1.0	S
NCE246AA	2011 Spring	Basic Fetal Heart Monitoring		Application of basic concepts and knowledge of fetal monitoring to assist the antepartum and intrapartum	Prerequisites: Current Arizona Registered Nurse (RN) license or	NCE246A A is designed for the	Occ	LEC 1.0 1.0 1.0	S

				nurse in providing effective nursing care to ensure fetal well-being.	Licensed Practical Nurse (LPN) license or permission of Instructor.	experienced nurse who is considering transferring to a maternal/child health hospital unit. NCE246A A may be repeated for a total of five (5.0) credits.			
NCE249	2002 Spring	Basic Critical Care Nursing		Foundation in basic critical care for nurses who are new or interested in entering the critical care environment. Including anatomy, physiology, and pharmacology. Disease management for the following systems: cardiac, respiratory, neuroscience, gastrointestinal, renal, endocrine and hematology, hemodynamics and ventilator management	Current license as Registered Nurse or Practical Nurse or recent graduate of an accredited nursing program or permission of Instructor.		Occ	LEC 4.0 4.0 4.0	S
NCE249AA	2002 Spring	Critical Care: Cardiac		Foundation in basic critical care for nurses who are new or interested in entering the critical care environment. Including anatomy, physiology, and pharmacology. Disease management for the cardiac system	Current license as Registered Nurse or Practical Nurse or recent graduate of an accredited nursing program or permission of Instructor.		Occ	LEC 1.0 1.0 1.0	S
NCE249AB	2002 Spring	Critical Care: Respiratory		Foundation in basic critical care for nurses who are new or interested in entering the critical care environment. Including anatomy, physiology, and pharmacology. Disease management for the respiratory system	Current license as Registered Nurse or Practical Nurse or recent graduate of an accredited nursing program or permission of Instructor.		Occ	LEC 1.0 1.0 1.0	S
NCE249AC	2002 Spring	Critical Care: Neurologic		Foundation in basic critical care for nurses who are new or interested in	Current license as Registered Nurse or		Occ	LEC 1.0	S

				entering the critical care environment. Including anatomy, physiology, and pharmacology. Disease management for the neurologic system	Practical Nurse or recent graduate of an accredited nursing program or permission of Instructor.			1.0 1.0	
NCE249AD	2002 Spring	Critical Care: Endocrine and Renal		Foundation in basic critical care for nurses who are new or interested in entering the critical care environment. Including anatomy, physiology, and pharmacology. Disease management for the endocrine and renal systems	Current license as Registered Nurse or Practical Nurse or recent graduate of an accredited nursing program or permission of Instructor.		Occ	LEC 0.5 0.5 0.5	S
NCE249AE	2002 Spring	Critical Care: Gastrointestinal		Foundation in basic critical care for nurses who are new or interested in entering the critical care environment. Including anatomy, physiology, and pharmacology. Disease management for the gastrointestinal system	Current license as Registered Nurse or Practical Nurse or recent graduate of an accredited nursing program or permission of Instructor.		Occ	LEC 0.5 0.5 0.5	S
NCE251	2009 Spring	Telemetry Nursing		Cardiac anatomy and physiology and the conduction system. Elements of a cardiac assessment. Recognition of arrhythmia and cardiac abnormalities seen on electrocardiogram (EKG). Indications for temporary and permanent pacing. Drug groups and their interactions specific to the cardiac patient. Normal and abnormal lab values for the cardiac patient. Pre- and post-procedure care for cardiac procedures. Nursing interventions and emergency treatment.	Prerequisites: Registered Nurse (RN) and a grade of C or better in NCE214CA or equivalent.		Occ	LEC 3.0 3.0 3.0	S
NCE255	2001 Fall	Death, Grief, and Bereavement		Grief and bereavement care for the client and family. Ethical and cultural issues in terminal care, children and death, AIDS related death issues, suicide, homicide and survivor interventions	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
NCE257	2011 Spring	Science of Maternity Nursing		Preparation for relocation to the maternal/child health unit the hospital nurse. Application of maternal/child nursing theory based upon the nursing process.	Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed Practical	NCE257 may be repeated for a total of five	Occ	LEC 1.0 1.0 1.0	S

					Nurse (LPN) license or permission of Instructor.	(5.0) credits.			
NCE258	2018 Fall	Maternity Nursing Clinical Skills		Clinical application of nursing theory to the maternal/child patient. Focuses on effective physical assessment techniques, determining neonatal status, and maternal physiological and psychological well-being.	Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or permission of Instructor.	NCE258 is designed for the nurse who would like to transfer to the maternal/child health unit of an acute care hospital. NCE258 may be repeated for a total of five (5.0) credits.	Occ	LAB 1.0 1.0 1.0	T
NCE259	1998 Fall	Advanced Critical Care Nursing		Provides the experienced Critical Care Nurse with an opportunity to build on basic critical care knowledge. Advanced concepts in assessment, hemodynamic monitoring, pathophysiology of disease processes, and use of the Nursing Process for critically ill patients with complex, multisystem disorders. Designed to help prepare experienced Critical Care Nurses for the certification examination for Critical Care Nursing offered by the American Association of Critical Care Nurses.	Prerequisites: A grade of C or better in NCE249 or Registered Nurse working in Critical Care or permission of Instructor.		Occ	LEC 4.0 4.0 4.0	S
NCE260	2001 Summer I	Intra-Aortic Balloon Pump		Mechanics of the cardiac cycle. Physiologic effects of the intra-aortic balloon pump. Indications and contraindications. Components, operation, care and maintenance of the intra- aortic balloon pump. Complications and nursing	Prerequisites: Registered Nurse (RN) or cardiovascular technician who has completed a Basic EKG course and has Critical Care Training.		Occ	LEC 0.5 0.5 0.5	S



				implications with the use of the intra-aortic balloon pump.					
NCE261	2019 Summer	Ultrasound-Guided Peripheral Intravenous Access		Technique of ultrasound-guided peripheral venous access. Client selection for procedure, selection of vasculature, and troubleshooting using ultrasound guidance equipment. Use of equipment and hands-on, simulated practice of catheter placement.	Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or registered as student nurse or permission of Instructor.		Occ	L+L 0.5 24.0 1.5	R
NCE262	2001 Summer I	Legal Medical Consulting		Role of the legal medical consultant in specific litigation. Importance of the law library. Definition of ethics, professionalism, standards of practice, discovery and disclosure. Steps and procedures involved with legal research. Role of the legal medical expert as a witness. Alternative conflict resolution. Role of independent medical examination. Role of the insurance industry and risk management in legal medical issues	Licensed medical personnel or permission of Instructor.		Occ	LEC 3.0 3.0 3.0	S
NCE264	2002 Spring	Advanced Legal Medical Consulting/Civil Procedure		Reinforcement and broadening of knowledge and skills required for a career in legal medical consulting. Civil litigation process from initial client contact, discovery, and trial to post trial period. Intensive case analysis and thorough exploration of legal theory, procedure, and strategy. Discussion of the Federal and Arizona Rules of Civil Procedure and hands on experience in the preparation of legal documents and the trial notebook	Prerequisites: A grade of C or better in NCE262 or equivalent.		Occ	LEC 3.0 3.0 3.0	S
NCE265	2014 Summer	Triage Skills for Urgent Care Staff		Identification of high risk aspects of frequent medical complaints. Instruction in avoiding errors when triaging patients in the urgent care setting.	Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or permission of Instructor.		Occ	LEC 0.5 0.5 0.5	S

NCE266	2015 Spring	Recognition and Management of the Patient with Allergies		Allergy process, types of allergies and their presentations, levels and types of reactions, as well as treatment, diagnostic testing and prevention strategies.	Prerequisites: Health care professional or permission of Department or Division.		Occ	LEC 0.5 0.5 0.5	S
NCE267	2018 Fall	IV Medication Administration and Advanced Metrology		Knowledge and skills to safely prepare and administer intravenous medications and solutions. Includes advanced metrology to accurately calculate IV drug dosages and infusion rates.	Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or permission of Instructor.	NCE267 may be repeated for a total of five (5.0) credits	Occ	L+L 1.0 2.0 2.0	T
NCE268	2015 Summer	Non Rash Infectious Diseases in the Pediatric Patient		Epidemiology and symptomology of non rash producing infectious diseases often seen in children and identify ways to prevent, reduce, and control their spread. Meningococcal disease, Tuberculosis, influenza, Methicillin Resistant Staph Aureus (MRSA), pertussis, conjunctivitis, mononucleosis, streptococcal infections, hepatitis, and enterovirus D68.	Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or permission of Instructor.		Occ	LEC 0.5 0.5 0.5	S
NCE271	2015 Summer	Pediatric Diabetes		Provides an overview of diabetes in the pediatric population. Epidemiology and etiology, types of diabetes in children and symptom recognition, medication and diet management, complications, new technological devices, and family interventions.	Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or permission of Instructor.		Occ	LEC 0.5 0.5 0.5	S
NCE272	2020 Fall	Certified Medication Assistant		Completion of this course will qualify the student to sit for the certification examination to administer prescribed medications within defined state laws (Legislation A.R.S.32-1650.01).	Prerequisites: Students will need to have been a Certified Nursing Assistant (CNA) or a Licensed Nursing Assistant (LNA) for a minimum of six months, or completed the CNA or LNA course within the past year, or completed semester I of the Practical Nurse (PN) program, or completed the first		Occ	L+L 4.0 6.0 8.0	R

					block of the Registered Nurse (RN) program, or permission of the Director or Program Director as students who have completed components of nursing programs may qualify for a CMA waiver.				
NCE273	2020 Summer	Rehabilitation Technician		The rehabilitation technician (RT) performs patient related care tasks, assists patients with activities of daily living and provides direct patient care under supervision of the licensed nurse and or licensed therapist. Obtains and records patient vital signs. Monitors and records daily intake and output. Obtains specimens, including non-invasive body fluids and blood specimens. Performs electrocardiogram (ECG) electrode placement, running ECG strips, and blood glucose monitoring. Assists physician, licensed nurse, or licensed therapist with diagnostic tests, clinical procedures, and other tasks as requested. Communicates patient needs and observed/reported changes in patient condition to supervising licensed nurse, physician or licensed therapist. Documents all interactions as directed by licensed nurse, physician, or licensed therapist. Assists licensed therapist in performing therapeutic procedures. Carries out assigned rehab tech duties such as cleaning treatment areas, completing equipment maintenance and transporting patients.	Prerequisites: Valid certification or license as a nurse assistant (CNA or LNA) OR completion of a nurse assistant program within the past twelve (12) months OR permission of the Nursing Director.		Occ	L+L 2.0 2.5 3.0	R
NCE274	2020 Summer	Industry Telemetry Nursing		Overview of cardiac anatomy, physiology, and the conduction system. Demonstration of a cardiac assessment, review of normal and	Prerequisites: Current Arizona Registered Nurse (RN) license or		Occ	L+L 4.0 4.5 5.0	R

				abnormal lab values, arrhythmias, and cardiac abnormalities seen on an electrocardiogram (ECG). Introduction to medications specific to the cardiac patient. Overview of cardiac procedures, nursing interventions, and emergency treatment.	Licensed Practical Nurse (LPN) license or permission of Instructor.				
NCE275	2018 Fall	Registered Nurse Update		Update of current general principles of nursing care, procedures and medication.	Prerequisites: Current Registered Nurse License.		Occ	LEC 10.0 6.0 6.0 LAB 0.0 12.0 12.0	T
NCE276	2015 Fall	Clinical Teaching in Nursing: An Overview		Applies Nurse of the Future Competencies and educational Constructivism learning theory to develop a foundation for nursing faculty. Designed to assist instructor to consistently plan, guide, and evaluate learning activities for nursing students in clinical environments.	Prerequisites: Current Registered Nurse License.	NCE276 may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0	S
NCE277	2019 Summer	Clinical Teaching in Nursing: A Practicum Experience		Overview of the process, concepts and skills related to supervising nursing students in the clinical area with application of concepts learned. A mentored clinical experience to guide and facilitate the student in the development of skills of clinical instruction.	Prerequisites: Current Arizona Registered Nurse License, BSN required, but MSN preferred as per our accrediting and approval bodies. All health and safety requirements per the current Maricopa Nursing Clinical Instructor Handbook must be met prior to admission into this course.	NCE277 may be repeated for a total of seven and a half (7.5) credits.	Occ	LEC 1.5 0.5 0.5 LAB 0.0 45.0 3.0	R
NCE278	2020 Summer	Critical Care Nursing		Foundations in critical care for nurses who are interested in entering the critical care environment or nurses who seek to increase their expertise in critical care. Includes basic anatomy, physiology, and pharmacology. Disease management	Prerequisites: Current license as a Registered Nurse or recent graduate of an accredited nursing program or permission of		Occ	L+L 4.0 4.5 5.0	R

				for the following systems: cardiac, respiratory, neuroscience, gastrointestinal, renal, endocrine and hematology, hemodynamics and ventilator management. The lab includes case studies, simulation, and lab practice.	Instructor and/or employer. Licensed Practical Nurses will be allowed to take the course by request of their employer and/or with permission of the Instructor.				
NCE282AA	1993 Fall	Volunteerism for Nursing: A Service Learning Experience		Service-learning field experience within human service organization/agency.	Prerequisites: Permission of Instructor.	NCE282A A may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 1.0 1.0 0.0	L
NCE290	2011 Summer I	Concepts of Aging		Examine several concepts of aging: physiological, cognitive, spirituality, health promotion, and pharmacology of the older adult. Focus will be placed on caring for the aging patient and their family.	Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or registered as student nurse or permission of Instructor.	NCE290 may be repeated for a total of five (5.0) credits	Occ	LEC 1.0 1.0 1.0	S
NCE291	2019 Summer	Nursing Skills and Patient Care in Simulation		Review of basic skills. Remediation, guided learning, and simulation performance.	Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or registered as student nurse or permission of Instructor.	NCE291 may be repeated for a total of five (5.0) credits.	Occ	LAB 1.0 45.0 3.0	R
NCE292	2019 Summer	Simulation for Patient Care Experiences		Review and practice of nursing skills. Remediation, guided learning, and simulation performance.	Prerequisites: Current Arizona Registered Nurse	NCE292 may be repeated	Occ	LAB 2.0	R

					(RN) license or Licensed Practical Nurse (LPN) license or registered as student nurse or permission of Instructor.	for a total of ten (10) credits.		90.0 6.0	
NCE292AA	2024 Fall	Simulated Patient Care		Review of practical nursing skills. Includes simulated patient experience in various focus areas.	Prerequisites or Corequisites: Permission of Program Director.		Occ	LAB 2.0 90.0 6.0	R
NCE292AB	2024 Fall	Patient Care Experiences		Practical nursing skills. Includes patient care experiences.	Prerequisites: A grade of C or better in NCE292AA. Prerequisites or Corequisites: Current Nursing Health and Safety Clearance.		Occ	LAB 2.0 90.0 6.0	R
NCE293	2019 Summer	Team Management of Deteriorating Patients in Simulation		Development of skills needed to effectively identify, assess, monitor, and respond to patients who are either deteriorating or at risk of deteriorating related to injury or disease process.	Prerequisites: Current licensure as a health professional or registered as a student in a health professional program of study, or permission of Instructor.	NCE293 may be repeated for a total of ten (10) credit hours.	Occ	LAB 2.0 90.0 6.0	R
NCE298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z
NCE298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z

				for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.					
NCE298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z
NET127	2000 Fall	How Computers Work		Functional description of hardware component operation of the IBM and compatible microcomputers. Electronic and electromechanical components operation during bootup process and operating system utilization, RAM, RAM caching and the microprocessor, and data storage. Data storage description includes floppy disks, hard disk, CD-ROM, other disk type drives, and tape backup	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
NET181	2018 Fall	Visual BASIC for Technology		Introductory coverage of programming techniques in Visual BASIC. Flowcharting, pseudocoding, coding, testing, and documenting programs in accordance with specifications	Prerequisites: None.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0	T
NET183AA	2019 Spring	Operating Systems		Designed to develop an understanding of operating systems and their interaction with hardware, software, networking, security, troubleshooting, IP addressing, user interfaces and operating system installation. The course is intended to help prepare students for entry-level industry certifications.	Prerequisites: None. BPC101AA recommended for those students unfamiliar with basic computer operations.		Occ	L+L 2.0 3.0 3.0	T

NET220	2021 Spring	Health Information Networking		Designed to equip students with knowledge and skills applicable to entry-level careers in healthcare networking. Using Cisco hardware and software, aims to develop an in-depth understanding of the critical principles and practices required in this specialized field.	Prerequisites: A grade of C or better in CNT160AB, or Cisco Certified Network Associate (CCNA) certification, or permission of Instructor.		Occ	L+L 2.0 4.0 4.0	T
NLT100	2020 Fall 1	Nail Technology I		Introduction to basic nail services, general sciences, safety, and infection control practices in the nail care industry.	Prerequisites: None.		CLK	200	
NLT105	2020 Fall 1	Nail Technology II		Apply advanced techniques and continue to build on previous concepts learned in nail services, general sciences, safety, and infection control in the nail industry.	Prerequisites: None.		CLK	200	
NLT110	2020 Fall 1	Nail Technology III		This course is designed to prepare Nail Technology students for the written and practical examinations for Arizona State Board of Cosmetology licensure. Students will master and apply previous concepts learned in nail services, general sciences, and business skills in the nail care industry.	Prerequisites: None.		CLK	200	
NMS120	2016 Fall	Media in Cyberspace		Using on-line material, investigates how the new information technologies affect the more traditional media. The effect on consumers and society.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
NMS160	2015 Summer	Sports Media Careers		Introduction to the professions, organizations, and media occupations within sports management. Examines professional and not-for-profit organizations, career opportunities in collegiate and community sports organizations, and career opportunities in the traditional and non-traditional media arenas. Includes resume writing, cover letters, career choices, interviews, and job searching strategies for sports management organizations.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
NMS215	2022 Fall	Electronic Newsroom		Creating, writing, designing, managing, promoting, and publishing the online student publication through	Prerequisites: A grade of C or better in JRN210 or		Occ	L+L 3.0	T



				team effort. Emphasis on style, consistency, and news/information judgment combined with community involvement.	NMS120 or JRN213 or permission of Instructor.			5.0 5.0	
NUC100	2021 Spring	Introduction to Nuclear Medicine Technology		Role of the nuclear medicine technologist job duties, responsibilities, working conditions and work environments. Certification and licensing requirements for the nuclear medicine technologist, shadowing experience specific to the nuclear medicine department.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
NUC101	2021 Spring	Essentials of Nuclear Medicine Technology		Introduction to the essential information for the Nuclear Medicine Technology program.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 1.0 1.0 1.0	S
NUC103	2021 Spring	Nuclear Medicine Image Evaluation I		Faculty-led case presentation with reinforcement of processing parameters.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	L+L 1.0 3.0 3.0	T
NUC110	2018 Summer	Introduction to Radiation Physics and Biology for Nuclear Medicine		Atomic structure, types of radiation, radiation biology, and radiation protection.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 3.0 3.0 3.0	S
NUC112	2021 Spring	Nuclear Medicine Quality Control Laboratory		Introduction to the nuclear medicine laboratory rules, equipment operation, and quality control (QC).	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LAB 1.0 3.0 3.0	T
NUC113	2021 Spring	Nuclear Medicine Clinical Applications Laboratory		Establishing competencies by demonstration of nuclear medicine imaging and non-imaging procedures.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LAB 1.0 3.0 3.0	T
NUC114	2018 Summer	Nuclear Medicine Instrumentation		Principles of safe operation for nuclear medicine imaging and non-imaging equipment, including quality control.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 3.0 3.0 3.0	S
NUC116	2021 Spring	Nuclear Medicine Procedures I		Skeletal, respiratory, gastrointestinal (GI) anatomy, physiology, pathology, and related clinical procedures and techniques.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 3.0 3.0 3.0	S
NUC120	2018 Fall	Radiopharmaceutical/Pharmaceutical Administration for the Nuclear Medicine Technologist		Techniques for the administration of radiopharmaceuticals and pharmaceuticals used by the nuclear medicine technologist.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	L+L 1.5 1.5 1.5	T

NUC122	2018 Fall	Nuclear Medicine Imaging I Lab		Protocols for opening/operating in a nuclear medicine department. Quality control, radiation safety, performance of bone scans, lung scans, and genitourinary procedures.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LAB 1.0 3.0 3.0	T
NUC124AA	2009 Fall	Nuclear Medicine Theory I: Part A		Non-imaging instrumentation to include gas-filled detector systems, scintillation detection systems, statistics, nuclear counting statistics, and laboratory equipment. Imaging instrumentation to include planar scintillation cameras, multicrystal scintillation cameras, solid-state detector systems, single photon emission computed tomography (SPECT).	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 1.5 1.5 1.5	S
NUC124AB	2009 Fall	Nuclear Medicine Theory I: Part B		Imaging instrumentation to include quality control of imaging systems and maintenance of image archiving systems. Computers in instrumentation, types of computers, number systems, general structure of computer hardware, software, communications, data management, internet, nuclear medicine computer systems and quality control of these systems.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 1.5 1.5 1.5	S
NUC126	2021 Spring	Nuclear Medicine Procedures II		Endocrine and genitourinary anatomy, physiology, pathology, and clinical procedures and techniques.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 3.0 3.0 3.0	S
NUC130	2021 Spring	Professionalism and Patient Care		Communication and interaction skills, patient assessment, procedures involving transport, medical records, infection control, emergency, safety and venous access.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LAB 1.0 3.0 3.0	T
NUC170AA	2009 Fall	Nuclear Medicine Cardiac Imaging I		Cardiovascular anatomy, physiology and pathology as it relates to cardiac system imaging. Cardiac stress and rest testing, myocardial perfusion and viability, equilibrium radionuclide angiograph (ERNA or MUGA or RVG). First pass angiography, infarct imaging, major vessels flow studies and detection of deep vein thrombosis.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 1.5 1.5 1.5	S

NUC170AB	2009 Fall	Nuclear Medicine Cardiac Imaging II		Cardiovascular imaging instrumentation, procedures, and processing. Radiopharmaceuticals and interventional drugs used in cardiovascular imaging. Non-pharmacologic stress testing. Patient care for the cardiac patient including procedures and pharmaceuticals.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 1.5 1.5 1.5	S
NUC180	2023 Fall	Nuclear Medicine Physics and Instrumentation		Principles of safe operation for nuclear medicine imaging and non-imaging equipment, including positron emission tomography (PET) systems and quality control.	Prerequisites: Admission to Nuclear Medicine Technology program or certified by the American Registry of Radiologic Technologists (ARRT) [R.T. (N)] or the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine.		Occ	LEC 4.0 4.0 4.0	S
NUC202	2023 Fall	Nuclear Medicine Clinical Practicum I		Supervised clinical application of current nuclear medicine practice reinforcing didactic and laboratory concepts. Focus on developing competency in introductory nuclear medicine procedures.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LAB 3.0 15.0 0.0	C
NUC203	2023 Fall	Nuclear Medicine Image Evaluation II		Student led/instructor coached evaluation of images related to clinical situations and procedures. Demonstration of technical skills.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	L+L 1.0 3.0 3.0	T
NUC212	2018 Summer	Clinical Practicum I		Orientation to facility policies and departmental organization. Under direct supervision, clinical application of current nuclear medicine practice of patient care and clinical experiences with an emphasis on quality control (QC) procedures.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LAB 1.5 9.0 0.0	C
NUC214	2013 Fall	Fundamentals of Nuclear Medicine II		Principles and applications of statistics as they relate to Nuclear Medicine. Configuration, function, and application of computers and networks in nuclear medicine.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 1.5 1.5 1.5	S

NUC216	2023 Fall	Nuclear Medicine Procedures II		Endocrine and genitourinary anatomy, physiology, pathology, and clinical procedures and techniques.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 3.0 3.0 3.0	S
NUC220	2018 Summer	Sectional Anatomy for Nuclear Medicine		Sectional human anatomy in the transverse, sagittal and coronal planes. Emphasis on the brain, neck, thorax, abdomen/pelvic cavity and extremities.	Prerequisites: Admission to the Nuclear Medicine Technology Program or permission of Program Director.	NUC220 may be repeated up to five (5) times for a total of fifteen (15) credits. Repeats 5.0 15.0	Occ	LEC 3.0 3.0 3.0	S
NUC222	2018 Summer	Clinical Practicum II		Supervised clinical application of current nuclear medicine practice reinforcing didactic and laboratory concepts. Demonstrate developing competency in introductory nuclear medicine procedures.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LAB 3.0 15.0 0.0	C
NUC223	2021 Spring	Nuclear Medicine Image Evaluation II		Student led/instructor coached evaluation of images related to clinical situations and procedures. Demonstration of technical skills.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	L+L 1.0 3.0 3.0	T
NUC224	2013 Fall	Fundamentals of Nuclear Medicine III		Policy and regulations of delivery systems health policy and ethics regarding the access of health care. Medical informatics implementation of clinical system data entry, patient data, administration, and medical quality assurance mandatory patient centered documentation for federal, state, regulatory, and credentialing agencies professional medical ethics, legal issues and patient rights.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 1.5 1.5 1.5	S
NUC232	2018 Summer	Clinical Practicum III		Under the supervision of licensed technologists, enhance skills and knowledge of current nuclear medicine practice with a focus on broadening procedure competencies.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LAB 3.0 15.0 0.0	C
NUC233	2021 Spring	Nuclear Medicine Image Evaluation III		Advanced student-led serial evaluation of images related to clinical situations and procedures. Demonstration of technical skills.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	L+L 1.0 3.0 3.0	T

NUC234	2021 Spring	Nuclear Medicine Department Administration		Practical methods of leadership, ethics, advocacy, department management, continuous quality improvement, coding and reimbursement, and accreditation.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 3.0 3.0 3.0	S
NUC236	2021 Spring	Nuclear Medicine Procedures III		Central nervous system (CNS), tumor, hematopoietic and infection clinical procedures and techniques to demonstrate anatomy, physiology, and pathology.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 3.0 3.0 3.0	S
NUC240	2016 Fall	Clinical Pathology for Diagnostic Imaging		Causes of disease etiology and impact on the human body. Common physiologic effects of disease on body systems. Correlations of disease, physical findings, clinical laboratory values and diagnostic imaging. Role of Diagnostic Medical Imaging (DMI) modalities in the diagnosis and treatment of selected disease processes as part of the health care team. Cultural implications in the prevention and treatment of disease.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 3.0 3.0 3.0	S
NUC242	2018 Summer	Clinical Practicum IV		Independently function under limited supervision of licensed technologists. Advancement of skills to include all required competencies. Practice diverse and appropriate methods of performing procedures.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LAB 3.0 15.0 0.0	C
NUC243	2018 Fall	Nuclear Medicine Image Evaluation IV		Evaluation of images related to clinical situations and procedures. Demonstration of technical skills. Peer-reviewed literature.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	L+L 1.0 3.0 3.0	T
NUC244	2021 Spring	Nuclear Medicine Radiopharmacy		Radiopharmacy and adjunctive pharmaceutical preparation, calculation, administration, and quality control.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	L+L 3.0 4.0 4.0	T
NUC246	2021 Spring	Nuclear Medicine Procedures IV		Radiopharmaceutical therapy and theranostics clinical procedures and techniques.	Prerequisites: Admission to Nuclear Medicine Technology program or permission of Program Director.		Occ	LEC 3.0 3.0 3.0	S
NUC250	2021 Spring	Fundamentals of Computed Tomography and Elements of		Introduction to principles and operation of computed tomography (CT) scanner and magnetic resonance imaging (MRI).	Prerequisites: Admission to Nuclear Medicine Technology program or		Occ	LEC 3.0 3.0 3.0	S

		Magnetic Resonance Imaging			permission of the Program Director.				
NUC251	2021 Spring	Computed Tomography and Hybrid Imaging Case Analysis		Anatomy, physiology, pathology, and techniques related to the performance of clinical computed tomography (CT) and hybrid imaging.	Prerequisites: Admission to Nuclear Medicine Technology program or permission of Program Director.		Occ	LEC 3.0 3.0 3.0	S
NUC252	2009 Fall	Clinical Practicum V		Orientation to facility policies and procedures and departmental organization. Reinforcement and broadening of knowledge base related to patient care and the roles and responsibilities of the nuclear medicine technologist at the advanced level. Focus on progression to independent level of function in the areas of patient care, radiation protection, instrumentation imaging, non-imaging and computers, radiopharmacy, diagnostic and therapeutic procedures. Ethical and professional behaviors, Health Insurance Portability and Accountability Act (HIPAA) requirements.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LAB 3.0 15.0 0.0	C
NUC253	2018 Fall	Nuclear Medicine Image Evaluation V		Emphasis on positron emission tomography (PET) therapy imaging and other studies new to the nuclear medicine imaging field. Evaluation of images related to clinical situations and procedures including patient history, patient preparation, name and energy of radiopharmaceutical, method of localization, dosimetry, and method of clearance. Normal and abnormal distribution. Need for additional views and/or procedures. Technical limitations, protocol and equipment parameters and procedure results. Examination of professional journal articles.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LAB 1.0 3.0 3.0	T
NUC259	2021 Spring	Fundamentals of Research in Nuclear Medicine		Fundamental components to nuclear medicine research.	Prerequisites: Admission to Nuclear		Occ	LEC 3.0	S

					Medicine Technology program.			3.0 3.0	
NUC260	2021 Spring	Research Methods and Design		Exploration of knowledge and effective analysis of resources to promote best practice in imaging professions. Introduction to research design, statistical reasoning, and interpretation of the medical literature. Provide a basis for understanding and interpreting the literature for use in evidence-based practice.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 3.0 3.0 3.0	S
NUC261	2013 Fall	Emerging Technologies		Exploration of new and emerging technologies that will become tomorrow's standard of practice. Introduction to these new ideologies. Development and presentation of research findings.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 2.0 2.0 2.0	S
NUC262	2018 Summer	Capstone Practicum		Culminating course to integrate the educational process to facilitate role transition from student to graduate nuclear medicine technologist.	Prerequisites: Admission to Nuclear Medicine Technology program or permission of the Program Director.		Occ	LAB 1.5 9.0 0.0	C
NUC263	2021 Spring	Nuclear Medicine Research Presentation and Publication		Presentation of research project at local, regional, or national meeting or submission of research project to scientific journal for publication. Critical evaluation of research projects.	Prerequisites: A grade of C or better in NUC259 and NUC260.		Occ	LEC 3.0 3.0 3.0	S
NUC270	2009 Fall	Nuclear Medicine Scientific Method		Scientific research in the field of nuclear medicine. Abstract writing to include research study results, objectives, methods, observational and analytical techniques, and conclusion.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 1.0 1.0 1.0	S
NUC272	2018 Summer	Cardiac Practicum		Comprehensive, advanced-level practical experience at a designated cardiac clinical site.	Prerequisites: Admission to Nuclear Medicine Technology program or certified by the American Registry of Radiologic Technologists (ARRT) in Nuclear Medicine [R.T. (N)] or the Nuclear Medicine	NUC272 may be repeated five (5) times for a total of seven and a half (7.5) credits.	Occ	LAB 1.5 9.0 0.0	C

					Technology Certification Board (NMTCB) in Nuclear Medicine.				
NUC276	2021 Spring	Nuclear Cardiology		Cardiovascular anatomy, physiology, and pathophysiology as it relates to cardiac imaging including cardiac blood flow, electrophysiology, and function. Pharmacologic and exertional stress testing methods used in conjunction with imaging. Cardiac imaging instrumentation, acquisition and processing procedures, artifacts, and quality control.	Prerequisites: Admission to Nuclear Medicine Technology program or certified by ARRT [R.T. (N)] or the Nuclear Medicine Technology Certification Board (NMTCB) in nuclear medicine.		Occ	L+L 3.0 4.0 4.0	T
NUC280	2021 Spring	Nuclear Medicine PET Physics and Instrumentation		Principles of safe operation for positron emission tomography (PET) systems and required quality control.	Prerequisites: Admission to Nuclear Medicine Technology program or certified by the American Registry of Radiologic Technologists (ARRT) [R.T. (N)] or the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine.		Occ	LEC 3.0 3.0 3.0	S
NUC283	2018 Summer	PET/CT Practicum		Comprehensive, advanced-level practical experience at a Positron Emission Tomography/Computed Tomography (PET/CT) clinical site.	Prerequisites: Admission to Nuclear Medicine Technology program or permission of the Program Director.	NUC283 may be repeated five (5) times for a total of seven and a half (7.5) credits.	Occ	LAB 1.5 9.0 0.0	C
NUC290	2018 Summer	Nuclear Medicine Seminar		Review of content areas addressed on the American Registry of Radiologic Technologists (ARRT), Nuclear Medicine Technology Certification Board (NMTCB), and Arizona state licensure examinations. Study and test-taking strategies.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 3.0 3.0 3.0	S



NUC291	2023 Fall	Computed Tomography Registry and Board Exam Preparation	ICE291	Discussion of concepts outlined in the American Registry of Radiologic Technologists (ARRT) published content specifications for their post-primary certification exam in computed tomography (CT).	Prerequisites: Permission of the Program Director or Instructor.		Occ	LEC 1.0 1.0 1.0	S
NUC292	2013 Spring	Radiopharmacy Practicum		Comprehensive, high level practical experience at a Radiopharmacy clinical site. Cooperative work with direct and indirect supervisory personnel in a Radiopharmacy setting. Emphasis on technical components of Radiopharmacy procedures and radiation safety.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LAB 1.0 3.0 0.0	C
NUC303	2023 Fall	Nuclear Medicine Image Evaluation III		Advanced student-led serial evaluation of images related to clinical situations and procedures. Demonstration of technical skills.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	L+L 1.0 3.0 3.0	T
NUC316	2023 Fall	Nuclear Medicine Procedures III		Central nervous system (CNS), tumor, hematopoietic and infection clinical procedures and techniques to demonstrate anatomy, physiology, and pathology.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 3.0 3.0 3.0	S
NUC322	2023 Fall	Nuclear Medicine Clinical Practicum II		Under the supervision of licensed technologists, enhance skills and knowledge of current nuclear medicine practice with a focus on broadening procedure competencies.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LAB 3.0 15.0 0.0	C
NUC350	2023 Fall	Fundamentals of Computed Tomography and Elements of Magnetic Resonance Imaging		Introduction to principles and operation of computed tomography (CT) scanner and magnetic resonance imaging (MRI).	Prerequisites: Admission to Nuclear Medicine Technology program or permission of the Program Director.		Occ	LEC 3.0 3.0 3.0	S
NUC359	2023 Fall	Research Methods and Design		Exploration of knowledge and effective analysis of resources to promote best practice in imaging professions. Introduction to research design, statistical reasoning, and interpretation of the medical literature. Provide a basis for understanding and interpreting the literature for use in evidence-based practice.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 3.0 3.0 3.0	S

NUC372	2023 Fall	Cardiac Practicum		Comprehensive, advanced-level practical experience at a designated cardiac clinical site.	Prerequisites: Admission to Nuclear Medicine Technology program or certified by the American Registry of Radiologic Technologists (ARRT) in Nuclear Medicine [R.T. (N)] or the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine.	NUC372 may be repeated five (5) times for a total of seven and a half (7.5) credits.	Occ	LAB 1.5 9.0 0.0	C
NUC382	2023 Fall	PET/CT Practicum		Comprehensive, advanced-level practical experience at a positron emission tomography/computed tomography (PET/CT) clinical site.	Prerequisites: Admission to Nuclear Medicine Technology program or permission of the Program Director.	NUC382 may be repeated five (5) times for a total of seven and a half (7.5) credits.	Occ	LAB 1.5 9.0 0.0	C
NUC392	2023 Fall	Computed Tomography Clinical Practicum I		Use of correct computed tomography instrumentation, protocol implementation and positioning techniques. Application of patient safety measures and follow As Low As Reasonably Achievable (ALARA) practices to reduce radiation dose as established by the institution. Practice within established ethical and legal guidelines. Use of effective communication skills.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LAB 3.0 15.0 0.0	C
NUC402	2023 Fall	Computed Tomography Clinical Practicum II		Reinforcement of clinical skills in a practical setting within established ethical and legal guidelines. Focus on use of correct tomography instrumentation, protocol implementation, and positioning techniques and application of patient safety measures and As Low As Reasonably Achievable (ALARA) practices to reduce radiation dose as	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LAB 3.0 15.0 0.0	C

				established by the institution. Also includes use of effective communication skills.					
NUC403	2023 Fall	Nuclear Medicine Image Evaluation IV		Evaluation of images related to clinical situations and procedures. Demonstration of technical skills. Peer-reviewed literature.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	L+L 1.0 3.0 3.0	T
NUC416	2023 Fall	Nuclear Medicine Procedures IV		Radiopharmaceutical therapy and theranostics clinical procedures and techniques.	Prerequisites: Admission to Nuclear Medicine Technology program or permission of Program Director.		Occ	LEC 3.0 3.0 3.0	S
NUC422	2023 Fall	Nuclear Medicine Clinical Practicum III		Independently function under limited supervision of licensed technologists. Advancement of skills to include all required competencies. Practice diverse and appropriate methods of performing procedures.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LAB 3.0 15.0 0.0	C
NUC432	2023 Fall	Capstone Practicum		Culminating course to integrate the educational process to facilitate role transition from student to graduate nuclear medicine technologist.	Prerequisites: Admission to Nuclear Medicine Technology program or permission of the Program Director.		Occ	LAB 3.0 9.0 0.0	C
NUC434	2023 Fall	Nuclear Medicine Department Administration		Practical methods of leadership, ethics, advocacy, department management, continuous quality improvement, coding and reimbursement, and accreditation.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 3.0 3.0 3.0	S
NUC444	2023 Fall	Nuclear Medicine Radiopharmacy		Radiopharmacy and adjunctive pharmaceutical preparation, calculation, administration, and quality control.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	L+L 3.0 4.0 4.0	T
NUC450	2023 Fall	Computed Tomography and Hybrid Imaging Case Analysis		Anatomy, physiology, pathology, and techniques related to the performance of clinical computed tomography (CT) and hybrid imaging.	Prerequisites: Admission to Nuclear Medicine Technology program or permission of Program Director.		Occ	LEC 3.0 3.0 3.0	S
NUC459	2023 Fall	Nuclear Medicine Research Presentation and Publication		Presentation of research project at local, regional, or national meeting or submission of research project to scientific journal for publication. Critical evaluation of research projects.	Prerequisites: A grade of C or better in NUC259 and NUC260.		Occ	LEC 3.0 3.0 3.0	S

NUC490	2023 Fall	Nuclear Medicine Seminar		Review of content areas addressed on the American Registry of Radiologic Technologists (ARRT), Nuclear Medicine Technology Certification Board (NMTCB), and Arizona state licensure examinations. Study and test-taking strategies.	Prerequisites: Admission to Nuclear Medicine Technology program.		Occ	LEC 3.0 3.0 3.0	S
NUR101	2014 Spring	Student Success in Nursing		Individual self-awareness and self management strategies for success with nursing study, clinical reasoning and testing success. Emphasis on the development of prioritizing and delegation skills for the nursing student.	Prerequisites: Permission of Instructor.	NUR101 may be repeated for a total of four (4) credit hours. Repeats 4.0 4.0	Occ	LEC 1.0 1.0 1.0	S
NUR102	2011 Fall	Nursing Process Transition		Transitions paramedics to scope and practice of nursing. Focuses on nursing concepts and theories to meet basic human needs across the lifespan throughout the wellness/illness continuum. Theoretical concepts focus on clients of all ages with selected physiological and psychological alterations. Emphasis on expanding the paramedic's skills and experience to transition to the role of the nurse utilizing nursing process and critical thinking in acute care and community settings.	Prerequisites: Arizona or National Paramedic Registry Certificate, and application and admission to Maricopa Nursing advanced placement. One year current healthcare work experience required or permission of Nursing Department Chairperson. Corequisites: NUR103.		Occ	LEC 4.0 4.0 4.0	S
NUR103	2018 Fall	Nursing Science Transition		Application of nursing concepts and theories of health promotion to nursing care to meet basic human needs. Provides opportunity for the paramedic to develop clinical competency in selected nursing skills and care of clients across the lifespan experiencing altered physiologic functioning. Includes clinical experience with individuals, families, and small groups of clients in acute, long-term, and community settings to develop care plans, teaching plans, and discharge plans.	Prerequisites: Arizona or National Paramedic Registry Certificate, and application and admission to Maricopa Nursing with advanced placement. Minimum of one year current healthcare work experience required or permission of Nursing Department		Occ	LAB 4.0 12.0 12.0	T

					Chairperson. Corequisites: NUR102.				
NUR104AA	2018 Fall	Structured Nursing Review		Structured nursing tutorial assistance and nursing study skills to help students achieve success in their respective block of nursing courses. Nursing process and critical thinking application skills emphasized.	Prerequisites: None. Corequisites: Enrollment in the Nursing program or permission of Department Chair.	NUR104A A may be repeated for a total of six (6) credit hours. Course offered as Credit (P) No credit (Z) basis.	Occ	LEC 0.5 0.5 0.5	S
NUR104AB	2018 Fall	Structured Nursing Review		Structured nursing tutorial assistance and nursing study skills to help students achieve success in their respective block of nursing courses. Nursing process and critical thinking application skills emphasized.	Prerequisites: None. Corequisites: Concurrent enrollment in the Nursing program or permission of Department Chair.	NUR104A B may be repeated for a total of eight (8) credits. Course offered as Credit (P) No credit (Z) basis.	Occ	LEC 1.0 1.0 1.0	S
NUR106	2019 Summer	Nursing Theory and Science Transition (Paramedic Bridge)		Introduction and utilization of Nurse of the Future competencies to develop knowledge, skills, and attitudes to provide safe, quality patient care across the wellness-illness continuum in selected medical-surgical and mental health patients. Basic care concepts and nursing process are utilized to meet the needs of adult and older adult patients.	Prerequisites: (Arizona or National Paramedic Registry Certificate), acceptance into the Maricopa Nursing advanced placement, NUR187, and (one year current work experience utilizing Paramedic scope of practice or permission of Nursing Department Chairperson.).	NUR106 is intended for experienced paramedics seeking advanced placement to Maricopa Nursing.	Occ	LEC 9.0 5.5 5.5 LAB 0.0 157.5 10.5	R
NUR150	2019 Summer	Practical Nurse Bridge Course		Designed to bridge previously gained healthcare knowledge, skills, and abilities of the military Veteran student and/or Licensed Practical Nurse (LPN) seeking to refresh knowledge	Prerequisites: A military Veteran with a health care designation (medic/corpsman) or		Occ	LEC 12.0 9.0 9.0 LAB	R

				<p>in the role of the practical nurse. Course includes didactic, laboratory, and clinical experiences for practical nursing including concepts and theories related to care of geriatric, adult, pediatric, and childbearing clients. Areas of didactic and clinical focus include: role of the practical nurse collaborating with other members of the healthcare team; concepts of health promotion and disease/illness prevention; therapeutic communication techniques; nutritional concepts; medication administration to include pharmacokinetics and pharmacodynamics of medications, nursing considerations in medication administration, and dosage calculation; documentation and concepts related to information technology. Emphasis in clinical practicum is on nursing care of pediatric and child-bearing families, and older adult residents of long term care facilities with selected alterations in health; concepts of delegation, prioritization and management of care for the practical nurse is integrated.</p>	<p>a licensed practical nurse (LPN) who requires a refresher program. Approval of the Nursing Chair or designee and application packet completion is required.</p>			<p>0.0 180.0 12.0</p>	
NUR151	2018 Fall	Nursing Theory and Science I		<p>Introduction to fundamentals of nursing theory and practice utilizing critical thinking based on the nursing process and principles of evidence based practice. Focus on meeting basic human needs within the wellness/illness continuum. Theoretical concepts related to holistic care of well, geriatric, and adult clients. Provides safe nursing care to clients with selected alterations in health. Introduction to professional nursing practice. Applies concepts of health promotion, disease/illness prevention. Provides care based upon integration of pathophysiology, nutrition,</p>	<p>Prerequisites: Admission into the Nursing Program.</p>		Occ	<p>LEC 10.0 5.0 5.0 LAB 0.0 15.0 15.0</p>	T

				communication and physical, biological, and psycho-social sciences. Uses information technology in performing and evaluating client care					
NUR152	2023 Fall	Nursing Theory and Science I		Introduction of Nurse of the Future competencies as a foundational framework for development of the professional nurse. Basic care concepts, the nursing process, and clinical reasoning are utilized to meet the needs of adult and older adult patients.	Prerequisites: Admission into the Nursing program.		Occ	LEC 9.0 4.0 4.0 LAB 0.0 16.88 15.0	R
NUR158	2021 Spring	Nurse Assisting		Introduction to the role of the nursing assistant for clients across the wellness/illness continuum within the nurse assisting scope of practice. Includes basic problem solving processes specific to meeting the basic and holistic needs of clients, therapeutic communication skills, interventions to ensure the needs and safety of the client, specific types of diseases, conditions and alterations in behavior of the client. Focus is on the special needs of the older adult client in the acute and long-term care settings, and basic care skills and procedures. Provides opportunity for the development of clinical competency in the performance of selected nurse assisting skills and procedures through participation in the care of clients.	Prerequisites: Reading and math assessment as well as completion of all required Health and Safety documents.	NUR158 final admission requirements are determined by the Program Director and/or Division Chair and may be based on employer (partner) requirements if the student is employed by the requesting agency. NUR158 meets the application and admission requirements for Maricopa Nursing programs.	Occ	LEC 4.5 2.5 2.5 LAB 0.0 6.0 6.0	R

NUR160PN	2019 Summer	Practical Nursing Theory and Science I		Core values of the practical nursing program, nursing history, standards, and scope of practice of the practical nurse. Safe nursing care of clients with selected alterations in health; fundamental concepts of health promotion, disease/illness prevention. Nursing care based upon integration of pathophysiology, nutrition, communication and physical, biological, and psycho-social sciences. Uses information technology in performing and documenting client care.	Prerequisites: Admission into the Fast Track Practical Nursing Program.		Occ	LEC 11.0 6.0 6.0 LAB 0.0 225.0 15.0	R
NUR171	2018 Fall	Nursing Theory and Science II		Application of nursing theory and practice utilizing critical thinking based on the nursing process and evidence based practice. Holistic nursing concepts of health promotion, disease/illness prevention, and health restoration for adult and geriatric clients. Role development as the professional nurse member of the health care team. Participation in client teaching and discharge planning. Application of previous knowledge of physical, biologic, psycho-social sciences, and the cultural and spiritual aspects of nursing care. Application of nursing concepts in the development of plan of care to include pathophysiology, nutrition, pharmacology, and skills in communication. Uses information technology in planning, documenting, and evaluating client care	Prerequisites: A grade of C or better in NUR151 or permission of Nursing Department Chairperson.		Occ	LEC 8.0 4.0 4.0 LAB 0.0 12.0 12.0	T
NUR172	2023 Fall	Nursing Theory and Science II		Utilization of Nurse of the Future competencies and clinical judgment measures to develop knowledge, skills, and attitudes to provide safe, quality patient care across the wellness-illness continuum in selected medical-surgical and mental health patients.	Prerequisites: A grade of C or better in (BIO202 and NUR152) or permission of Nursing Department Chair.		Occ	LEC 9.0 5.5 5.5 LAB 0.0 11.81 10.5	R



NUR180PN	2019 Summer	Practical Nursing Theory and Science II		Holistic practical nursing concepts and theories related to care of childbearing, pediatric, adult, and geriatric clients. Role of the practical nurse collaborating with other members of the healthcare team. Concepts of health promotion and disease/illness prevention. Nursing care based upon integration of pathophysiology, nutrition, communication and physical, biological and psycho-social sciences. Information technology in performing and documenting client care. Emphasis on nursing care related to pediatric, child-bearing families, and adult clients with selected alterations in health; concepts of delegation, prioritization and management of care for the practical nurse based on the core values of the nursing program.	Prerequisites: A grade of C or better in NUR160PN.		Occ	LEC 11.0 6.0 6.0 LAB 0.0 225.0 15.0	R
NUR187	2020 Spring	Pharmacology and Medication Administration		Overview of selected drug classifications and categories. Emphasis on principles of drug metabolism and effects, interactions and adverse reactions, medication administration, and nursing implications for safe practice with a focus on adult and older adult patients. Requires application of previous knowledge of physical, biological, and social sciences.	Prerequisites: Permission of Nursing Department/Division Chair.		Occ	LEC 1.5 1.5 1.5	S
NUR191	2023 Summer	Practical Nursing Transition		Overview of the role of the practical nurse in the care of patients. Includes nursing standards and scope of practice of the practical nurse. Emphasis on nursing care related to pediatric and care of the well childbearing patient and childbearing family. Focus on the role of practical nurse in providing care through interventions consistent with established nursing care plans.	Prerequisites: A grade of C or better in NUR171, or NUR172, or permission of Nursing Department Chair.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0	T
NUR251	2018 Fall	Nursing Theory and Science III		Application of critical thinking strategies related to holistic care of the newborn, pediatric, and	Prerequisites: A grade of C or better in (BIO202, BIO205		Occ	LEC 8.0 4.0	T

				childbearing clients. Integration of concepts related to holistic care of adults and geriatric clients with selected acute and chronic alterations in health. Integration of professional nursing standards in role development. Utilization of previous knowledge of physical, biologic, psycho-social sciences, and the cultural, spiritual aspects of nursing care. Integration of concepts of nutrition, pharmacology, communication, health promotion, and pathophysiology into nursing care.	and NUR171) or permission of Nursing Department Chairperson.			4.0 LAB 0.0 12.0 12.0	
NUR252	2023 Fall	Nursing Theory and Science III		Application of critical thinking strategies and clinical judgment measures related to holistic care of the newborn and childbearing patients. Integration of concepts related to holistic care of adults and older adult patients with selected acute and chronic alterations in health. Integration of professional nursing standards in role development. Utilization of previous knowledge of physical, biologic, psycho-social sciences, and the cultural, spiritual aspects of nursing care. Integration of concepts of nutrition, pharmacology, communication, health promotion, and pathophysiology into nursing care.	Prerequisites: A grade of C or better in [(CRE101 or appropriate district placement) and NUR172 and PSY101] or permission of Nursing Department Chair.		Occ	LEC 9.0 5.5 5.5 LAB 0.0 11.81 10.5	R
NUR271	2018 Fall	Nursing Theory and Science IV		Integration of critical thinking strategies for complex holistic needs of high-risk clients with multi- system health alterations. Application of strategies related to holistic care of the client with psychiatric/ mental health disorders. Introduction to community based care. Assimilation of professional role into practice. Evaluation of care based on the knowledge of physical, biologic, psycho-social sciences, and the	Prerequisites: A grade of C or better in NUR251 or permission of Nursing Department Chairperson.		Occ	LEC 7.0 4.0 4.0 LAB 0.0 9.0 9.0	T

				cultural and spiritual beliefs of clients. Development of nurse leadership and management roles. Integration of concepts of nutrition, pharmacology, communication, health promotion, and pathophysiology into nursing care					
NUR283	2023 Fall	Nursing Theory and Science IV		Applies Nurse of the Future competencies and clinical judgment measures to practice and manage care for the child/family unit and adults requiring complex care throughout the wellness/illness continuum, and prepare for transition from student to professional nurse.	Prerequisites: A grade of C or better in (BIO205 and NUR252) or permission of Nursing Department Chair.		Occ	LEC 9.0 5.5 5.5 LAB 0.0 11.81 10.5	R
NUR291	2018 Fall	Nursing Clinical Capstone		Synthesis of the nursing process to facilitate role transition from student to graduate nurse within a preceptorship experience. Development of nurse leadership and management roles.	Prerequisites: A grade of C or better in NUR271 or permission of Nursing Department Chairperson.		Occ	LAB 2.0 6.0 6.0	T
NUR292	2014 Fall	Overview of Current Nursing Principles and Practice across the Lifespan		Update of current principles and practice guidelines for returning nurses in pediatric, obstetrical and geriatric clients. Overview of nursing concepts, therapeutic interventions, and evidence-based practice for clients across the lifespan.	Prerequisites: Permission of Instructor.		Occ	LEC 2.0 2.0 2.0	S
NUR295	2019 Summer	Registered Nurse Refresher		Update of current principles of nursing theory and practice for registered nurses. Didactic instruction meets all Arizona State Board of Nursing requirements: nursing process and patient centered care; pharmacology, medication calculation, and medication administration; communication; critical thinking, clinical decision making and evidence-based practice; delegation, management, and leadership; working with interdisciplinary teams; meeting psychological and physiological needs of adult clients with medical-surgical conditions; ethics; documentation including electronic health records; informatics; and quality improvement.	Prerequisites: Permission of Instructor.		Occ	LEC 10.0 6.0 6.0 LAB 0.0 180.0 12.0	R

				Concentrated preceptorship experience under the supervision of a registered nurse with faculty guidance. Individualized teaching and learning opportunities to build confidence, competence and an increased level of independent functioning.					
NUR296WA	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 1.0 5.0 0.0	Z
NUR296WB	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to		Occ	LAB 2.0 10.0 0.0	Z

					students major or career interest or with permission of Instructor.				
NUR296WC	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 3.0 15.0 0.0	Z
NUR296WD	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 4.0 20.0 0.0	Z

NUR298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z
NUR298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z
NUR298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z
NUR301	2024 Fall	Role of the Professional Nurse		Introduction to the transition from Registered Nurse to the role and scope of the professional baccalaureate nurse. Review of nursing philosophies, theories, and conceptual models. Focus on concepts and attributes of the baccalaureate nurse.	Prerequisites: Admission into the RN to BSN program; current, unencumbered RN license.		Occ	LEC 3.0 3.0 3.0	S

NUR302	2024 Fall	Health Assessment and Promotion		Overview of the health assessment process, including methods of taking health history, physical examination skills, documentation, and health promotion strategies. Emphasis on health promotion across the lifespan among diverse populations, health equity, and community resources.	Prerequisites: Admission into the RN to BSN program; current, unencumbered RN license.		Occ	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0	R
NUR303	2024 Fall	Nursing Research and Evidence- Based Practice		Use of evidence-based research findings for improving clinical practice and person-centered care outcomes. Exploration of quantitative and qualitative research methodologies. Emphasis on the critical review of research studies and their applications to clinical practice.	Prerequisites: Admission into the RN to BSN program; current, unencumbered RN license.		Occ	LEC 3.0 3.0 3.0	S
NUR304	2024 Fall	Public and Community Health Nursing		Exploration of population health as a system of diverse cultures, values, and subgroups with varying socioeconomic circumstances and levels of vulnerability. Emphasis on factors affecting community settings using epidemiological data and functional health pattern assessments to plan, organize, and deliver services in community settings, including health education and promotion, illness prevention, and disaster preparedness. Includes project and simulation-based field experiences.	Prerequisites: Admission into the RN to BSN program; current, unencumbered RN license.		Occ	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0	R
NUR305	2024 Fall	Legal and Ethical Topics in Nursing		Overview of health policy, legislative and regulatory guidelines, the Nurse Practice Act, and legal and ethical concepts that influence the practice of professional nursing. Focus on ethical decision-making models.	Prerequisites: Admission into the RN to BSN program; current, unencumbered RN license.		Occ	LEC 3.0 3.0 3.0	S
NUR401	2024 Fall	Systems-Based Thinking in Nursing		Overview of systems-based thinking in nursing and its role in improving the quality and safety of patient care. Focus on coordination of healthcare systems components to address complex issues and deliver optimal care.	Prerequisites: Admission into the RN to BSN program; current, unencumbered RN license.		Occ	LEC 3.0 3.0 3.0	S
NUR402	2024 Fall	Healthcare Technology and Informatics		Exploration of various modalities and integration of healthcare technology and informatics to manage and	Prerequisites: Admission into the RN to BSN program;		Occ	LEC 3.0	S

				communicate data, advance health information literacy, and improve patient outcomes. Focus on components, applications, problem solving, and data management strategies.	current, unencumbered RN license.			3.0 3.0	
NUR403	2024 Fall	Nursing Leadership and Management		Overview of leadership qualities, abilities, and personal style including strengths and challenges. Focus on understanding the differences between management and leadership. Emphasis on communication and transparency in management and leadership.	Prerequisites: Admission into the RN to BSN program; current, unencumbered RN license.		Occ	LEC 3.0 3.0 3.0	S
NUR404	2024 Fall	Advanced Nursing Capstone		Capstone project that provides the baccalaureate nursing student with the opportunity to assess, identify, propose, and present an evidence-based project that addresses an issue significant to nursing practice. The project will synthesize knowledge from coursework and experience. The capstone project will be under the guidance and in collaboration with program faculty and a preceptor from the facility or entity.	Prerequisites: Admission into the RN to BSN program; current, unencumbered RN license.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 6.0 6.0	T
NVH245	2008 Spring	Navajo Culture and Heritage		Survey of the Navajo people, including their history, culture/aesthetics, education, spirituality, and language	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
OAS101	2018 Fall	Computer Typing I: Keyboarding and Formatting		Keyboard mastery; letters, tables, and reports; office production; and manuscripts	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0	T
OAS101AA	2018 Fall	Computer Typing I: Keyboard Mastery		Incorporates correct touch typing principles	Prerequisites: None.		Occ	L+L 1.0 1.7 1.7	T
OAS101AB	2018 Fall	Computer Typing I: Letters, Tables and Reports		Letter, table, and report formatting	Prerequisites: A grade of C or better in OAS101AA or permission of Department or Division.		Occ	L+L 1.0 1.7 1.7	T



OAS101AC	2018 Fall	Computer Typing I: Production and Manuscript		Simple office projects and manuscripts	Prerequisites: A grade of C or better in OAS101AB or permission of Department or Division.		Occ	L+L 1.0 1.7 1.7	T
OAS102	2018 Fall	Computer Typing II: Document Production		Arrangement of letters, memos, manuscripts, and tabulation; speed/accuracy improvement	Prerequisites: A grade of C or better in OAS101 or permission of Department or Division.		Occ	L+L 3.0 5.0 5.0	T
OAS103AA	2018 Fall	Computer Typing: Skill Building I		Individual progression on speed/accuracy drills.	Prerequisites: Ability to touch type at 25 words per minute or permission of Department or Division.		Occ	L+L 1.0 1.7 1.7	T
OAS107	1994 Fall	Professional Telephone Techniques		Proper telephone techniques and professional business manners	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
OAS108	1998 Summer I	Business English		Comprehensive coverage of correct use of English grammar including spelling, punctuation, capitalization, and number style mechanics in a business context	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
OAS111AA	2018 Fall	Computer Keyboarding I	BPC111AA	Mastery of essential microcomputer keyboarding skills. Emphasis on touch typing of alphabetic and numeric keys and symbols	Prerequisites: None.		Occ	L+L 1.0 1.7 1.7	T
OAS118	2018 Fall	10-Key By Touch		Touch system of numeric keys on ten- key pads	Prerequisites: None.		Occ	L+L 1.0 1.7 1.7	T
OAS120	1998 Summer I	Financial Record Keeping		Computerized application of concepts and procedures of office record keeping; includes finance and personnel records, inventory systems, banking procedures and cash control; decision-making process for solving financial problems	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
OAS125	1995 Spring	Introduction to the Professional Office		Expectations of the professional in the electronic office of today. Realistic and practical coverage of roles, responsibilities, and environment	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S

OAS181	1998 Summer I	Medical Office: Vocabulary		Basic medical vocabulary with emphasis on pronunciation, spelling, and definition	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
OAS298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z
OPH101	2023 Fall	Introduction to Eye Care		This course will introduce the student to the meaning of ophthalmology and the different members of the ophthalmic eye care team. The student will learn different certification levels and the importance of professional development. Body structure, body function, anatomy and physiology of the eye will be discussed in detail. Proper moving, transferring and safety issues of patients; as well as knowledge about diverse populations, geriatric patients and patients with special needs will be demonstrated and discussed. An introduction to infection control, agency guidelines, and using proper aseptic technique will be discussed and demonstrated.	Prerequisites: Successful completion of RDG100 or higher or appropriate reading placement into CRE101.		CLK	54	
OPH102	2021 Fall 1	Introduction to Ophthalmology		This course will introduce the student to the meaning of ophthalmology and the different members of the ophthalmic eye care team. The student will learn different certification levels and the importance of professional development as well as learn medical terminology and how to perform cardiopulmonary resuscitation (CPR) on infants, children, and adults. Students will be	Prerequisites: Successful completion of RDG100 or higher or appropriate reading placement into CRE101.		CLK	50	

				introduced to infection control procedures, legal and ethical considerations, and regulatory requirements. Students will learn about the Health Insurance Portability and Accountability Act (HIPAA) and privacy laws, and the importance of confidentiality in written and communication form.					
OPH103	2021 Fall 1	Ophthalmic Scheduling and Billing Practices		A certified medical administrative assistant (also called a medical office secretary or medical office assistant) keeps an ophthalmic healthcare office running efficiently and effectively. The ophthalmic medical administrative assistant is often the first to greet and help patients, and can help set the stage for a patient's experience. Students will gain the knowledge and skills relevant for working in the ophthalmic medical office setting such as greeting and checking in patients, collecting personal, medical, and insurance information. Schedule, reschedule, and verify patient appointments. Schedule appointments with secondary care providers and coordinate physician schedules. Ophthalmic medical administrative assistants will coordinate and maintain patient flow within the medical office by communicating patient arrivals or delays. This course will prepare students for the Certified Medical Administrative Assistant Examination through the National Healthcareers Association (NHA).	Prerequisites: OPH102		CLK	100	
OPH104	2021 Fall 1	Ocular and Systemic Diseases of the Eye		This course will introduce students to the signs and symptoms of specific eye diseases, as well as how disease processes affect the visual system. Students will be introduced to how systemic diseases with ocular manifestations occur, impact visual acuity, and are treated. Students will	Prerequisites: OPH103 or Program Manager approval.		CLK	50	

				learn how to obtain and record vital signs, set up a vision lane to screen school aged children, prepare and provide guidance to school aged children to prepare them for examinations, utilize specialized eye screening equipment and provide referrals for further care. This course prepares students for the Arizona Department of Health Vision Screener Certification.					
OPH105	2021 Fall 1	Ocular and Refractive Clinical Assessment, Skills, and Procedures		The Ocular and Refractive Clinical Assessment, Skills, and Procedures course will prepare students to work in the exciting and ever evolving world of ophthalmic medical assisting. This course will help students develop basic skills such as triaging patient complaints and symptoms, taking a good patient history, and performing comprehensive examinations on patients with various medical eye conditions. Students will study anatomy and physiology of the eye, pharmacology, and infection control procedures. Additionally, this course will prepare students to use and care for various types of ophthalmic instruments, assist with procedures, and conduct a variety of tests. This course will explain the principles of optics and refractive states of the eye to aid in caring for patients needing contact lenses or reading eyeglasses, and measuring the patient for the proper optical prescription.	Prerequisites: 1. Must show proof of employment at an ophthalmic office. 2. Successful completion of RDG100 or higher or appropriate reading placement into CRE101.		CLK	240	
OPH110	2020 Fall 1	Medical Terminology/Abbreviations and Disease Processes for Ophthalmic Medical Assistant		This course will introduce the student to understanding the signs and symptoms of specific eye diseases, as well as how said disease affects the visual system. Systemic diseases with ocular manifestations will be discussed. The students will discuss and document by writing essays on the causes of specific diseases and the procedures used to diagnose and	Prerequisites: OPH101, or with Program Manager approval, and current health and safety requirements.		CLK	42	

				treat these diseases. The students will begin practicing medical terminology and acceptable abbreviations specific to the field of ophthalmology with an outcome of the ability to spell, define, and use ophthalmic terminology and abbreviations. The student will learn, demonstrate and record vital signs.					
OPH112	2023 Fall	Clinical Theory and Skills		This course will explain the principles of optics and refractive states of the eye. Reading eyeglasses and measuring the patient for the proper eyeglass prescription will be demonstrated. The importance of ophthalmic pharmacology will be discussed and students will learn how the medications are used in the ophthalmology practice. Students will learn how to properly write a prescription for eye medications. Demonstration of proper eye drop instillation will be given. The importance of current microorganisms and infection control will be discussed in detail. The students will begin performing comprehensive medical eye examination. Ocular motility and other adjunctive testing in ophthalmology will be demonstrated.	Prerequisites: OPH110 or with Program Manager approval, and current health and safety requirements.		CLK	177	
OPH114	2023 Fall	Basic Skills and Ocular Assessment		This course will develop and refine the knowledge and skills necessary to assist the ophthalmologist in completion of the findings, assessment, and plan needed in a comprehensive ophthalmic medical evaluation for each patient. Community eye health and the importance of low vision will be discussed. The student ophthalmic assistant will perform and demonstrate comprehensive examinations and be required to pass skill evaluation testing.	Prerequisites: OPH112 or with Program Manager approval, and current health and safety requirements.		CLK	183	
OPH150	2021 Fall 1	Certified Ophthalmic		This is a refresher course that will help prepare students for the Joint	Prerequisites: Ophthalmic Assistant		CLK	24	

		Assistant (COA) Certification Prep		Commission on Allied Health Personnel in Ophthalmology (JCAHPO) for Certified Ophthalmic Assistant (COA) Exam. Students will feel more comfortable and more efficient with this exam.	Certification from the Joint Commission on Allied Health Personnel in Ophthalmology (JCAHPO).				
OPH190	2021 Fall 1	Ophthalmic Assisting Externship		This course will give students hands-on experience with patients, staff, and other ophthalmic professionals while using their skills and techniques they obtain from lecture and lab courses. Students are assigned to an approved partnership site for one hundred and twenty (120) hours of externship. This will prepare the student for employment as an ophthalmic medical assistant.	Prerequisites: 1. OPH114 or with Program Manager approval. 2. Background check requirements in compliance with the Maricopa County Community College District Supplemental Background Check Policy. 2. Students also must provide a copy of an Arizona Department of Public Safety Level One Fingerprint Clearance Card. Students must maintain current fingerprint clearance throughout the externship(s). 3. Complete and submit the Allied Health Student Health and Safety Documentation Checklist, with included documentation 4. Students are responsible to meet the requirements of the background check, fingerprint clearance card, and health and safety documentation.	Externship hours are site specific and may require attendance any day of the week, including during unscheduled days and times.	CLK	120	
OPT105	2023 Fall	Introduction to Precision Optics		A historical overview of precision optics and scientific development.	Prerequisites: None.		Occ	LEC 3.0	S

				Covers optics application and the manufacturing process including machinery, tools, and systems. Examines fundamental principles, characteristics and design of optical components including geometrical optics, wave optics, metrology, fiber optics, photonics, aberration theory, optical phenomena, and optical illusions. Professional career paths in the optics industry also explored.				3.0 3.0	
OPT107	2023 Fall	Precision Optics and Mathematical Concepts		Precision optics and mathematical concepts. Covers basic algebraic operations, problem solving involving metric measurement, gears, pulleys, simple mechanism problems. Areas and volume calculations of geometric figures. Essentials of trigonometry for solving right and oblique triangles. Addresses geometrical optics (reflection, diffraction, imaging, thin lens formula, lens maker's equation), wave optics (interference, diffraction, polarization), and the basic principles and practical applications of lasers. Covers optical handling and positioning, light sources, laser classifications and safety.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
OPT112	2023 Fall	Optical Elements and Ray Optics		Overview of terminology and techniques in the use of analytical and laboratory methods for planning, executing, and evaluating arrangements using components such as mirrors, prisms, thin and thick lenses, diffusers, stops, reticles, and various types of light sources. Reflection, refraction, dispersion, image formation, and aberrations studied, with emphasis on the ray concept of light.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
OPT115	2023 Fall	Optical Fabrication and Metrology		A study of optical materials, processes, and measurement techniques employed in the manufacture of modern optical components. Covers steps in planning, tooling, fabricating,	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T

				finishing, testing, coating, and assembly of precision optical elements.					
OPT215	2023 Fall	Advanced Optical Fabrication and Metrology		Study of advanced processes, tools, and Computerized Numerical Control (CNC) technology shaping the methodology in manufacturing precision optical components. Emphasis in CNC grinding and polishing, tolerancing, and metrology of precision optical lenses.	Prerequisites: A grade of C or better in OPT115.		Occ	L+L 3.0 4.0 4.0	T
OPT225	2023 Fall	Optical Systems		Application of optical fabrication techniques covering assembly of multiple optical elements into cemented and mechanically mounted lens systems, in addition to training in precision cleaning and inspection of optical surfaces. Also covers advanced metrology skills such as interferometry of transmitted beams and measurement of the optical transfer function.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
OSH101	2023 Fall	Introduction to Occupational Safety, Health, and Environmental Technology		Overview of occupational safety, health, and environmental regulations and technology. Overview of the regulatory framework related to safety and environmental program management. Career opportunities and their relationship to business management.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
OSH102	2020 Fall	Introduction to Industrial Hygiene		Overview of environmental hazardous materials technology. History of pollution leading to current legislation. Environmental effects of pollution. Overview of the regulatory framework. Career opportunities in handling and management of hazardous substances	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
OSH105	2000 Summer I	Construction Safety		Occupational Safety and Health Act. Common causes for accidents and fatalities in construction. Abatement techniques for construction specific hazards. Use of personal protection and lifesaving equipment. Specific types of health hazards related to the	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S



				construction industry. Proper methods for handling hazardous materials					
OSH105AA	2012 Fall	Construction Safety		Occupational Safety and Health Act. Common causes for accidents and fatalities in construction. Abatement techniques for construction specific hazards. Use of personal protection and lifesaving equipment. Specific types of health hazards related to the construction industry. Proper methods for handling hazardous materials.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
OSH106	2018 Fall	Industrial Safety	GTC106 MIT106	Safety, health management, and accident prevention in industrial work environment. Role of Occupational Safety and Health Administration (OSHA) act, materials handling, electrical safety, machine safety, first response to fire and medical emergencies, safety signs and color codes, recognition of safety and health hazards accident prevention, management responsibilities, and OSHA 10 certification.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
OSH106AC	2020 Fall	Industrial Safety		Safety, health management and accident prevention in industrial work environment. Role of Occupational Safety and Health Administration (OSHA) act, materials handling, electrical safety, machine safety, emergency preparedness, safety signs and color codes, recognition of safety and health hazards accident prevention, and management's responsibilities.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
OSH107	2020 Fall	Occupational Safety Principles and Practice		Application of safety and health regulations and best practices. Hazard identification and accident investigation techniques. Major construction hazards and controls. Application of fire protection standards.	Prerequisites: A grade of C or better in OSH106AC or permission of Instructor.		Occ	LEC 3.0 3.0 3.0	S
OSH189	2016 Fall	Professional Leadership Development for Occupational Safety and Health		Personal and professional leadership development related to Occupational Health and Safety (OSH) through active participation in peer-to-peer and professional mentoring. Exposure	Prerequisites: A grade of C or better in HMT/OSH101 and GTC/MIT/OSH106 and a student	OSH189 may be repeated for a total of three	Occ	LEC 1.0 1.0 1.0	S

				to industry technical meetings, technical tours, seminars, college discipline specific campus club, scholarship awareness, career fairs, and other similar events. Supplemented by readings, and pre- and post-activity discussion and critique. Varied content due to variety of personal and professional development available.	member of the American Society of Safety Engineers.	(3) credit hours.			
OSH189AA	2020 Fall	Professional Leadership Development for Occupational Safety and Health I		Personal and professional leadership development related to Occupational Safety and Health (OSH) through active participation in professional mentoring. Exposure to industry technical meetings, technical tours, college discipline specific campus club, scholarship awareness, and other similar events. Supplemented by readings, and pre- and post-activity discussion and critique. Varied content due to variety of personal and professional development available.	Prerequisites: A grade of C or better in OSH106AC.		Occ	L+L 1.0 2.0 0.0	C
OSH203	2020 Fall	Health and Safety Program Management		Introduction to safety program theory and principles needed to develop, manage, implement and evaluate a safety and health program. Systems safety and applied psychology theories that enhance safety program management. Hazard identification methods and controls, and application of these principles to case studies.	Prerequisites: A grade of C or better in OSH106AC or permission of Instructor.		Occ	LEC 3.0 3.0 3.0	S
OSH204	2017 Fall	Health and Safety Program Management II		Current and emerging topics in safety and health program management. Exploration of current topics through emerging regulatory and/or consensus standards organizations. Case study investigation and analysis with applications to safety and health management. Introduction to new and evolving online training courses, seminars, video and documents. Adult leaning and instructional theory.	Prerequisites: A grade of C or better in OSH107 and OSH203, or permission of Instructor.		Occ	LEC 3.0 3.0 3.0	S
OSH206	2005 Spring	Risk Management and Loss Control		Statistical and cost analysis, report writing, and injury prevention related to loss control. Prevention programs	Prerequisites: None.		Occ	LEC 3.0	S

				designed to minimize or eliminate property and personnel loss or injury				3.0 3.0	
OSH211	2020 Fall	Industrial Safety Management Systems and Performance Indicators		Establishment of a safety management system meeting safety management system standards, concentrating on reactive and proactive approaches for safety department functions. Specific content includes development of safety duties, establishment of performance metrics, investigational accuracy and self-assessment.	Prerequisites: A grade of C or better in OSH203.		Occ	LEC 3.0 3.0 3.0	S
OSH218	2020 Fall	Ergonomics		Analysis and evaluation of ergonomics risk factors for occupational tasks. Application of theories, methods, and techniques used in work design and systems. Methodological problems in human information processing, human control functions, human-machine interface, work design and process evaluation.	Prerequisites: A grade of C or better in OSH107 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0	S
OSH220	2020 Fall	Safety and Emergency Management		Assessment of emergency management systems for occupational safety program development. Planning and implementation of the four phases of emergency management: mitigation, preparedness, response, and recovery. Analysis of all hazards preparedness and response in emergency situations resulting from natural and technological hazards. Planning and budgeting for resources and staffing.	Prerequisites: A grade of C or better in OSH105AA or OSH106AC.		Occ	LEC 3.0 3.0 3.0	S
OSH240	2020 Fall	Fire Protection Systems	FAC240	Building occupant safety requirements including industry standards, regulations, building codes, fire codes and life safety codes. Fundamentals of fire protection system operation, inspection and maintenance. Principles of life safety systems including fire door and walls, smoke control systems, and exit components.	Prerequisites: A grade of C or better in OSH106AC.		Occ	LEC 3.0 3.0 3.0	S

OSH270AA	2020 Fall	Occupational Safety and Health Internship		Occupational Safety and Health (OSH) work experience in business, industry or government. Eighty (80) hours of designated work experience.	Prerequisites: A grade of C or better in HMT/OSH101 and OSH106AC or permission of Instructor.	OSH270A A may not be repeated for credit.	Occ	LAB 1.0 6.0 0.0	C
OSH270AB	2020 Fall	Occupational Safety and Health Internship		Occupational Safety and Health (OSH) work experience in business, industry or government. One hundred and sixty (160) hours of designated work experience.	Prerequisites: A grade of C or better in HMT/OSH101 and OSH106AC.	OSH270A B may not be repeated for credit.	Occ	LAB 2.0 12.0 0.0	C
OSH270AC	2020 Fall	Occupational Safety and Health Internship		Occupational Safety and Health (OSH) work experience in business, industry or government. Two hundred and forty (240) hours of designated work experience.	Prerequisites: A grade of C or better in HMT/OSH101 and OSH106AC.	OSH270A C may not be repeated for credit.	Occ	LAB 3.0 18.0 0.0	C
OSH290AC	2018 Fall	Case Study and Research Project		Completion of a selected safety project in policy and procedure development or training program curriculum design in actual or simulated work setting. Combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students	Prerequisites: Permission of Instructor.		Occ	LAB 3.0 3.0 3.0	T
OSH298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z
OSH298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z

				combined to maximize student development.					
OSH298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z
OTA100	2019 Fall	Introduction to Occupational Therapy Assistant Profession		History, theory and philosophy of occupational therapy and occupational therapy assistant (OTA) professions. Topics include practice contexts, ethics, and scope of practice. Emphasis on developing professional behavior skills expected of an entry-level occupational therapy assistant.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
OTA102	2019 Fall	Psychosocial Health and Occupation		Analysis of impact of psychosocial health on occupation throughout the lifespan. Focus on occupational therapy (OT) assessments and screening procedures for process skills, social interaction skills, and performance patterns. Theoretical models for group occupational therapy assistant (OTA) interventions and development of therapeutic client relationships.	Prerequisites: Admission to the Occupational Therapy Assistant program, and a grade of C or better in (OTA100 and PSY101). Corequisites: PSY266.		Occ	LEC 3.0 3.0 3.0	S
OTA105	2019 Fall	Fieldwork: Psychosocial		Introductory-level clinical fieldwork experience for the occupational therapy assistant (OTA). Emphasis on observational skills and basic interactional skill in a mental health clinical setting with a culturally diverse client population. Focus on developing professional behavior, professional communication, and clinical reasoning in psychosocial context. Opportunities to apply group theory and therapeutic use of self.	Prerequisites: Admission to Occupational Therapy Assistant program. Corequisites: OTA102.		Occ	LAB 0.5 3.0 0.0	C

OTA107	2019 Fall	Fundamentals of Occupational Therapy		Discussion of Occupational Therapy Practice Framework (OTPF), analysis of occupational performance and analysis of activities. Role of occupational therapy assistant (OTA) from referral to discharge. OTA interventions, documentation requirements, and terminology. Emphasis placed on therapeutic use of self and development of clinical reasoning skills.	Prerequisites: Admission to the Occupational Therapy Assistant program and a grade of C or better in OTA100.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0	T
OTA117	2019 Fall	Physical Health and Occupations		Impact of physical health on occupation throughout the lifespan. Focus on observing, identifying, measuring, and assessing motor and sensory client factors.	Prerequisites: Admission to the Occupational Therapy Assistant program and a grade of C or better in BIO202.		Occ	LEC 3.0 1.0 1.0 LAB 0.0 6.0 6.0	T
OTA157	2019 Fall	Occupational Therapy Assistant in Physical Rehabilitation		Theories and practice models for occupational therapy for clients with physical disabilities. Topics include pathology and therapeutic interventions. Emphasis on clinical reasoning, locating resources, daily treatment planning, task and environmental modifications, activity grading, client education and documentation.	Prerequisites: Admission to the Occupational Therapy Assistant program.		Occ	LEC 3.0 1.0 1.0 LAB 0.0 6.0 6.0	T
OTA201	2019 Fall	Assistive Technology		Specialized assistive technology items: car modifications, power wheel chair options, adaptive toys and switches, seating systems, orthotics and prosthetics, and apps for therapeutic use. Emphasis on identifying need, referral process, and funding sources.	Prerequisites: A grade of C or better in OTA157.		Occ	LEC 2.0 2.0 2.0	S
OTA205	2019 Fall	Fieldwork: Geriatric		Introductory level clinical fieldwork experience with a geriatric population. Application of learning with focus on exhibiting professional behavior, professional communication, clinical observation skills, and implementation of selected geriatric treatment strategies and modifications.	Prerequisites: Admission to the Occupational Therapy Assistant program and a grade of C or better in OTA157. Corequisites: OTA207.		Occ	LAB 0.5 2.5 0.0	C

OTA207	2019 Fall	Occupational Therapy Assistant in Geriatrics		Impact of aging on occupational performance. Physical, sensory, and cognitive changes associated with aging. Social, psychological, and cultural impact on aging. Common and emerging contexts of service provision. Focus on synthesizing learning and implementing treatment techniques with aging population.	Prerequisites: A grade of C or better in OTA157.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0	T
OTA215	2019 Fall	Fieldwork: Pediatric I		Introductory-level fieldwork experience in a pediatric context. Emphasis on demonstrating professional behavior, professional communication, clinical observation skills, selecting age-appropriate therapeutic activities, and applying therapeutic use of self with a culturally diverse pediatric client population.	Prerequisites: Admission to the Occupational Therapy Assistant program and a grade of C or better in OTA157. Corequisites: OTA217.		Occ	LAB 0.5 2.5 0.0	C
OTA216	2023 Fall	Occupational Therapy Assisting Pediatrics I		Distinguishes between typical and atypical pediatric development. Common pediatric health conditions of infants, children, and adolescents. Occupational therapy practice models, theories, and delivery contexts found in pediatrics.	Prerequisites: Admission to the Occupational Therapy Assistant program and a grade of C or better in OTA102 and OTA117.		Occ	LEC 2.0 2.0 2.0	S
OTA217	2024 Fall	Occupational Therapy Assisting Pediatrics II		Distinguishes between typical and atypical pediatric development. Common pediatric health conditions of infants, children, and adolescents. Occupational therapy practice models, theories, and delivery contexts found in pediatrics. Focus on synthesizing prior learning and specific pediatric treatment activities to develop pediatric treatment plans.	Prerequisites: Admission to the Occupational Therapy Assistant program and a grade of C or better in OTA102, OTA117, and OTA216.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0	T
OTA234	2019 Fall	Occupational Therapy Assistant Professional Standards		Preparation for transition into level 2 fieldwork. Focus on supervisory structures, professional ethics, legislative issues, licensure requirements, evidence based practice, and reimbursement systems. Topics include program planning, marketing, quality assurance. Assessment of personal and	Prerequisites: A grade of C or better in OTA157.		Occ	LEC 2.0 2.0 2.0	S

				professional competencies during resume and portfolio development.					
OTA255	2019 Fall	Fieldwork: Adult		Clinical experience under the direct supervision of experienced occupational therapists (OTs) or occupational therapy assistants (OTAs) in a context primarily serving adult clients. Emphasis is placed on clinical preparation for entry-level practice as an OTA.	Prerequisites: Admission to the Occupational Therapy Assistant program and a grade of C or better in (OTA207, OTA217, and OTA234). Corequisites: OTA284.	Students should have completed all other OTA coursework within the last 18 months.	Occ	LAB 4.0 21.0 0.0	C
OTA265	2019 Fall	Fieldwork: Pediatric II		Secondary clinical experience under the direct supervision of experienced occupational therapists (OTs) or occupational therapy assistants (OTAs) in a context primarily serving pediatric clients. Emphasis is placed on clinical preparation for entry-level practice as an OTA.	Prerequisites: Admission to the Occupational Therapy Assistant program and a grade of C or better in (OTA207, OTA217, and OTA234).	Students should have completed all other OTA coursework within the last 18 months.	Occ	LAB 4.0 21.0 0.0	C
OTA284	2019 Fall	Occupational Therapy Assistant Professional Transition		Integration of clinical experiences during level 2 fieldwork with theoretical models and didactic learning. Preparation for licensure and National Board for Certification in Occupational Therapy (NBCOT) examination. Focus on self-assessment, study skills, comprehensive content review, and fieldwork review.	Prerequisites: Admission to the Occupational Therapy Assistant program and a grade of C or better in (OTA207, OTA217, and OTA234).	Students should have completed all other OTA coursework within the last 18 months.	Occ	LEC 2.0 2.0 2.0	S
PAD100	2013 Spring	21st Century Public Policy and Service		Introduction to topics pertaining to public policy and public service in the 21st century. Includes formation, implementation, and evaluation procedures for public policy, as well as roles and agendas of policy makers and public administrators. Also covers careers in public service/administration and an evaluation of essential skills necessary for a career in public service.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S



PAD107	2019 Summer	Public Finance Administration		Basic overview of public finance system for state and local government. Includes budgeting processes, revenue and funding sources involving taxes and revenue forecasting. Also covers capital planning, debt management, performance measurement, financial statements, and auditing.	Prerequisites: A grade of C or better in CIS114DE.		Occ	LEC 3.0 3.0 3.0	S
PAD122	2019 Summer	Public Sector Human Resources Management		Overview of human resources management in the public sector. Covers planning, staffing, training, compensating, and appraising employees in labor management relationships.	Prerequisites: A grade of C or better in CIS114DE.		Occ	LEC 3.0 3.0 3.0	S
PAD170	1999 Spring	Public Sector Organizational Behavior		Basic principles of public-sector management from an organizational behavior perspective. Levels of organizational behavior: the individual, the group and the organization system emphasized	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
PAD200	2013 Spring	Public Affairs Economics		Introduction to the use of macroeconomic and microeconomic principles concerning public affairs and social issues. Includes the role of economics in societal development and public policies in addition to the effects of unemployment and inflation. Also covers measurement of, causes for and societal responses to poverty.	Prerequisites: A grade of C or better in PAD100 or permission of Instructor.	Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB]	Occ	LEC 3.0 3.0 3.0	S
PAD210	2018 Fall	Fundamentals of Real Property Appraisal		Procedures and techniques for estimating market value of vacant and improved properties. Includes appraisal theory, assessment procedures, and appraisal/assessment techniques in addition to land description and land valuation. Also covers definitions and structure of cost and various types of cost estimates as well as procedures for determining depreciation	Prerequisites: Permission of Department or Division.		Occ	L+L 2.0 3.0 3.0	T
PAD212	2019 Spring	Valuation Concepts and Cost Appraisal Methods		Functions of the assessor and appraiser. Covers the nature and principles of value, assessment, as well as appraisal processes.	Prerequisites: Permission of Department or Division.		Occ	L+L 2.0 3.0 3.0	T

				Emphasis on property owner rights and limitations including an overview of the Arizona Property Tax System. Also covers use of a construction cost system.					
PAD214	2019 Spring	Land Valuation		Analysis of land valuation procedures. Covers maps, land value factors, and ownership as well as systems of land identification. Includes site data units of comparison and market influences in addition to Arizona statutes and precedents related to special land valuation.	Prerequisites: Permission of Department or Division.		Occ	L+L 2.0 3.0 3.0	T
PAD216	2019 Spring	Basic Ad Valorem Appraisal Concepts		Basic assessment and valuation practices for mixed-use properties, partially complete structures, and salvage properties. Also covers the construction cost system, cost components, and market adjustments as well as methods for measuring depreciation. Also includes market value and ratio studies.	Prerequisites: Permission of Department or Division.		Occ	L+L 2.0 3.0 3.0	T
PAD218	2019 Spring	Personal Property Valuation		Overview of personal property valuation in the state of Arizona. Includes procedures and forms for the valuation process, as well as mobile home classification and affixture requirement. Also covers year/life tables and depreciation calculations.	Prerequisites: Permission of Department or Division.		Occ	LEC 1.0 1.0 1.0	S
PAD220	2018 Fall	Income Approach to Valuation		Principles for the income approach to valuation. Includes an overview of real estate investment and finance as well as development of net operating income estimates. Also covers contemporary and historical capitalization methods and procedures for developing capitalization rates	Prerequisites: Permission of Department or Division.		Occ	L+L 2.0 3.0 3.0	T
PAD222	2019 Spring	Intermediate Ad Valorem Appraisal Concepts		Procedures for Ad Valorem Appraisal. Covers sales ratio studies, appraisal level, and uniformity as well as mixed-use assessment ratios. Also includes Centrally Valued Properties, Direct Sales Comparison, and Income Value calculations.	Prerequisites: Permission of Department or Division.		Occ	L+L 2.0 3.0 3.0	T

PAD224	2019 Spring	Hearing Procedures		Preparation for hearing procedures. Emphasis on presentation techniques, documentation, and organization of Assessor's records as well as property classification and confirmation. Also covers analysis of and response to appellant arguments and completion of the administrative appeal process.	Prerequisites: Permission of Department or Division.		Occ	L+L 2.0 3.0 3.0	T
PAR101	2020 Fall	Introduction to the Paralegal Profession		Comprehensive introduction into the legal profession with a focus on the paralegal's role. Introduction into legal terminology, basic legal principles, and the parties involved in the legal system.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
PAR102	2021 Fall	Paralegal Research, Analysis, and Writing I		Introduction into legal research, analysis and writing. Covers legal research binding, persuasive authority, and use of legal citation. Includes components and use of case law and briefs in addition to use of secondary sources and digests. Also covers electronic legal research and research plans.	Prerequisites: A grade of C or better in (ENG101 or ENG107) and (BPC110 or CIS105) and (CRE101 or equivalent as indicated by assessment).		Occ	LEC 3.0 3.0 3.0	S
PAR103	2020 Fall	Paralegal Research, Analysis, and Writing II		Advanced legal writing and research. Analysis and application of the writing process to produce well-written documents commonly used in the practice of law. Covers various types of legal writing, including memorandum of law, persuasive writing, and legal correspondence. The use of proper grammar, punctuation, and spelling in the construction of sentences and the development of paragraphs.	Prerequisites: A grade of C or better in PAR102.		Occ	LEC 3.0 3.0 3.0	S
PAR104	2022 Fall	Ethics for the Paralegal		Paralegal rules of professional responsibility and ethical requirements. Includes regulation of the profession as well as unauthorized practice of law and confidentiality. Also covers conflict of interest, competence, and negligence.	Prerequisites: A grade of C or better in (ENG101 or ENG107) and (BPC110 or CIS105) and (CRE101 or equivalent as indicated by assessment) and PAR102.		Occ	LEC 3.0 3.0 3.0	S

PAR106	2020 Fall	Legal Foundations for Paralegals		Legal principles of tort, contract, and criminal law. Includes roles and responsibilities of court systems, the legal community, and the paralegal. Also covers procedures for preparing cases for trial, adjudication, and post-trial.	Prerequisites: A grade of C or better in (ENG101 or ENG107) and (BPC110 or CIS105) and (CRE101 or equivalent as indicated by assessment) and PAR103.		Occ	LEC 3.0 3.0 3.0	S
PAR112	2020 Fall	Civil Litigation I		Responsibilities of the paralegal in the civil litigation process. Includes review of the American court system and techniques for case investigation. Also covers case management and evidence procedures as well as settlements and pleadings.	Prerequisites: A grade of C or better in (ENG101 or ENG107) and (BPC110 or CIS105) and (CRE101 or equivalent as indicated by assessment).		Occ	LEC 3.0 3.0 3.0	S
PAR114	2020 Fall	Civil Litigation II		Civil litigation responsibilities of the paralegal in the areas of discovery, depositions, pretrial, and post-trial procedures. Includes preparation of clients, witnesses, and exhibits for the courtroom. Also covers responsibilities of the paralegal in the evidentiary phase of trial, post-trial, and the appeals process in addition to collection and enforcement of judgments.	Prerequisites: A grade of C or better in PAR112.		Occ	LEC 3.0 3.0 3.0	S
PAR206	2024 Fall	Paralegal Business Law		Overview of business law for the paralegal. Includes a review of basic contract formation and enforcement, fundamental law concepts, ethics, and social responsibility. Also includes topics such as white collar and corporate crime, consumer protection, employment laws, international commerce, and intellectual property.	Prerequisites: A grade of C or better in PAR106 and PAR114.		Occ	LEC 3.0 3.0 3.0	S
PAR208	2024 Fall	Introduction to Tort Law		Introduction to tort law and the responsibilities of the paralegal. Includes elements of types of various types of torts, negligence, and defenses in addition to classification of and legal issues pertaining to	Prerequisites: A grade of C or better in PAR106 and PAR114.		Occ	LEC 3.0 3.0 3.0	S

				damages. Also covers insurance and its application to tort law as well as procedures for records evaluation and calculation of net settlements.					
PAR224	2019 Spring	Law Office Technology for the Paralegal		Technology resources and procedures for the law office. Includes types of hardware and software in addition to office security. Also covers paperless office and electronic research procedures as well as use of trial presentation software.	Prerequisites: A grade of C or better in PAR104 or Corequisites: PAR104.		Occ	LEC 3.0 3.0 3.0	S
PAR230	2009 Fall	Family Law for the Paralegal		Paralegal responsibilities in the area of family law. Includes procedures for the initial client interview as well as drafting of applicable documents in dissolution, post-decree, and custody proceedings. Also covers discovery tools and procedures in addition to methods for valuation and division of assets	Prerequisites: A grade of C or better in PAR114.		Occ	LEC 3.0 3.0 3.0	S
PAR232	2024 Fall	Bankruptcy Law for the Paralegal		Paralegal responsibilities in the area of bankruptcy law. Emphasis on chapters 7, 11, and 13 of the bankruptcy code of Title 11 of the United States Code. Also covers bankruptcy documentation, automatic stay, dischargeable and non-dischargeable debts, and bankruptcy case dismissals, conversions, and transfers.	Prerequisites: A grade of C or better in PAR114.		Occ	LEC 3.0 3.0 3.0	S
PAR233	2024 Fall	Real Estate Law for the Paralegal		Paralegal responsibilities in the area of real estate law. Covers real estate transactions and agreements of sale as well as title and deed procedures. Also includes procedures for completing title abstractions and legal documentation pertinent to arbitration and foreclosure. The role of the paralegal in completing real estate client interviews also covered.	Prerequisites: A grade of C or better in PAR114.		Occ	LEC 3.0 3.0 3.0	S
PAR234	2024 Fall	Administrative Law for the Paralegal		Paralegal responsibilities in the area of administrative law. Overview of types and sources of administrative law. Includes accountability, agency discretion and due process in addition to delegation and rule-making. Also	Prerequisites: A grade of C or better in PAR114.		Occ	LEC 3.0 3.0 3.0	S

				covers agency investigations and adjudication procedures.					
PAR236	2024 Fall	Estate and Elder Law for the Paralegal		Paralegal responsibilities in the area of estate law and elder law. Includes estate planning and administration. Covers procedures for preparing wills and trusts in addition to handling probate issues and elder long-term care.	Prerequisites: A grade of C or better in PAR114.		Occ	LEC 3.0 3.0 3.0	S
PAR237	2015 Fall	Paralegals and Environmental Law		Overview of role and key responsibilities of a paralegal supporting environmental law concerns. Covers the essentials of environmental law, including types of organizations and agencies. Also covered, process of environmental laws and rulemaking with an emphasis on major environmental acts.	Prerequisites: A grade of C or better in PAR106 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0	S
PAR238	2024 Fall	Immigration Law for the Paralegal		Overview of role and key responsibilities of a paralegal working with immigration law cases. Includes immigration laws and essentials of federal regulations. Covers process and procedures for citizenship and naturalization including, establishing temporary and permanent legal citizenship and types of visas. Also includes process for application and appeals.	Prerequisites: A grade of C or better in PAR114.		Occ	LEC 3.0 3.0 3.0	S
PAR239	2024 Fall	Legal Investigation for the Paralegal		Overview of role and key responsibilities of a legal investigator. Covers the process for conducting an interview including discovery methods and research techniques. Also covers procedures for documenting and writing accurate statements and preparing legal evidence and exhibits for trial.	Prerequisites: A grade of C or better in PAR114.		Occ	LEC 3.0 3.0 3.0	S
PAR240	2024 Fall	Introduction to eDiscovery for the Paralegal		Overview of electronic discovery and the impact of electronic data on the legal field. Includes a review of the development of technology assisted review (TAR), preservation procedures, and collection methods for electronical stored information	Prerequisites: A grade of C or better in PAR114.		Occ	LEC 3.0 3.0 3.0	S

				(ESI). Also covers changes in civil rules of procedure and ethical duties for legal professionals.					
PAR260	2020 Fall	Legal Career Preparation		Overview of the essential skills necessary for the paralegal student in the internship environment. Covers essential skills, self-evaluation and resources available to the paralegal.	Prerequisites: A grade of C or better in PAR114.		Occ	LEC 1.0 1.0 1.0	S
PAR290AA	2018 Fall	Internship for the Paralegal		Paralegal work experience in industry. Eighty (80) hours of designated work per credit	Prerequisites: Permission of Department or Division.	PAR290A A may be repeated for a total of three (3) credit hours.	Occ	L+L 1.0 1.0 1.0	T
PAR290AB	2018 Fall	Internship for the Paralegal		Paralegal work experience in industry. Eighty (80) hours of designated work per credit.	Prerequisites: Permission of Department or Division. Corequisites: PAR260.	PAR290A B may be repeated for a total of four (4) credit hours.	Occ	L+L 2.0 2.0 2.0	T
PED101	2018 Fall	Physical Activities: Basic		Individual, dual, or team sports activities at the basic level.	Prerequisites: None.	PED101 may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T
PED101AD	2018 Fall	Aerobic Dance		A cardiovascular workout through dance.	Prerequisites: None.	PED101A D may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T
PED101AK	2018 Fall	Aikido		Covers the fundamentals of Aikido including rules, moves, and traditional discipline of the sport.	Prerequisites: None.	PED101A K may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T
PED101AP	2018 Fall	Adapted PE		Fitness for persons with disabilities.	Prerequisites: None.	PED101A P may be repeated for credit. May need medical clearance. May need medical clearance.	Occ	L+L 1.0 2.0 2.0	T
PED101AQ	2019 Fall	Aquatic Fitness		This aquatic fitness class offers knowledge and skills to keep fit for	Prerequisites: None.	PED101A Q may be	Occ	L+L 1.0	T

				life. It teaches safe performance of movement and exercise in a progressive approach and offers an opportunity to improve and/or maintain a high level of fitness through application of aerobic training principles in an aquatic environment. Swimming skills are not required. This class is designed for all fitness levels. Students are encouraged to understand their own limitations and work within their bounds.		repeated for credit.		2.0 2.0	
PED101BA	2018 Fall	Baseball		Basic skills and game strategy of baseball. Class emphasis on competition and drills.	Prerequisites: None.	PED101B A may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T
PED101BB	2018 Fall	Basketball		Basic skills and game strategy of basketball. Class emphasis on competition and drills.	Prerequisites: None.	PED101B B may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T
PED101BC	2018 Fall	Boot Camp		Vigorous physical and mental conditioning incorporating cardiovascular, core fitness, strength training, and flexibility. Emphasis will be placed on proper body mechanics and safety.	Prerequisites: None.	PED101B C may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T
PED101BD	2018 Fall	Ballroom Dancing		Basic level instruction on ballroom dancing footwork, timing, techniques, and style. Partners rotate.	Prerequisites: None.	PED101B D may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T
PED101BE	2018 Fall	Belly Dance		Practice and demonstration of basic belly dance skills and movements. Basic posture and muscularity, primary upper and lower body isolations, footwork, simple combination movements. Rhythms broken down, and at least one prop demonstrated. Basic routine, improvisation, and current styles and trends in belly dance. Belly dance etiquette and attire.	Prerequisites: None.	PED101B E may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T
PED101BL	2018 Fall	Ballet		Basics of ballet incorporating steps, poses, and graceful movements including leaps and spins.	Prerequisites: None.	PED101B L may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T



PED101BP	2018 Fall	Backpacking		Covers basic skills and techniques of backpacking and the application of these to wilderness travel.	Prerequisites: None.	PED101B P may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T
PED101BS	2018 Fall	Body Sculpting		Stretch and strengthen. Emphasizes increasing fitness, muscle tone, and body flexibility. Great for reducing stress.	Prerequisites: None.	PED101B S may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T
PED101CD	2018 Fall	Country Dance		Popular country dances including Arizona Two Step, Progressive Two Step and other current popular dances. Partners rotate.	Prerequisites: None.	PED101C D may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T
PED101CP	2018 Fall	Camping		Learn the skills of camping in an outdoor setting. Length of overnight stay varies.	Prerequisites: None.	PED101C P may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T
PED101CY	2018 Fall	Cycling - Indoor		Basic skills for bike set up and proper body mechanics. Increase leg strength, lung capacity, and metabolism.	Prerequisites: None.	PED101C Y may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T
PED101DF	2018 Fall	Self Defense		Basic self-defense skills, ground-fighting skills, and stand-up fighting capabilities. Modified for all skill levels. Practice is based on real-life experiences and endurance enhanced drills. Develops self confidence.	Prerequisites: None.	PED101D F may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T
PED101FB	2018 Fall	Football		Basic skills and game strategy of football. Class emphasis on competition and drills.	Prerequisites: None.	PED101F B may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T
PED101FE	2018 Fall	Fencing		Introduction to the sport of fencing. Instruction and practice in proper body mechanics with the use of a foil, saber, and epee.	Prerequisites: None.	PED101F E may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T
PED101FL	2018 Fall	Fitness for Life		Learn the basics of designing and implementing a personalized fitness program to meet your needs in the areas of Cardiovascular Fitness, Weight Control, Muscular Strength and Flexibility.	Prerequisites: None.	PED101F L may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED101FW	2018 Fall	Fitness Walking		Development of safe and effective walking skills through proper	Prerequisites: None.	PED101F W may be	Occ	L+L 1.0	T

				exercises and use of equipment to enhance a walking program.		repeated for credit.		2.0 2.0	
PED101GF	2018 Fall	Group Fitness/Aerobics		Group exercise incorporating a variety of equipment to increase respiration, heart rates, strength, and flexibility.	Prerequisites: None.	PED101G F may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T
PED101GO	2018 Fall	Golf		Instruction and practice for all skill levels, beginning through advanced. Assistance on shot making, club selection and etiquette on the course.	Prerequisites: None.	PED101G O may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED101HH	2018 Fall	Hip Hop		Basic skills of hip hop with instruction, practice, and performance including proper body mechanics, choreography, and behavioral competencies.	Prerequisites: None.	PED101H H may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED101HK	2018 Fall	Hiking		Develop safe and effective hiking skills. Essentials and requirements for safe hiking; proper hiking clothing and attire; impact of hiking on the environment.	Prerequisites: None.	PED101H K may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED101JR	2018 Fall	Jogging/Running		Introduction to jogging/running. Learn proper technique to decrease injury and increase training distance. All skill levels welcome.	Prerequisites: None.	PED101J R may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED101JS	2018 Fall	Japanese Swordmanship		Vigorous martial arts swordmanship training program utilizing historical principles that promotes the development of fitness, coordination, agility, balance, mindfulness/focus, and knowledge of strategy.	Prerequisites: None.	PED101J S may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T

PED101JU	2018 Fall	Judo		Japanese martial art in which opponents use balance and body weight to throw, pin and lock.	Prerequisites: None.	PED101J U may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED101JZ	2018 Fall	Jazz		Learn various dance skills characterized by the use of improvisation and influenced by rhythms and techniques of Jazz music.	Prerequisites: None.	PED101J Z may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED101KA	2018 Fall	Karate		Training emphasizes fundamentals, traditional form, and applied sparring that follows the theory of Karate.	Prerequisites: None.	PED101K A may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED101KB	2018 Fall	Kickboxing		Techniques to increase muscular endurance and strength, enhance flexibility and increase body awareness and self-confidence. Jabs, kicks, and blocks will be used in this martial arts based workout.	Prerequisites: None.	PED101K B may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED101KF	2018 Fall	Kung Fu		Techniques of one of the most comprehensive martial arts in China.	Prerequisites: None.	PED101K F may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED101KY	2024 Fall	Kayaking		For leisure or competition, basic skills and techniques of kayaking.	Prerequisites: None.	PED101K Y may be repeated for credit. Repeats 99.0 99.0	Occ	L+L 1.0 2.0 2.0	T

PED101LD	2018 Fall	Latin Dancing		Spicy, energetic style of dance. Cha Cha, Merengue, Salsa, Rumba, and Bolero. Partners rotate.	Prerequisites: None.	PED101L D may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED101LT	2023 Spring	Lifeguard Training		Designed to provide the knowledge and skills for preventing, recognizing, and responding to aquatic emergencies. Practical skills in water rescue, CPR, and first aid.	Prerequisites: None.	It is highly recommended that PED101LT students demonstrate the ability to tread water without the use of hands for one minute, swim 100 yards without stopping, and retrieve a weighted object at the bottom of the pool (minimum of 10 lbs). Students must be 16 years or older to enroll in PED101LT. PED101LT may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T

PED101MD	2018 Fall	Modern Dance		Learn the skills and techniques to express yourself through dance. Practice and drills included.	Prerequisites: None.	PED101M D may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED101PB	2022 Fall	Pickleball		Basic skills and game strategy of pickleball. Class emphasis on competition and drills.	Prerequisites: None.	PED101P B may be repeated for four (4) credits. Repeats 4.0 4.0	Occ	L+L 1.0 2.0 2.0	T
PED101PC	2018 Fall	Physical Conditioning		Exercise program with access to free weights, strength machines and cardio equipment.	Prerequisites: None.	PED101P C may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED101PS	2021 Fall	Pilates		Mat-based exercise system focused on improving flexibility and strength for the total body. Teaches core control and stabilization while improving postural alignment.	Prerequisites: None.	PED101P S may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T
PED101QG	2018 Fall	Qi Gong		Ancient Chinese Qi Gong breathing exercises for healing and opening channels of energy. Includes Power of Positive thought along with relaxation and meditation techniques.	Prerequisites: None.	PED101Q G may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED101RC	2018 Fall	Rock Climbing		Beginning climbing skills including equipment, knots, anchoring, belaying, and climbing techniques in an indoor climbing gym. No previous experience needed. Develop strength and confidence.	Prerequisites: None.	PED101R C may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T

PED101RQ	2018 Fall	Racquetball		Basic skills and game strategy of racquetball. Class emphasis on competition and drills.	Prerequisites: None.	PED101R Q may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED101RT	2021 Fall	Resistance Training for Improved Sports Performance		Introduction to sport-specific resistance training programs to enhance athletic performance. Includes focus on advanced assessment and sport-related resistance training, including Olympic lifting with a qualified instructor.	Prerequisites: None.	PED101R T may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T
PED101SA	2018 Fall	Salsa		Basic moves for the popular, hot Latin dance Salsa. Partners rotate.	Prerequisites: None.	PED101S A may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED101SB	2018 Fall	Softball		Basic skills and game strategy of softball. Class emphasis on competition and drills.	Prerequisites: None.	PED101S B may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED101SD	2018 Fall	Social Dance		Introduction to various dances encountered in a social setting. Partners rotate.	Prerequisites: None.	PED101S D may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED101SM	2021 Fall	Swimming		Designed to improve cardiovascular fitness, flexibility and muscular endurance in an aquatic environment. Includes instruction in, practice with and individualized coaching on the basic swim strokes, breathing	Prerequisites: None.	PED101S M may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T

				techniques and strategies to improve efficiency of movement in the water.					
PED101SO	2018 Fall	Soccer		Basic skills and game strategy of soccer. Class emphasis on competition and drills.	Prerequisites: None.	PED101S O may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED101SR	2018 Fall	Stretch and Relaxation		A mat-based stretching class with guided meditation. Stretching increases flexibility and relieves stress, promoting an overall sense of well being.	Prerequisites: None.	PED101S R may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED101ST	2018 Fall	Strength Training		Introduction to techniques of basic weight training, concentrating on incorporating an exercise regimen for increased strength.	Prerequisites: None.	PED101S T may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED101SU	2018 Fall	SCUBA Diving		Introduction to the theory and practice of SCUBA diving. Course includes lectures, pool dives, open water dives, and SCUBA Certification.	Prerequisites: None.	PED101S U may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.5 2.5 2.5	T
PED101SW	2018 Fall	Swing Dancing		Popular Swing dance moves and rhythms, including basic Lindy. All students will rotate.	Prerequisites: None.	PED101S W may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED101TA	2018 Fall	Tango		Beginning, basic footwork and body mechanics for Tango. Partners rotate.	Prerequisites: None.	PED101T A may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T

						COMMON COMPET ENCY COURSE			
PED101TC	2018 Fall	Tai Chi		Fundamentals of Tai Chi including moves, breathing and meditation.	Prerequisites: None.	PED101T C may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED101TD	2018 Fall	Tap Dance		Introduction to Tap a step dance performed with the use of shoes with metal tips making rhythmic sounds.	Prerequisites: None.	PED101T D may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED101TE	2018 Fall	Tennis		Basic skills and game strategy of tennis. Class emphasis on competition and drills.	Prerequisites: None.	PED101T E may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED101TF	2018 Fall	Track and Field		Instruction and practice in track and field events, running, throwing and jumping.	Prerequisites: None.	PED101T F may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED101TK	2018 Fall	Taekwondo		Fundamentals of Taekwondo including the moves, rules, and traditional discipline of the sport.	Prerequisites: None.	PED101T K may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T



PED101TT	2018 Fall	Triathlon Training		Train for triathlons. Beginners to elite. Learn training techniques for triathlon competition: Swim, Bike, Run.	Prerequisites: None.	PED101T T may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED101TX	2018 Fall	Suspension Training		Suspension training using TRX or similar equipment. Designed to develop strength, balance, flexibility and core stability. Incorporates a variety of exercises using adjustable positions, stability levels and intensities. Suitable for all skill levels.	Prerequisites: None.	PED101T X may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T
PED101VB	2018 Fall	Volleyball		Basic skills and game strategy of volleyball. Class emphasis on competition and drills.	Prerequisites: None.	PED101V B may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED101WS	2018 Fall	West Coast Swing		Basic patterns and rhythms of the classic dance style of West Coast Swing. Partners rotate.	Prerequisites: None.	PED101W S may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED101WW	2021 Fall	Weight Training for Women		Designed to introduce students of all fitness levels to the fundamentals of resistance training in a safe and supportive environment. Includes hands-on demonstrations of and practice using equipment such as machine weights, free weights, and/or Olympic lifts. Individual workout programs developed under instructor supervision and strategies to integrate resistance training into lifestyle considered.	Prerequisites: None.	PED101W W may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T
PED101YG	2018 Fall	Gentle Yoga		Focuses on the use of such props as blankets, blocks, and chairs to modify traditional Yoga poses, enabling	Prerequisites: None.	PED101Y G may be	Occ	L+L 1.0	T

				participation with moderate effort and without strain; suitable for all levels but especially for students needing a slower pace.		repeated for credit.		2.0 2.0	
PED101YH	2018 Fall	Hatha Yoga		Combination of traditional and flow style yoga that utilizes breathing, yoga poses, relaxation and meditation to create balance and inner peace.	Prerequisites: None.	PED101Y H may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T
PED101YI	2018 Fall	Iyengar Yoga		Form of Hatha Yoga using various props such as belts, blocks, and straps used to focus on precise body alignment.	Prerequisites: None.	PED101YI may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED101YK	2018 Fall	Kundalini Yoga		Energetically guided Yoga focusing on psycho-spiritual growth with special consideration of the spine and endocrine system.	Prerequisites: None.	PED101Y K may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED101YO	2018 Fall	Yoga		Promotion of overall health by strengthening muscles and stimulating glands and organs. Basic postures, breathing and relaxation techniques.	Prerequisites: None.	PED101Y O may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED101YP	2018 Fall	Power Yoga		Yoga postures performed in a dynamic series designed to gain strength, add flexibility, release toxins, This is a vigorous, athletic form of yoga.	Prerequisites: None.	PED101Y P may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED101YR	2018 Fall	Restorative Yoga		Gentle form of Yoga poses utilizing props to create fully supported postures; focuses on relaxation and involves non-rigorous physical activity, providing rest and recovery	Prerequisites: None.	PED101Y R may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T

				and promoting the restoration of tranquility; suitable for all levels.					
PED101ZU	2021 Fall	Zumba Fitness		Uses easy to follow dance movements and high energy music to enhance cardiovascular fitness and to promote self-esteem and confidence in physical movement. Provides an accepting and encouraging atmosphere for students of all levels to participate in a group fitness class.	Prerequisites: None.	PED101Z U may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T
PED102	2018 Fall	Physical Activities: Intermediate		Individual, dual, or team sports activities at the intermediate level.	Prerequisites: None. Prior experience recommended.	PED102 may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED102BA	2018 Fall	Baseball - Intermediate		To improve upon basic skills and game strategy of baseball at the intermediate level. Class emphasis on competition and drills.	Prerequisites: None. Prior experience recommended.	PED102B A may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED102BB	2018 Fall	Basketball - Intermediate		To improve upon basic skills and game strategy of basketball at the intermediate level. Class emphasis on competition and drills.	Prerequisites: None. Prior experience recommended.	PED102B B may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED102BC	2018 Fall	Boot Camp - Intermediate		Vigorous training at an intermediate level incorporating cardiovascular, core fitness, strength training, and flexibility. Emphasis will be placed on proper body mechanics and safety.	Prerequisites: None. Prior experience recommended.	PED102B C may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED102BD	2018 Fall	Ballroom Dancing - Intermediate		Intermediate level instruction on ballroom dancing footwork, timing, techniques, and style. Partners rotate.	Prerequisites: None. Prior experience recommended.	PED102B D may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T

						COMMON COMPET ENCY COURSE			
PED102BE	2018 Fall	Belly Dance - Intermediate		Practice and demonstration of basic belly dance skills and movements at the intermediate level. Posture and muscularity, primary upper and lower body isolations, footwork, intermediate level combination movements. Rhythms broken down, and at least two props demonstrated. Routine, improvisation, and current styles and trends in belly dance. Belly dance etiquette and attire.	Prerequisites: None. Prior experience recommended.	PED102B E may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED102BL	2018 Fall	Ballet - Intermediate		Ballet steps, poses and graceful movements including leaps and spins at the intermediate level.	Prerequisites: None. Prior experience recommended.	PED102B L may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED102CH	2018 Fall	Cheerleaders - Intermediate		Intermediate skills of cheerleading with instruction, practice, and performance including proper body mechanics, choreography, and behavioral competencies.	Prerequisites: None. Prior experience recommended.	PED102C H may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED102DF	2018 Fall	Self Defense - Intermediate		Intermediate self-defense skills, ground-fighting skills, and stand-up fighting capabilities. Practice is based on real-life experiences and endurance enhanced drills. Develops self confidence. Not recommended for beginners.	Prerequisites: None. Prior experience recommended.	PED102D F may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED102FB	2018 Fall	Football - Intermediate		Improve upon basic skills and game strategy of football at the intermediate level. Class emphasis on competition and drills.	Prerequisites: None. Prior experience recommended.	PED102F B may be repeated for credit. COMMON COMPET	Occ	L+L 1.0 2.0 2.0	T

						ENCY COURSE			
PED102FE	2018 Fall	Fencing - Intermediate		Build upon the basic skills in the sport of fencing. Intermediate level instruction in the use of a foil, saber, and epee. Emphasis on skill practice and competition.	Prerequisites: None. Prior experience recommended.	PED102FE may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED102FL	2018 Fall	Fitness for Life - Intermediate		Intermediate level design and implementation of a personalized fitness program to increase your fitness level in the areas of Cardiovascular Fitness, Weight Control, Muscular Strength and Flexibility.	Prerequisites: None. Prior experience recommended.	PED102FL may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED102GO	2018 Fall	Golf - Intermediate		Improving techniques of putting, chipping, the full swing, rules and scoring will be covered in this class.	Prerequisites: None. Prior experience recommended.	PED102GO may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED102HH	2018 Fall	Hip Hop - Intermediate		Intermediate level dance instruction and practice in the skills of hip hop. Emphasis on performance including proper body mechanics, choreography, and behavioral competencies.	Prerequisites: None. Prior experience recommended.	PED102HH may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED102HK	2018 Fall	Hiking - Intermediate		Improve your hiking skills on more challenging terrain. Includes Physical training.	Prerequisites: None. Prior experience recommended.	PED102HK may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED102JR	2018 Fall	Jogging/Running - Intermediate		Intermediate training for jogging/running. Learn proper technique to decrease injury and	Prerequisites: None. Prior experience recommended.	PED102JR may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T

				increase training distance. Not recommended for beginners.		COMMON COMPETENCY COURSE			
PED102JS	2018 Fall	Japanese Swordmanship - Intermediate		Intermediate level of vigorous martial arts swordmanship training program utilizing historical principles that promotes the development of fitness, coordination, agility, balance, mindfulness/focus, and knowledge of strategy.	Prerequisites: None.	PED102JS may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T
PED102JZ	2018 Fall	Jazz - Intermediate		Intermediate dance skills for dancing Jazz. Not recommended for beginners.	Prerequisites: None. Prior experience recommended.	PED102JZ may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED102KA	2018 Fall	Karate - Intermediate		Applied technique and theory of Karate at the intermediate level.	Prerequisites: None. Prior experience recommended.	PED102KA may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED102KB	2018 Fall	Kickboxing - Intermediate		Intermediate level kickboxing techniques to increase muscular endurance and strength, enhance flexibility and increase body awareness and self- confidence. Not recommended for the beginner.	Prerequisites: None. Prior experience recommended.	PED102KB may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED102LD	2018 Fall	Latin Dancing - Intermediate		Incorporate intermediate dance moves while performing Latin Dance.	Prerequisites: None. Prior experience recommended.	PED102LD may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED102PB	2024 Spring	Pickleball - Intermediate		Intermediate skills and game strategy of pickleball. Class emphasis on competition and drills.	Prerequisites: None. Prior experience	PED102PB may be repeated	Occ	L+L 1.0	T

					suggested but not required.	for four (4) credits. Repeats 4.0 4.0		2.0 2.0	
PED102PC	2018 Fall	Physical Conditioning - Intermediate		Intermediate level exercise program with access to free weights, strength machines and cardio equipment. Not recommended for the beginner.	Prerequisites: None. Prior experience recommended.	PED102P C may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED102PS	2018 Fall	Pilates - Intermediate		Intermediate level Mat-based exercise system focused on improving flexibility and strength for the total body. Teaches core control and stabilization while improving postural alignment.	Prerequisites: None. Prior experience recommended.	PED102P S may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED102RC	2018 Fall	Rock Climbing - Intermediate		Improve upon basic skills of climbing including, knots, anchoring, belaying, and climbing techniques in an indoor climbing gym. Develop strength and confidence.	Prerequisites: None. Prior experience recommended.	PED102R C may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED102RT	2021 Fall	Resistance Training for Improved Sports Performance - Intermediate		Intermediate level of sport specific programs designed to enhance athletic performance. Includes a focus on advanced assessment and sport related resistance training including Olympic lifting and plyometrics with a qualified instructor.	Prerequisites: None. Prior experience recommended.	PED102R T may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T
PED102SA	2018 Fall	Salsa - Intermediate		Learn the intermediate dance moves for Salsa. Not recommended for the beginning Salsa dancer.	Prerequisites: None. Prior experience recommended.	PED102S A may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED102SB	2018 Fall	Softball - Intermediate		Improve upon basic skills and game strategy of softball at the intermediate	Prerequisites: None. Prior experience recommended.	PED102S B may be repeated	Occ	L+L 1.0	T

				level. Class emphasis on competition and drills.		for credit. COMMON COMPET ENCY COURSE		2.0 2.0	
PED102SO	2018 Fall	Soccer - Intermediate		To improve upon basic skills and game strategy of soccer at the intermediate level. Class emphasis on competition and drills.	Prerequisites: None. Prior experience recommended.	PED102S O may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED102ST	2018 Fall	Strength Training - Intermediate		Intermediate techniques of strength training, concentrating on incorporating an exercise regimen for increased strength and endurance. Not recommended for the beginning weight lifter.	Prerequisites: None. Prior experience recommended.	PED102S T may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED102SW	2018 Fall	Swing Dancing - Intermediate		Learn the intermediate dance moves for Swing Dancing.	Prerequisites: None. Prior experience recommended.	PED102S W may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED102TC	2018 Fall	Tai Chi - Intermediate		Intermediate level techniques of Tai Chi including moves, breathing and meditation.	Prerequisites: None. Prior experience recommended.	PED102T C may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED102TD	2018 Fall	Tap Dance- Intermediate		Tap dance steps at the intermediate level. Some experience welcomed	Prerequisites: None. Prior experience recommended.		Occ	L+L 1.0 2.0 2.0	T
PED102TE	2018 Fall	Tennis - Intermediate		Improve upon basic skills and game strategy of tennis at the intermediate level. Class emphasis on competition and drills.	Prerequisites: None. Prior experience recommended.	PED102T E may be repeated for credit. COMMON	Occ	L+L 1.0 2.0 2.0	T



						COMPETENCY COURSE			
PED102TF	2018 Fall	Track and Field - Intermediate		To improve upon basic track and field event skills at the intermediate level. Class emphasis on competition and drills.	Prerequisites: None. Prior experience recommended.	PED102TF may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED102TK	2018 Fall	Taekwondo - Intermediate		Intermediate level training in Taekwondo.	Prerequisites: None. Prior experience recommended.	PED102TK may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED102TT	2018 Fall	Triathlon Training - Intermediate		Intermediate level training for triathletes. Improve your training techniques for triathlon competition: Swim, Bike, Run.	Prerequisites: None. Prior experience recommended.	PED102TT may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED102VB	2018 Fall	Volleyball - Intermediate		Improve upon basic skills and game strategy of volleyball at the intermediate level. Class emphasis on competition and drills.	Prerequisites: None. Prior experience recommended.	PED102VB may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED102WW	2021 Fall	Weight Training for Women - Intermediate		Designed to advance the resistance training routines of more experienced students in a progressive fashion. Includes principles of and practice with the safe use of free and machine weights and Olympic lifts as well as strategies for effective workouts. Customized training programs devised with instructor guidance. Consideration of resistance training as part of a comprehensive health,	Prerequisites: None. Prior experience recommended.	PED102WW may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T

				fitness and wellness program included.					
PED102YO	2018 Fall	Yoga - Intermediate		Yoga for the experienced practitioner.	Prerequisites: None. Prior experience recommended.	PED102Y O may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED102YP	2018 Fall	Power Yoga - Intermediate		Intermediate level Yoga postures performed in a dynamic series designed to gain strength, add flexibility, release toxins, This is a vigorous, athletic form of yoga.	Prerequisites: None. Prior experience recommended.	PED102Y P may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED103	2018 Fall	Physical Activities: Basic		Individual, dual, or team sports activities at the basic level.	Prerequisites: None.	PED103 may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 0.5 1.0 1.0	T
PED103AQ	2019 Fall	Aquatic Fitness		This aquatic fitness class offers knowledge and skills to keep fit for life. It teaches safe performance of movement and exercise in a progressive approach and offers an opportunity to improve and/or maintain a high level of fitness through application of aerobic training principles in an aquatic environment. Swimming skills are not required. This class is designed for all fitness levels. Students are encouraged to understand their own limitations and work within their bounds.	Prerequisites: None.	PED103A Q may be repeated for credit.	Occ	L+L 0.5 1.0 1.0	T
PED103BC	2018 Fall	Boot Camp		Vigorous physical and mental conditioning incorporating cardiovascular, core fitness, strength training, and flexibility. Emphasis will be placed on proper body mechanics and safety.	Prerequisites: None.	PED103B C may be repeated for credit. COMMON COMPET	Occ	L+L 0.5 1.0 1.0	T

						ENCY COURSE			
PED103BD	2018 Fall	Ballroom Dancing		Basic level instruction on ballroom dancing footwork, timing, techniques, and style. Partners rotate.	Prerequisites: None.	PED103B D may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 0.5 1.0 1.0	T
PED103BE	2018 Fall	Belly Dance		Practice and demonstration of basic belly dance skills and movements. Basic posture and muscularity, primary upper and lower body isolations, footwork, simple combination movements. Rhythms broken down, and at least one prop demonstrated. Basic routine, improvisation, and current styles and trends in belly dance. Belly dance etiquette and attire.	Prerequisites: None.	PED103B E may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 0.5 1.0 1.0	T
PED103BS	2018 Fall	Body Sculpting		Stretch and strengthen. Emphasizes increasing fitness, muscle tone, and body flexibility. Great for reducing stress.	Prerequisites: None.	PED103B S may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 0.5 1.0 1.0	T
PED103DF	2018 Fall	Self Defense		Basic self-defense skills, ground-fighting skills, and stand-up fighting capabilities. Modified for all skill levels. Practice is based on real-life experiences and endurance enhanced drills. Develops self confidence.	Prerequisites: None.	PED103D F may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 0.5 1.0 1.0	T
PED103GF	2018 Fall	Group Fitness/Aerobics		Group exercise incorporating a variety of equipment to increase respiration, heart rates, strength, and flexibility.	Prerequisites: None.	PED103G F may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 0.5 1.0 1.0	T

PED103HK	2018 Fall	Hiking		Develop safe and effective hiking skills. Essentials and requirements for safe hiking; proper hiking clothing and attire; impact of hiking on the environment.	Prerequisites: None.	PED103H K may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 0.5 1.0 1.0	T
PED103KB	2018 Fall	Kickboxing		Techniques to increase muscular endurance and strength, enhance flexibility and increase body awareness and self-confidence. Jabs, kicks, and blocks will be used in this martial arts based workout.	Prerequisites: None.	PED103K B may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 0.5 1.0 1.0	T
PED103KF	2018 Fall	Kung Fu		Techniques of one of the most comprehensive martial arts in China.	Prerequisites: None.	PED103K F may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 0.5 1.0 1.0	T
PED103LD	2018 Fall	Latin Dancing		Spicy, energetic style of dance. Cha Cha, Merengue, Salsa, Rumba, and Bolero. Partners rotate.	Prerequisites: None.	PED103L D may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 0.5 1.0 1.0	T
PED103PC	2018 Fall	Physical Conditioning		Exercise program with access to free weights, strength machines and cardio equipment.	Prerequisites: None.	PED103P C may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 0.5 1.0 1.0	T
PED103PS	2018 Fall	Pilates		Mat-based exercise system focused on improving flexibility and strength for the total body. Teaches core control and stabilization while improving postural alignment.	Prerequisites: None.	PED103P S may be repeated for credit. COMMON COMPET	Occ	L+L 0.5 1.0 1.0	T

						ENCY COURSE			
PED103QG	2018 Fall	Qi Gong		Ancient Chinese Qi Gong breathing exercises for healing and opening channels of energy. Includes Power of Positive thought along with relaxation and meditation techniques.	Prerequisites: None.	PED103QG may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 0.5 1.0 1.0	T
PED103SA	2018 Fall	Salsa		Basic moves for the popular, hot Latin dance Salsa. Partners rotate.	Prerequisites: None.	PED103SA may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 0.5 1.0 1.0	T
PED103SM	2021 Fall	Swimming		Designed to improve cardiovascular fitness, flexibility and muscular endurance in an aquatic environment. Includes instruction and coaching in basic swim strokes and breathing techniques as well as tips for improving efficiency of movement in the water.	Prerequisites: None.	PED103SM may be repeated for credit.	Occ	L+L 0.5 1.0 1.0	T
PED103SR	2018 Fall	Stretch and Relaxation		A mat-based stretching class with guided meditation. Stretching increases flexibility and relieves stress, promoting an overall sense of well being.	Prerequisites: None.	PED103SR may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 0.5 1.0 1.0	T
PED103TC	2018 Fall	Tai Chi		Fundamentals of Tai Chi including moves, breathing and meditation.	Prerequisites: None.	PED103TC may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 0.5 1.0 1.0	T
PED103TX	2018 Fall	Suspension Training		Suspension training using TRX or similar equipment. Designed to develop strength, balance, flexibility and core stability. Incorporates a	Prerequisites: None.	PED103TX may be repeated for credit.	Occ	L+L 0.5 1.0 1.0	T

				variety of exercises using adjustable positions, stability levels and intensities. Suitable for all skill levels.		Common Competency Course			
PED103VB	2018 Fall	Volleyball		Basic skills and game strategy of volleyball. Class emphasis on competition and drills.	Prerequisites: None.	PED103V B may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 0.5 1.0 1.0	T
PED103YG	2018 Fall	Gentle Yoga		Focuses on the use of such props as blankets, blocks, and chairs to modify traditional Yoga poses, enabling participation with moderate effort and without strain; suitable for all levels but especially for students needing a slower pace.	Prerequisites: None.	PED101Y G may be repeated for credit.	Occ	L+L 0.5 1.0 1.0	T
PED103YH	2018 Fall	Hatha Yoga		Combination of traditional and flow style yoga that utilizes breathing, yoga poses, relaxation and meditation to create balance and inner peace.	Prerequisites: None.	PED103Y H may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 0.5 1.0 1.0	T
PED103YO	2018 Fall	Yoga		Promotion of overall health by strengthening muscles and stimulating glands and organs. Basic postures, breathing and relaxation techniques.	Prerequisites: None.	PED103Y O may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 0.5 1.0 1.0	T
PED103YR	2018 Fall	Restorative Yoga		Gentle form of Yoga poses utilizing props to create fully supported postures; focuses on relaxation and involves non-rigorous physical activity, providing rest and recovery and promoting the restoration of tranquility; suitable for all levels.	Prerequisites: None.	PED101Y R may be repeated for credit.	Occ	L+L 0.5 1.0 1.0	T
PED103ZU	2018 Fall	Zumba Fitness		Zumba dynamic fitness program. Features high energy, easy to follow rhythmic moves set to energizing Latin and international beats.	Prerequisites: None.	PED103Z U may be repeated for credit.	Occ	L+L 0.5 1.0 1.0	T

				Provides an enjoyable way to increase fitness level.					
PED105	2016 Summer	Army Master Fitness		Introduces the student to the Army Master Fitness Program. Designed to enhance the student's level of individual fitness and wellness.	Prerequisites: None.	PED105 may be repeated for credit. PED105 is taught at the ASU Tempe Campus. Contact the Army ROTC Department.	Occ	L+L 1.0 3.0 0.0	Z
PED114	2018 Fall	Fitness		Fitness activity and wellness study to help develop a lifetime of regular exercise, stress management, and proper nutrition. Workout includes warm-up/stretch, aerobic exercise, selected strength exercises, and cool down/stretch.	Prerequisites: None.	PED114 may be repeated for credit.	Occ	L+L 1.5 3.0 3.0	T
PED115	2018 Fall	Lifetime Fitness		Increase personal fitness, strength, and vitality. Current principles of cardiovascular exercise, weight training, flexibility, and balance exercises applicable to lifetime fitness goals. Personalized fitness plans developed and implemented with support of highly trained fitness professionals. Techniques to make sessions more effective and enjoyable.	Prerequisites: None.	PED115 may be repeated for a total of eight (8) credit hours.	Occ	L+L 2.0 4.0 4.0	T
PED116	2018 Fall	Cardiovascular Fitness		Blends an effective warm-up, challenging cardiovascular and strength/endurance training strategies and a relaxing cool-down. Tailored by certified fitness professionals to personal goals.	Prerequisites: None.	PED116 may be repeated for a total of eight (8) credit hours.	Occ	L+L 2.0 4.0 4.0	T
PED117	2018 Fall	Weight Training for Wellness		Strength training and muscular fitness activity to help develop a lifetime of regular exercise and muscular strength maintenance. Development of full body strength and stability of	Prerequisites: None.	PED117 may be repeated for a maximum	Occ	L+L 2.0 4.0 4.0	T

				the body's core musculature, translating to increased power, balance, and functional movement ability including assessment of current strength and goal-specific program design to increase strength and muscular fitness.		of eight (8) credit hours.			
PED118	2018 Fall	Exercise is Medicine(r)		Group exercise that is individualized by highly trained fitness professionals to help meet personal health enhancement goals. Designed to follow the national initiative, "Exercise is Medicine(r)", coordinated by the American College of Sports Medicine (ACSM) and the American Medical Association (AMA) to help improve overall health and well-being. Designed for individuals over age 55.	Prerequisites: None.	PED118 may be repeated for a total of six (6) credit hours.	Occ	L+L 1.5 3.0 3.0	T
PED120AF	2018 Fall	Special Emphasis Activities: Weight Training		Intensive experience in weight training.	Prerequisites: None.	PED120A F may be repeated for a total of 8 credits. COMMON COMPETENCY COURSE	Occ	L+L 2.0 4.0 4.0	T
PED124	2018 Fall	Strength and Conditioning for Sport Performance: Basic		Introduction to the principles and training techniques of strength and conditioning for sport performance. Emphasis is placed on beginning instructional techniques and safety of Olympic lifts; plyometrics; muscular endurance, strength and power development; anaerobic and aerobic capacity.	Prerequisites: None.	PED124 may be repeated for a total of eight (8) credit hours.	Occ	L+L 2.0 4.0 4.0	T
PED125	2018 Fall	Strength and Conditioning for Sport Performance: Intermediate		Principles and training techniques of strength and conditioning for sport performance. Emphasis is placed on instructional techniques and safety of Olympic lifts; plyometrics; muscular endurance, strength and power development; anaerobic and aerobic capacity.	Prerequisites: A grade of C or better in PED124.	PED125 may be repeated for a total of eight (8) credit hours.	Occ	L+L 2.0 4.0 4.0	T



PED133	2018 Fall	Olympic Style Weight Lifting		Advanced study of the science, strategy, and techniques of Olympic Style Weightlifting. For the fitness professional who is interested in competing, or is seeking to incorporate advanced strength and conditioning modalities. Addresses current topics, theories and techniques	Prerequisites: None.		Occ	L+L 2.0 4.0 4.0	T
PED158	2023 Fall	Tradition and Practice of Yoga III		A deep exploration of the yogic path as it relates to the self, to teaching yoga, and to society as a whole. Emphasis on the early and modern intellectual foundations of yoga.	Prerequisites: A grade of C or better in YOG150 and YOG250.		Occ	LEC 2.0 2.0 2.0	S
PED191	2018 Fall	Corrective Exercise for Athletes: Basic		Evaluation of functional movement ability and corrective activity to improve specific functional movements. Optimize functional movement abilities by designing corrective activity to improve weaknesses, correct imbalances and asymmetries in order to contribute to athletic and fitness performance.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0	T
PED192	2018 Fall	Corrective Exercise for Athletes: Intermediate		Evaluation of functional movement ability and corrective activity to improve functional movement at the intermediate level. Optimize functional movement abilities and dynamic sport movement by designing corrective activity at the intermediate level to improve weaknesses, correct imbalances and asymmetries in order to contribute to athletic and fitness performance.	Prerequisites: A grade of C or better in PED191 or permission of Instructor.		Occ	L+L 1.0 2.0 2.0	T
PED201BA	2018 Fall	Baseball - Advanced		To improve upon intermediate skills and game strategy of baseball at the advanced level. Class emphasis on competition and drills.	Prerequisites: None. Prior experience at competitive level recommended.	PED201B A may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED201BB	2018 Fall	Basketball - Advanced		To improve upon intermediate skills and game strategy of basketball at the advanced level. Class emphasis on competition and drills.	Prerequisites: None. Prior experience at competitive level recommended.	PED201B B may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T

						COMMON COMPET ENCY COURSE			
PED201BD	2018 Fall	Ballroom Dancing - Advanced		Advanced level instruction on ballroom dancing footwork, timing, techniques, and style. Partners rotate.	Prerequisites: None. Prior experience at competitive level recommended.	PED201B D may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED201CH	2018 Fall	Cheerleaders - Advanced		Advanced skills of cheerleading with instruction, practice, and performance including proper body mechanics, choreography, and behavioral competencies.	Prerequisites: None. Prior experience at competitive level recommended.	PED201C H may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED201GO	2018 Fall	Golf - Advanced		Experienced golfers gain helpful hints and practice to improve their game.	Prerequisites: None. Prior experience at competitive level recommended.	PED201G O may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED201PC	2018 Fall	Physical Conditioning - Advanced		Advanced level training program with access to free weights, strength machines and cardio equipment.	Prerequisites: None. Prior experience at competitive level recommended.	PED201P C may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED201SA	2018 Fall	Salsa - Advanced		Learn the advanced dance moves for Salsa.	Prerequisites: None. Prior experience at competitive level recommended.	PED201S A may be repeated for credit. COMMON COMPET ENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED201SB	2018 Fall	Softball - Advanced		Improve upon intermediate skills and game strategy of softball at the	Prerequisites: None. Prior experience at	PED201S B may be	Occ	L+L 1.0	T

				advanced level. Class emphasis on competition and drills.	competitive level recommended.	repeated for credit. COMMON COMPETENCY COURSE		2.0 2.0	
PED201SO	2018 Fall	Soccer - Advanced		To improve upon intermediate skills and game strategy of soccer at the advanced level. Class emphasis on competition and drills.	Prerequisites: None. Prior experience at competitive level recommended.	PED201SO may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED201ST	2018 Fall	Strength Training - Advanced		Advanced techniques of strength training, concentrating on incorporating a vigorous exercise regimen for increasing muscle strength and endurance.	Prerequisites: None. Prior experience at competitive level recommended.	PED201ST may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED201SU	2018 Fall	Scuba Diving: Advanced		Additional training in SCUBA techniques. Pool sessions and weekend open water dives will provide training in: Underwater Navigation, Underwater Naturalist, Deep Dive, and other specialties.	Prerequisites: None. Prior experience at competitive level recommended.	PED201SU may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED201TC	2018 Fall	Tai Chi - Advanced		Advanced level techniques of Tai Chi including moves, breathing and meditation.	Prerequisites: None. Prior experience at competitive level recommended.	PED201TC may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED201TF	2018 Fall	Track and Field - Advanced		Advanced level training in track and field events. Class emphasis on competition and drills.	Prerequisites: None. Prior experience at competitive level recommended.	PED201TF may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T

PED201VB	2018 Fall	Volleyball - Advanced		Improve upon intermediate skills and game strategy of volleyball at the advanced level. Class emphasis on competition and drills.	Prerequisites: None. Prior experience at competitive level recommended.	PED201V B may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED201WT	2018 Fall	Weight Training - Advanced		Advanced level training with a qualified instructor on the use of Olympic and Free Weights.	Prerequisites: None. Prior experience at competitive level recommended.	PED201W T may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED201YO	2018 Fall	Yoga - Advanced		Advanced yoga postures.	Prerequisites: None. Prior experience recommended.	PED201Y O may be repeated for credit. COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
PED202	2018 Fall	Physical Activities: Elite		Individual, dual, or team sports activities at the elite level.	Prerequisites: None. Prior experience at competitive level recommended.	PED202 may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T
PED202BA	2018 Fall	Baseball - Elite		Improve upon advanced skills and game strategy of baseball at the elite level. Class emphasis on competition and drills.	Prerequisites: None. Prior experience at competitive level recommended.	PED202B A may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T
PED202BB	2018 Fall	Basketball - Elite		Improve upon advanced skills and game strategy of basketball at the elite level. Class emphasis on competition and drills.	Prerequisites: None. Prior experience at competitive level recommended.	PED202B B may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T
PED202SB	2018 Fall	Softball - Elite		Improve upon advanced skills and game strategy of softball at the elite level. Class emphasis on competition and drills.	Prerequisites: None. Prior experience at competitive level recommended.	PED202S B may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T
PED202SO	2018 Fall	Soccer - Elite		Improve upon advanced skills and game strategy of soccer at the elite level. Class emphasis on competition and drills.	Prerequisites: None. Prior experience at competitive level recommended.	PED202S O may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T
PED202TF	2018 Fall	Track and Field - Elite		Improve upon advanced skills and game strategy of track and field at the	Prerequisites: None. Prior experience at	PED202T F may be	Occ	L+L 1.0	T

				elite level. Class emphasis on competition and drills.	competitive level recommended.	repeated for credit.		2.0 2.0	
PED202VB	2018 Fall	Volleyball - Elite		Improve upon advanced skills and game strategy of volleyball at the elite level. Class emphasis on competition and drills.	Prerequisites: None. Prior experience at competitive level recommended.	PED202V B may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T
PED224	2018 Fall	Strength and Conditioning for Sport Performance: Advanced		Principles and training techniques of strength and conditioning for sport performance. Emphasis placed on instructional techniques and safety of Olympic lifts; plyometrics; muscular endurance, strength and power development; anaerobic and aerobic capacity; and injury prevention.	Prerequisites: A grade of C or better in PED124 and PED125.	PED224 may be repeated for a total of eight (8) credit hours.	Occ	L+L 2.0 4.0 4.0	T
PED225	2018 Fall	Strength and Conditioning for Sport Performance: Elite		Principles and training techniques of strength and conditioning for sport performance. Emphasis placed on instructional techniques and safety of Olympic lifts; plyometrics; muscular endurance, strength and power development; anaerobic and aerobic capacity; injury prevention; and assessment techniques.	Prerequisites: A grade of C or better in PED124, PED125 and PED224.	PED225 may be repeated for a total of eight (8) credit hours.	Occ	L+L 2.0 4.0 4.0	T
PED280	2023 Fall	Introduction to Yoga Therapy		Introduction to the therapeutic use of yoga. Includes basic concepts of yoga therapy, identification of common therapeutic problems and application of yoga asana as a modality of healing. Demonstration and practice of therapeutic techniques and sequences to improve movement and promote health and well-being.	Prerequisites: A grade of C or better in YOG170 or permission of Instructor.		Occ	L+L 2.0 2.0 2.0	T
PED281	2018 Fall	Yoga Therapy - Upper Body Principles		Basic concepts of yoga therapy, review of therapeutic interventions, identification of common therapeutic problems, and application of yoga asana as a modality of healing. Demonstration and practice of therapeutic techniques and sequences to improve movement capability and promote health and well-being of the upper body. Emphasis on the study of chronic problem areas and therapeutic issues with shoulders and upper body.	Prerequisites: A grade of C or better in PED280 or permission of Instructor.		Occ	L+L 2.0 2.0 2.0	T

PED282AA	2016 Summer	Service-Learning Experience in Physical Education		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	PED282A A may be repeated for a total of six (6) credit hours. Standard grading available according to procedure s outlined in catalog.	Occ	LAB 1.0 1.0 0.0	L
PED282AB	2016 Summer	Service-Learning Experience in Physical Education		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	PED282A B may be repeated for a total of six (6) credit hours. Standard grading available according to procedure s outlined in catalog.	Occ	LAB 2.0 2.0 0.0	L
PED282AC	2016 Summer	Service-Learning Experience in Physical Education		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	PED282A C may be repeated for a total of six (6) credit hours. Standard grading available according to procedure s outlined in catalog.	Occ	LAB 3.0 3.0 0.0	L

PED283	2018 Fall	Yoga Therapy - Low Back Principles		Basic concepts of yoga therapy, review of therapeutic interventions, identification of common therapeutic problems, and application of yoga asana as a modality of healing. Demonstration and practice of therapeutic techniques and sequences to improve movement capability and promote health and well-being. Emphasis on the study of chronic problem areas and therapeutic issues associated with the lower back.	Prerequisites: A grade of C or better in PED280 or permission of Instructor.		Occ	L+L 2.0 2.0 2.0	T
PED284	2018 Fall	Yoga Therapy - Knee Principles		Basic concepts of yoga therapy, review of therapeutic interventions, identification of common therapeutic problems of the knee, and application of yoga asana as a modality of healing. Demonstration and practice of therapeutic techniques and sequences to improve movement capability and promote health and well-being. Emphasis on the study of chronic problem areas and therapeutic issues.	Prerequisites: A grade of C or better in PED280 or permission of Instructor.		Occ	L+L 2.0 2.0 2.0	T
PED288	2013 Fall	Yoga Therapy Practicum		Focus on immersion in the area of Yoga Therapy. Yoga Therapy application onsite at the community college with a current instructor of Yoga. Requires minimum of 150 contact hours.	Prerequisites: A grade of C or better in (PED280, PED281, PED283, and PED284) or permission of Program Director.	PED288 may be repeated for a total of eight (8) credit hours.	Occ	LAB 2.0 10.0 0.0	C
PED291	2018 Fall	Corrective Exercise for Athletes: Advanced		Evaluation of functional movement ability and corrective activity to improve functional movement at an advanced level. Optimize functional movement abilities by designing advanced corrective activity to improve weaknesses, correct imbalances and asymmetries in order to contribute to athletic and fitness performance. Self-assessment at an advanced level of imbalances and selection of appropriate corrective exercises.	Prerequisites: A grade of C or better in PED192 or permission of Instructor.		Occ	L+L 1.0 2.0 2.0	T

PED296WA	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 1.0 5.0 0.0	Z
PED296WB	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 2.0 10.0 0.0	Z
PED296WC	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6		Occ	LAB 3.0 15.0 0.0	Z



				related to the career objectives of the students.	grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.				
PED296WD	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 4.0 20.0 0.0	Z
PED298AA	2011 Summer I	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z

				aspects of independent study and individualized learning to be combined to maximize student development.					
PED298AB	2011 Summer I	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z
PED298AC	2011 Summer I	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z
PHC101	2021 Fall 1	Pharmacology for Pharmacy Technicians		Overall history of pharmacy from ancient times to today; pharmacy technician job ethics and responsibilities; state and national drug laws and regulations; pharmacy information reference material; pharmaceutical abbreviations and introduction to prescription sig codes.	Prerequisites: 1. Successful completion of RDG100 or higher or appropriate reading placement into CRE101. 2. Successful completion of MAT090, MAT091, MAT092, MAT095, MAT096 or higher, or appropriate math placement into MAT103.		CLK	60	
PHC102	2020 Fall 1	Pharmacy Tech I		Technical aspects of prescription dispensing and drug distribution in the retail and hospital setting utilizing the	Prerequisites: PHC101 or with		CLK	120	

				computer. Bulk compounding, packaging, inventory control, drug storage and a variety of drug delivery systems. Laws that relate to specific technical tasks.	Program Manager approval.				
PHC102AB	2020 Fall 1	Pharmacy Tech II		Responsibilities of a pharmacy technician specific to working in a hospital and community setting; common drugs and their uses; drug routes of administration; basic biopharmaceutics; billing and reimbursement; sterile and non-sterile compounding; pharmacy career development; introduction to resume building, job search training.	Prerequisites: PHC102 or with Program Manager approval.		CLK	128	
PHC107	2020 Fall 1	Math and Dosages		Principles of household, metric and apothecary measurements, medical symbols and abbreviations. Emphasizes drug dose unit calculations and drug pricing.	Prerequisites: PHC102AB or with Program Manager approval.		CLK	90	
PHC114	2021 Fall 1	Pharmacy Tech Externship		This course will give students hands-on experience with patients, staff, and other pharmacy professionals while using their skills and techniques they obtain from the pharmacy program coursework. Students are assigned to the site of an approved pharmacy partner. This will prepare the student for the transition from school to industry, to gain valuable work experience, and to provide an opportunity to network in the workforce.	Prerequisites: 1. PHC102AB, PHC107, PHC122, or with Program Manager approval. 2. Background check requirements in compliance with the Maricopa County Community College District Supplemental Background Check Policy. 3. Students also must provide a copy of an Arizona Department of Public Safety Level One Fingerprint Clearance Card. Students must maintain current fingerprint clearance throughout the externship(s). 4. Complete and submit the Allied Health Student Health and	Externship hours are site specific and may require attendance any day of the week, including during unscheduled days and times.	CLK	200	

					Safety Documentation Checklist, with included documentation. 5. Students are responsible to meet the requirements of the background check, fingerprint clearance card, and health and safety documentation.				
PHC120	2021 Fall 1	Pharmacology and Pharmacy Technology		This course is designed to offer incumbent pharmacy technician trainees foundational knowledge in pharmacy history, evolving roles and responsibilities of the pharmacy technician, ethics, and state and national drug laws and regulations in order to prepare for the national certification examination. Students will focus on learning the top 200 prescribed medications, pharmaceutical abbreviations, and prescription sig codes. Additionally, students will practice prescription dispensing, adjudication with insurance companies, and medication distribution in retail and hospital pharmacy settings. Students will practice computer skills, bulk compounding, packaging, inventory control, medication storage, and drug delivery systems. Students will practice pharmaceutical math to calculate drug dosing, as well as the principles of household, metric, and apothecary measurements to safely compound sterile and non-sterile medications.	Prerequisites: Successful completion of RDG100 or higher or appropriate reading placement into CRE101. Successful completion of MAT090, MAT091, MAT092, MAT095, MAT096 or higher, or appropriate math placement into MAT103.	Lab fees for this course include materials such as Pharmascope, Pharmamath, Personality, online study guide, lab supplies, and a take-home lab kit.	CLK	230	
PHC122	2024 Fall	Pharmacy Technician Certification Review		This course is designed to prepare Pharmacy Technician trainees, incumbent workers, or Pharmacy Technician certificate students for the NHA Exam for the Certification of	Prerequisites: A grade of C or better PHC155 or Pharmacy Technician Training License or	Course fees include certification practice	CLK	30	

				Pharmacy Technicians (ExCPT) and the PTSB Pharmacy Technician Certification Exam (PTCE), both recognized by the Arizona State Board of Pharmacy.	permission of Department or Division.	exams and first time attempt at the NHA ExCPT certification exam conducted via remote proctoring on location at GWCC campus.			
PHC150	2024 Fall	Introduction to Pharmacy Practice		This course provides a basic overview of the pharmacy industry to prepare students for an entry level pharmacy technician role. Students will be introduced to the knowledge and skills required for a pharmacy technician including roles and responsibilities, anatomy, physiology and health science, as well as pharmacology, scope of practice and federal laws and regulations.	Prerequisites: 1. Successful completion of RDG100 or higher or appropriate reading placement into CRE101. 2. Successful completion of MAT090, MAT091, MAT092, MAT095, MAT096 or higher, or appropriate math placement into MAT103.		CLK	90	
PHC153	2024 Fall	Basic Pharmacy Practice		Technical aspects of prescription dispensing and drug distribution in the retail and hospital setting utilizing the computer. Bulk compounding, packaging, inventory control, drug storage and a variety of drug delivery systems. Laws that relate to specific technical tasks.	Prerequisites: A grade of C or better in PHC150.		CLK	132	
PHC155	2024 Fall	Advanced Pharmacy Practice		Responsibilities of a pharmacy technician specific to working in a hospital and community setting; common drugs and their uses; drug routes of administration; basic biopharmaceutics; billing and reimbursement; sterile and non-sterile compounding; pharmacy career	Prerequisites: A grade of C or better in PHC153.		CLK	150	

				development; introduction to resume building, job search training.					
PHC253	2022 Fall	Pharmacy Technician Practicum		Consists of 160 hours at a clinical site, under the supervision of a pharmacist or senior pharmacy technician. Includes hands-on experience with patients, staff, and other healthcare professionals while applying the knowledge and skills obtained in the pharmacy technician program. Preparation for work experience in a pharmacy setting.	Prerequisites: A grade of C or better in PHC155.		CLK	160	
PHC253DC	2024 Fall	Pharmacy Technician Practicum		Consists of 200 hours at a clinical site, under the supervision of a pharmacist or senior pharmacy technician. Includes hands-on experience with patients, staff, and other healthcare professionals while applying the knowledge and skills obtained in the pharmacy technician program. Preparation for work experience in a pharmacy setting.	Prerequisites: A grade of C or better in PHC155.		CLK	200	
PHI101	2011 Fall	Introduction to Philosophy		General consideration of human nature and the nature of the universe. Knowledge, perception, freedom and determinism, and the existence of God	Prerequisites: None.	Course Attribute(s) ): General Education Designatio n: Humanitie s, Arts and Design - [HU] Arizona Shared Unique Number SUN#: PHI 1101	Acad	LEC 3.0 3.0 3.0	S
PHI103	2011 Fall	Introduction to Logic		Informal logic, logical fallacies, elementary symbolic logic, analysis of argument forms, and construction of proofs for validity	Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent.	Course Attribute(s) ): General Education Designatio n: Humanitie	Acad	LEC 3.0 3.0 3.0	S

						s, Arts and Design - [HU] General Education Designation: Literacy and Critical Inquiry - [L] Arizona Shared Unique Number SUN#: PHI 1103			
PHI104	2001 Fall	World Philosophy		Examination of questions such as the meaning of life and death, social justice, appearance and reality, human nature, the identity of the self freedom and destiny, the ethical life, and the relationship of science and religion. Comparative analysis of diverse Eastern and Western viewpoints	Prerequisites: None.	Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
PHI105	2013 Summer I	Introduction to Ethics		A survey of ethical theory in Western Philosophy, including the major normative theories and selected metaethical theories.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
PHI201	2004 Spring	History of Ancient Philosophy		Historical survey of the intellectual history of the Greco-Roman world, focusing on the philosophical tradition and social/historical context	Prerequisites: None.	Course Attribute(s): General Education Designation: Historical	Acad	LEC 3.0 3.0 3.0	S

						Awareness - [H] General Education Designation: Humanities, Arts and Design - [HU]			
PHI212	2004 Spring	Contemporary Moral Issues		Philosophical consideration of such moral issues as civil disobedience, preferential treatment, abortion, privacy, sexual morality, and poverty and hunger	Prerequisites: None.	Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
PHI213	2010 Summer I	Medical and Bio-Ethics		A philosophical consideration of moral problems that arise in relation to medicine and biology, e.g., death, patient's rights and biological experimentation	Prerequisites: None.	Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
PHI214	2023 Summer	Business Ethics		Philosophical consideration of moral problems arising in business practice, including corporate responsibility, government regulation, hiring practices, and advertising. Application to both the United States and other countries	Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent.	Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] General Education	Acad	LEC 3.0 3.0 3.0	S



						Designation: Literacy and Critical Inquiry - [L]			
PHI215	1995 Fall	Legal Ethics		Philosophical considerations of moral problems encountered in the law and the legal system by legal professionals and other involved parties	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
PHI216	2014 Summer	Environmental Ethics		Philosophical consideration of diverse theories and perspectives on the environment, and application of these theories to global moral issues such as animal rights, preservation of wilderness and species, population, world hunger and poverty, and air and water pollution.	Prerequisites: None.	Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
PHI218	2018 Spring	Philosophy of Sexuality		Philosophical examination of sexuality in human life. Historical and critical survey of philosophical and theological views. Comparison and evaluation of contemporary theories about the nature of sexual desire and sexual acts. Implications of theories for contemporary moral problems.	Prerequisites: A grade of C or better in ENG101 or ENG107 or permission of instructor.	PHI218 may contain adult content. All students under 18 years old are required to have a signed parental consent form on file, which is on the back of the Students Under The Age of 18 Enrollment	Acad	LEC 3.0 3.0 3.0	S

						t Form. Course Attribute(s) ): General Education Designatio n: Humanitie s, Arts and Design - [HU] General Education Designatio n: Literacy and Critical Inquiry - [L]			
PHI224	2017 Spring	Political Philosophy		Predominant figures and theories in Euroamerican political philosophy from Plato to contemporary social/political philosophers.	Prerequisites: A grade of C or better in ENG101, or ENG107, or permission of Instructor.	Course Attribute(s) ): General Education Designatio n: Humanitie s, Arts and Design - [HU] General Education Designatio n: Humanitie s and Fine Arts - [L]	Acad	LEC 3.0 3.0 3.0	S
PHI233AA	1995 Fall	Metaphysics: An Introduction		Metaphysical issues which have concerned philosophers from the time of the ancient Greeks until the present; topics selected from the following: the nature and function of metaphysics, reality, universals, space, time and the infinity, rational	Prerequisites: A grade of C or better in PHI101 or permission of Instructor.	Course Attribute(s) ): General Education Designatio n: Humanitie s, Arts	Acad	LEC 3.0 3.0 3.0	S

				theology, the nature of the mind, causation and the nature of things		and Design - [HU]			
PHI233AB	1995 Fall	Theory of Knowledge		Epistemological issues which have concerned philosophers from the time of the ancient Greeks until the present. Topics selected from the following: the technical terminology of epistemology, the nature of knowledge, knowledge of past events, knowledge of other minds, and knowledge of physical objects	Prerequisites: A grade of C or better in PHI101 or permission of Instructor.	Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
PHI233AC	1994 Fall	Philosophical Psychology		Philosophical principles and tools used in analyzing the nature of the mind	Prerequisites: A grade of C or better in PHI101 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0	S
PHI234AA	1995 Fall	Plato		The ideas of Plato and Socrates and their impact on western thought	Prerequisites: None.	Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
PHI244	1997 Fall	Philosophy of Religion	REL244	Religious language, the existence of God, miracles, and human destiny	Prerequisites: None.	Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
PHI245	2004 Spring	Introduction to Eastern Philosophy		Fundamental theories of Indian and Chinese metaphysics, epistemology, ethics and aesthetics	Prerequisites: None.	Course Attribute(s): General Education Designation	Acad	LEC 3.0 3.0 3.0	S

						n: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU]			
PHI250	2005 Fall	Ethics in Higher Education		Philosophical consideration of and diverse perspectives on moral problems that arise in higher education, including academic freedom, hiring practices, diversity, sexual harassment, community responsibilities, stewardship of public trust, intellectual property, and other related issues	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
PHI251	2010 Fall	Philosophy of Sport		General consideration of sport in its philosophical dimensions. Possible topics include the Zen of sport, strategy and competition, sport, practice, and play, and cheating versus fair play	Prerequisites: None.	Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
PHI282AC	2008 Summer I	Service Learning Experience in Philosophy		Service learning field experience within private/public agencies, and citizen volunteer groups.	Prerequisites: A grade of C or better in PHI101 or permission of Instructor.	PHI282AC may be repeated for a total of six (6) PHI282 credit hours; may not repeat specific agency assignment for	Acad	LAB 3.0 3.0 0.0	L

						more than three (3) credit hours.			
PHI296WA	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 1.0 5.0 0.0	Z
PHI296WB	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 2.0 10.0 0.0	Z

PHI296WC	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 3.0 15.0 0.0	Z
PHI296WD	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 4.0 20.0 0.0	Z
PHI298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0	Z

				and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.					
PHI298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0	Z
PHI298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0	Z
PHS110	2020 Spring	Fundamentals of Physical Science		Survey of the principles of physics and chemistry.	Prerequisites: A grade of C or better in MAT090 or higher level mathematics course or eligibility for MAT120 or higher as indicated by appropriate placement.	Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ]	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0	T
PHS115	2021 Spring	The Science of Musical Instruments		A science class set in a musical context where students learn about music, musical instruments, and about the underlying scientific and mathematical principles of sound.	Prerequisites: A grade of C or better in MAT090, or higher level mathematics course, or eligibility	Course Attribute(s): General Education Designatio	Acad	LEC 4.0 3.0 3.0 LAB	T

					for MAT120 or higher as indicated by appropriate placement.	n: Natural Sciences (Quantitative) - [SQ]		0.0 3.0 3.0	
PHS120	2018 Fall	Introduction to Physical Science: Astronomy, Meteorology, Geology and Oceanography		Designed primarily for students with limited background in physical science and mathematics and for nonscience majors. Topics from astronomy, meteorology, geology and oceanography. A laboratory course designed to help the students learn the basic laws and facts of the physical sciences which provide the starting points for scientific thought and speculations.	Prerequisites: None.	Students may not receive credit for both PHS120 and GLG106. Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ]	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0	T
PHS298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0	Z
PHS298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0	Z



PHS298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0	Z
PHT104	2008 Spring	Pharmacology for Pharmacy Technicians		Overview of pharmacology for pharmacy technicians. Includes drug conversion factors and dosage calculations as well as disease states and biopharmaceutics	Prerequisites: Permission of Department or Division.		Occ	LEC 1.0 1.0 1.0	S
PHT109	1993 Fall	Drug Actions and Effects		Drug names, dosage forms, indications, routes of administration and side effects of drugs. Basic anatomy and functions of body systems relevant to most commonly prescribed drugs	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
PHT120	2005 Fall	Pharmacy Technician Responsibilities		Responsibilities and skills of pharmacy technicians. Emphasis on federal and state laws, prescription entry and fulfillment, drug regulations, and drug calculations, as well as pharmaceutical products, abbreviations, and terminology. Includes inventory management, administration routes, financial issues, and pharmacy environments	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
PHT150	2022 Fall	Introduction to Pharmacy Practice		This course provides a basic overview of the pharmacy industry to prepare students for an entry level pharmacy technician role. Students will be introduced to the knowledge and skills required for a pharmacy technician including roles and responsibilities, anatomy, physiology and health science, as well as pharmacology, scope of practice and federal laws and regulations.	Prerequisites: Acceptance into the Pharmacy Technician program.		Occ	L+L 3.0 4.0 4.0	T

PHT153	2022 Fall	Basic Pharmacy Practice		Technical aspects of prescription dispensing and drug distribution in the retail and hospital setting utilizing the computer. Bulk compounding, packaging, inventory control, drug storage and a variety of drug delivery systems. Laws that relate to specific technical tasks.	Prerequisites: A grade of C or better in PHT150.		Occ	L+L 5.0 8.0 8.0	T
PHT155	2022 Fall	Advanced Pharmacy Practice		Responsibilities of a pharmacy technician specific to working in a hospital and community setting; common drugs and their uses; drug routes of administration; basic biopharmaceutics; billing and reimbursement; sterile and non-sterile compounding; pharmacy career development; introduction to resume building, job search training.	Prerequisites: A grade of C or better in PHT153.		Occ	L+L 5.0 8.0 8.0	T
PHT225	2024 Fall	Accelerated Pharmacy Technology		Overview of the pharmacy industry and entry-level pharmacy technician roles and responsibilities. Covers anatomy, physiology and health science, as well as pharmacology, scope of practice, and federal laws and regulations. Includes technical aspects of prescription dispensing and drug distribution in the retail and hospital setting. Also provides coverage of computer use, bulk compounding, packaging, inventory control, drug storage and a variety of drug delivery systems.	Prerequisites: Acceptance into the Accelerated Pharmacy Technology program.		Occ	L+L 7.0 9.0 9.0	T
PHT250	2022 Fall	Pharmacy Technician Certification Review		This course is designed to prepare Pharmacy Technician trainees, incumbent workers, or Pharmacy Technician certificate students for the NHA Exam for the Certification of Pharmacy Technicians (ExCPT) and the PTSB Pharmacy Technician Certification Exam (PTCE), both recognized by the Arizona State Board of Pharmacy.	Prerequisites: A grade of C or better PHT155, or Pharmacy Technician Training License, or permission of Department or Division.		Occ	LEC 1.0 1.0 1.0	S
PHT253	2024 Fall	Pharmacy Technician Externship		Consists of 200 hours at a clinical site, under the supervision of a pharmacist or senior pharmacy technician. Includes hands-on	A grade of C or better required in all Prerequisites. Prerequisites or		Occ	LAB 2.0 15.0 0.0	C

				experience with patients, staff, and other healthcare professionals while applying the knowledge and skills obtained in the pharmacy technician program. Preparation for work experience in a pharmacy setting.	Corequisites: PHT155 or PHT225.				
PHT296WA	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 1.0 5.0 0.0	Z
PHT296WB	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with		Occ	LAB 2.0 10.0 0.0	Z

					permission of Instructor.				
PHT296WC	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 3.0 15.0 0.0	Z
PHT296WD	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 4.0 20.0 0.0	Z
PHT298AA	2023 Fall	Special Projects		Organized and tailored around the interests and needs of the individual	Prerequisites: Permission of		Occ	LAB 1.0	Z

				student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Program Director or Instructor.			1.0 0.0	
PHT298AB	2023 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z
PHT298AC	2023 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z
PHY101	2020 Spring	Introduction to Physics		A survey of physics emphasizing applications of physics to modern life.	Prerequisites: A grade of C or better in MAT090 or higher level mathematics course or eligibility for MAT120 or higher as indicated by appropriate placement.	Students may receive credit for only one of the following: PHY101 or PHY101A A. Course Attribute(s)	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0	T

						) : General Education Designation: Natural Sciences (Quantitative) - [SQ]			
PHY101AA	2020 Spring	Introduction to Physics		A survey of physics emphasizing applications of physics to modern life.	Prerequisites: A grade of C or better in MAT090 or higher level mathematics course or eligibility for MAT120 or higher as indicated by appropriate placement.	Students may receive credit for only one of the following: PHY101 or PHY101A A Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ]	Acad	LEC 5.0 4.0 4.0 LAB 0.0 3.0 3.0	T
PHY111	2020 Spring	General Physics I		Includes motion, energy, and properties of matter.	Prerequisites: A grade of C or better in MAT182 or MAT187 or MAT220 or MAT221 or eligibility for MAT220 as indicated by appropriate placement or one year high school Trigonometry with a grade of C or better or permission of Department or Division.	PHY111 is recommended for preprofessional and suggested for certain other majors. Students may receive credit for only one of the following: PHY111 or PHY111A A. Course	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0	T

						Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] Arizona Shared Unique Number SUN# PHY1111			
PHY111AA	2020 Spring	General Physics I		Includes motion, energy, and properties of matter.	Prerequisites: A grade of C or better in MAT182 or MAT187 or MAT220 or MAT221 or eligibility for MAT220 as indicated by appropriate placement or one year high school Trigonometry with a grade of C or better or permission of Department or Division.	Recommended for preprofessional and suggested for certain other majors. Students may receive credit for only one of the following: PHY111 or PHY111A. Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ]	Acad	LEC 5.0 4.0 4.0 LAB 0.0 3.0 3.0	T
PHY112	2018 Fall	General Physics II		Includes electricity, electromagnetism, and modern physics.	Prerequisites: A grade of C or better in PHY111.	Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ]	Acad	LEC 4.0 3.0 3.0 LAB	T

						n: Natural Sciences (Quantitative) - [SQ] Arizona Shared Unique Number SUN#: PHY 1112		0.0 3.0 3.0	
PHY115	2018 Fall	University Physics I		General physics course using calculus to develop the principles of mechanics and thermodynamics. Recommended for majors in the sciences and mathematics. Required for Engineering majors.	Prerequisites: A grade of C or better in MAT220 or MAT221 or permission of Department or Division. Corequisites: MAT230 or MAT231. One year of High School physics or PHY111 and PHY112 is strongly recommended.	Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ]	Acad	LEC 5.0 4.0 4.0 LAB 0.0 3.0 3.0	T
PHY116	2019 Fall	University Physics II		Principles of electricity, magnetism, waves, and optics. Required for Engineering majors.	A grade of C or better required in all Prerequisites. Prerequisites: (MAT230 or MAT231) and PHY115. Prerequisite or Corequisites: MAT240 or MAT241 or permission of Instructor.	Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ]	Acad	LEC 5.0 4.0 4.0 LAB 0.0 3.0 3.0	T
PHY121	2025 Fall	University Physics I: Mechanics		Kinematics, Newton's laws, work, energy, momentum, conservation laws, dynamics of particles, solids, fluids, mechanical waves, and sound.	Prerequisites: A grade of C or better in MAT220, or MAT221, or permission of Department or Division. One year of high school physics suggested but not required.		Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0	T



PHY131	2018 Fall	University Physics II: Electricity and Magnetism		Electric charge and current, electric and magnetic fields in vacuum and in materials, and induction. AC circuits, displacement current, and electromagnetic waves.	Prerequisites: A grade of C or better in MAT230 or MAT231 or permission of Department or Division and PHY121. Corequisites: MAT241 or permission of Department or Division.	Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] Arizona Shared Unique Number SUN#: PHY 1131	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0	T
PHY195AA	2018 Fall	Principles and Practice of Scientific Research		Students will learn the use of the scientific method; how, why and where research is conducted; the ethical protocol in the scientific process; how peer review works, and how to formulate scientifically testable hypotheses and design supporting experiments. Students will apply the scientific method in laboratory and/or field research projects, will learn and use appropriate laboratory techniques, and will communicate research design, data collection, and data interpretation in conventional scientific formats.	Prerequisites: A grade of C or better in PHY121 or permission of Instructor.	PHY195A A may be repeated for credit.	Acad	L+L 1.0 2.0 2.0	T
PHY195AB	2018 Fall	Principles and Practice of Scientific Research		Students will learn the use of the scientific method; how, why and where research is conducted; the ethical protocol in the scientific process; how peer review works, and how to formulate scientifically testable hypotheses and design supporting experiments. Students will apply the scientific method in laboratory and/or field research projects, will learn and use appropriate laboratory techniques, and will communicate research design, data collection, and data interpretation in conventional scientific formats.	Prerequisites: A grade of C or better in PHY121 or permission of Instructor.	PHY195A B may be repeated for credit.	Acad	L+L 2.0 4.0 4.0	T

PHY195AC	2018 Fall	Principles and Practice of Scientific Research		Students will learn the use of the scientific method; how, why and where research is conducted; the ethical protocol in the scientific process; how peer review works, and how to formulate scientifically testable hypotheses and design supporting experiments. Students will apply the scientific method in laboratory and/or field research projects, will learn and use appropriate laboratory techniques, and will communicate research design, data collection, and data interpretation in conventional scientific formats.	Prerequisites: A grade of C or better in PHY121 or permission of Instructor.	PHY195A C may be repeated for credit.	Acad	L+L 3.0 6.0 6.0	T
PHY241	2019 Fall	University Physics III: Thermodynamics, Optics, and Wave Phenomena		Heat, entropy, and laws of thermodynamics; wave propagation; geometrical and physical optics; introduction to special relativity.	Prerequisites: A grade of C or better in PHY116 or PHY131 or permission of Instructor.		Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0	T
PHY282AA	2014 Summer	Service-Learning Experience in Physical Science		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	PHY282A A may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 1.0 1.0 0.0	L
PHY282AB	2014 Summer	Service-Learning Experience in Physical Science		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	PHY282A B may be repeated for a total of six (6) credit hours. Standard	Acad	LAB 2.0 2.0 0.0	L

						grading available according to procedures outlined in catalog.			
PHY282AC	2014 Summer	Service-Learning Experience in Physical Science		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	PHY282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 3.0 3.0 0.0	L
PHY285	2018 Fall	Introduction to Astrodynamics	AST285 ECE285	Introduction to celestial mechanics and the dynamics of spacecraft navigation. Introduction to rocket propulsion and spacecraft design. Orbital and interplanetary celestial mechanics and maneuvers. Astrophysics and characteristics of the space environment. Lab is project-based, utilizing a real-time spacecraft simulation environment.	Prerequisites: A grade of C or better in ENG101 and (PHY115 or PHY121).		Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0	T
PHY294	2010 Fall	Special Topics in Physics		Conceptual, experimental, and computational aspects of a special topic in physics.	Prerequisites: Permission of Department or Division.	PHY294 may be repeated for credit.	Acad	LEC 3.0 3.0 3.0	S
PHY294AA	2010 Fall	Special Topics in Physics		Conceptual, experimental, and computational aspects of a special topic in physics.	Prerequisites: Permission of Department or Division.	PHY294A may be repeated for credit.	Acad	LEC 2.0 2.0 2.0	S
PHY294AB	2010 Fall	Special Topics in Physics		Conceptual, experimental, and computational aspects of a special topic in physics.	Prerequisites: Permission of Department or Division.	PHY294A B may be repeated for credit.	Acad	LEC 1.0 1.0 1.0	S

PHY294AC	2010 Fall	Special Topics in Physics		Conceptual, experimental, and computational aspects of a special topic in physics.	Prerequisites: Permission of Department or Division.	PHY294A C may be repeated for credit.	Acad	LEC 0.5 0.5 0.5	S
PHY298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional- type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0	Z
PHY298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional- type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0	Z
PHY298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional- type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0	Z
PIM115	1995 Fall	Beginning Pima Conversation I		Conversational Pima. Basic sentence structure, pronunciation, and vocabulary necessary to develop speaking ability in Pima. Designed to develop speaking and listening	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S

				abilities, with little emphasis on grammar					
PIM116	2014 Fall	Beginning Pima Conversation II		Reviews basic Pima vocabulary, pronunciation, and sentence structure. Designed to develop speaking, listening, and writing skills in O'Odham for effective communication in Pima.	Prerequisites: A grade of C or better in NAV201 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 3.0 3.0 3.0	S
PLB109	2023 Fall	Phlebotomy: Basic Skills		Theory and practice of basic phlebotomy including laboratory test codes, equipment, and procedures.	Prerequisites: (Acceptance into the Laboratory Assisting or Phlebotomy program or permission of Instructor) and permission of Program Director.		Occ	L+L 2.0 4.0 4.0	T
PLB110	2017 Fall	Practicum: Fundamental Phlebotomy Skills		Application of fundamental phlebotomy techniques in a clinical laboratory setting or health care environment.	Prerequisites: A grade of C or better in PLB109 and submit to a drug screening and demonstrate negative results and acceptance into the Medical Assisting or Phlebotomy program or permission of Program Director.	PLB110 may be repeated for credit.	Occ	LAB 0.5 3.0 0.0	C
PLB110AA	2015 Fall	Practicum: Basic Phlebotomy: Training for Law Enforcement Officers		Application of basic phlebotomy techniques in a clinical laboratory setting or health care environment for law enforcement purposes.	Prerequisites: Certified Law Enforcement Officer or permission of Program Director. Corequisites: PLB109.		Occ	LAB 2.0 6.0 0.0	C
PLB111	2018 Fall	Specimen Processing and Advanced Techniques in Phlebotomy Procedures		Theory and practice of advanced techniques in phlebotomy and specimen processing including laboratory test codes, equipment, and procedures.	Prerequisites: A grade of C or better in PLB109 and permission of Program Director.		Occ	L+L 2.0 4.0 4.0	T

PLB112	2017 Fall	Practicum: Specialized Phlebotomy Techniques		Application of specialized phlebotomy techniques in a clinical laboratory setting or health-care environment.	Prerequisites: A grade of C or better in PLB109 and PLB110. Corequisites: PLB111 and PLB121, or permission of Program Director.		Occ	LAB 0.5 3.0 0.0	C
PLB114	2020 Spring	Refresher Course for Phlebotomists		Review of phlebotomy theory and practices including equipment, procedures, and special considerations. Reinforces and updates basic skills and competencies of phlebotomy techniques for individuals who have not worked in the field for between 6 months and 24 months and for those who have completed a formal structured phlebotomy training program but have not worked in the field.	Prerequisites: (Must provide proof of 2 years employment as a phlebotomist within the last 4 years or completion of a formal structured phlebotomy training program within the last 2 years with proof of a minimum of 100 successful venipunctures) and permission of Program Director.	PLB114 may be repeated for credit.	Occ	L+L 1.0 1.0 1.0	T
PLB115	2018 Fall	Developmental Skills for Law Enforcement Phlebotomy		Provides an update for specific law enforcement phlebotomy. Includes phlebotomy theory and practices including equipment, procedures, and special considerations of phlebotomy techniques.	Prerequisites: Permission of Program Director.	PLB115 may be repeated for credit.	Occ	L+L 1.0 1.0 1.0	T
PLB121	2014 Fall	Practicum: Basic Specimen Processing		Application of specimen processing techniques in a clinical laboratory setting or health care environment.	Prerequisites: A grade of C or better in PLB109 and PLB110. Corequisites: PLB111 and PLB112 or permission of Program Director.	PLB121 supports Medical Assisting program completers seeking the Certificate of Completion in Phlebotomy and requires formal acceptanc	Occ	LAB 2.0 8.0 0.0	C

						e into the program.			
PLB122	2014 Fall	Practicum: Phlebotomy and Specimen Processing		Application of phlebotomy and specimen processing techniques in a clinical laboratory setting or health care environment.	Prerequisites: A grade of C or better in PLB109 or permission of Program Director. Prerequisites: A grade of C or better in PLB111 or Corequisites: PLB111 or permission of Program Director.		Occ	LAB 3.0 12.0 0.0	C
PLB250	2020 Spring	Phlebotomy Program Review		Provides review of phlebotomy theory fundamental knowledge, and advanced concepts required for phlebotomy national certification examinations. Topics include anatomy and physiology, specimen collection, specimen processing and handling, non-blood specimens, and laboratory operations related to phlebotomy.	Prerequisites: (A grade of C or better in PLB122 or current employment with a minimum of one (1) year experience as a phlebotomist) and permission of Program Director.	PLB250 may be repeated for credit.	Occ	LEC 1.0 1.0 1.0	S
PLB280	2015 Fall	Quality Assurance for Phlebotomy		Components, tests, and procedures for evaluation of phlebotomy to assure consistency in the collection, processing, and analysis process.	Prerequisites: Current employment in a law enforcement agency with a minimum of one (1) year of experience as a law enforcement phlebotomist or permission of Instructor.	PLB280 may be repeated for credit.	Occ	LEC 3.0 3.0 3.0	S
PLC109	2021 Fall 1	Phlebotomy Basic Skills		Theory and practice of basic phlebotomy including laboratory test codes, equipment, and procedures.	Prerequisites: Admission into the Phlebotomy program. Successful completion of RDG100 or higher or appropriate reading placement into CRE101.		CLK	90	
PLC111	2020 Fall 1	Specimen Processing and Advanced		Theory and practice of advanced techniques in phlebotomy and specimen processing including	Prerequisites: PLC109 or with Program Manager approval.		CLK	90	

		Techniques in Phlebotomy		laboratory test codes, equipment, and procedures.					
PLC122	2022 Fall	Phlebotomy Practicum		Application of phlebotomy and specimen processing techniques in a clinical laboratory setting or health care environment.	Prerequisites: 1. PLC111 or with Program Manager approval. 2. Background check requirements in compliance with the Maricopa County Community College District Supplemental Background Check policy. 3. Students also must provide a copy of an Arizona Department of Public Safety Level One Fingerprint Clearance Card. Students must maintain current fingerprint clearance throughout the externship(s). 4. Complete and submit the Allied Health Student Health and Safety Documentation Checklist, with included documentation 5. Students are responsible to meet the requirements of the background check, fingerprint clearance card, and health and safety documentation.		CLK	120	
PLC211	2024 Fall	Advanced Phlebotomy Skills		This phlebotomy training course is tailored to healthcare clinicians with training in another field. This course is designed to further develop the knowledge and skill necessary to perform the art of obtaining blood			CLK	40	



				samples for laboratory analysis in a medical laboratory environment. The learning experience includes 40 hours of class and lab instruction. The course is also designed to prepare you to take the National HealthCareer Certification exam to become a Certified Phlebotomy Technician.					
PLG124	2020 Fall 1	Plumbing: Pipes and Fittings		This course introduces the various types of plumbing materials, pipe schedules and material properties, and applications of piping. Trainees will learn how to determine the appropriate types of fittings, valves, hangers, and supports needed for piping jobs. Trainees will learn to properly measure, cut, prep, and join piping.	Prerequisites: None.		CLK	81	
PLG125	2020 Fall 1	Plumbing: Fixtures		This course introduces commonly used fixtures in plumbing systems. Students will select and operate each type of fixture for a variety of installations. The course provides an overview of plumbing system installation, maintenance and water heating systems.	Prerequisites: None.		CLK	61	
PLG126	2020 Fall 1	Plumbing: Drain, Waste, and Vent		This course addresses drainage, waste movement and ventilation for construction application. Course provides instruction in locating, installing, connecting, and testing a complete drain, waste, and vent (DWV) system.	Prerequisites: None.		CLK	81	
PLG127	2020 Fall 1	Plumbing: Water Distribution Systems		This course discusses the processes through which potable water is distributed. Students will learn to identify the components and functions of a water distribution system and explain the relationships among the components. The course also includes installation and testing of water distribution systems.	Prerequisites: None.		CLK	61	
PLG224	2020 Fall 1	Plumbing: Pipe Systems and Controls		This course covers applied calculations to determine size, types and service of pipe systems. Course also includes the application of	Prerequisites: None.		CLK	81	

				drawings, codes, and specifications for assembly and installation of gas, air, and water systems.					
PLG225	2020 Fall 1	Plumbing: Water Disposal Systems		Course covers water disposal and drainage systems, to include the types, components, functions, codes, safety, design, installation and repair.	Prerequisites: None.		CLK	102	
PLG226	2020 Fall 1	Plumbing: Fixtures and Appliances		Course covers the safety, codes, installation, maintenance, and repair of appliances, fixtures, and gas piping.	Prerequisites: None.		CLK	81	
PLG227	2020 Fall 1	Plumbing: Water Resource Solutions		Course introduces water supply disinfection, filtration systems, and sustainable water practices.	Prerequisites: None.		CLK	40	
PME190	2020 Fall	Introduction to ECG Rhythm Analysis and Interpretation for EMS Professionals		Designed to provide an overview of the anatomy and physiology of the cardiovascular system and electrophysiology of the cardiac conduction system for Emergency Medical Service (EMS) professionals. Basic electrocardiograph (ECG) multi-lead acquisition, analysis, and interpretation of various dysrhythmias and cardiovascular conditions.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
PME191	2020 Fall	Introduction to Pharmacology for EMS Professionals		Designed to provide an overview of the principles of pharmacology and pharmacologic agents utilized in patient management plans. Includes pharmacokinetics, pharmacodynamics, physiology of pharmacology, calculating drug dosages, and drug profiles.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
PME201	2020 Fall	Advanced Cardiac Life Support (ACLS) Initial Provider in Paramedicine		Designed to provide the knowledge and skills needed to recognize and manage cardiopulmonary arrest, acute dysrhythmia, stroke, and acute coronary syndromes according to current emergency cardiovascular care (ECC) guidelines. Integrates knowledge of basic electrocardiographic rhythm interpretation, pharmacologic agents, and other interventions used in advanced cardiac life support.	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 1.0 2.0 2.0	T
PME202	2020 Fall	Pediatric Advanced Life		Designed to provide the knowledge and skills needed to recognize and	Prerequisites: Admission into the		Occ	L+L 1.0	T

		Support (PALS) Initial Provider in Paramedicine		manage an infant, child or adolescent in respiratory compromise, circulatory compromise, or cardiopulmonary arrest according to current Pediatric Advanced Life Support (PALS) and emergency cardiovascular care (ECC) guidelines. Integrates knowledge of basic electrocardiographic rhythm interpretation, pharmacologic agents, and other interventions used in pediatric emergencies.	Paramedic Education Program.			1.5 1.5	
PME203	2020 Fall	Pediatric Emergencies for Prehospital Professionals (PEPP) Initial Provider in Paramedicine		Designed to provide the knowledge and skills needed to recognize and manage an infant, child or adolescent in respiratory compromise, circulatory compromise, or cardiopulmonary arrest according to current Pediatric Emergencies for Prehospital Professionals (PEPP) and emergency cardiovascular care (ECC) guidelines. Integrates knowledge of basic electrocardiographic rhythm interpretation, pharmacologic agents, and other interventions used in pediatric emergencies.	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 1.0 1.5 1.5	T
PME204	2020 Fall	Neonatal Resuscitation Provider (NRP) in Paramedicine		Designed to provide the knowledge and skills needed to recognize and manage a neonate with respiratory compromise, circulatory compromise, or cardiopulmonary arrest according to current American Academy of Pediatrics (AAP) and emergency cardiovascular care (ECC) guidelines. Integrates knowledge of basic electrocardiographic rhythm interpretation, pharmacologic agents, and other interventions used in neonatal resuscitation.	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 0.5 1.5 1.5	T
PME205	2020 Fall	Advanced Medical Life Support (AMLS) Initial Provider in Paramedicine		Designed to provide the knowledge and skills needed to recognize and manage various medical conditions according to the National Association of EMTs (NAEMT) Advanced Medical Life Support (AMLS) guidelines. Skills	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 1.0 1.5 1.5	T

				are sequenced and synthesized into simulations.					
PME206	2020 Fall	International Trauma Life Support (ITLS) Provider/Pre-Hospital Trauma Life Support (PHTLS)		Designed to provide the knowledge and skills needed to recognize and manage various trauma conditions and environmental injuries according to the International Trauma Life Support (ITLS) or Provider/ Pre-Hospital Trauma Life Support (PHTLS) guidelines. Skills are sequenced and synthesized into simulations.	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 1.0 1.5 1.5	T
PME211	2020 Fall	Advanced Cardiac Life Support (ACLS) Refresher		Designed to meet Advanced Cardiac Life Support (ACLS) refresher requirements for the healthcare provider who initiates, directs, or participates in the management of cardiopulmonary arrest and other cardiovascular emergencies according to current cardiopulmonary resuscitation and emergency cardiovascular care guidelines. Provides the healthcare provider with the knowledge and skills needed to recognize and manage cardiopulmonary arrest, acute dysrhythmia, stroke, and acute coronary syndromes according to current emergency cardiovascular care (ECC) guidelines. Integrates knowledge of basic electrocardiographic rhythm interpretation, pharmacologic agents, and other interventions used in advanced cardiac life support.	Prerequisites: None.	PME211 may be repeated for credit.	Occ	L+L 0.5 1.0 1.0	T
PME212	2020 Fall	Pediatric Advanced Life Support (PALS) Refresher		Designed to meet Pediatric Advanced Life Support (PALS) refresher requirements for the healthcare provider who initiates, directs, or participates in the management of an infant, child or adolescent in respiratory compromise, circulatory compromise, or cardiopulmonary arrest according to current emergency cardiovascular care (ECC) guidelines. Integrates knowledge of basic	Prerequisites: None.	PME212 may be repeated for credit.	Occ	L+L 0.5 1.0 1.0	T

				electrocardiographic rhythm interpretation, pharmacologic agents, and other interventions used in pediatric emergencies.					
PME213	2020 Fall	Pediatric Emergencies for Prehospital Professionals (PEPP) Refresher		Designed to meet Pediatric Emergencies for Prehospital Professions (PEPP) refresher requirements for the healthcare provider who initiates, directs, or participates in the management of an infant, child or adolescent in respiratory compromise, circulatory compromise, or cardiopulmonary arrest according to current PEPP and emergency cardiovascular care (ECC) guidelines. Integrates knowledge of basic electrocardiographic rhythm interpretation, pharmacologic agents, and other interventions used in pediatric emergencies.	Prerequisites: None.	PME213 may be repeated for credit.	Occ	L+L 0.5 1.0 1.0	T
PME215	2020 Fall	Advanced Medical Life Support (AMLS) Refresher		Designed to meet the National Association of EMTs (NAEMT) Advanced Medical Life Support (AMLS) refresher requirements for the healthcare provider who performs assessment and management of the most common medical crises in patients. Skills are sequenced and synthesized into simulations.	Prerequisites: None.	PME215 may be repeated for credit.	Occ	L+L 0.5 1.0 1.0	T
PME216	2020 Fall	International Trauma Life Support (ITLS)/Pre-Hospital Trauma Life Support (PHTLS) Refresher		Designed to meet International Trauma Life Support (ITLS) or Pre-Hospital Trauma Life Support (PHTLS) refresher requirements for the healthcare provider who performs assessment and management of various trauma conditions and environmental injuries. Skills are sequenced and synthesized into simulations.	Prerequisites: None.	PME216 may be repeated for credit.	Occ	L+L 0.5 1.0 1.0	T
PME221	2020 Fall	Basic Level and Advanced Level Skills Course for the EMS Instructor and Examiner		Designed to provide an overview of the roles and responsibilities of basic level and advanced level instructors and examiners. Includes instructional strategies and methodologies, methods of evaluation, documentation	Prerequisites: None.	PME221 may be repeated for credit.	Occ	LEC 2.0 2.0 2.0	S

				of skill competency, and management strategies of emergency medical services (EMS) programmatic, state, and national scope of practice basic level and advanced level skills stations.					
PME222	2020 Fall	Advanced Cardiac Life Support (ACLS) Instructor Preparation		Designed to prepare Advanced Cardiac Life Support (ACLS) instructor candidates to deliver American Heart Association (AHA) instructor-led and blended learning courses. Provides an overview of the roles and responsibilities of the ACLS instructor. Includes instructional considerations, methods of evaluation, documentation of ACLS student skill competency, and ACLS Course management according to AHA guidelines.	Prerequisites: None.	PME222 may be repeated for credit.	Occ	LEC 2.0 2.0 2.0	S
PME223	2020 Fall	Pediatric Advanced Life Support (PALS) Instructor Preparation		Designed to prepare Pediatric Advanced Life Support (PALS) instructor candidates to deliver American Heart Association (AHA) instructor-led and blended learning courses. Provides an overview of the roles and responsibilities of the PALS instructor. Includes instructional considerations, methods of evaluation, documentation of PALS student skill competency, and PALS Course management according to AHA guidelines.	Prerequisites: None.	PME223 may be repeated for credit.	Occ	LEC 2.0 2.0 2.0	S
PME240	2020 Fall	Pharmacology in Paramedicine		Designed to provide an overview of the pathophysiologic principles of pharmacology, pharmacologic agents in the Paramedic scope of practice, and the practice of medication administration. Develops psychomotor skills in the paramedic scope of practice through sequenced lab simulations. Prepares students to integrate comprehensive knowledge of the pathophysiologic principles of pharmacology and pharmacologic agents to formulate a differential diagnosis and to implement a	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 3.0 5.0 5.0	T

				management plan for medical emergencies and trauma.					
PME245	2020 Fall	Airway and Ventilatory Management in Paramedicine		Designed to prepare students to integrate knowledge of the respiratory system, comprehensive assessment practices, and pharmacologic agents to formulate a differential diagnosis and implement airway and ventilatory management plans for medical emergencies and trauma. Develops psychomotor skills in the paramedic scope of practice through sequenced lab simulations. Prepares students to perform comprehensive assessment and techniques in the paramedic scope of practice for assuring airway patency, adequate mechanical ventilation, and respiration for all age groups.	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 3.0 4.0 4.0	T
PME250	2020 Fall	Comprehensive Patient Assessment in Paramedicine		Designed to provide an overview of comprehensive patient assessment. Develops psychomotor skills in the paramedic scope of practice. Integrates the pathophysiological significance of comprehensive assessment findings to formulate a differential diagnosis and implement a management plan for medical emergencies and trauma.	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 1.0 3.0 3.0	T
PME251	2020 Fall	Medical Emergencies in Paramedicine I		Designed to provide an overview of pathophysiologic principles, epidemiology, comprehensive assessment, differential diagnosis, and pharmacology for respiratory and cardiovascular emergencies. Develops psychomotor skills in the paramedic scope of practice through sequenced lab simulations. Prepares students to implement a management plan in the Paramedic scope of practice for respiratory and cardiovascular emergencies.	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 4.0 8.0 8.0	T
PME252	2020 Fall	Medical Emergencies in Paramedicine II		Designed to provide an overview of pathophysiologic principles, epidemiology, comprehensive assessment, differential diagnosis,	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 4.0 6.0 6.0	T

				and pharmacology for various medical emergencies. Develops psychomotor skills in the paramedic scope of practice through sequenced lab simulations. Prepares students to implement a management plan in the Paramedic scope of practice for various medical emergencies.					
PME253	2020 Fall	Medical Emergencies in Paramedicine III		Designed to provide an overview of pathophysiologic principles, epidemiology, comprehensive assessment, differential diagnosis, and pharmacology for various medical conditions. Develops psychomotor skills in the paramedic scope of practice through sequenced lab simulations. Prepares students to implement a management plan in the Paramedic scope of practice for gynecologic, obstetric, pediatric, and geriatric emergencies, neonatal care, and patients with special challenges.	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 4.0 4.0 4.0	T
PME254	2020 Fall	Technical Operations in Paramedicine		Designed to provide an overview of transport operations, incident management, multi-casualty incidents, extrication, special rescue, hazardous materials incidents, terrorism incidents, and disaster response. Examines the Paramedic's operational roles and responsibilities.	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 2.5 3.0 3.0	T
PME260	2020 Fall	Trauma Patient Management in Paramedicine		Designed to provide an overview of pathophysiologic principles, epidemiology, comprehensive assessment, differential diagnosis, and pharmacology for various trauma conditions. Develops psychomotor skills in the paramedic scope of practice through sequenced lab simulations. Prepares students to implement a management plan in the Paramedic scope of practice for hemorrhage, soft tissue trauma, burns, face and neck trauma, head and spine trauma, chest trauma, abdominal and genitourinary trauma,	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 2.0 2.0 2.0	T



				orthopedic trauma, and environmental emergencies.					
PME270	2020 Fall	Immersive Total Patient Management Experience (ITPME)		Designed to provide immersive-simulated live patient interactive out-of-hospital scenarios. This course creates an environment which facilitates incident stress inoculation and interdisciplinary collaboration.	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 2.0 2.0 2.0	T
PME280	2020 Fall	Preparation for Paramedicine Practicum		Designed to provide an overview of Emergency Medical Service (EMS) systems, safety and wellness, resiliency, health, medical/legal and ethical issues, EMS communications, documentation, and crime scene awareness. Examines the Paramedic's roles and responsibilities to assure personal, patient, and public health and safety in the provision of professional emergency care.	Prerequisites: Admission into the Paramedic Education Program.		Occ	LEC 1.0 1.0 1.0	S
PME281	2020 Fall	Paramedicine Clinical Practicum: Comprehensive		Designed as the precepted Paramedicine clinical practicum in which the student synthesizes standard of care and scope of practice with comprehensive assessment and diagnostic technology, patient advocacy, ethical and professional behaviors, critical thinking, decision-making, and patient management of medical emergencies and trauma in a clinical setting.	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 2.0 15.0 15.0	T
PME281AA	2020 Fall	Paramedicine Clinical Practicum: Phase I		Designed as the precepted Paramedicine clinical practicum in which the student synthesizes standard of care and scope of practice with comprehensive assessment and diagnostic technology, patient advocacy, ethical and professional behaviors, critical thinking, decision-making, and patient management of medical emergencies and trauma in a clinical setting.	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 1.0 7.5 7.5	T
PME281AB	2020 Fall	Paramedicine Clinical Practicum: Phase II		Designed as the precepted Paramedicine clinical practicum in which the student synthesizes standard of care and scope of practice with comprehensive	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 1.0 7.5 7.5	T

				assessment and diagnostic technology, patient advocacy, ethical and professional behaviors, critical thinking, decision-making, and patient management of medical emergencies and trauma in a clinical setting.					
PME288	2020 Fall	Paramedicine Comprehensive Field Internship Practicum		Designed as the precepted Paramedicine field internship in which the student synthesizes standard of care and scope of practice with comprehensive assessment and diagnostic technology, patient advocacy, ethical and professional behavior, critical thinking, decision-making, and patient management of medical emergencies and trauma in the out-of-hospital setting.	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 5.0 34.0 34.0	T
PME289	2020 Fall	Preparation for Paramedic National Credentialing		Designed to provide preparation for the national cognitive and psychomotor examinations, and other credentials required for national and state Paramedic certification/licensure.	Prerequisites: Admission into the Paramedic Education Program.		Occ	L+L 2.0 3.0 3.0	T
PME290	2020 Fall	Advanced Life Support (ALS) Refresher		Designed to provide a refresher of Advanced Life Support (ALS) to meet national and Arizona Department of Health Services Bureau of Emergency Services and Trauma System (AzDHS/BEMSTS) requirements for Paramedicine recertification.	Prerequisites: None.	PME290 may be repeated for credit.	Occ	L+L 1.0 1.0 1.0	T
PME291	2020 Fall	Community Health Paramedicine		Designed as the capstone Community Health Paramedicine experience in which the student synthesizes standard of care and expanded scope of practice with comprehensive assessment, diagnostic technology, patient advocacy, ethical and professional behaviors, to practice patient-centered evidence-based paramedicine in the community setting.	Prerequisites: None.	PME291 may be repeated for credit.	Occ	L+L 8.0 11.0 11.0	T
PME292	2020 Fall	Critical Care Paramedicine		Designed as the capstone Critical Care Paramedicine experience in which the student synthesizes standard of care and expanded scope	Prerequisites: None.		Occ	L+L 8.0 11.0 11.0	T

				of practice with comprehensive assessment, diagnostic technology, patient advocacy, ethical and professional behaviors, to practice patient-centered evidence based paramedicine in the clinical, out-of-hospital, and inter-facility transport settings.					
PME293	2020 Fall	Tactical Emergency Casualty Care (TECC)		Designed to provide strategies, skills, and simulations to decrease preventable death in the prehospital unstable environment according to National Association of EMTs (NAEMT) and Tactical Emergency Casualty Care (TECC) guidelines. Strategies include integration of rapid patient assessment with trauma patient management in tactical and hazardous environments. Promotes a common approach for the transition of rescue to patient care while limiting the risk of further casualties. Examines the impact of tactical and environmental factors on trauma patient management.	Prerequisites: None.	PME293 may be repeated for credit.	Occ	L+L 2.5 2.5 2.5	T
PME298AA	2020 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z
PME298AB	2020 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z

				individualized learning to be combined to maximize student development.					
PME298AC	2020 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z
PMP120	2023 Fall	Massage Therapy Basics		A massage basics course covering: sanitation, hygiene, safety, contraindications, ethics, healthy therapeutic relationships, professional communication, overview of the human body (integumentary, muscular, and skeletal systems), healthcare terminology, muscle theory, client care, self-care, and Swedish massage.	Prerequisites: Admission into the Massage Therapy program.		CLK	175	
PMP121	2023 Fall	Massage Therapy Advanced		Advanced anatomy and massage, focusing in greater detail on the skeletal and muscular components and manipulations of the body. Students are taught all the bones and muscles of the body and introduced to the kinesiology that develops from their interactions. Deep tissue, Thai massage, and reflexology are introduced. Recently learned skills will be practiced on the public during clinic with coaching.	Prerequisites: PMP120 or Program Manager's permission.		CLK	175	
PMP220	2023 Fall	Massage Therapy Mastery I		An advanced anatomy and massage course focusing in detail on the skeletal and muscular components and manipulations of the upper body. Students will review the bones and muscles of the upper body and the kinesiology that develops from their interactions. Corresponding deep-tissue massage for the upper body is	Prerequisites: PMP121 or Program Manager's permission.		CLK	175	

				taught in conjunction with the advanced anatomy to ensure its practical application. Integration of deep tissue, Thai massage, myofascial, and structural massage are emphasized. Subjective, Objective, Assessment, Plan (S.O.A.P.) notes are introduced. The course concludes with two weeks of supervised clinic with coaching.					
PMP221	2023 Fall	Massage Therapy Mastery II		An advanced anatomy and massage course focusing in detail on the skeletal and muscular components and manipulations of the lower body. Students will review all of the bones and muscles of the lower body and the kinesiology that develops from their interactions. Corresponding deep-tissue massage for the lower body is taught in conjunction with the advanced anatomy to ensure its practical application. Students combine all of their program skills, integrating anatomy, kinesiology, concepts, theories, and techniques to properly assess clients and apply critical thinking in tailoring treatments to individuals with documentation. Clients with unique needs are covered such as athletes, expecting mothers, infants, older adults, obese individuals, people with disabilities, and end of life care. Persons with common injuries and conditions are also covered, teaching specific strategies and protocols to address them. Entrepreneurial skills conducive to the industry of massage therapy will continue to be reinforced while an exit plan is created for the student's entrance into the industry. The course concludes with two weeks of supervised clinic with coaching to gain practical experience working on the general public and applying the	Prerequisites: PMP220 or Program Manager's permission.		CLK	175	

				assessment/treatment approaches focused on in the course.					
PNT101	2014 Summer	Introduction to Painting- Decorating Trade		Orientation to the trade, apprentice responsibilities and professionalism, communication skills and workplace behavior. Tools and equipment used in the trade. Preparation and application procedures of various types of surfaces, utilizing various types of materials used in the trade.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 4.0 4.0 4.0	A
PNT102	2014 Summer	Surface Preparation and Cleaning		Overview of surface preparation and cleaning, emphasis on materials, coating applications, various surface finishes, and safety procedures. Causes of paint failures and remedies. Also preparation procedures of plaster drywall, masonry and metal. Residential and commercial applications.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 4.0 4.0 4.0	A
PNT104	2018 Fall	Wood and Decorative Finishes		Wood and decorative finishing techniques including glazing, antiquing, wood graining and marbelizing. Sanding techniques of hardwoods and softwoods including fillers, sealers, stains and finishes.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0	T
PNT105	2014 Summer	Painting and Drywalling Orientation		Overview of the painting and drywalling labor history, workplace performance, green construction, work place issues and sexual harassment.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0	S
PNT106	2018 Fall	Health and Safety for Drywall Finishers		Purpose and limitation of Material Safety Data Sheet (MSDS). Occupational Safety and Health Administration (OSHA). Common safety and fall hazards. Requirements for erecting and dismantling scaffolds.	Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0	T
PNT107	2018 Fall	Introduction to the Drywall Trade		Basic terminology and tools used in the drywall trade. Exhibiting professionalism in the trade in appearance, dealing with difficult customers, following workplace protocol and procedure.	Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0	T
PNT108	2018 Fall	Materials of the Drywall Trade		Characteristics of drywall panels, types of fillers and proper lighting	Prerequisites: Registered apprentice status or		Occ	L+L 2.0	T

				requirements. Surface preparation, ventilation and materials handling.	permission of the Apprenticeship Coordinator.			2.0 2.0	
PNT109	2018 Fall	Tools of the Drywall Trade		Selection, use, maintenance and safety procedures for common tools of the drywall trade.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0	T
PNT118	2018 Fall	OSHA Standards and Regulations	ABC118	Provisions of and implementation of Occupational Safety and Health Administration (OSHA) Act in the work place. Rights and responsibilities under the OSHA Act. Appeals process, record keeping, and voluntary protection programs. OSHA's construction and general industry standards. Overview of the requirements of the more frequently referenced standards.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 1.5 1.5 1.5	T
PNT120	2020 Fall	Basic Calculations for Construction	ABC120 MEC120	Addition, subtraction, multiplication and division of whole, decimal, fraction and metric numbers. Percentage and fraction conversions. Metric units of length, weight, volume and temperature. Metric system as it relates to the construction trade. Basic algebra and geometry operations and equations. Area and volume calculations of shapes.	Prerequisites: None.		Occ	L+L 1.5 1.5 1.5	T
PNT121	2014 Fall	Introduction to Hand and Power Tools	ABC121 MEC121	Overview of the use, maintenance and safety procedures for common hand and power tools.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0	S
PNT123	2022 Fall	Introduction to Blueprints		Basic concepts of blueprints, including terms and symbols, grid line systems and blueprint production techniques. Dimensions and blueprint reading	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0	S
PNT150	2014 Fall	Construction Foreman	IND150	Examine the basic supervisory and leadership concepts and skills needed to manage a construction project. Includes basic theories of motivation,	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S

				role of communications in construction project management, decision making process, planning and organizing, strategies, developing production schedules to control production, discussing accident prevention and loss control					
PNT201	2018 Fall	Coverings and Blasting		Application, installation, and estimating procedures for wallcoverings including abrasive and wet blasting guidelines and systems.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0	T
PNT202	2014 Summer	Spray Painting		Operating and maintenance procedures for spray painting equipment and materials. Use of specialized painting systems and equipment. Application procedures for special coatings and parking lots.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0	A
PNT203	2018 Fall	Non-Spray Application of Coatings		Best practices in the application of stain, clear coat, and wood finish application on wood substrates.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0	T
PNT205	2018 Fall	Paints, Coatings and Materials		Coating products and solvent type and compatibility following Product Data Sheet and Material Safety Data Sheet for products. Including common failures, causes and corrections, weatherization, properties and functions of paints or coatings.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0	T
PNT208	2018 Fall	Filling, Taping and Sanding Applications		Characteristics of fillers, filling compounds, drying times. Taping techniques including taping and wiping procedures, tools and equipment. Functions and operations of boxes and fasteners as well as sanding application and bead and trim installation.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 4.0 4.0 4.0	T
PNT209	2018 Fall	Automatic Taping Tools of the Drywall Trade		Inspection and maintenance procedures for keeping automatic taping tools in proper working condition.	Prerequisites: Registered apprentice status or permission of the		Occ	L+L 3.0 3.0 3.0	T



					Apprenticeship Coordinator.				
PNT210	2018 Fall	Advanced Drywall Applications and Systems		Methods for making repairs, mixing procedures, and recognizing common defects in drywall finishing and wallboards. General texture spraying techniques and basics of Exterior Insulated and Finish Systems (EIFS) and Expanded Polystyrene (EPS).	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0	T
PNT296WA	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 1.0 5.0 0.0	Z
PNT296WB	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class		Occ	LAB 2.0 10.0 0.0	Z

					which is related to students major or career interest or with permission of Instructor.				
PNT296WC	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 3.0 15.0 0.0	Z
PNT296WD	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with		Occ	LAB 4.0 20.0 0.0	Z

					permission of Instructor.				
PNT298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z
PNT298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z
PNT298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z
PON105	2018 Fall	Surgical Technology for the Operating Room Nurse		Direct observation of principles and culture of operating room. Traffic patterns, aseptic techniques, roles, professional surgical team work, case management, perioperative record, instrument handling, safety precautions with regard to exposure,	Acceptance into the Surgical Technology for the Operating Room Nurse Program, or permission of Department or Division.		Occ	L+L 2.0 2.0 2.0	T

				surgical attire, surgical regimen and chain of command.					
PON210	2016 Spring	PeriOperative Principles I		Role and responsibilities of the professional nurse in the perioperative setting. Team concepts, patient care, nursing process and impact of quality assurance. Role of Association of Operating Room Nurse Standards of Practice.	Prerequisites: Acceptance into the Surgical Technology for the Operating Room Nurse program or permission of Department or Division. Corequisites: PON214.		Occ	LEC 3.0 3.0 3.0	S
PON212	2016 Spring	PeriOperative Principles II		Common pathogenic organisms and methods of sanitation/sterilization. Instruments, procedures intervention measures related to the operating room. State and Federal regulating agencies. Moral and ethical issues.	Prerequisites: A grade of C or better in PON210 or permission of Department or Division. Corequisites: PON214.		Occ	LEC 3.0 3.0 3.0	S
PON214	2018 Fall	PeriOperative Laboratory		Practical application of perioperative nursing. Aseptic technique. Scrubbing, gowning, gloving, instrumentation, and maintenance of a sterile field. Accountability emphasized.	Prerequisites: Acceptance into the Surgical Technology for Operating Room Nurse Program. Corequisites: PON210 and PON212.		Occ	LAB 4.0 9.5 9.5	T
PON218	2016 Spring	PeriOperative Clinical Practice I		Application of the nursing process in care of surgical patients during the perioperative period. Statements of competency established by the Association of Operating Room Nurses.	Prerequisites: A grade of C or better in PON214.		Occ	LAB 3.0 15.0 0.0	C
PON220	2011 Fall	PeriOperative Clinical Practice II		Application of the nursing process in care of surgical patients during the perioperative period. Statements of competency established by the Association of Operating Room Nurses.	Prerequisites: A grade of C or better in PON214 or permission of Department or Division.		Occ	LAB 3.0 15.0 0.0	C
PON230	2018 Fall	Surgical Technology Materials Update	SGT230	Current surgical technology materials. Surgical specialty modifications, introductions, technology. Specific uses, handling, application to surgical procedures.	Prerequisites: Currently enrolled in Surgical Technology or Surgical Technology for the Operating Room		Occ	LEC 2.0 2.0 2.0 LAB 1.0	T

					Nurse program, or Certified Surgical Technologist, or permission of Program Director.			3.0 3.0	
PON296WA	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 1.0 5.0 0.0	Z
PON296WB	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with		Occ	LAB 2.0 10.0 0.0	Z

					permission of Instructor.				
PON296WC	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 3.0 15.0 0.0	Z
PON296WD	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 4.0 20.0 0.0	Z
PON298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual	Prerequisites: Permission of		Occ	LAB 1.0	Z

				student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Program Director or Instructor.			1.0 0.0	
PON298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z
PON298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z
POR101	2018 Fall	Elementary Portuguese I		Basic grammar, pronunciation, and vocabulary of the Portuguese language. Includes study of Lusophone culture. Practice in listening, speaking, reading, and writing skills	Prerequisites: None.		Acad	L+L 5.0 6.0 6.0	T
POR102	2018 Fall	Elementary Portuguese II		Continued study of basic grammar, pronunciation, and vocabulary of the Portuguese language. Includes study of Lusophone cultures and practice in listening, speaking, reading and writing skills	Prerequisites: A grade of C or better in POR101 or permission of Department or Division. Completion		Acad	L+L 5.0 6.0 6.0	T

					of prerequisites within the last three years is required.				
POR201	2016 Spring	Intermediate Portuguese I		Review of essential grammar of the Portuguese language and study of the Portuguese cultures. A continued practice and development of reading, writing, and speaking skills. Emphasis on both fluency and accuracy in the spoken language.	Prerequisites: A grade of C or better in POR102 or permission of the Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 5.0 6.0 5.7	S
POR296WA	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 1.0 5.0 0.0	Z
POR296WB	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor.		Acad	LAB 2.0 10.0 0.0	Z



					Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.				
POR296WC	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 3.0 15.0 0.0	Z
POR296WD	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's		Acad	LAB 4.0 20.0 0.0	Z

					major or career interest or with permission of the Instructor.				
POR298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0	Z
POR298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0	Z
POR298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0	Z
POS100	1994 Fall	Introduction to Political Science		Introduction to the discipline of political science and its relation to other disciplines with emphasis on the major philosophies and institutions of government.	Prerequisites: None.	Course Attribute(s): General Education Designation: Social	Acad	LEC 3.0 3.0 3.0	S

						and Behavioral Sciences - [SB]			
POS101	1996 Spring	Current Issues		Introduction to current issues in politics, economics, social relations, foreign affairs. Presentations by local, state and national civic and cultural leaders.	Prerequisites: None.	POS101 may be repeated for a total of two (2) credit hours.	Acad	LEC 1.0 1.0 1.0	S
POS110	2023 Fall	American National Government		Study of the historical backgrounds, governing principles, and institutions of the national government of the United States.	Prerequisites: None.	Arizona Shared Unique Number SUN#: POS 1110	Acad	LEC 3.0 3.0 3.0	S
POS113	2016 Fall	United States and Arizona Social Studies	GCU113	Overview of government, history, and geography of the United States and Arizona. Includes the relationship of government to the United States economic system as well as the influences and developments that have shaped U.S. and Arizona history. Also covers geographical systems, regions, and study techniques.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
POS114	2017 Fall	World Social Studies		Introduction to the world from the integrated social science perspectives of history, geography, and government.	Prerequisites: None.	Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Historical Awareness - [H] General Education Designation: Social-	Acad	LEC 3.0 3.0 3.0	S

						Behavioral Sciences - [SB]			
POS115	2001 Fall	Issues in American Politics		Examination of major issues in current affairs in the fields of politics, economics, social relations, foreign affairs, aesthetics, and others through the reading and viewing of secondary information sources	Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent.	Course Attribute(s): General Education Designation: Literacy and Critical Inquiry - [L] General Education Designation: Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S
POS120	2024 Fall	International Relations		Introduction to the principles and issues relating to the study of international relations. Evaluation of the political, economic, national, and transnational rationale for international interactions.	Prerequisites: None.	Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Social and Behavioral Sciences - [SB] Arizona Shared Unique Number SUN#: POS 1120	Acad	LEC 3.0 3.0 3.0	S
POS125	1995 Fall	Issues in World Politics		Contemporary issues and factors in international relations. Stress	Prerequisites: None.	POS125 may be repeated	Acad	LEC 3.0	S

				conditions in civil order, trade, and international institutions.		for a total of six (6) credit hours. Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Social and Behavioral Sciences - [SB]		3.0 3.0	
POS130	2017 Fall	State and Local Government		Survey of state and local government in the United States. Special attention on Arizona State government.	Prerequisites: None.	Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S
POS140	2011 Fall	Comparative Government		Overview and evaluation of the sub-field of comparative politics. Covers various national governments from around the world: their structure, system, method of governance. Examines methods of assessing these governments	Prerequisites: None.	Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S

						Arizona Shared Unique Number SUN#: POS 2204			
POS180	2018 Fall	United Nations Studies		Historical origins, structural makeup, political and operational characteristics, and legal activities of the United Nations. Analysis of the overall institution's ongoing utility, productivity and creativity.	Prerequisites: None.	Course Attribute(s): General Education Designation: Global Awareness - [G]	Acad	L+L 3.0 3.0 3.0	T
POS210	2019 Summer	Political Ideologies		Leading political ideas and belief systems, e.g., Marxism, liberalism, conservatism, theories of democracy, and alternative futures.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
POS220	1994 Fall	U.S. and Arizona Constitution		Examination of the United States Constitution and the constitution and government of the State of Arizona.	Prerequisites: None.	Students may not enroll in POS220 and POS222 concurrently.	Acad	LEC 3.0 3.0 3.0	S
POS221	1993 Fall	Arizona Constitution		Examination of the Constitution of the State of Arizona. Equivalent to the second part of POS220. May not enroll in POS220 and POS221 concurrently	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
POS222	1994 Fall	U.S. Constitution		Examination of the United States Constitution. Equivalent to the first part of POS220.	Prerequisites: None.	Students may not enroll in POS220 and POS222 concurrently.	Acad	LEC 2.0 2.0 2.0	S
POS223	2019 Summer	Civil Rights and Liberties		The historic background and current status of major civil rights and civil liberties issues in the United States.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
POS281AB	2013 Spring	Public Policy/Service Internship		Field experience in community service, public policy or public service.	Prerequisites: Minimum of 15 credit hours at college	POS281A B may be repeated	Acad	LAB 3.0	L

					granting internship with minimum GPA of 3.0 and permission of Instructor.	for a total of nine (9) credit hours; may not repeat specific internship assignment.		3.0 0.0	
POS282AA	1993 Fall	Volunteerism for Political Science: A Service Learning Experience		Service-learning field experience within government agencies, political organizations, citizen advocacy groups, and human service organizations/agency.	Prerequisites: Permission of Instructor.	POS282A A may be repeated for a total of four (4) credit hours; may not repeat specific agency assignment for more than two (2) credit hours. Standard grading available according to procedures outlined in catalog	Acad	LAB 1.0 1.0 0.0	L
POS282AB	1993 Fall	Volunteerism for Political Science: A Service Learning Experience		Service-learning field experience within government agencies, political organizations, citizen advocacy groups, and human service organizations/agency.	Prerequisites: Permission of Instructor.	POS282A B may be repeated for a total of four (4) credit hours; may not repeat specific agency	Acad	LAB 2.0 2.0 0.0	L

						assignment for more than two (2) credit hours. Standard grading available according to procedures outlined in catalog.			
POS282AC	2004 Spring	Volunteerism for Political Science: A Service Learning Experience		Service-learning field experience within government agencies, political organizations, citizen advocacy groups, and human service organizations/agency.	Prerequisites: Permission of Instructor.	POS282AC may be repeated for a total of four (4) POS282 credit hours; may not repeat specific agency assignment for more than two (2) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 3.0 3.0 0.0	L
POS285	2018 Fall	Political Issues and Public Policy		Introduction to public policy, how policy is made, and how public policy decisions are affected.	Prerequisites: None.	Course Attribute(s): General Education Designation: Social	Acad	L+L 3.0 3.0 3.0	T



						and Behavioral Sciences - [SB]			
POS296WA	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 1.0 5.0 0.0	Z
POS296WB	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 2.0 10.0 0.0	Z

POS296WC	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 3.0 15.0 0.0	Z
POS296WD	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 4.0 20.0 0.0	Z
POS298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0	Z

				and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.					
POS298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0	Z
POS298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0	Z
PPT101	2003 Fall	Hand and Power Tools		Identification and use of hand and hand-held power tools used in a power plant. Tool construction and purpose. Maintenance of hand and power tools	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
PPT103	2003 Fall	Print Reading and Plant Drawings		Introduction to print reading and plant drawings. Flow diagrams and symbols on drawings. Dimension, tolerance and clearance on drawings. Amendments to drawings. Specific types of drawings. Proper procedures when using plant drawings	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
PPT107	2003 Fall	Lubrication		Principles, properties, and safe handling requirements of lubricants.	Prerequisites: None.		Occ	LEC 1.0	S

				Lubrication of bearings, lubrication systems, and system components. Oil settling systems. Construction, operation, and maintenance of oil purifiers				1.0 1.0	
PPT108	2003 Fall	Turbines		Operations, steam properties, energy transfer, parts, and types of turbines. Components and function. Turbine maintenance for oil and hydraulic systems, inspection of casings, nozzles and rotors. Turbine alignment and the tightening of joints using appropriate tools and equipment	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
PPT112	2003 Fall	Principles of Machining		Safety practices, machining methods, and principles of material removal. Types of cutting tools, lathe, milling, drill, and bandsaw components. Principles of operation of specific machines found in the machine shop including turning, milling, drilling and cutting machines	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
PPT114	2003 Fall	Drive and Gear Components		Terminology, identification and inspection of the component parts of a drive and gear system. Operation, maintenance and inspection of couplings, clutches, brakes, belt drives, chain drives, shafts and gears. Operation and configurations of variable speed drives	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
PPT115	2003 Fall	Hydraulics and Pneumatics		Hydraulic and pneumatic safety, physical concepts, and fluid laws. Hydraulic and pneumatic system components and operation. Troubleshooting procedures of hydraulic and pneumatic systems	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
PPT117	2021 Fall	Forklift Operations		Safe and proper operation of forklift. Parts and function of forklift, principles of operation, and safety precautions. Inspection procedures, proper care, and industry standards. On-hands operation of a forklift	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
PPT118	2003 Fall	Conduct of Maintenance		Safety and management expectations. Defense in Depth strategy and Conduct of Verifications. Maintenance procedures. Work control process. Performance of work	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S

				standards and documentation including pre-job preparation, pre-job notification, job review, job verification and job close out specific to nuclear power plant operations					
PPT119	2003 Fall	Instrument Air Compressor Maintenance		Purpose, function, and identification of system drawings. Identification of major components. Instrument air compressor components and function. Air flow operations. Free air unloader components and function. Fluids and flow paths. Compressor cooling water and lubricating oil. Inspection and repair of parts. Troubleshooting	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
PPT124	2019 Fall	Power Systems Components I		Principles, properties, and safe handling requirements of lubricants. Lubrication of bearings, lubrication systems, and system components. Oil settling systems. Construction, operation, and maintenance of oil purifiers. Terminology, identification and inspection of the component parts of a drive and gear system. Application, inspection, maintenance, and failure modes of plant bearings. Design and operation of sliding and anti-friction bearings and seals.	Prerequisites: None.	PPT124 may be repeated for credit.	Occ	L+L 3.0 3.0 3.0	T
PPT126	2019 Fall	Power Systems Components II		Functional components of turbines, including parts, steam properties and maintenance of oil and hydraulic systems. Heat exchanger theory, including types, operations, and maintenance of heat transfer systems. Operational principles of pneumatic and hydraulic valve actuators, including modulation control terminology and inspection testing.	Prerequisites: None.	PPT126 may be repeated for credit.	Occ	L+L 3.0 3.0 3.0	T
PPT128	2019 Fall	Power Systems Components III		Hydraulic and pneumatic safety, physical concepts, and fluid laws. Hydraulic and pneumatic system components and operation. Troubleshooting procedures of hydraulic and pneumatic systems. Mechanical component types and	Prerequisites: None.	PPT128 may be repeated for credit.	Occ	L+L 3.0 3.0 3.0	T

				characteristics, common failure mechanisms, and operating principles of plant components.					
PPT170	2020 Summer	Instrumentation and Process Control		Principles and practices of instrumentation and process control systems used in industry. Topics cover the proper installation, troubleshooting, repair, and maintenance of various industrial process instrumentation (temperature, pressure, level, flow, etc.) and control circuits.	Prerequisites: A grade of C or better in college-level math course, or appropriate District placement, or permission of Department/Division Chair.		Occ	LEC 3.0 3.0 3.0	S
PPT202	2018 Fall	Power Plant Systems I		Components and function of reactor coolant, volume control, safety injection, and nuclear sampling systems. Function and operation of main steam and turbine systems, main and auxiliary feedwater systems, pressurizer, control rod drive, and recirculation systems. Operation and function of steam and heater drain systems. Reactor plant safety concepts.	Prerequisites: A grade of C or better in PPT120 and PPT121, or permission of Program Director.	Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: Humanities, Arts and Design - [HU]	Occ	LEC 3.0 3.0 3.0	S
PPT203	2018 Fall	Power Plant Systems II		Advanced plant systems. Water, electrical and cooling systems. Safe shutdown cooling water system. Waste drain system. Fuel handling and storage systems. Fuel pool cooling and cleanup. Purpose and operation of radioactive waste management. Service air and gas systems. Ventilation and fire protection systems. Containment, Containment Spray, Emergency Core Cooling, Emergency Power, Environmental Monitoring, Off-gas, Post-accident, Radiation Monitoring, Residual Heat Removal, and Suppression Pool systems.	Prerequisites: A grade of C or better in PPT120 and PPT121, or permission of Program Director.		Occ	LEC 3.0 3.0 3.0	S

PPT204	2003 Fall	Measuring and Test Equipment		Administrative controls for precision measurement. Use of precision measuring equipment. Emphasis on proper use, accurate reading, and calculations using precision measuring devices	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
PPT205	2003 Fall	Rigging		Safe and proper operation of lifting equipment. Weight calculations. Identification and proper location of rigging equipment. Hand signals and industry standards. Safe rigging practices. Inspection and maintenance procedures. Operation of pendant cranes	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
PPT206	2003 Fall	Bearings		Application, inspection and maintenance of plant bearings. Design and operation of sliding and anti-friction bearings. Function, design and applications of bearing seals. Reasons for bearing failure and related preventative maintenance procedures	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
PPT207	2003 Fall	Heat Exchangers		Heat exchanger theory including heat transfer and operating principles. Classification of heat exchangers including types, construction, and operation. Inspection of heat exchangers. Cleaning of exchanger tubes and shells. Cleaning of component parts. Troubleshooting tubes. Maintenance of exchangers	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
PPT209	2003 Fall	Pipefitting Auxiliaries II		Purpose, terminology and system stress factors related to piping systems. Principles of fluid flow, and piping inspection procedures. Fabrication and installation of tubing materials, specific joints, and flanges. Basic piping system component maintenance, rework and installation procedures	Prerequisites: A grade of C or better in PPT109.		Occ	LEC 2.0 2.0 2.0	S
PPT211	2003 Fall	Couplings		Types, functions, and specific applications of couplings. Coupling removal and inspection procedures. Coupling rework and installation	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5	S
PPT212	2003 Fall	Control Valves and Actuators		Modulating control terminology. Disassembly, inspection and	Prerequisites: None.		Occ	LEC 1.0	S

				assembly processes. Construction and operation of specific actuators. Maintenance of pneumatic and hydraulic valve actuators. Principles of operation, inspection and testing of control valves. Bench testing				1.0 1.0	
PPT214	2018 Fall	Machine Alignment		Calculations and practical lab exercises using alignment principles. Determination of indicator sag and thermal growth. Obtaining readings for alignment or misalignment. Rim-face method of alignment stressed and practiced	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0	T
PPT215	2003 Fall	Relief and Safety Valves		Concepts of pressure and pressure measurement. Components and operation of rupture discs, relief valves, and safety valves. Maintenance procedures	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
PPT218	2018 Fall	Lathe Operations		Safe and proper operation of the lathe. Component and accessories and their functions. Cutting tools and methods. Processes of machining including mounting, aligning, knurling, grooving, turning, thread cutting, drilling, reaming boring, and tapping. Machining techniques using a chuck	Prerequisites: None.		Occ	L+L 2.0 4.0 4.0	T
PPT219	2003 Fall	Milling Machine Operations		Components of horizontal and vertical milling machines. Common milling machine accessories and cutters. Cutting speeds, feeds and depths for materials and cutters. Machine set up and operations. Common cutter failure. Operation of horizontal and vertical milling machines. Milling safety	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
PPT220	2020 Summer	Heat Transfer and Fluid Flow		Course covers topics in heat transfer, fluid flow and thermodynamics. Topics include the properties of fluids, modes of heat transfer, and the energy relationships in fluid systems.	Prerequisites: A grade of C or better in college-level math course, or appropriate District placement, or permission of Department/Division Chair.		Occ	LEC 3.0 3.0 3.0	S
PPT221	2017 Fall	Reactor Theory		Basic nuclear reactor theory to include atomic and nuclear physics,	Prerequisites: A grade of C or better		Occ	LEC 3.0	S



				thermodynamics, and heat transfer and fluid flow.	in PPT120 and GTC108, or permission of Program Director.			3.0 3.0	
PPT222	2019 Fall	Reactor Plant Chemistry and Materials		Basic nuclear reactor theory to include reactor chemistry, water chemistry, radiation detection and protection principles, and reactor plant materials.	Prerequisites: A grade of C or better in PPT120 or permission of Program Director.		Occ	LEC 3.0 3.0 3.0	S
PPT224EI	2018 Fall	Components for Maintenance Technicians		Electrical component types and characteristics, such as circuit breakers and fuses, instrumentation schematics, protective relaying, and inverters.	Prerequisites: A grade of C or better in PPT202 or PPT203, or permission of Program Director.		Occ	LEC 1.0 1.0 1.0	S
PPT224EM	2018 Fall	Electrical Components for Maintenance Technicians		In-depth reading and troubleshooting of electrical engineering and vendor prints. Operation and control of emergency power systems. Diesel Generators will also be covered.	Prerequisites: A grade of C or better in PPT202 or PPT203, or permission of Program Director.		Occ	LEC 1.0 1.0 1.0	S
PPT224MM	2013 Summer I	Mechanical Components for Maintenance Technicians		Mechanical component types and characteristics, common failure mechanisms, and operating principles of plant components.	Prerequisites: A grade of C or better in PPT202 or PPT203.		Occ	LEC 1.0 1.0 1.0	S
PPT225	2020 Summer	Industrial Plant Chemistry and Materials		Fundamentals of industrial chemistry and materials to include chemistry principles, water chemistry control, cooling water chemistry, chemical hazards, and material science.	Prerequisites: A grade of C or better in college-level math course, or appropriate District placement, or permission of Department/Division Chair.		Occ	LEC 3.0 3.0 3.0	S
PPT230	2020 Summer	Nuclear Plant Systems		Operation, components, instrumentation and controls, automatic features, and precautions and limitations of nuclear plant systems.	Prerequisites: A grade of C or better in college-level math course, or appropriate District placement, or permission of Department/Division Chair.		Occ	LEC 3.0 3.0 3.0	S
PPT235	2020 Summer	Nuclear Physics		Course provides a foundation for understanding atomic and nuclear physics, neutron characteristics,	Prerequisites: A grade of C or better in college-level math		Occ	LEC 3.0	S

				reactor theory, reactor operation, and radiation fundamentals.	course, or appropriate District placement, or permission of Department/Division Chair.			3.0 3.0	
PPT242	2020 Summer	Components for Maintenance Technicians		Electrical component types and characteristics, such as circuit breakers and fuses, instrumentation schematics, protective relaying, and inverters. In-depth reading and troubleshooting of electrical engineering and vendor prints. Operation and control of emergency power systems. Diesel Generators will also be covered.	Prerequisites: A grade of C or better in (ELC119 and ELC120) or permission of Program Director.		Occ	L+L 2.0 2.0 2.0	T
PPT250	2019 Summer	Power Plant Position Preparation		Prepares students for the Power Plant Maintenance Positions Selection System (MASS) examination. Reading comprehension, mechanical concepts, spatial ability, and mathematical usage.	Prerequisites: None.	PPT250 may be repeated for a total of four (4) credit hours.	Occ	LEC 2.0 2.0 2.0	S
PPT255	2019 Fall	Fossil Systems		Upon completion, the student will be able to explain how fossil plant systems operate in accordance with reference materials.	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0	S
PPT270AA	2019 Fall	Power Systems Technology Internship		Work experience in power plant industry and / or related field. Five (5) hours of work weekly. Approval, supervision and evaluation by an internship coordinator.	Prerequisites: Permission of Department or Division.		Occ	L+L 1.0 5.0 0.0	C
PPT270AB	2019 Fall	Power Systems Technology Internship		Work experience in power plant industry and / or related field. Ten (10) hours of work weekly. Approval, supervision and evaluation by an internship coordinator.	Prerequisites: Permission of Department or Division.		Occ	L+L 2.0 10.0 0.0	C
PPT270AC	2019 Fall	Power Systems Technology Internship		Work experience in power plant industry and / or related field. Fifteen (15) hours of work weekly. Approval, supervision and evaluation by an internship coordinator.	Prerequisites: Permission of Department or Division.		Occ	L+L 3.0 15.0 0.0	C
PPT298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z

				and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.					
PPT298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z
PPT298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z
PSA301	2023 Fall	Foundations of Public Safety Administration		Foundation in the principles and study of public safety administration including legal, political, and social factors. Overview of organizational theory and management, human capital management, resource management, leadership, and ethics that guide administration of diverse public safety organizations.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
PSA305	2023 Fall	Communication Strategies for Public Safety Professionals		Overview of communication and public relations for public safety professionals. Topics include organization's internal and external environment and identifying and	Prerequisites: A grade of C or better in [(COM100, or COM110, or COM230, or		Occ	LEC 3.0 3.0 3.0	S

				addressing public relations situations that emerge in these environments including the use of social media and other news media channels. Emphasis on developing, implementing, and evaluating public relations plans and strategies.	COM225) and (ENG102 or ENG108)] or permission of Program Director or Department/Division.				
PSA310	2023 Fall	Research Methods for Public Safety Administration		Overview of research methods and presentation of research results for public safety administration. Introduction to quantitative and qualitative methods including statistics for conducting and analyzing discipline-specific research within the fields of public safety.	Prerequisites: A grade of C or better in [(ENG102 or ENG108), and (MAT14+, or MAT15+, or equivalent), and [MAT206, or PSY230, or (PSY230 and PSY231), or PSY230WL, or SWU225]], or permission of Instructor or Program Director or Department/Division Chair.		Occ	L+L 4.0 6.0 6.0	T
PSA315	2023 Fall	Public Policy and Public Safety Organizations		Overview of public policy as it relates to the administration and management of public safety organizations. Topics include the political environment, laws and regulations, and the interrelationship among law, regulations, budget and finance, and public policy. Focus on current issues surrounding public administration and bureaucracy, as well as how public constituencies can affect public policy decision-making.	Prerequisites: A grade of C or better in [PAD100 and (ENG102 or ENG108)], or permission of Instructor or Program Director or Department/Division Chair.		Occ	LEC 3.0 3.0 3.0	S
PSA320	2023 Fall	Human Capital Management for Public Safety Organizations		Examination of the role and functions of human capital management in public safety organizations including recruitment, hiring, retention, and training. Focus on the impact and intersections of strategic planning, employee benefits and compensation, personnel issues, performance management, employment laws, labor relations, and responding to internal	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S

				and external inquiries as it relates to the administration of public safety organizations.					
PSA398AA	2024 Fall	Special Topics in the Public Safety Administration		Explores special topics including current issues within the field of public safety administration. Focuses on examination and investigation of existing and innovative program solving techniques also related to the field.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
PSA398AB	2024 Fall	Special Topics in the Public Safety Administration		Explores special topics including current issues within the field of public safety administration. Focuses on examination and investigation of existing and innovative program solving techniques also related to the field.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
PSA398AC	2024 Fall	Special Topics in the Public Safety Administration		Explores special topics including current issues within the field of public safety administration. Focuses on examination and investigation of existing and innovative program solving techniques also related to the field.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
PSA401	2023 Fall	Public Safety Leadership		Examines the nature and roles of leadership in public safety, including concepts of organizational culture, leadership principles, and management strategies unique to public safety organizations.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
PSA405	2023 Fall	Public Safety Finance and Budget		Overview of the public finance system at all levels of government as it relates to the development of a budget for a public safety department. Topics include state and local budget process, revenue and funding sources involving taxes and revenue forecasting, as well as capital planning, projects, and budgets related to public safety. The course will consider alternative sources of public safety funding available to local government entities and stewardship of funds.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
PSA410	2023 Fall	Program Planning and Evaluation for		Focus on knowledge and skills required of public safety leaders in	Prerequisites: A grade of C or better		Occ	LEC 3.0	S

		Public Safety Organizations		strategic planning for the design, development, implementation, and evaluation of social intervention initiatives related to public safety, health, and disaster management. Exploration of theories related to public services considered in the development of programs, the application of evaluation findings, and prioritization of community concerns and resources.	in PSA310 or permission of Instructor or Program Director or Department/Division Chair.			3.0 3.0	
PSA439	2023 Fall	Critical Incident Management for Public Safety Professionals		In-depth examination of the process of critical incident management for supervisors, encompassing a variety of events that impact public safety organizations. Focus on the four phases of emergency management in relation to critical incident management.	Prerequisites: A grade of C or better in (AJS/FSC147 and AJS/FSC148), or permission of Program Director or Department/Division Chair. Prerequisites or Corequisites: AJS/FSC149 or permission of Program Director or Department/Division Chair.		Occ	LEC 3.0 3.0 3.0	S
PSA449	2023 Fall	Strategic Hazard Mitigation		In-depth examination of the process of strategic hazard mitigation for supervisors, encompassing a variety of events that impact Public Safety Organizations. Focus on mitigation planning to address community risks and vulnerabilities including the stakeholders involved and strategies employed to improve community resilience.	Prerequisites: A grade of C or better in PSA439 or permission of Program Director or Department/Division Chair.		Occ	LEC 3.0 3.0 3.0	S
PSA450	2023 Fall	21st Century Public Safety Practices		Examination of emerging trends in public safety administration and organizational responsiveness through policy and practice. Topics include an overview of public safety administration, components of ethical leadership, sustainable and evolving practices, internal and external influences on policy, technology, effective data collection, and strategic planning to address societal and	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S

				cultural changes in the community and workforce.					
PSA460	2023 Fall	Crime Scene Coordination for Public Safety Professionals		Overview of the crime scene logistics needed to effectively coordinate the work of law enforcement officers, police dispatch, forensic science services personnel, emergency medical personnel, and others present during crime scene investigations.	Prerequisites: A grade of C or better in AJS275, or LET225, or permission of Program Director or Department/Division Chair.		Occ	LEC 3.0 3.0 3.0	S
PSA470	2023 Fall	Administrative Law for Public Safety Professionals		Introduction to the basic principles of administrative law for public safety professionals including the structure of federal, state, and local administrative institutions. Topics include the sources of law for administrative agencies, the basic procedures for administrative rulemaking, adjudication, and compliance, as well as judicial review of agency action.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
PSA490	2023 Fall	Public Safety Administration Capstone		Completion of a professional project within the field of public safety administration applying concepts covered throughout the program. Students will demonstrate the steps for issue identification, related research, analysis, and presentation of information. Project topics will follow an instructor approval process.	Prerequisites: Permission of Program Director or Department/Division Chair.		Occ	L+L 3.0 4.0 4.0	T
PSG140	2018 Fall	Respiratory Care Fundamentals and Physiology for Polysomnography		Introduction to the development and implementation of prescribed care plans for sleep-related breathing disorders. Administration of basic respiratory therapeutic modalities for sleep-related breathing disorders and non-invasive assisted breathing. Use and maintenance of all forms of positive airway pressure therapy with specific knowledge of how algorithms function when using advanced positive pressure therapies. Basic respiratory physiology as it relates to sleep-related breathing disorders.	Prerequisites: Admission to the Polysomnographic Technology program.		Occ	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0	T
PSG150	2018 Fall	Introduction to Sleep Medicine		Introduction to the fundamental concepts of polysomnography, sleep	Prerequisites: Admission into the		Occ	LEC 3.0	S

				technology and sleep medicine. Emphasis on nomenclature, technical and medical roles, normal sleep, sleep disorders, and professional organizations and resources.	Polysomnographic Technology program. Corequisites: PSG150LL.			3.0 3.0	
PSG150LL	2018 Fall	Introduction to Sleep Medicine Laboratory		Introduction to the fundamental concepts of polysomnography, sleep technology and sleep medicine in the laboratory setting. Emphasis on nomenclature, technical and medical roles, normal sleep, sleep disorders, and professional organizations and resources.	Prerequisites: Admission to the Polysomnographic Technology program. Corequisites: PSG150.		Occ	LAB 1.0 3.0 3.0	T
PSG160	2024 Fall	Polysomnographic Procedures		Practical application of clinical procedures germane to the performance of polysomnography. Emphasis on patient assessment and communications, pre-test preparations, patient hook-up, instrument calibration and operation, test termination, cleanup and troubleshooting.	Prerequisites: Admission into the Polysomnographic Technology program. Corequisites: PSG160LL.		Occ	LEC 3.0 3.0 3.0	S
PSG160LL	2018 Fall	Polysomnographic Procedures Laboratory		Practical application of clinical procedures germane to the performance of polysomnography. Emphasis on patient assessment and communications, pre-test preparations, patient hook-up, instrument calibration and operation, test termination, cleanup and troubleshooting.	Prerequisites: Admission to the Polysomnographic Technology program. Corequisites: PSG160.		Occ	LAB 1.0 3.0 3.0	T
PSG165	2009 Fall	Clinical Polysomnographic I		Introduction to a sleep disorders center, observation of a center conducting polysomnography, and participation in performance of associated procedures. Emphasis on patient preparation, testing protocol, instrument calibration and operation, documentation, and patient interactions	Prerequisites: Admission into the Polysomnography Technology program.		Occ	LAB 3.0 15.0 0.0	C
PSG170	2018 Fall	Sleep Therapeutics		Review of sleep therapies to include medical treatment of insomnia, hypersomnia, restless legs syndrome, periodic limb movement disorder, rapid eye movement sleep behavior disorder, parasomnias, and the use of	Prerequisites: Admission into the Polysomnographic Technology program. Corequisites: PSG170LL.		Occ	LEC 2.0 2.0 2.0	S



				positive airway pressure therapy and/or oxygen therapy to treat sleep-disordered breathing.					
PSG170LL	2018 Fall	Sleep Therapeutics Laboratory		Perform sleep therapies to include medical treatment of insomnia, hypersomnia, restless legs syndrome, periodic limb movement disorder, rapid eye movement sleep behavior disorder, parasomnias, the use of positive airway pressure therapy and/or oxygen therapy to treat sleep-disordered breathing.	Prerequisites: Admission to the Polysomnographic Technology program. Corequisites: PSG170.		Occ	LAB 1.0 3.0 3.0	T
PSG250	2018 Fall	Record Scoring		Polysomnographic record scoring including visual, arousal, cardiac, movement, and respiratory scoring rules outlined by the American Academy of Sleep Medicine. Polysomnogram report generation and calculations, technical and digital specifications, multiple sleep latency test/maintenance of wakefulness test scoring and reporting, and archive and data storage, abnormal polysomnographic record events, and artifact recognition.	Prerequisites: Admission into the Polysomnographic Technology program. Corequisites: PSG250LL.		Occ	LEC 2.0 2.0 2.0	S
PSG250LL	2018 Fall	Record Scoring Laboratory		Polysomnographic record scoring including visual, arousal, cardiac, movement, and respiratory scoring rules outlined by the American Academy of Sleep Medicine (AASM). Polysomnogram report generation and calculations, technical and digital specifications, multiple sleep latency test/maintenance of wakefulness test scoring and reporting, and archive and data storage, abnormal polysomnographic record events, and artifact recognition.	Prerequisites: Admission to the Polysomnographic Technology program. Corequisites: PSG250.		Occ	LAB 1.0 3.0 3.0	T
PSG260	2009 Fall	Special Topics in Polysomnography		Specialized techniques, equipment and procedures used in polysomnography. Emphasis on infant, pediatric and geriatric populations, disabled and emotionally/mentally challenged, Polysomnograms with legal	Prerequisites: Admission into the Polysomnography Technology program.		Occ	LEC 2.0 2.0 2.0	S

				implications, research, and less commonly performed procedures.					
PSG265	2009 Fall	Clinical Polysomnography II		Participation in clinical polysomnography testing. Emphasis on patient preparation, troubleshooting, therapeutics, proper documentation, record review, scoring and report generation.	Prerequisites: Admission into the Polysomnography Technology program.		Occ	LAB 2.0 10.0 0.0	C
PSG275	2009 Fall	Clinical Polysomnography III		Clinical polysomnography testing. Emphasis on independent function and decision making, time management, record review, scoring and report preparation.	Prerequisites: Admission into the Polysomnography Technology program.		Occ	LAB 3.0 15.0 0.0	C
PSG280	2024 Fall	PSG Board Exam Review		Includes a review of all material covered in the Sleep Medicine Technology program. Taught during students' final semester of coursework to prepare them for their board examination.	Prerequisites: Admission into the Sleep Medicine Polysomnographic Technology program or permission of Program Director.		Occ	LEC 2.0 2.0 2.0	S
PSG282AA	2018 Fall	Volunteerism for Polysomnographic Technology: Service Learning Experience		Service learning field experience within private/public agencies, educational institution, and citizen volunteer groups.	Prerequisites: Permission of Instructor.	PSG282A A may be repeated for a total of six (6) credit hours. Standard grading available according to procedure s outlined in catalog.	Occ	LAB 1.0 1.0 1.0	T
PSY101	2025 Fall	Introduction to Psychology		Overview of the methods, concepts, and applications of psychological science. Includes an introduction to key domains of psychology: Biological, Cognitive, Developmental, Social and Personality, and Mental and Physical Health.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
PSY102	2025 Fall	Introduction to Psychology Lab		Application of psychology as a science in areas such as: learning, memory, emotion, motivation, cognition, intelligence, development,	A grade of C or better required in all Prerequisites. Prerequisites or		Acad	LAB 1.0 1.0 1.0	T

				personality, physical and mental health in a socially and culturally diverse world.	Corequisites: PSY101 or permission of Instructor.				
PSY123	2024 Fall	Psychology of Parenting		The study of major psychological theories that pertain to parenting. Includes current research findings to foster effective relationships within modern families. Explores evidence-based practices for parenting individuals from birth through emerging adulthood.	Prerequisites: None.	Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S
PSY132	2014 Fall	Psychology and Culture		Presents current knowledge about human diversity in behavior and culture using examples from a variety of contexts within western and global societies. Highlights topics in cross-cultural psychology, such as intergroup relations, diverse cognitive styles, ethnocentrism, gender, personality, emotion, language, communication, work and health. The role of enculturation throughout the lifespan will be explored to increase awareness of how behavioral and cognitive principles affect interactions in a multicultural world.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
PSY143	2023 Fall	Psychology of Sexual Orientation and Gender Identity		Introduction to the psychological study of sexual orientation and gender identity. Focus on psychological, developmental, social, biological, historical, and cultural aspects. Includes topics related to the recognition and development of sexual orientation and gender identity throughout the lifespan and lived experiences of LGBTQIA+ individuals and communities. Examines prejudice, discrimination, family dynamics, contributions, and current issues impacting LGBTQIA+ individuals, their allies, and communities.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S

PSY156	2022 Fall	Understanding Death and Dying		Designed to give the student an understanding of the research and theories of death, dying, bereavement process, and aspects of end-of-life care and decision-making.	Prerequisites: None.	Course Attribute(s): General Education Designation: Social-Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S
PSY157	2009 Fall	African/Black Psychology		Historical overview of the development of Black Psychology and the African-American "frame of reference." Includes topics such as family, psychological assessment, mental health, male/female relationships, personality and community development as well as educational, ethical and contemporary issues. Critical examination of psycho-cultural forces which have helped to shape and determine the unique thought, styles, behavior of African-Americans and to gain a greater appreciation of the theories, research, writings, and activities of Black Psychologists.	Prerequisites: None.	Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S
PSY201AC	1996 Fall	Selected Issues in Psychology		In-depth investigation of topical issues in Psychology. Promotes understanding of the psychological theory, application, and critical reasoning about the selected psychological issues and topics. Potential topics may include, but not limited to, parenting, gender, applied cognitive psychology, personality, perception, applied-experimental interventions, motivation, emotion, cultural psychology, methodology paradigms, history and systems, development, and intelligence.	Prerequisites: A grade of C or better in PSY101 or permission of Instructor.	PSY201A C may be repeated for credit with change of topic.	Acad	LEC 3.0 3.0 3.0	S
PSY210	2001 Summer I	Educational Psychology		Scientific research and psychological principles as they apply to teaching and learning. The role of psychology in educational settings, human diversity, theories of learning, intelligence, memory, creativity,	Prerequisites: A grade of C or better in PSY101 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0	S

				assessment, and factors influencing effective instruction and learning.					
PSY215	2022 Fall	Sports Psychology		Application of the physiological, behavioral, social, cognitive, and humanistic perspectives in psychology to sport. Includes topics such as optimal performance, correlation, motivation, co-action effect, self-actualization, psycho-behavioral techniques, self-efficacy, and the general health benefits of sport participation.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
PSY218	2025 Fall	Health Psychology		Behavioral and mental foundations of health, wellness, illness, and disease, and psychological dimensions of medical intervention.	Prerequisites: A grade of C or better in PSY101, or permission of Instructor.		Acad	LEC 3.0 3.0 3.0	S
PSY225	2010 Summer I	Psychology of Religion		Provides an introduction to the history, varieties and theories of the psychology of religion from an empirical, research-based perspective. Specific areas of study include the role of gender, age, socioeconomic status, and personality on religious experience, the effects of religion and prayer on mental and physical health, the development of religious thought and behavior over the lifespan, and the social psychology of new religious movements. In addition, the role of cultural differences on religious attitudes both within the USA and around the world is also addressed.	Prerequisites: A grade of C or better in PSY101 or Permission of Instructor.	Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S
PSY230	2023 Fall	Introduction to Statistics		An introduction to basic concepts in descriptive and inferential statistics, with emphasis upon application to psychology. Consideration given to the methods of data collection, sampling techniques, graphing of data, and the statistical evaluation of data collected through experimentation. Required of psychology majors.	Prerequisites: A grade of C or better in (PSY101 and eligibility for MAT14+ or higher as indicated by appropriate district mathematics placement) or permission of Instructor.	Student may receive credit for only one (1) of the following courses: PSY230 or PSY230WL.	Acad	LEC 3.0 3.0 3.0	S

PSY230WL	2023 Fall	Introduction to Statistics with Lab		An introduction to basic concepts in descriptive and inferential statistics, with emphasis upon application to psychology. Consideration given to the methods of data collection, sampling techniques, graphing of data, use of statistical software, and the statistical evaluation of data collected through experimentation. Required of psychology majors.	Prerequisites: A grade of C or better in (PSY101 and eligibility for MAT14+ or higher as indicated by appropriate district mathematics placement) or permission of Instructor.	Student may receive credit for only one (1) of the following courses: PSY230 or PSY230WL.	Acad	L+L 4.0 5.0 5.0	T
PSY231	2022 Fall	Laboratory for Statistics		Applications of inferential and descriptive statistics to statistical software in the field of psychology.	Prerequisites: None. Corequisites: PSY230.		Acad	LAB 1.0 2.0 2.0	T
PSY235	2007 Fall	Psychology of Gender		To assess historical and psychological perspectives on women and men and to evaluate contemporary viewpoints regarding the psychology of women and men.	Prerequisites: A grade of C or better in PSY101 or permission of Instructor.	Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] General Education Designation: Cultural Diversity - [C]	Acad	LEC 3.0 3.0 3.0	S
PSY240	2022 Fall	Developmental Psychology		Human development from conception through death. Includes biological, physical, cognitive, emotional, and sociocultural development across various ages.	Prerequisites: A grade of C or better in PSY101 or permission of Instructor.	PSY240 is recommended for students majoring in nursing, education, behavioral, pre-med, and psychology.	Acad	LEC 3.0 3.0 3.0	S

PSY241	2022 Spring	Understanding and Changing Behavior		Theory and methods for observing, analyzing, and modifying behavior.	Prerequisites: A grade of C or better in PSY101 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0	S
PSY242	2021 Fall	Understanding and Changing Behavior Lab		Advanced course designed to enable students to apply the principles of Applied Behavior Analysis (ABA) in a lab setting. Incorporates case studies and hands-on employment of best practices. Reviews current research in areas including, but not limited to, schedules of reinforcement, functional behavior assessment, stimulus discrimination and generalization.	Prerequisites: A grade of C or better in PSY241.	PSY242 students will complete in-class role-plays, practice exam questions, and submit videos of themselves performing specific procedures.	Acad	LAB 1.0 1.0 1.0	T
PSY243	2022 Spring	The Psychology of Developmental Disabilities		The interrelationships among the physical, intellectual, social, and psychological aspects of developmental disabilities (DD). Various service approaches, policies, and programs designed to foster an adequate adjustment for individuals with DD and their families. Values and beliefs relating to persons with developmental disabilities.	Prerequisites: A grade of C or better in PSY101.		Acad	LEC 3.0 3.0 3.0	S
PSY244	2023 Fall	Internship in Psychology		Experience in working in a wide variety of settings including but not limited to schools, non-profit agencies, advocacy agencies and other governmental agencies. 80 hours of designated volunteer or paid work.	Prerequisites: A grade of C or better required in all prerequisites. Prerequisites or Corequisites: Any two (2) 200-level PSY courses and permission of Instructor.	PSY244 may be repeated for a total of two (2) credit hours.	Acad	L+L 1.0 1.0 0.0	C
PSY248	2004 Fall	Psychology of Adolescent Development		Explores the highly specialized developmental stage of adolescence. Includes biological, cognitive,	Prerequisites: A grade of C or better in PSY101 or		Acad	LEC 3.0	S

				psychosexual, and sociocultural factors as well as current theories and research.	permission of Instructor.			3.0 3.0	
PSY250	1999 Fall	Social Psychology		The scientific study of how people's thoughts, feelings, and behaviors are influenced by other people and situations. Includes how we think about ourselves and others, persuasion and influence, sexual and romantic attraction, friendship and helping others, aggression and prejudice.	Prerequisites: A grade of C or better in PSY101 or permission of Instructor.	Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S
PSY260	2025 Fall	Psychology of Personality		Introduction to theories of personality with emphasis upon application of specific theories towards the understanding of individuals.	Prerequisites: A grade of C or better in PSY101, or permission of Instructor.		Acad	LEC 3.0 3.0 3.0	S
PSY262	2021 Fall	Positive Psychology: The Science of Well-Being		Overview and application of psychological principles based on strengths and resilience of human beings as opposed to dysfunction and symptoms of mental disorders. Topics include happiness, relationships, resilience, optimism, well-being, and brain research explaining positive emotions.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
PSY266	2022 Fall	Psychological Disorders		Distinguishes between healthy psychological functioning and psychological disorders. Includes topics in psychopathology such as problems with anxiety and depression, eating disorders, substance-use, schizophrenia, sexuality, and personality. Also covers causes and treatments of psychological disorders.	Prerequisites: A grade of C or better in PSY101 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0	S
PSY267	2017 Summer	Introduction to Forensic Psychology		Overview of the practice of psychology in the law, by the law, and of the law. Focuses on the complementary functions and distinctions between psychology and the legal justice system. Topics include, but are not limited to, criminal investigations, risk and level of danger, competency, interrogations,	Prerequisites: A grade of C or better in PSY101.		Acad	LEC 3.0 3.0 3.0	S



				confessions, assessment, eyewitness testimony, child custody, and domestic violence.					
PSY270	2013 Summer I	Personal and Social Adjustment		Surveys the basic mental health principles as they relate to coping with stress, interpersonal relationships, sex, marriage, and working. Emphasis on learning to become a more competent and effective person.	Prerequisites: A grade of C or better in PSY101 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0	S
PSY275	2025 Fall	Biopsychology		Biological basis of behavior and mental functions. Biological foundations of sensation, perception, motivation, emotion, cognition, and psychopathology. Designed for students in the life and behavioral sciences.	Prerequisites: A grade of C or better in PSY101, or permission of Instructor.		Acad	L+L 4.0 5.0 5.0	T
PSY277	2018 Fall	Psychology of Human Sexuality		Survey of psychological and physiological aspects of human sexual behavior. Emphasis placed on the integration of the cognitive, emotional, and behavioral factors in sexual functioning.	Prerequisites: A grade of C or better in PSY101.	PSY277 may contain adult content. All students under the age of 18 are required to have a signed parental consent form on file, which is on the back of the Under the Age of 18 Enrollment Form.	Acad	LEC 3.0 3.0 3.0	S
PSY280	2024 Fall	Industrial/Organizational Psychology		The application of psychological principles to business and industry practices including organizational structure, leadership, personnel, employee stress and conflict,	Prerequisites: A grade of C or better in PSY101, or permission of Instructor.		Acad	LEC 3.0 3.0 3.0	S

				workplace conditions and job performance.					
PSY282AA	1994 Fall	Volunteerism Service Learning Experience in Psychology		Service learning field experience within private/public agencies, and citizen volunteer groups.	Prerequisites: A grade of C or better in PSY101 and permission of Instructor.	PSY282A A may be repeated for a total of three (3) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 1.0 1.0 0.0	L
PSY282AB	1994 Fall	Volunteerism Service Learning Experience in Psychology		Service learning field experience within private/public agencies, and citizen volunteer groups.	Prerequisites: A grade of C or better in PSY101 and permission of Instructor.	PSY282A B may be repeated for a total of three (3) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 2.0 2.0 0.0	L
PSY282AC	1994 Fall	Volunteerism Service Learning Experience in Psychology		Service learning field experience within private/public agencies, and citizen volunteer groups.	Prerequisites: A grade of C or better in PSY101 and permission of Instructor.	Standard grading available according to procedures outlined in catalog.	Acad	LAB 3.0 3.0 0.0	L
PSY290AB	2023 Fall	Research Methods		Planning, execution, analysis, and written reporting of psychological research using American Psychological Association guidelines (APA). Surveys the literature, procedures, and instruments in	A grade of C or better required in all Prerequisites: Prerequisites: ENG101 or ENG107. Prerequisites or	Course Attribute(s): General Education Designation: Literacy	Acad	LEC 4.0 3.0 3.0 LAB 0.0	T

				representative areas of psychological research.	Corequisites: PSY230 or PSY230WL or permission of Instructor.	and Critical Inquiry - [L] General Education Designation: Natural Sciences (General) - [SG] Arizona Shared Unique Number SUN#: PSY 2290		3.0 3.0	
PSY290AC	2023 Fall	Research Methods		Planning, execution, analysis, and written reporting of psychological research using American Psychological Association guidelines (APA). Surveys the literature, procedures, and instruments in representative areas of psychological research.	A grade of C or better required in all Prerequisites. Prerequisites: ENG101 or ENG107. Prerequisites or Corequisites: PSY230 or PSY230WL or permission of Instructor.	Course Attribute(s): General Education Designation: Literacy and Critical Inquiry - [L] General Education Designation: Natural Sciences (General) - [SG] Arizona Shared Unique Number SUN# PSY 2290	Acad	LEC 3.0 3.0 LAB 3.0 1.0 2.0 2.0	T
PSY292	1999 Fall	Psychology of Altered States of Consciousness		Examines phenomena and history of altered states of consciousness. Surveys scientific principles, methods and applications in altered states research. Reviews current psychological research in topics	Prerequisites: A grade of C or better in PSY101 or permission of Instructor.	Course Attribute(s): General Education Designation: Social	Acad	LEC 3.0 3.0 3.0	S

				related to sensory deprivation, daydreaming, meditation, hypnosis, sleep and dreams, and the effects of drugs.		and Behavioral Sciences - [SB]			
PSY295AA	2018 Spring	Independent Research in Psychology		Original scientific investigation of psychology-related phenomenon.	Prerequisites: A grade of C or better in PSY290++ or Corequisites: PSY290++ or permission of Instructor.	PSY295A A requires a minimum of 80 hours of laboratory/research study. PSY295A A may be repeated for credit.	Acad	LAB 1.0 1.0 0.0	C
PSY298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0	Z
PSY298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0	Z
PSY298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0	Z

				expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.					
PTA101	2022 Fall	Survey of Physical Therapy		History of physical therapy. Purpose, benefits, and goals of the Arizona and American Physical Therapy Associations (APTA). Roles and responsibilities of physical therapists (PT) and physical therapist assistants (PTA). Patient care, legal issues, principles of physical therapy treatment, education requirements, and functions of the American Physical Therapy Association. Clinical practice settings used in the provision of physical therapy services. Common medical conditions and injuries treated by PT's and PTA's. Emerging opportunities in the practice of physical therapy.	Prerequisites: Admission to the Physical Therapist Assisting program or permission of the Program Director.		Occ	LEC 1.5 1.5 1.5	S
PTA102	2006 Fall	Structured Physical Therapist Assisting Review		Structured physical therapist assisting tutorial assistance and physical therapist assisting study skills related to physical therapist assisting courses. Physical therapist assisting process and critical thinking application skills emphasized.	Prerequisites: None. Corequisites: Enrollment in the Physical Therapist Assisting program or permission of Department Chair.	PTA102 offered as Credit (P) No credit (Z) basis. PTA102 may be repeated for a total of eight (8) credit hours.	Occ	LEC 1.0 1.0 1.0	S
PTA103	2018 Fall	Kinesiology		Physical principles of human motion. Emphasis on structure, movement, and stability of specific joints. Normal and abnormal human locomotion. Stabilizing and motion producing forces upon extremities and the spine including muscles, ligaments, and cartilage. Discussion of common joint deformities. Kinesiological analysis of	Prerequisites: Admission to the Physical Therapist Assisting program or permission of the Program Director.		Occ	LEC 3.0 3.0 3.0	S

				functional movement of the human body.					
PTA104	2018 Fall	Musculo-Skeletal Assessment Techniques		Theory and principles of goniometry and manual muscle testing. Measure range of motion of joints and strength of muscles of the head, face, neck, trunk and extremities. Normal range of motion of the spine and extremities. Assess posture and common postural deviations. Palpate and identify pertinent bony and soft tissue structures. Document results of goniometric measurement, muscle testing, palpation and posture assessment. Perform data collection in a time efficient manner following the plan of care established by the supervising physical therapist. Communicate effectively with patients and the supervising physical therapist.	Prerequisites: Admission to the Physical Therapist Assisting program or permission of the Program Director.		Occ	LAB 1.5 4.5 4.5	T
PTA152	2018 Fall	Musculoskeletal Kinesiology and Assessment Techniques in Sonographic Imaging		Joint movements and planes of motion. Normal anatomy of the extremities. Tissue physiology. Pathological structures and their relationships. External palpation and relation to imaging.	Prerequisites: Admission to Diagnostic Medical Sonography program or permission of the Program Director.		Occ	L+L 4.0 6.0 6.0	T
PTA200	2018 Fall	Patient Mobility Techniques		Theory, principles and practice of proper body mechanics. Principles and techniques of gait training, bed mobility and transfers, wheelchair mobility. Theory, principles, and techniques of therapeutic exercise. Patient instruction, data collection, assistive devices and equipment used by the physical therapist assistants and their patients. Safety and first aid in physical therapy practice settings including contraindications for therapeutic interventions. Document physical therapy interventions. Perform physical therapy interventions in a time efficient manner following the plan of care established by the supervising physical therapist. Communicate	Prerequisites: A grade of C or better in (PTA101, PTA103, and PTA104) or permission of the Program Director.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 6.0 6.0	T

				effectively with patients and the supervising physical therapist.					
PTA202	2018 Fall	Therapeutic Modalities		Stages of inflammation responses and tissue repair. Theories on pain. Guidelines for patient positioning and safety. Physiological effects of therapeutic modalities. Principles and application of thermal agents. Apply superficial and deep thermal agents, cryotherapy, ultrasound, electromagnetic radiation, massage, hydrotherapy, light, intermittent venous compression therapies, and traction. Indications and contraindications for treatment methods. Concepts in research in physical therapy. Document physical therapy interventions. Perform physical therapy interventions including relevant data collection in a time efficient manner following the plan of care established by the supervising physical therapist. Communicate effectively with patients and the supervising physical therapist.	Prerequisites: A grade of C or better in (PTA101, PTA103, and PTA104) or permission of the Program Director.		Occ	LEC 5.0 3.0 3.0 LAB 0.0 6.0 6.0	T
PTA203	2022 Fall	Clinical Pathology		Terminology and definitions used in discussion of human pathology. Disease processes frequently encountered in physical therapy practice. Functional anatomy, select medical tests for diagnoses, and medication and effects in providing physical therapy. Principles of disease prevention.	Prerequisites: Admission to the Physical Therapist Assisting program or permission of the Program Director.		Occ	LEC 3.0 3.0 3.0	S
PTA204	2023 Fall	Preclinical Practicum I		Supervised physical therapy clinical practice in the Healthcare United at GateWay (HUG) Clinic with moderate to maximal supervision with emphasis on performance of data collection and treatment interventions for a diverse patient population in an outpatient treatment setting.	Prerequisites: A grade of C or better in (PTA101, PTA103, and PTA104) or permission of the Program Director. Corequisites: PTA202.		Occ	LAB 0.5 1.5 1.5	T
PTA205	2013 Fall	Communication in Physical Therapy		Communication skills in the Physical Therapy setting. Self-image in communication. Active listening,	Prerequisites: Admission to the Physical Therapist		Occ	LEC 1.5	S

				responding to problems, body language, patient interview skills. Communicating with chronically ill and dying patients and their families. Communicating with persons with disabilities. Cultural differences in communication and views of Health Care.	Assisting program or permission of Department or Division.			1.5 1.5	
PTA206	2023 Fall	Clinical Practicum I		Clinical experience with advanced beginner or higher level of performance for physical therapist assisting students. Application of physical therapy skills and techniques in specific clinical settings including outpatient, hospital, rehabilitation and skilled nursing care.	Prerequisites: A grade of C or better in (PTA200, PTA202, PTA203, PTA204, and PTA205) or permission of the Program Director. Corequisites: PTA207.		Occ	LAB 3.0 15.0 0.0	C
PTA207	2018 Fall	Clinical Practicum Seminar I		Integration of non-clinical aspects of clinical practicums with clinical performance in Clinical Practicum I. Emphasis on clinical journaling, in-service and case presentations, and documentation of patient care interventions.	Prerequisites: Admission to the Physical Therapist Assisting program or permission of the Program Director. Corequisites: PTA206.		Occ	LEC 1.0 1.0 1.0	S
PTA208	2018 Fall	Rehabilitation of Special Populations		Rehabilitation strategies for brain injured patients. Neurodevelopmental treatment emphasized. Theories and alternative physical therapy treatment for neurologically impaired patients. Clinical applications and treatment of patients. Proprioceptive neuromuscular facilitation (PNF), cardiopulmonary rehabilitation, spinal cord injury and amputee management, and prosthetics/orthotics. Motor development and changes across the lifespan including developmental motor milestones and normal reflexes and reactions. Emphasis on proficiency in hands-on techniques.	Prerequisites: A grade of C or better in (PTA200, PTA202, PTA203, and PTA205), or permission of the Program Director.		Occ	LEC 5.0 3.0 3.0 LAB 0.0 6.0 6.0	T
PTA210	2018 Fall	Orthopedic Physical Therapy		Response of human bone and soft-tissue to injury. Orthopedic and medical management and physical therapy interventions for common	Prerequisites: A grade of C or better in (PTA206 and PTA207) or		Occ	LEC 4.0 3.0 3.0	T



				injuries of the extremities and spine. Common orthopedic surgeries. Joint mobilization techniques. Body mechanics and therapeutic exercise programs. Documentation procedures. Perform physical therapy interventions including relevant data collection in a time efficient manner following the plan of care established by the supervising physical therapist. Communicate effectively with patients and the supervising physical therapist.	permission of the Program Director.			LAB 0.0 3.0 3.0	
PTA214	2018 Fall	Electromodalities		Electrical currents for physical therapy. Types of human muscular contractions. Safety stressed. Application of electrical currents for physical therapy. Uses and implications of electrical nerve tests. Biophysical effects of transcutaneous electrical nerve stimulation. Use of low volt, high volt, and interferential electrical stimulation devices. Neuromuscular electrical stimulation (NMES). Use of biofeedback in physical therapy. Perform physical therapy interventions using including relevant data collection in a time efficient manner following the plan of care established by the supervising physical therapist. Communicate effectively with patients and the supervising physical therapist.	Prerequisites: A grade of C or better (PTA206 and PTA207) or permission of the Program Director.		Occ	LEC 2.5 1.5 1.5 LAB 0.0 3.0 3.0	T
PTA215	2010 Summer I	Wound Care for the Physical Therapist Assistant		Introduction to current concepts in wound care management techniques for the physical therapist assistant including skin anatomy and physiology, principles of healing, types of wounds, and therapeutic interventions.	Prerequisites: Admission to the Physical Therapist Assisting program or permission of Department or Division.		Occ	LEC 1.0 1.0 1.0	S
PTA217	2024 Fall	Clinical Neurology		Anatomy and function of the brain, spinal cord and peripheral nervous system. Review of motor and sensory innervation and spinal tracts. Specific diseases of the central and peripheral nervous systems related to the	Prerequisites: A grade of C or better in (PTA101, PTA103, PTA104, and PTA203) or		Occ	LEC 2.0 2.0 2.0	S

				physical therapy plan of care. Emphasis on clinical signs and symptoms of neurological disorders.	permission of the Program Director.				
PTA230	2018 Fall	Physical Therapy Seminar		Current practices and issues in physical therapy. Clinical problem solving, ethics, legal aspects, reimbursement, management, research. Resume preparation and job interviewing skills. Stress management techniques. Total quality management principles. Employment issues. Prevention of fraud and abuse. Career and professional development. Job descriptions, performance assessments, and wage and salary administration.	Prerequisites: Admission to the Physical Therapist Assisting program or permission of the Program Director.		Occ	LEC 2.0 2.0 2.0	S
PTA240	2018 Fall	Peripheral Joint Mobilization Techniques for the Physical Therapist Assistant		Peripheral joint mobilization techniques for the upper and lower extremity joints. Concepts, indications, and contraindications. Documentation. Statutes and policies regarding joint mobilizations.	Prerequisites: Certification or licensure as a Physical Therapist Assistant and six months clinical practice.		Occ	L+L 1.0 1.0 1.0	T
PTA279	2023 Fall	Preclinical Practicum II		More advanced supervised physical therapy clinical practice in the Healthcare United at GateWay (HUG) Clinic with minimal supervision with emphasis on performance of data collection and treatment interventions for a diverse patient population in an outpatient treatment setting.	Prerequisites: A grade of C or better in PTA206 or permission of the Program Director. Corequisites: PTA210.		Occ	LAB 0.5 1.5 1.5	T
PTA280	2023 Fall	Clinical Practicum II		Clinical experience requiring an intermediate or higher level of clinical performance by the physical therapist assisting students. Application of physical therapy skills and techniques in various clinical settings including outpatient, hospital, rehabilitation and skilled nursing.	Prerequisites: A grade of C or better in (PTA208, PTA210, PTA214, PTA217, and PTA279) or permission of Program Director. Corequisites: PTA281.		Occ	LAB 3.0 15.0 0.0	C
PTA281	2018 Fall	Clinical Practicum Seminar II		Integration of non-clinical aspects of clinical practicums with clinical performance in Clinical Practicum II. Emphasis on clinical journaling, in-service and case presentations, and	Prerequisites: Admission to the Physical Therapist Assisting program, or permission of Department or		Occ	LEC 1.0 1.0 1.0	S

				documentation of patient care interventions.	Division. Corequisites: PTA280.				
PTA290	2022 Fall	Clinical Practicum III		Clinical experience with entry-level performance for physical therapist assisting students. Application of physical therapy skills and techniques in specific clinical settings including outpatient, hospital, rehabilitation and skilled nursing.	Prerequisites: A grade of C or better in: PTA208, PTA210, PTA214, and PTA217 or permission of Department or Division. Corequisites: PTA292.		Occ	LAB 3.0 15.0 0.0	C
PTA292	2018 Fall	Clinical Practicum Seminar III		Integration of non-clinical aspects of clinical practicums with clinical performance in Clinical Practicum III. Emphasis on clinical journaling, in-service and case presentations, and documentation of patient care interventions.	Prerequisites: Admission to the Physical Therapist Assisting program or permission of the Department or Division. Corequisites: PTA290.		Occ	LEC 1.0 1.0 1.0	S
PTA295	2018 Fall	Physical Therapist Assistant Examination Review		Preparation for the physical therapist assistant examination administered by the Federation of State Boards of Physical Therapy. Topics include physical therapy management of patients with musculoskeletal, neurological, integumentary and cardiopulmonary system diseases and complications. Therapeutic modalities, therapeutic exercise, functional mobility activities, and data collection techniques. Documentation and ethical/legal considerations in practice of physical therapy.	Prerequisites: Admission to the Physical Therapist Assisting program or permission of the Program Director.		Occ	LEC 2.0 2.0 2.0	S
QCT296WA	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job		Occ	LAB 1.0 5.0 0.0	Z

					may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.				
QCT296WB	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 2.0 10.0 0.0	Z
QCT296WC	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be		Occ	LAB 3.0 15.0 0.0	Z

					concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.				
QCT296WD	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 4.0 20.0 0.0	Z
QCT298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z
QCT298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z

				type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.					
QCT298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z
QST200	2024 Spring	Introduction to Queer Studies		Provides a general introduction to queer studies, including review of queer theory, intersectionality, social and political institutions, representation, and identity related to sex, gender, and sexual orientation.	Prerequisites: A grade of C or better in ENG101 or ENG107.	Course Attributes: General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU] General Education Designation: Social-Behavioral Sciences [SB]	Acad	LEC 3.0 3.0 3.0	S
QST210	2024 Spring	Queer Media Studies		Brings together media studies and queer studies to examine the history and ongoing development of media produced by queer and non-queer	Prerequisites: A grade of C or better in ENG101 or ENG107.	Course Attributes: General Education	Acad	LEC 3.0 3.0 3.0	S

				creators in national and global contexts. Interrogates the relationship between sex, gender, and sexuality as it is and has been represented in media. Offers an overview of popular media and queerness.		Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU] General Education Designation: Social-Behavioral Sciences [SB]			
RAD100	2020 Fall	Introduction to Radiologic Science and Health Care		Provides an overview of the foundations of radiography and the practitioner's role in health care delivery. Principles, practices and policies of health care organizations will be examined and discussed in addition to the professional responsibilities of the radiographer.	Prerequisites: Admission to the Radiologic Technology Program.		Occ	LEC 3.0 3.0 3.0	S
RAD101	2020 Fall	Ethics and Law in the Radiologic Sciences		Foundation in ethics and law related to the practice of medical imaging. An introduction to terminology, concepts and principles will be presented.	Prerequisites: Admission to the Radiologic Technology Program.		Occ	LEC 1.0 1.0 1.0	S
RAD102	2020 Fall	Structured Diagnostic Medical Imaging Skills Enhancement I		Structured medical imaging cognitive and non-cognitive learning, study skills, and strategies to help students achieve success in their respective imaging courses. Medical imaging learning process and critical thinking application skills are emphasized.	Prerequisites: Admission to the Radiologic Technology Program.		Occ	LEC 1.0 1.0 1.0	S
RAD103	2024 Fall	Radiation Biology and Health Physics I		Overview of the principles of radiation protection, including the responsibilities of the radiographer for patients, personnel and the public. Radiation health and safety requirements of federal and state regulatory agencies, accreditation	Prerequisites: Admission to the Radiologic Technology program.		Occ	LEC 2.0 2.0 2.0	S

				agencies and health care organizations are incorporated.					
RAD104	2024 Fall	Image Production I		Comprehensive exploration of the fundamental principles and techniques governing radiographic exposure factors and their effect on creating radiographic images.	Prerequisites: Admission to the Radiologic Technology program.		Occ	LEC 2.5 2.0 2.0 LAB 0.0 1.5 1.5	T
RAD105	2024 Fall	Radiation Physics and Instrumentation		Basic knowledge of atomic structure and terminology, the nature and characteristics of radiation, x-ray production, and the fundamentals of photon interactions with matter. Establishes a knowledge base in radiographic and mobile equipment, as well as exposure controls.	Prerequisites: Admission to the Radiologic Technology program.		Occ	LEC 2.0 2.0 2.0	S
RAD106	2024 Fall	Patient Care in Radiologic Sciences I		Foundational concepts of optimal patient care, including consideration for the physical and psychological needs of the patient and family. Routine and emergency patient care procedures are described, as well as infection control procedures using standard precautions. The role of the radiographer in patient education is identified.	Prerequisites: Admission to the Radiologic Technology program.		Occ	LEC 2.5 2.0 2.0 LAB 0.0 1.5 1.5	T
RAD107	2020 Fall	Radiographic Procedures I		Content provides the knowledge base necessary to perform standard imaging procedures. Focus is on upper extremities, lower extremities, shoulder, and thorax. Consideration is given to the evaluation of optimal diagnostic images.	Prerequisites: Admission to the Radiologic Technology Program.		Occ	LEC 3.0 3.0 3.0 LAB 0.0 3.0 3.0	T
RAD109	2020 Fall	Radiography Practicum I		Clinical practice experience to develop and apply concepts and theories in the performance of radiologic procedures. Concepts of team practice, patient-centered clinical practice, and professional development are discussed, examined and evaluated. Focus is on patient care and assessment and competent performance of radiologic	Prerequisites: Admission to the Radiologic Technology Program.		Occ	LAB 3.5 19.0 0.0	C



				imaging. Imaging procedures are performed under the appropriate supervision of a qualified radiographer.					
RAD112	2020 Fall	Structured Diagnostic Medical Imaging Skills Enhancement II		Focus is on the application of structured medical imaging cognitive and non-cognitive learning, study skills, and strategies to help students achieve success in their respective imaging courses and their first clinical experience. Medical imaging learning process and critical thinking application skills introduced in the Structured Diagnostic Medical Imaging Skills Enhancement I course are reinforced; and advanced concepts are introduced.	Prerequisites: Admission to the Radiologic Technology Program.		Occ	LEC 1.0 1.0 1.0	S
RAD114	2024 Fall	Image Production II		Components, principles, and operation of digital imaging systems found in diagnostic radiology. Factors that impact image acquisition, display, archiving, and retrieval are discussed.	Prerequisites: Admission to the Radiologic Technology program.		Occ	LEC 2.0 2.0 2.0	S
RAD116	2024 Fall	Patient Care in Radiologic Sciences II		Content provides advanced concepts of optimal patient care, including consideration for assessment of vital signs. Trauma and emergency patient care procedures are described, as well as surgical asepsis concepts. The role of the radiographer in surgical settings is also discussed.	Prerequisites: Admission to the Radiologic Technology program.		Occ	LEC 2.5 2.0 2.0 LAB 0.0 1.5 1.5	T
RAD117	2020 Fall	Radiographic Procedures II		Content provides the knowledge base necessary to perform standard imaging procedures. Focus is on abdomen, pelvic girdle, vertebral column, and cranium. Contrast studies specific to the gastrointestinal system are also addressed. Consideration is given to the evaluation of optimal diagnostic images.	Prerequisites: Admission to the Radiologic Technology Program.		Occ	LEC 3.0 3.0 3.0 LAB 0.0 3.0 3.0	T
RAD119	2020 Fall	Radiography Practicum II		Clinical practice experience to develop, apply, reinforce, and integrate concepts and theories in the performance of radiologic procedures. Concepts of team practice, patient-centered clinical practice, and	Prerequisites: Admission to the Radiologic Technology Program.		Occ	LAB 6.0 36.0 0.0	C

				professional development are practiced, examined, and evaluated. Focus is on patient care and assessment and competent performance of radiologic imaging. Imaging procedures are performed under the appropriate supervision of a qualified radiographer.					
RAD203	2024 Fall	Radiation Biology and Health Physics II		Provides an overview of the principles of the interaction of radiation with living systems. Radiation effects on molecules, cells, tissues and the body as a whole are presented. Factors affecting biological response are presented, including acute and chronic effects of radiation.	Prerequisites: Admission to the Radiologic Technology program.		Occ	LEC 2.0 2.0 2.0	S
RAD206	2020 Fall	Pharmacology and Venipuncture		Content provides basic concepts of pharmacology, venipuncture and administration of diagnostic contrast agents and intravenous medications. The appropriate delivery of patient care during these procedures is emphasized.	Prerequisites: Admission to the Radiologic Technology Program.		Occ	LEC 1.0 1.0 1.0 LAB 0.0 1.0 1.0	T
RAD207	2024 Fall	Radiographic Procedures III		Content provides the knowledge base necessary to perform advanced imaging procedures. Focus is on special studies, trauma, and surgical procedures. Contrast studies specific to the urinary system are also addressed. Consideration is given to the evaluation of optimal diagnostic images.	Prerequisites: Admission to the Radiologic Technology program.		Occ	LEC 3.0 3.0 3.0 LAB 0.0 1.5 1.5	T
RAD208	2020 Fall	Image Analysis I		Provides a basis for analyzing radiographic images. Included are the importance of optimal imaging standards, the use of problem-solving techniques for image evaluation, and the factors that can affect image quality. Focus on the analysis of images for the upper extremity, shoulder, lower extremity, bony thorax, upper airway, and chest.	Prerequisites: Admission to the Radiologic Technology Program.		Occ	LEC 1.0 1.0 1.0	S
RAD209	2020 Fall	Radiography Practicum III		Continued clinical practice experience to further develop, apply, reinforce, and integrate concepts and theories	Prerequisites: Admission to the		Occ	LAB 5.0	C

				in the performance of radiologic procedures. Concepts of team practice, patient-centered clinical practice, and professional development are practiced, examined, and evaluated. Focus remains on patient care and assessment and competent performance of radiologic imaging. New experiences in special procedural environments. Imaging procedures are performed under the appropriate supervision of a qualified radiographer.	Radiologic Technology Program.			29.0 0.0	
RAD212	2020 Fall	Structured Diagnostic Medical Imaging Skills Enhancement III		Use of skills and resources for preparing for the American Registry of Radiologic Technologists (ARRT) exam. Utilization of career and educational planning resources is emphasized.	Prerequisites: Admission to the Radiologic Technology Program.		Occ	LEC 1.0 1.0 1.0	S
RAD214	2024 Fall	Image Production III		Imparts knowledge on how to optimize image quality while managing radiation exposure during digital imaging exams and procedures. Emphasis is placed on quality management and continuous quality improvement. Fluoroscopic systems are discussed and quality control tests are performed.	Prerequisites: Admission to the Radiologic Technology program.		Occ	LEC 2.0 2.0 2.0 LAB 0.0 1.5 1.5	T
RAD217	2020 Fall	Radiographic Pathology and Additional Modalities		Introduces concepts related to disease and etiological considerations with emphasis on radiographic appearance of disease. Additional modalities are also discussed.	Prerequisites: Admission to the Radiologic Technology Program.		Occ	LEC 2.0 2.0 2.0	S
RAD218	2020 Fall	Image Analysis II		Provides a basis for analyzing radiographic images. Included are the importance of optimal imaging standards, the use of problem-solving techniques for image evaluation, and the factors that can affect image quality. Focus on analysis of images for the abdomen, pelvic girdle, vertebral column, cranium, and special studies.	Prerequisites: Admission to the Radiologic Technology Program.		Occ	LEC 1.0 1.0 1.0	S
RAD219	2020 Fall	Radiography Practicum IV		Continued clinical practice experience to further develop, apply, reinforce,	Prerequisites: Admission to the		Occ	LAB 5.0	C

				and integrate concepts and theories in the performance of radiologic procedures. Concepts of team practice, patient-centered clinical practice, and professional development are practiced, examined, and evaluated. Focus remains on patient care and assessment and competent performance of radiologic imaging. Continued experiences in special procedural environments. Imaging procedures are performed under the appropriate supervision of a qualified radiographer.	Radiologic Technology Program.			29.0 0.0	
RBT296WA	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 1.0 5.0 0.0	Z
RBT296WB	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job		Occ	LAB 2.0 10.0 0.0	Z

					may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.				
RBT296WC	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 3.0 15.0 0.0	Z
RBT296WD	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be		Occ	LAB 4.0 20.0 0.0	Z

					concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.				
RBT298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z
RBT298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z
RBT298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z
RDG100	2024 Spring	Successful College Reading		Emphasis on reading study strategies for any introductory class in any subject area. Introduction to Learning	Prerequisites: A grade of C or better in ALT100, or	RDG100 satisfies RDG091	Acad	LEC 3.0	S

				Management System (LMS), how to successfully read course textbooks and assessments, how to navigate information technology and development of academic vocabulary.	RDG081, or ESL202, or appropriate reading placement, or permission of Instructor. Corequisites: Any 100-level course in another content area, or permission of Instructor.	requirement. RDG100 may be repeated for a total of twelve (12) credit hours.		3.0 3.0	
RDG100AA	2024 Fall	Successful College Reading - Organizing for Success		Includes goal setting, time management, college orientation, reading content materials. Emphasis on organizational skills and strategies for any introductory class in any subject area. Introduction to Learning Management System (LMS), how to organize and manage college reading assignments, and how to navigate information literacy using campus resources.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
RDG100AB	2024 Fall	Successful College Reading - Notetaking and Studying for Success		Emphasis on reading study and notetaking techniques applicable to any introductory class in any subject area. Includes effective use of textbooks, notetaking, and development of academic vocabulary.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
RDG100AC	2024 Fall	Successful College Reading - Taking College Exams with Success		Emphasis on successful lecture notetaking and synthesis of information, studying skills and strategies, types of exams, and exam taking strategies for success in any college introductory class.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
RDG100LL	2020 Summer	Disciplinary Literacy Lab		Supplemental instruction for college-level discipline courses. Focus on developing effective reading processes to address a range of literacy needs including reading, writing, digital, numerical, financial and informational literacies.	Prerequisites: None. Corequisites: Any 100-level course in another content area or permission of Instructor.		Acad	LAB 1.0 3.0 3.0	T
RDG111	2020 Fall	Successful College Reading for Cultural or Social Sciences		Emphasis on reading study strategies for an introductory class in the Cultural and Social Sciences. Introduction to Learning Management System (LMS), how to successfully read course textbook and	Prerequisites: A grade of C or better in ALT100 or RDG081 or appropriate reading placement score or	RDG111 satisfies RDG091 requirement.	Acad	LEC 3.0 3.0 3.0	S

				assessments and development of academic vocabulary.	permission of Instructor. Corequisites: Any 100-level course in Cultural Science or Social Science area or permission of Instructor.				
RDG112	2020 Fall	Successful College Reading for Life Sciences, Mathematics, Physical Sciences or Technology		Emphasis on reading study strategies for an introductory class in the Life Science, Mathematics, Physical Sciences, or Technology. Introduction to Learning Management System (LMS), how to successfully read course textbook and assessments and development of academic vocabulary.	Prerequisites: A grade of C or better in ALT100 or RDG081 or appropriate reading placement or permission of Instructor. Corequisites: Any 100-level class in the Life Sciences or Mathematics or Physical Sciences or Technology or permission of Instructor.	RDG112 satisfies RDG091 requirement.	Acad	LEC 3.0 3.0 3.0	S
RDG113	2020 Fall	Successful College Reading for Communication, Humanities or Behavioral Science		Emphasis on reading study strategies for an introductory class in the Communication, Humanities, or Behavioral Science. Introduction to Learning Management System (LMS), how to successfully read course textbook and assessments and development of academic vocabulary.	Prerequisites: A grade of C or better in ALT100 or RDG081 or appropriate reading placement or permission of Instructor. Corequisites: Any 100-level course in Communication or Humanities or Behavioral Sciences or permission of Instructor.	RDG113 satisfies RDG091 requirement.	Acad	LEC 3.0 3.0 3.0	S
RDG282AA	2014 Summer	Service-Learning Experience in Reading		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	RDG282A A may be repeated for a total of six (6) credit hours.	Acad	LAB 1.0 1.0 0.0	L



						Standard grading available according to procedures outlined in catalog.			
RDG282AB	2014 Summer	Service-Learning Experience in Reading		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	RDG282A B may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 2.0 2.0 0.0	L
RDG282AC	2014 Summer	Service-Learning Experience in Reading		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	RDG282A C may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 3.0 3.0 0.0	L
RDG296WA	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or		Acad	LAB 1.0 5.0 0.0	Z

					career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.				
RDG296WB	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 2.0 10.0 0.0	Z
RDG296WC	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of		Acad	LAB 3.0 15.0 0.0	Z

					instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.				
RDG296WD	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 4.0 20.0 0.0	Z
RDG298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0	Z
RDG298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0	Z

				and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.					
RDG298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0	Z
REA150	2018 Fall	Supervisory Appraiser/Appraiser Trainee		Examine the national minimum requirements, responsibilities, and expectations for Trainee Appraisers and Supervisory Appraisers that are included in the Appraiser Qualifications Board (AQB) Criteria.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
REA179	2021 Spring	Real Estate Principles I		Basics of real estate principles including introduction to the profession and license law, definition of real property, legal descriptions, rights and interests in property, ownership, contracts, title transfer and escrow procedures. Also covers an introduction to water rights and environmental hazards as well as procedures for various real estate calculations.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
REA180	2021 Spring	Real Estate Principles II		Advanced work in real estate including governmental restrictions and limitations, property management, insurance and warranties, appraisal procedures, financing and loan security instruments. Also covers Deed of Trust foreclosure options and consumer protection provisions.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S

REA201	2021 Spring	Real Estate Principles I and II		Comprehensive survey of real estate principles to include careers in real estate, nature and description of real estate, rights and interests in land, forms of real property ownership, forms of business organization, methods of title transfer, title search and insurance, contract law, real estate sales contracts, mortgage and notes payable, deeds of trust, lending practices, loans and consumer rights, sources of financing real estate loans, types of financing instruments, real property taxes and assessments, title closing, escrow and settlement procedures, property management and real estate leases, real estate appraisal, state licensing laws and professional affiliations, real estate brokerage, real estate agency, fair housing and equal credit laws, types of residential real estate, real property insurance, land use control, economics of real estate, and investment considerations.	Prerequisites: None.		Occ	LEC 6.0 6.0 6.0	S
REA205	2022 Fall	Introduction to Commercial Real Estate		Introduces key features of the commercial real estate industry and its differences from residential real estate. Provides residential agents with a starting point to transition into commercial real estate.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
REA208	2023 Fall	Ethics in Commercial Real Estate		Course covers ethics in commercial real estate. Review of National Association of Realtors (NAR) code of ethics and scenarios common in commercial real estate transactions.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
REA211	2023 Fall	Compliance in Commercial Real Estate		Course covers compliance in commercial real estate. Review of federal, state, and municipal regulations and scenarios common in commercial real estate transactions.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
REA214	2023 Fall	Finances in Commercial Real Estate		Course covers finances in commercial real estate, including funding sources, taxes, and relevant data and analytic tools. Also includes review of financial presentations to clients.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S

REA220	2023 Fall	Multiunit Properties in Commercial Real Estate		This course covers various considerations of the multiunit commercial properties industry sector. Overview of the types of properties, financial considerations, transaction processes, resources, and compliance considerations.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
REA225	2023 Fall	Industrial Properties in Commercial Real Estate		Covers various aspects of the industrial commercial properties industry sector. Overview of the types of properties, financial considerations, transaction processes, resources, and compliance considerations.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
REA230	2023 Fall	Land Properties in Commercial Real Estate		Covers various aspects of the land commercial properties industry sector. Overview of the types of land and land use, financial considerations, transaction processes, resources, and compliance considerations.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
REA235	2023 Fall	Commercial Real Estate Essential Tools		Covers various tools for research, analysis, and presentation of data relevant to commercial real estate.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
REA240	2022 Fall	Introduction to Commercial Property Management		Provides an overview of the commercial property management industry. Covers the key aspects of commercial property management, including compliance requirements, financial considerations, and ethical practices. Includes application of commercial property management knowledge and skills in a variety of settings such as medical, office, mixed-used, industrial, bio-science, and non-profit company buildings.	Prerequisites: An Arizona real estate license, or completion of MCCC'D's CCL Real Estate: Prelicense (5139N) or its equivalent, or a real estate license from another state, or completion of pre licensure coursework from another approved Arizona real estate school.		Occ	LEC 2.0 2.0 2.0	S
REA260	2025 Fall	Real Estate Broker Pre- Licensing		Advanced study of the real estate industry in Arizona which focuses on the duties and responsibilities of a real estate broker. Designed to meet Arizona Department of Real Estate (ADRE) requirements to take the Arizona Real Estate Broker Examination.	Prerequisites: Permission of Instructor.		Occ	LEC 6.0 6.0 6.0	S

REA261	2025 Fall	Broker Management		Exploration of Real Estate Broker topics. Provides an in-depth study of Arizona statutes, rules, policies and supervision.	Prerequisites: Permission of Instructor.		Occ	LEC 0.5 0.5 0.5	S
REA270	2007 Summer II	Basic Appraisal Principles		Overview of real property concepts and characteristics, legal considerations, value influences, real estate finance, types of value, economic principles, real estate markets and analysis, and ethics in appraisal practice	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
REA271	2008 Summer I	Basic Appraisal Procedures		Overview of real estate appraisal approaches to valuation procedures, value, property description, residential applications, commercial applications, improvement construction, home inspection, and appraisal math. Practical application of appraisal procedures including case studies, and examples	Prerequisites: A grade of C or better in REA270 or permission of Instructor.		Occ	LEC 2.0 2.0 2.0	S
REA272	2018 Fall	Uniform Standards of Professional Appraisal Practice (USPAP)		Basic rules for ethical behavior and competent performance. USPAP requirements for state certified appraisers. Highlights role of the appraiser and implied impartiality of this role. Requirements of the Uniform Standards of Professional Appraisal Practice (USPAP) affect appraisal businesses.	Prerequisites: None.		Occ	LEC 1.0 2.0 1.7	S
REA273	2007 Summer II	Residential Market Analysis Highest and Best Use		Recognize and evaluate market conditions affecting the buyers' and sellers' activities in understanding and reporting values. Gather and evaluate market data. Markets, sub-markets, market segmentation, supply side analysis, demand analysis and the importance of market examination to the appraisal process	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
REA274	2007 Summer II	Residential Appraiser Site Valuation and Cost Approach		Learn theories and methodologies for arriving at residential site values and applying the Cost Approach for new and reproduction factors. The advantages and disadvantages of using the cost methods for estimating accrued depreciation. Reading of	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S

				residential building plans and specifications					
REA275	2018 Summer	Residential Sales Comparison and Income Approaches		Basic understanding and knowledge of the residential sales comparison and income approaches to appraisal including valuation principles and procedures applicable to these approaches. Development of market analysis, including the application and use of matched pairs and capitalization rates, and gross rent multipliers. Includes organizing market data and reconciling value indications.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
REA276AA	2007 Summer II	Residential Report Writing and Case Studies I		Exposes appraiser to realistic writing skills essential to producing realistic appraisal reports in their practice. Includes study of writing techniques, grammar, punctuation, and analytical techniques. Actual report writing and case studies are applied	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
REA281	1993 Fall	Principles of Real Estate Law		Incidents of ownership and use of real estate, legal principles, procedures, and methods of acquisition and disposition of real estate	Prerequisites: A grade of C or better in REA179 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0	S
REA282	1995 Fall	Real Estate Finance		Study of lending institutions, including banks, savings and loans, conventional loans, Federal Housing Administration (FHA), Veterans Administration (VA) for residential, commercial and industrial property	Prerequisites: A grade of C or better in REA179 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0	S
REA283	1995 Fall	Property Management		Emphasizes realty laws, survey of rentals, housing needs, and rents in Phoenix metropolitan area	Prerequisites: A grade of C or better in REA179 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0	S
REA290AH	2008 Summer I	Real Estate Seminar: Contract Writing		Contract writing skills, techniques, and requirements. Writing of basic real estate contracts, including purchase offers, counter offers, sales listing agreements, and riders	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5	S
REC120	1999 Fall	Leisure and the Quality of Life		Overview of the historical, psychological, social, and cultural aspects of play, leisure, and	Prerequisites: None.	Course Attribute(s): General	Acad	LEC 3.0	S



				recreation and their role in contemporary society. Nature of play and leisure behavior in human development within different cultures and the contribution play, recreation, and leisure make to the quality of life for individuals in today's society.		Education Designation: Social and Behavioral Sciences - [SB]		3.0 3.0	
REC210	2023 Fall	Leisure Delivery Systems		Systematic study of Delivery of Leisure Services in public, commercial, and independent sectors; particular emphasis placed on the urban setting.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
REC230	2023 Fall	Programming of Recreation Services		Foundations for designing, planning, delivering and managing recreational and leisure events. Emphasis on application of recreation programming concepts and practices in a variety of settings and situations for a diversity of participants.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
REC250	2023 Fall	Recreation Leadership		An examination of roles and methods of leadership in leisure services settings. Overview of theories and models of leadership, group dynamics, participant motivation, communication, and face-to-face leadership. Exploration of leadership contexts, including coaching and officiating sports, leading community groups and volunteers, working with persons in various life stages and with varying abilities, and leading different recreation activity areas.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
REL100	2023 Fall	World Religions		The development of various religions from the prehistoric to modern times. Political, economic, social and geographic relationships among world religions. Consideration of both Eastern and Western religions.	Prerequisites: None.	Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Humanities, Arts	Acad	LEC 3.0 3.0 3.0	S

						and Design - [HU] Arizona Shared Unique Number SUN#: REL 1101			
REL101	1999 Fall	Introduction to Religion		Various religious expressions of humankind. Focuses on basic religious themes common to religions, such as encounter with the Holy, search for self and community, mystical illumination, spiritual discipline	Prerequisites: None.	Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
REL151	2012 Summer I	Religion in the Hispanic World		Survey of various religious traditions within Spain and the Spanish-settled world. Considers the impact of and impact on both major world religions and indigenous traditions.	Prerequisites: None.	Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
REL200	2011 Spring	Religion and Film		A course examining the relationships between religion and film, with particular attention to representations of religious beliefs, institutions, and practices in film and their reception by various audiences.	Prerequisites: None.	Course Attribute(s): General Education Designation: Humanities, Arts and	Acad	LEC 3.0 3.0 3.0	S

						Design - [HU]			
REL201	2008 Spring	Classics of Western Religions		Academic study of the scriptures of Judaism, Christianity and Islam, and works from later phases of these religious traditions.	Prerequisites: None.	Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
REL202	1999 Fall	Classics of Asian Religions		Academic study of selected works from Hindu, Buddhist, Taoist and Confucian traditions. Study of cultural and concepts of the world, history, culture, and human nature as represented in these works.	Prerequisites: None.	Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
REL203	2013 Summer I	American Indian Religions	AIS213	An examination of the historical and cultural background of diverse lifeways and worldviews belonging to the peoples indigenous to the North American continent over time, including a study of modern day American Indian beliefs and practices.	Prerequisites: A grade of C or better in ENG101, or ENG107, or equivalent.	Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design -	Acad	LEC 3.0 3.0 3.0	S

						[HU] General Education Designatio n: Literacy and Critical Inquiry - [L]			
REL205	2009 Spring	Religion and the Modern World		Introduction to the nature and role of religious beliefs and practices in shaping the lives of individuals and societies, with particular attention to the modern world	Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent.	Course Attribute(s) ): General Education Designatio n: Humanitie s, Arts and Design - [HU] General Education Designatio n: Literacy and Critical Inquiry - [L]	Acad	LEC 3.0 3.0 3.0	S
REL206	2011 Fall	Religion in America		Introduction of the rich tapestry of religious traditions and movements that have helped to shape the United States of America. Investigate how religion has impacted American culture and institutions, and how the United States has in turn transformed long-standing religious traditions.	Prerequisites: None.	Course Attribute(s) ): General Education Designatio n: Humanitie s, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
REL207	2011 Spring	Ritual, Symbol, and Myth		Introduction to the academic study of religion through the study of myths, symbols, and rituals. Includes methods and theories used by scholars to study the complex subject of religion. Attention to literate and nonliterate cultures.	Prerequisites: A grade of C or better in ENG101 or ENG107 or permission of Department or Division.	Course Attribute(s) ): General Education Designatio n: Humanitie	Acad	LEC 3.0 3.0 3.0	S

						s, Arts and Design - [HU] General Education Designation: Literacy and Critical Inquiry - [L]			
REL210	2016 Fall	Introduction to Judaism		Introduction to the history, scriptures, practices and impact of Judaism.	Prerequisites: A grade of C or better in ENG101 or ENG107 or permission of Department or Division.	Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
REL211	2010 Spring	Introduction to the Old Testament (Hebrew Bible)		The historical context, development, canonization, historical transmission, translation and interpretation of the Hebrew Bible.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
REL212	2017 Fall	Introduction to Islam		Introduction to History, scriptures, practices and impact of Islam.	Prerequisites: None.	Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation:	Acad	LEC 3.0 3.0 3.0	S

						Humanities, Arts and Design - [HU]			
REL213	2010 Summer I	Introduction to the Qur'an		Historical context, development, canonization, historical transmission, translation and Interpretation of the Qur'an.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
REL214	2009 Summer I	Introduction to Mormonism (The Church of Jesus Christ of Latter-day Saints)		History, scriptures, doctrines, and organization of the Church of Jesus Christ of Latter-day Saints as a modern American religious movement	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
REL218	2009 Summer I	Religion and Culture		Examination of the relationship between religion and culture, with a particular emphasis on how culture influences religion and how religion influences culture historically and in modern settings	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
REL223	2009 Summer I	Spiritual But Not Religious		Explore the historical, social, and cultural context for the emergence of spiritual but not religious segment, and examine who identifies with this movement and why. Identify what variety of attitudes and beliefs this group holds, and explore the varieties of private and public spiritual practices and civic engagement this group participates in	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
REL225	2010 Summer II	African-American Religions		Leaders, movements, traditions, and controversies in the religious history of African-Americans	Prerequisites: None.	Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and	Acad	LEC 3.0 3.0 3.0	S

						Design - [HU]			
REL230	1998 Fall	Religions Of Indigenous Peoples		Sacred story as experienced in ritual and daily practice of various contemporary groups, such as African, Native American, Native Australian, Native South American, Icelandic and Japanese. Power of sacred story to create and re-create religious and social perspectives	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
REL240	2011 Fall	Religion and Science		Consideration of the relationship of religion and science from the beginnings of the historical period to the present. Includes consideration of various contemporary religious perspectives on current scientific issues	Prerequisites: None.	Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
REL244	1997 Fall	Philosophy of Religion	PHI244	Religious language, the existence of God, miracles, and human destiny	Prerequisites: None.	Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
REL245	2009 Fall	Eco Religion		Consideration of the perspectives of various religious traditions toward the origins, destiny and value of the earth and its non-human life. Includes exploration of contemporary issues in the interaction of humans with the environment	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
REL248	2011 Fall	Religion, Peace and Violence		Exploration of the understandings and attitudes toward peace, war and violence in religious traditions from the pre-historical to the present. Includes consideration of a variety of religious scripture traditions,	Prerequisites: A grade of C or better in ENG101, or ENG107, or permission of Instructor.		Acad	LEC 3.0 3.0 3.0	S

				theological and philosophical reflections, and religious symbolism.					
REL250	2012 Spring	Religion in Ireland: Neolithic to Early Medieval		Survey of the Ancient religious traditions of Ireland. Students investigate the beliefs and practices of Irish Religions in the context of their social, economical and political systems from the late Neolithic to the early Medieval periods (4000 BCE-700 CE).	Prerequisites: None.	Course Attribute(s) ): General Education Designatio n: Historical Awarenes s - [H] General Education Designatio n: Humanitie s, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
REL251	2007 Summer I	History of Religion in Ireland: Medieval to Modern		Development of Christianity in Ireland from 400 AD to present, focusing on political, economic, social, and cultural factors.	Prerequisites: None.	Course Attribute(s) ): General Education Designatio n: Historical Awarenes s - [H] General Education Designatio n: Humanitie s, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
REL270	1998 Fall	Introduction to Christianity		The nature and content of the Christian tradition developed over time, with overview of the New Testament, major historical trends and figures, major Christian ideas and practices, and survey of denominations.	Prerequisites: None.	Course Attribute(s) ): General Education Designatio n: Humanitie s, Arts	Acad	LEC 3.0 3.0 3.0	S



						and Design - [HU]			
REL271	2017 Spring	Introduction to the New Testament		Focuses on the origins, development, and selection of the New Testament (NT) books in the Christian religion. Includes authorship, historical reliability, translation and transmission over the centuries, and investigative techniques used by modern scholars. Also considers the varieties of literature contained in the NT, its portrayal of the status of women, and the influence of first-century religious and cultural worldviews on its development.	Prerequisites: None.	Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
REL277	2006 Fall	Mysticism East and West		Mystical traditions of Eastern and Western religions, including Hinduism, Buddhism, Judaism, Christianity, and Islam, as well as shamanism of oral traditions	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
REL282AA	2014 Fall	Service Learning Experience in Religious Studies		Service learning field experience within private/public agencies, and citizen volunteer groups.	Prerequisites: A grade of C or better in REL100 or permission of Instructor.	REL282A A may be repeated for a total of six (6) REL282 credit hours; may not repeat specific agency assignment for more than three (3) credit hours.	Acad	LAB 1.0 1.0 0.0	L
REL282AB	2014 Fall	Service Learning Experience in Religious Studies		Service learning field experience within private/public agencies, and citizen volunteer groups.	Prerequisites: A grade of C or better in REL100 or permission of Instructor.	REL282A B may be repeated for a total of six (6) REL282 credit	Acad	LAB 2.0 2.0 0.0	L

						hours; may not repeat specific agency assignme nt for more than three (3) credit hours.			
REL282AC	2014 Fall	Service Learning Experience in Religious Studies		Service learning field experience within private/public agencies, and citizen volunteer groups.	Prerequisites: A grade of C or better in REL100 or permission of Instructor.	REL282A C may be repeated for a total of six (6) REL282 credit hours; may not repeat specific agency assignme nt for more than three (3) credit hours.	Acad	LAB 3.0 3.0 0.0	L
REL290	2012 Spring	Women and World Religions	WST290	Focus on the role of women in several organized religions and/or religious sects. Study of myth and symbols as they are used to establish, maintain, and enforce sex-roles within specific cultural contexts around the world.	Prerequisites: None.	Course Attribute(s ): General Education Designatio n: Global Awarenes s - [G] General Education Designatio n: Humanitie s, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S

REL291	2018 Spring	Religion and Sexuality		Exploration of the perspectives of various religious traditions on human sexuality. Includes consideration of all aspects of sexual practice as well as its incorporation into religious discourse and practice and its impact on social norms and structures.	Prerequisites: None.	REL291 may contain adult content. All students under 18 years old are required to have a signed parental consent form on file, which is on the back of the Under the age of 18 Enrollment Form. Course Attribute(s): General Education Designation: Global Awareness- [G] General Education Designation: Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
REL292	2012 Summer I	Goddess Religions	WST292	Introduction to Goddess religions from pre-historic to modern times. Focuses on ancient origins, myths and practices of religions with female deities, their historical replacement by	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S

				male religious deities, and their modern re-emergence in neo-Goddess movements.					
REL294	2009 Fall	Religion in Community Service		Consideration of the history and nature of the involvement of religious tradition in transformative social action. Incorporates student involvement in some dimension of community service with subsequent integrative classroom activities.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
REL295	2009 Fall	Capstone: The Story of Belief		Analysis of both the process and results of human belief, in various stages of the human experience. Incorporates materials from multiple disciplines to form an overarching narrative that integrates the variations of human belief	A grade of C or better in any four (4) REL courses.		Acad	LEC 3.0 3.0 3.0	S
REL296WA	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Acad	LAB 1.0 5.0 0.0	Z
REL296WB	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or		Acad	LAB 2.0 10.0 0.0	Z

					career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.				
REL296WC	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Acad	LAB 3.0 15.0 0.0	Z
REL296WD	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of		Acad	LAB 4.0 20.0 0.0	Z

					instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.				
REL298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0	Z
REL298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0	Z
REL298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0	Z

RES109	2016 Spring	CPR for Health Care Provider	HCC109	Current American Heart Association standards for one and two rescuer cardiopulmonary resuscitation (CPR) and obstructed airway procedures on the adult, infant, and pediatric victim. Use of automatic, external defibrillation and resuscitation equipment	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5	S
RES118	2021 Fall	Vascular Access for Clinical Practice		Scope of practice and regulations governing vascular access. Anatomy and physiology of the vascular system. Occupational Safety and Health Administration (OSHA) guidelines. Theory and practice of vascular access as designated by Infusion Nursing Standards (INS).	Prerequisites: None. Corequisites: RES130 or permission of the Program Director.		Occ	L+L 1.0 1.5 1.5	T
RES130	2020 Fall	Respiratory Care Fundamentals I		Review of existing clinical data and recommendations. Data required to determine appropriateness of prescribed respiratory care plan. Administration of basic respiratory care therapeutics to include medical gas administration, oxygen therapy administration, and humidity/aerosol therapy administration. Use and maintenance of select respiratory equipment. Use of communication skills during interactions with members of the health care team and patients. Ethical, legal and professional work behaviors.	Prerequisites: Admission into the Respiratory Care program.		Occ	LEC 4.5 3.0 3.0 LAB 0.0 5.0 5.0	T
RES131	2016 Fall	Infection Control for Respiratory Care		Techniques and procedures used by Respiratory Therapist to clean and sterilize equipment and environments, and prevent the transmission of nosocomial and other healthcare related infections.	Prerequisites: Admission into the Respiratory Care program or admission into the Polysomnographic Technology program.		Occ	LEC 1.0 1.0 1.0	S
RES133	2020 Fall	Respiratory Care Clinical Seminar		Clinical application of concurrent respiratory care course work with emphasis on professionalism, medical record evaluation, communication, universal precaution, infection control, patient safety, patient assessment, age related care, cultural competence, routine hospital	Prerequisites: Admission into the Respiratory Care program.		Occ	LEC 2.0 2.0 2.0	S

				regulations, patient education and introduction to respiratory disease and treatment					
RES134	2020 Spring	Respiratory Care Pharmacology I		Pharmacologic principles related to the treatment of acute and chronic pulmonary diseases. Information on mucokinetics, anti-inflammatory, antiasthmatic and anti-infective agents to include mechanism of action, general drug information, side effects, and respiratory care considerations.	Prerequisites: Admission into the Respiratory Care program or permission of the Program Director.		Occ	LEC 2.0 2.0 2.0	S
RES136	2009 Fall	Applied Biophysics for Respiratory Care		Physical principles specific to ventilation. Laws of physics and their relationship to the respiratory system and the application of respiratory care equipment. Role of respiratory care during specific diagnostic procedures. Use of mathematical formulae.	Prerequisites: Admission into the Respiratory Care program.		Occ	LEC 3.0 3.0 3.0	S
RES140	2018 Fall	Respiratory Care Fundamentals II		Continuation of basic respiratory care procedures to include patient assessment and monitoring, chest physiotherapy techniques and pulmonary rehabilitation. Hyperinflation therapy, airway management and introduction to mechanical ventilation. Equipment operation, quality assurance and maintenance. Use of communications skills during interactions with health care team members and patients. Ethical, legal and professional work behaviors.	Prerequisites: Admission into the Respiratory Care program.		Occ	LEC 5.0 3.0 3.0 LAB 0.0 6.0 6.0	T
RES142	2021 Fall	Respiratory Care Clinical I		Clinical application of concurrent respiratory care course work with emphasis on professionalism, medical record evaluation and performance of oxygen therapy, aerosol therapy, chest physiotherapy techniques, hyperinflation therapy, airway management devices and techniques, and observation of mechanical ventilation.	Prerequisites: Admission into the Respiratory Care program.		Occ	LAB 4.0 27.0 0.0	C
RES144	2019 Spring	Introduction to Mechanical Ventilation		Introduction to mechanical ventilation including, technology, impact of the use of technology on patient	Prerequisites: Admission into the		Occ	LEC 1.0	S



				physiology, and how it affects the oxygenation and ventilation ability of the patient.	Respiratory Care program.			1.0 1.0	
RES220	2020 Fall	Respiratory Care Fundamentals III		Advanced respiratory care therapy and assessment techniques to include ventilator setup and management. Diagnostic testing specific to assessment of oxygenation and ventilation and specific respiratory care procedures utilized in critical care.	Prerequisites: Admission into the Respiratory Care program.		Occ	LEC 4.5 3.0 3.0 LAB 0.0 5.0 5.0	T
RES222	2018 Fall	Cardiopulmonary Resuscitation Instructor		Standards of the American Heart Association for Basic Life Support. Procedures and skills for teaching cardiopulmonary resuscitation	Health care provider CPR card.		Occ	L+L 1.0 1.0 1.0	T
RES224	2019 Spring	Pathophysiology for Respiratory Care		Causes of disease and their impact on the human body. Common physiologic effects of disease on body systems. Role of the respiratory therapist and the members of a multidisciplinary health care team in the diagnosis and treatment of disease. Cultural implications in prevention and treatment of disease.	Prerequisites: Admission into the Respiratory Care program.		Occ	LEC 2.0 2.0 2.0	S
RES226	2016 Fall	Respiratory Care Clinical II		Clinical application of all prerequisite respiratory care course work with emphasis on adult critical care and neonatal/pediatric care. Basic and critical care therapeutics, advanced patient assessment and monitoring. Assisting physician during special procedures. Increased responsibility for total patient care, work organization and time management.	Prerequisites: Admission into the Respiratory Care program.		Occ	LAB 4.0 27.0 0.0	C
RES230	2021 Fall	Respiratory Care Fundamentals IV		Advanced respiratory care therapy and assessment techniques to include advanced modes of ventilation, hemodynamic monitoring, performance and interpretation of pulmonary function testing. Assisting physicians during special procedures. Development of advanced respiratory care plans and clinical research techniques. Equipment operation, quality assurance, and maintenance. Use of effective communication skills	Prerequisites: Admission into the Respiratory Care program.		Occ	LEC 4.5 3.0 3.0 LAB 0.0 5.0 5.0	T

				with members of the health care team and patients.					
RES232	2016 Fall	Respiratory Care Clinical III		The study and scientific inquiry of issues and demands placed on business enterprise by owners, customers, government, employees and society. Included are social, ethical and public issues and analysis of the social impact of business responses.	Prerequisites: None.		Occ	LAB 4.0 27.0 3.0	C
RES235	2020 Spring	Respiratory Care Pharmacology II		Pharmacologic principles specific to the care of the respiratory patient in the acute care environment to include the following agents: cardiac, renal, blood pressure, antithrombotic, neuromuscular, anesthetic, sedative, and analgesics. Utilization of evidence-based practice in the treatment and care of patients.	Prerequisites: Admission into the Respiratory Care program or permission of the Program Director.		Occ	LEC 2.0 2.0 2.0	S
RES240	2019 Spring	Respiratory Physiology		Physiology of the respiratory, cardiovascular and renal systems as related to oxygenation and ventilation of the human body. Physiologic mechanisms of breathing. Role of capillary circulation in fluid regulation. Impact of respiratory care procedures on the organ systems.	Prerequisites: Admission into the Respiratory Care program.		Occ	LEC 3.0 3.0 3.0	S
RES270	2020 Spring	Neonatal and Pediatric Respiratory Care		Neonatal and pediatric respiratory care to include development, anatomical and physiological differences, assessment, basic respiratory care procedures, mechanical ventilation and common disorders and conditions. Specific communication skills.	Prerequisites: Admission into the Respiratory Care program or permission of the Program Director.		Occ	LEC 2.0 2.0 2.0	S
RES278	2020 Spring	Vascular Access Review		Scope of practice and regulations governing venipuncture and maintenance of vascular devices specific to the vascular access board certification credentialing examination. Anatomy and physiology of the vascular system. Administration and discontinuation of vascular devices based on best practice guidelines. The use of communication skills for different patient populations	Prerequisites: Current license in a medical profession or permission of the Program Director.		Occ	LEC 2.0 2.0 2.0	S

				and among other healthcare providers. Ethical, legal and professional work behaviors.					
RES280	2020 Spring	Respiratory Care Review		Data interpretation, equipment operation and therapeutic procedures specified for the National Board for Respiratory Care (NBRC) Registered Respiratory Therapist (RRT) examination. Quality control and therapeutic procedures. Pharmacologic agents and treatment of cardiopulmonary collapse. Pulmonary rehabilitation and home care.	Prerequisites: Admission into the Respiratory Care program or permission of the Program Director.		Occ	LEC 2.0 2.0 2.0	S
RES291	2019 Spring	Respiratory Care Advanced Life Support		Airway management for the adult, patient. Endotracheal and suctioning procedures. Usage of specific medications for cardiovascular emergencies. Interpretation of electrocardiogram (ECG) dysrhythmias. Performance of defibrillation and synchronized cardioversion in simulated situations. Procedure to be followed during cardiovascular collapse. Special resuscitation techniques for adult, patients. Current American Heart Association validation in Advanced Cardiac Life Support (ACLS).	Prerequisites: Admission into the Respiratory Care program or permission of the Program Director.		Occ	LEC 1.0 1.0 1.0	S
RES292	2019 Spring	Respiratory Care Pediatric Advanced Life Support		Airway management for the pediatric patient. Endotracheal and suctioning procedures. Usage of specific medications for cardiovascular emergencies. Interpretation of electrocardiograms (ECG) dysrhythmias. Performance of defibrillation and synchronized cardioversion in simulated situations. Procedure followed during cardiovascular collapse in the pediatric patient. Special resuscitation techniques for pediatric patients. Current American Heart Association validation in pediatric advanced life support (PALS).	Prerequisites: Admission into the Respiratory Care program or permission from the Program Director.		Occ	LEC 1.0 1.0 1.0	S

RES297	2020 Spring	Respiratory Care Seminar		Presentation of case scenarios of various patient type and disease processes. Application of general principles of respiratory care to arrive at clinical solutions.	Prerequisites: Admission into the Respiratory Care program or permission of the Program Director.		Occ	LEC 2.0 2.0 2.0	S
RES298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z
RES298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z
RES298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z
RPM125	2024 Fall	Youth Development Programming		Key principles of positive youth development. Skills to become effective youth development professionals and successfully	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0	T

				develop positive youth development programs with a focus on behavior management, inclusion, and risk management.					
RPM132	2023 Fall	Landscape Management	GCO132	Identification of plants commonly used in Arizona landscaping. Includes trees, shrubs, vines, flowers, and ground covers. Techniques for planting, watering, and fertilizing recreational grounds. Pest control planning.	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0	T
RPM135	2024 Fall	Managing Community Recreation Organizations		Effectively manage community recreation organizations focusing on the principles of community development, organizational leadership, evaluation and research methodologies, and justice, equity, diversity, and inclusion in organizations.	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0	T
RPM140	2024 Fall	Wilderness First Aid		Patient assessment system, including how to provide effective first aid treatment for common injuries and illnesses in remote outdoor settings, and how to make appropriate evacuation decisions. Cardio-Pulmonary Resuscitation (CPR) and Automated External Defibrillator (AED) training is included.	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0	T
RPM145	2024 Fall	Interpretation for Recreation		Foundational competencies of interpretation for recreational activities. Definition of effective interpretation, the skills of interpretation, the purpose of interpretation, and how to provide high quality interpretive programs.	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0	T
RPM150AA	2023 Fall	Outdoor Adventure Skills Field Experience		Practical application of camping and outdoor skills including camping, equipment selection and use, cooking, fire building, camp programs, backpacking, and safety.	Prerequisites: None.	RPM150A A may be repeated for a total of four (4) credits.	Occ	LAB 1.0 2.0 2.0	T
RPM150AB	2023 Fall	Outdoor Adventure Skills		Camping and outdoor skills including types of camping, equipment selection and use, cooking and fire building, camp programs, backpacking, and safety.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S

RPM155AA	2023 Fall	Canyoneering		Basic canyoneering skills. Includes hydrology, navigation, safety systems, climbing and hiking skills, wading/swimming techniques and flood/weather identification.	Prerequisites: None.	RPM155A A may be repeated for a total of four (4) credits.	Occ	L+L 1.0 2.0 2.0	T
RPM155AB	2023 Fall	Caving		Basic caving skills. Includes cave ecology, navigation, safety systems, lighting systems and equipment selection.	Prerequisites: None.	RPM155A B may be repeated for a total of four (4) credits.	Occ	L+L 1.0 2.0 2.0	T
RPM155AC	2023 Fall	Outdoor Rock Climbing		Basic outdoor rock climbing skills. Includes belaying, climbing techniques, rope systems and anchor systems.	Prerequisites: None.	RPM155A C may be repeated for a total of four (4) credits.	Occ	L+L 1.0 2.0 2.0	T
RPM155AD	2023 Fall	Rowing		Basic rowing skills for a four or eight person shell. Includes physical conditioning, rowing etiquette and safety, boat handling, proper rowing techniques, and teamwork.	Prerequisites: None.	RPM155A D may be repeated for a total of four (4) credits.	Occ	L+L 1.0 2.0 2.0	T
RPM155AE	2023 Fall	Indoor Rock Climbing		Basic indoor rock climbing skills. Includes belaying, climbing techniques, rope systems, anchor systems and safety.	Prerequisites: None.	RPM155A E may be repeated for a total of four (4) credits.	Occ	L+L 1.0 2.0 2.0	T
RPM155AF	2023 Fall	Backpacking		Covers basic skills and techniques of backpacking and the application of these to wilderness travel.	Prerequisites: None.	RPM155A F may be repeated for a total of four (4) credits.	Occ	L+L 1.0 2.0 2.0	T
RPM155AG	2023 Fall	Hiking		Development of safe and enjoyable hiking skills. Essentials and requirements for safe hiking.	Prerequisites: None.	RPM155A G may be repeated for a total of four (4) credits.	Occ	L+L 1.0 2.0 2.0	T
RPM155AJ	2023 Fall	Outdoor Survival		Introduction to and practice of essential skills needed for procuring shelter, water and fire in a wilderness environment.	Prerequisites: None.	RPM155A J may be repeated for a total	Occ	L+L 1.0 2.0 2.0	T

						of four (4) credits.			
RPM155AK	2023 Fall	Leave No Trace Trainer Certification		Emphasis on seven (7) Leave No Trace principles. Skills needed to effectively teach and demonstrate minimum impact techniques and outdoor ethics.	Prerequisites: None.	RPM155A K provides hands-on experiences, held in the outdoors with one overnight camping. Course instructor(s) are certified LNT Master Educators. Students who successfully complete the course become Leave No Trace Trainers and receive a completion certificate through the LNT Center. Basic level of fitness recommended. RPM155A K may be repeated for a total	Occ	L+L 1.0 2.0 2.0	T

						of four (4) credit hours.			
RPM240	2023 Fall	Wilderness First Responder		Introduces and provides practical training in the essentials of medical assistance in backcountry emergencies. Includes patient assessment, first aid for trauma victims, and treatment of other medical emergencies.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0	T
RPM271AC	2023 Fall	Recreational Resources and Facilities Management Internship		Work experience in a recreational resources and facilities setting. Fifteen (15) hours of work weekly. Supervision and evaluation by internship coordinator.	Prerequisites: Permission of Department or Division.	RPM271A C may be repeated for a total of six (6) credit hours.	Occ	LAB 3.0 15.0 0.0	C
RPM282AA	2023 Fall	Volunteerism for Recreation: A Service Learning Experience		Service learning field experience within private/public agencies, educational institution, and citizen volunteer groups.	Prerequisites: Permission of Instructor.	RPM282A A may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 1.0 1.0 0.0	L
RPM282AB	2023 Fall	Volunteerism for Recreation: A Service Learning Experience		Service learning field experience within private/public agencies, educational institution, and citizen volunteer groups.	Prerequisites: Permission of Instructor.	RPM282A B may be repeated for a total of six (6) credit hours. Standard grading available according to procedure	Occ	LAB 2.0 2.0 0.0	L



						s outlined in catalog.			
RPM282AC	2023 Fall	Volunteerism for Recreation: A Service Learning Experience		Service learning field experience within private/public agencies, educational institution, and citizen volunteer groups.	Prerequisites: Permission of Instructor.	RPM282A C may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 3.0 3.0 0.0	L
RPM296WA	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Occ	LAB 1.0 5.0 0.0	Z
RPM296WB	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or		Occ	LAB 2.0 10.0 0.0	Z

					career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.				
RPM296WC	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Occ	LAB 3.0 15.0 0.0	Z
RPM296WD	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of		Occ	LAB 4.0 20.0 0.0	Z

					instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.				
RPM298AA	2023 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z
RPM298AB	2023 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z
RPM298AC	2023 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z

RUS095	2002 Spring	Speak Russian I		Limited vocabulary and grammar to help develop fluency in Russian. Emphasis on speaking skills	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
RUS101	2011 Fall	Elementary Russian I		Basic grammar, pronunciation, and vocabulary of the Russian language. Practice of listening, speaking, reading, and writing skills	Prerequisites: None.	Course Attribute(s): Arizona Shared Unique Number SUN#: RUS 1101	Acad	LEC 4.0 4.0 4.0	S
RUS102	2014 Fall	Elementary Russian II		Continued study of grammar and vocabulary, with emphasis on speaking, reading, and writing skills.	Prerequisites: A grade of C or better in RUS101 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 4.0 4.0 4.0	S
RUS115	1994 Fall	Beginning Russian Conversation I		Basic sentence structure, pronunciation and vocabulary necessary to develop speaking ability in Russian	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
RUS201	2014 Fall	Intermediate Russian		A continuation of RUS102. Review of essential grammar and continued practice and development of reading, writing, and speaking skills.	Prerequisites: A grade of C or better in RUS102 or permission of Department or Division. Completion of prerequisites within the last three years is required.	Course Attribute(s): General Education Designation: Global Awareness - [G] Arizona Shared Unique Number SUN#: RUS 2201	Acad	LEC 4.0 4.0 4.0	S
RUS202	2014 Fall	Intermediate Russian		Continued development of Russian language skills.	Prerequisites: A grade of C or better in RUS201 or permission of Department or Division. Completion of prerequisites within	Course Attribute(s): General Education Designation: Global Awareness	Acad	LEC 4.0 4.0 4.0	S

					the last three years is required.	s - [G] Arizona Shared Unique Number SUN#: RUS 2202			
RUS296WA	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 1.0 5.0 0.0	Z
RUS296WB	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career		Acad	LAB 2.0 10.0 0.0	Z

					interest or with permission of the Instructor.				
RUS296WC	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 3.0 15.0 0.0	Z
RUS296WD	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 4.0 20.0 0.0	Z

RUS298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0	Z
RUS298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0	Z
RUS298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0	Z
SBS200	1996 Fall	Small Business Operations		In-depth analysis of and individual plan development for the "day-to-day" problems encountered in the operation of a small business. Includes the development of an individual business operations plan including finance, purchasing, production scheduling, maintenance, shipping/receiving, personnel management and insurance/risk	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S

				management requirements. Investigation of daily problems related to inventory control and business expansion					
SBS202	1996 Fall	Small Business Bookkeeping and Tax Preparation		Introduces accounting and record-keeping with emphasis on practical use of financial data for the successful management of a small business. Develops an understanding of the accounting cycle and preparation of financial statements. Includes section on tax consequences and preparation for small business owners. Designed for the non-financially oriented owner/manager of a small business	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
SBS203	1996 Fall	Financing and Cash Management For a Small Business		Planning for and meeting the financial needs of the small business including cash flow planning, identification of financial needs and sources, equity and debt financing, and preparation of loan packages. Participants complete a financial plan for their individual company, with emphasis on cost controls, sales revenue projection, expense allocation, and inventory cost control. Day-to-day operational budgeting also included	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
SBS204	1996 Fall	Small Business Marketing and Advertising		Introduction to marketing and advertising strategies and methods including business image, target market analysis, and customer buying behavior profile. Analysis and selection of advertising/business promotion methods and timing. Methods of deciding product and market segment focus included. Design of an individual marketing and advertising/promotion plan	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
SBS213	1996 Fall	Hiring and Managing Employees		Methods and techniques for managing employees in a small business. Includes supervisor's role, leadership styles, interpersonal communications, staff planning, employee work styles, techniques for handling problem employees, and	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S



				employee motivation. Focuses on real life situations to enable the business owner to gain high performance from their employee team. Includes segment on hiring, new employee orientation, training, benefits, and developing future staffing needs assessment					
SBS214	1996 Fall	Small Business Customer Relations		Developing and improving customer relations for the small business. Planning and delivering quality customer service. Includes topics on attitude of employees, customer perceptions and motivations, handling customer dissatisfaction, and developing customer, supplier, vendor, and distributor loyalty	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
SBS216	2019 Fall	Planning for a Small Business		Relates business management issues to a specific small business through development of an individual study plan. Provides on-site review of business operation by trained instructor.	Prerequisites: A grade of C or better in (SBS200 and SBS204) or SBS220 or permission of Instructor.		Occ	LEC 2.0 2.0 2.0	S
SBS217	1996 Fall	Starting/Managing a Home Business		Analysis of the successful operation of a home-based business. Includes study of economic feasibility, practicality, and adjustments for the family. Analysis of the advantages/disadvantages of operating a home based business, versus a "store-front" business. Review of current trends in home business opportunities and franchises. Descriptions of home businesses that have succeeded in local, national, and international markets	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
SBS220	1999 Fall	Internet Marketing for Small Business		Focuses on "e-Commerce"-doing business on the Internet and planning a web site. Topics include: how the Internet can help growth and success of business; examples of successful marketing on the Internet; availability of Internet services; necessary hardware and software for marketing on the Internet; determining	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S

				products/services appropriate for Internet marketing; budget constraints and on-going operations of the Internet site					
SBS221	2015 Fall	Social Media Marketing for Small Business		Focuses on use of Social Media for Small Businesses and Entrepreneurs. Topics include: Use of Social Media, types of Social Media, how Social Media can help growth and success of business; examples of successful Social Media marketing, setting up and deploying various types of Social Media. Options for hardware and software for Social Media, determining products/services appropriate for Social Media, Monetization of Social Media. Budget constraints and on-going monitoring and content management of Social Media.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
SBS230	2001 Fall	Financial and Tax Management for Small Business		An overview of accounting and record-keeping for the successful management of a small business. Develops an understanding of the accounting cycle and preparation of financial statements. Includes section on tax consequences and the choice of legal entity choice based on taxation	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
SBS290AA	2019 Summer	Developing a Practical Small Business Plan		Practical techniques for developing, writing, and implementing a business plan. Designed for the small business owner or manager.	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5	S
SBS298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z

SBS298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z
SBS298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z
SBU200	2016 Summer	Society and Business		The study and scientific inquiry of issues and demands placed on business enterprise by owners, customers, government, employees and society. Included are social, ethical and public issues and analysis of the social impact of business responses	Prerequisites: None.	Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Social and Behavioral Sciences - [SB]	Occ	LEC 3.0 3.0 3.0	S
SCT100	2012 Spring	Introduction to Sustainable Built Environments		Study of the built environment and implications on human health, the natural environment, and society. Understanding of strategies that achieve sustainable design. Exploration of positive and negative	Prerequisites: None.	SCT100 will not complete the requirements to sit	Occ	LEC 3.0 3.0 3.0	S

				sustainable product attributes. Emphasis on Leadership in Energy and Environmental Design (LEED).		for the LEED Accredited Professional examinations. Additional study is necessary to successfully pass the LEED Green Associates examination.			
SEM104AA	2018 Fall	Secondary Basic Emergency Medical Technology: Patient Assessment		Techniques of emergency medical care in accordance with national and state curriculum. Study of patient assessment.	Prerequisites: Current enrollment in the Phoenix Union High School District Current CPR (Cardiopulmonary Resuscitation) certification from the American Heart Association American Red Cross or other equivalent organization at the Healthcare Provider level meeting the American Heart Association Guidelines 2002 Proof of TB testing or chest x-ray with a negative result within 6 months prior to enrollment.		Occ	L+L 0.5 0.75 0.75	T
SEM104AB	2018 Fall	Secondary Basic Emergency Medical Technology: Basic		Techniques of emergency medical care in accordance with national and state curriculum. Study of the use of mechanical aids for breathing and	Prerequisites: Current enrollment in the Phoenix Union High School District		Occ	L+L 0.5 0.75 0.75	T

		Life Support and Airway Management		circulation, administration of oxygen, and techniques of basic life support (BLS)	and SEM104AA with a grade of C or better.				
SEM104AC	2004 Fall	Secondary Basic Emergency Medical Technology: Soft Tissue and Environmental Emergencies		Techniques of emergency medical care in accordance with national and state curriculum. Study of soft tissue and environmental injuries	Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AB with a grade of C or better.		Occ	LEC 0.5 0.5 0.5	S
SEM104AD	2018 Fall	Secondary Basic Emergency Medical Technology: Head, Brain, Neck, and Spine		Techniques of emergency medical care in accordance with national and state curriculum. Study of injuries to the head, brain, neck, and spine.	Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AC with a grade of C or better.		Occ	L+L 0.5 0.75 0.75	T
SEM104AE	2004 Fall	Secondary Basic Emergency Medical Technology: Shock		Techniques of emergency medical care in accordance with national and state curriculum. Study of shock, hypotension, and hypoperfusion	Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AD with a grade of C or better.		Occ	LEC 0.5 0.5 0.5	S
SEM104AF	2004 Fall	Secondary Basic Emergency Medical Technology: Head, Chest, and Abdomen		Techniques of emergency medical care in accordance with national and state curriculum. Study of injuries to head, chest, abdomen, genitalia, and acute abdominal disorders	Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AE with a grade of C or better.		Occ	LEC 0.5 0.5 0.5	S
SEM104AG	2004 Fall	Secondary Basic Emergency Medical Technology: Medical-Legal		Techniques of emergency medical care in accordance with national and state curriculum. Includes the role and scope of the duties and practice of the Basic Emergency Medical Technician. Includes standard of care, consents, and associated statutes, rules, and regulations	Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AF with a grade of C or better.		Occ	LEC 0.5 0.5 0.5	S
SEM104AH	2018 Fall	Secondary Basic Emergency Medical Technology: Pediatrics		Techniques of emergency medical care in accordance with national and state curriculum. Study of the human body from birth to 12 years of age. Includes pediatric patient assessment, treatment of medically or traumatically compromised patients,	Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AG with a grade of C or better.		Occ	L+L 0.5 1.0 1.0	T

				special hazards and abusive situations, and Sudden Infant Death Syndrome (SIDS)					
SEM104AI	2018 Fall	Secondary Basic Emergency Medical Technology: Respiratory, Behavioral, Environmental		Techniques of emergency medical care in accordance with national and state curriculum. Study of acute and chronic respiratory emergencies, behavioral and environmental emergencies, and diabetic states	Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AH with a grade of C or better.		Occ	L+L 0.5 1.0 1.0	T
SEM104AJ	2018 Fall	Secondary Basic Emergency Medical Technology: Gynecologic or Obstetrical Emergencies		Techniques of emergency medical care in accordance with national and state curriculum. Study of gynecologic and obstetrical emergencies	Prerequisites: Currently enrolled in the Phoenix Union High School District and SEM104AI with a grade of C or better.		Occ	L+L 0.5 1.0 1.0	T
SEM104AK	2018 Fall	Secondary Basic Emergency Medical Technology: Musculoskeletal Extremity Injuries		Techniques of emergency medical care in accordance with national and state curriculum. Study of techniques for stabilization and splinting of musculoskeletal injuries in extremities, including participation in two eight-hour clinical rotations through a local emergency department or an ambulance agency scheduled during the semester outside normal class hours	Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AJ with a grade of C or better.		Occ	L+L 0.5 1.0 1.0	T
SEM104AL	2018 Fall	Secondary Basic Emergency Medical Technology: Patient Movement and Ambulance Equipment		Techniques of emergency medical care in accordance with national and state curriculum. Study of techniques for lifting, moving, or positioning a patient, and use of ambulance/rescue vehicle equipment	Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AK with a grade of C or better.		Occ	L+L 0.5 1.0 1.0	T
SEM104AM	2018 Fall	Secondary Basic Emergency Medical Technology: Triage Management		Techniques of emergency medical care in accordance with national and state curriculum. Study of techniques for triage and disaster management in simulated situations	Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AL with a grade of C or better.		Occ	L+L 0.5 0.75 0.75	T
SEM104AN	2018 Fall	Secondary Basic Emergency Medical		Techniques of emergency medical care in accordance with national and state curriculum. Study of techniques	Prerequisites: Current enrollment in the Phoenix Union High School District		Occ	L+L 0.25 0.5 0.5	T

		Technology: Intravenous Fluids		for assessing a patient with intravenous (IV) fluids	and SEM104AM with a grade of C or better.				
SEM104AO	2018 Fall	Secondary Basic Emergency Medical Technology: Evaluations		Techniques of emergency medical care in accordance with national and state curriculum. Includes final written and practical evaluations according to the National Registry of EMTs (NREMT) and Arizona Rules and Regulations	Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AN with a grade of C or better.		Occ	L+L 0.5 1.0 1.0	T
SEM106	2018 Fall	Secondary Vehicular Extrication and Patient Stabilization		Participative course designed to enhance the knowledge base of the Emergency Medical Technician (EMT) and to incorporate new knowledge and skills necessary to access, extricate, and care for victims of crash incidents. Provides exposure to scene management skills, including size-up, disentanglement, victim stabilization for single- and multi-victim situations, hazardous materials incidents, integration of local emergency medical services (EMS) for patient assessment and management, and standard operating procedures for selected victim scenarios.	Prerequisites: Current enrollment in the Phoenix Union High School District and (a grade of C or better in SEM104AO or permission of instructor).		Occ	L+L 1.0 2.5 2.5	T
SEM108	2018 Fall	Secondary Trauma Patient Management		Provides exposure to victim assessment, initial treatment, resuscitative techniques, victim stabilization, victim transportation to an emergency care facility, and documentation	Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AO with a grade of C or better.		Occ	L+L 0.5 2.0 2.0	T
SFS101AA	2005 Summer I	Secondary Introduction to Fire Service Selection: Application Process		Overview of the application and selection processes used by various fire departments and fire service organizations. Identification of the job qualifications and requirements used by various fire departments and fire service organizations	Current enrollment in the Phoenix Union High School District.		Occ	LEC 0.5 0.5 0.5	S
SFS101AB	2005 Summer I	Secondary Introduction to Fire Service Selection:		Major components of written application processes, requirements, preparation of resumes, and their effect on employment prospects	Prerequisites: Current enrollment in the Phoenix Union High School District and SFS101AA with		Occ	LEC 1.0 1.0 1.0	S

		Selection Process and Resumes			a grade of C or better.				
SFS101AC	2005 Summer I	Secondary Introduction to Fire Service Selection: Interview Process		Preparation for the interview to include communications skills, mental preparation techniques, behaviors, and the importance of the interview in the pre-employment process. Role of the applicant and interviewer in the interview process	Prerequisites: Current enrollment in the Phoenix Union High School District and SFS101AB with a grade of C or better.		Occ	LEC 1.0 1.0 1.0	S
SFS101AD	2018 Fall	Secondary Introduction to Fire Service Selection: Fire Station Culture/Observation		Elements of fire service culture and their effects on personal growth and interpersonal relationships. Preparation for on-site experiences at a fire station	Prerequisites: Current enrollment in the Phoenix Union High School District and SFS101AC with a grade of C or better.		Occ	L+L 0.5 1.0 1.0	T
SFS101AE	2005 Summer I	Secondary Introduction to Fire Service Selection: Lifelong Learning		General components of the selection process, the importance of general education, and components of lifelong learning in career choices	Prerequisites: Current enrollment in the Phoenix Union High School District and SFS101AD with a grade of C or better.		Occ	LEC 0.5 0.5 0.5	S
SFS102AA	2004 Fall	Secondary Fire Department Operations: Organization and Dispatch		Introductory fire science course designed primarily for the potential fire department recruit. Includes fire department organization and dispatch.	Prerequisites: Currently enrolled in the Phoenix Union High School District.		Occ	LEC 0.25 0.25 0.25	S
SFS102AB	2004 Fall	Secondary Fire Department Operations: Fire Behavior and Classes		Introductory fire science course designed primarily for the potential fire department recruit. Includes fire behavior, phases of fire, classes of fire, and fire control methods	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AA with a grade of C or better.		Occ	LEC 0.5 0.5 0.5	S
SFS102AC	2018 Fall	Secondary Fire Department Operations: Fireground and Station Safety		Introductory fire science course designed primarily for the potential fire department recruit. Includes firefighter safety on the fireground and in the fire station	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AB with a grade of C or better.		Occ	L+L 0.25 0.5 0.5	T
SFS102AD	2018 Fall	Secondary Fire Department Operations: Self-Contained		Introductory fire science course designed primarily for the potential fire department recruit. Includes self-	Prerequisites: Currently enrolled in the Phoenix Union High School District		Occ	L+L 0.25 0.5 0.5	T



		Breathing Apparatus		contained breathing apparatus (SCBA)	and SFS102AC with a grade of C or better.				
SFS102AE	2018 Fall	Secondary Fire Department Operations: Ropes, Knots, and Hitches		Introductory fire science course designed primarily for the potential fire department recruit. Includes ropes, knots, and hitches.	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AD with a grade of C or better.		Occ	L+L 0.25 0.5 0.5	T
SFS102AF	2018 Fall	Secondary Fire Department Operations: Water Supply and Foam		Introductory fire science course designed primarily for the potential fire department recruit. Includes water supply and use of foam	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AE with a grade of C or better.		Occ	L+L 0.25 0.5 0.5	T
SFS102AG	2018 Fall	Secondary Fire Department Operations: Fire Apparatus		Introductory fire science course designed primarily for the potential fire department recruit. Includes fire apparatus	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AF with a grade of C or better.		Occ	L+L 0.25 0.5 0.5	T
SFS102AH	2018 Fall	Secondary Fire Department Operations: Hoses		Introductory fire science course designed primarily for the potential fire department recruit. Includes standard hose rolls, carries, and evolutions	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AG with a grade of C or better.		Occ	L+L 0.5 2.0 2.0	T
SFS102AI	2018 Fall	Secondary Fire Department Operations: Hand Ladders		Introductory fire science course designed primarily for the potential fire department recruit. Includes standard hand ladder evolutions	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AH with a grade of C or better.		Occ	L+L 0.25 0.5 0.5	T
SFS102AJ	2018 Fall	Secondary Fire Department Operations: Power Tools		Introductory fire science course designed primarily for the potential fire department recruit. Includes power tools.	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AI with a grade of C or better.		Occ	L+L 0.5 0.75 0.75	T
SFS102AK	2018 Fall	Secondary Fire Department		Introductory fire science course designed primarily for the potential	Prerequisites: Currently enrolled in		Occ	L+L 0.25	T

		Operations: Building Construction		fire department recruit. Includes building construction.	the Phoenix Union High School District and SFS102AJ with a grade of C or better.			0.5 0.5	
SFS102AL	2018 Fall	Secondary Fire Department Operations: Forcible Entry		Introductory fire science course designed primarily for the potential fire department recruit. Includes forcible entry	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AK with a grade of C or better.		Occ	L+L 0.5 1.0 1.0	T
SFS102AM	2018 Fall	Secondary Fire Department Operations: Search and Rescue		Introductory fire science course designed primarily for the potential fire department recruit. Includes search and rescue techniques	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AL with a grade of C or better.		Occ	L+L 0.5 1.0 1.0	T
SFS102AN	2018 Fall	Secondary Fire Department Operations: Ventilation		Introductory fire science course designed primarily for the potential fire department recruit. Includes structure ventilation	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AM with a grade of C or better.		Occ	L+L 0.5 1.0 1.0	T
SFS102AO	2018 Fall	Secondary Fire Department Operations: Salvage and Overhaul		Introductory fire science course designed primarily for the potential fire department recruit. Includes salvage and overhaul.	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AN with a grade of C or better.		Occ	L+L 0.25 1.0 1.0	T
SFS102AP	2018 Fall	Secondary Fire Department Operations: Electrical Hazards		Introductory fire science course designed primarily for the potential fire department recruit. Includes electrical hazards.	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AO with a grade of C or better.		Occ	L+L 0.25 0.5 0.5	T
SFS102AQ	2018 Fall	Secondary Fire Department Operations: Radiological Hazards		Introductory fire science course designed primarily for the potential fire department recruit. Includes radiological hazards	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AP with a grade of C or better.		Occ	L+L 0.25 0.5 0.5	T

SFS102AR	2018 Fall	Secondary Fire Department Operations: Special Emergencies		Introductory fire science course designed primarily for the potential fire department recruit. Includes special emergencies	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AQ with a grade of C or better.		Occ	L+L 0.5 1.0 1.0	T
SFS102AS	2004 Fall	Secondary Fire Department Operations: Physical and Mental Fitness		Introductory fire science course designed primarily for the potential fire department recruit. Includes physical and mental fitness	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AR with a grade of C or better.		Occ	LEC 0.5 0.5 0.5	S
SFS102AT	2004 Fall	Secondary Fire Department Operations: Prevention and Investigation		Introductory fire science course designed primarily for the potential fire department recruit. Includes prevention and investigation.	Prerequisites: Currently enrolled in the Phoenix Union High School District and a grade of C or better in SFS102AS.		Occ	LEC 0.5 0.5 0.5	S
SFS102AU	2004 Fall	Secondary Fire Department Operations: Code Violation		Introductory fire science course designed primarily for the potential fire department recruit. Includes code violation	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AT with a grade of C or better.		Occ	LEC 0.25 0.25 0.25	S
SFS102AV	2004 Fall	Secondary Fire Department Operations: Incident Organization and Communication		Introductory fire science course designed primarily for the potential fire department recruit. Includes incident organization and communication	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AU with a grade of C or better.		Occ	LEC 0.5 0.5 0.5	S
SFS102AW	2004 Fall	Secondary Fire Department Operations: Tactical Priorities		Introductory fire science course designed primarily for the potential fire department recruit. Includes tactical priorities	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AV with a grade of C or better.		Occ	LEC 1.0 1.0 1.0	S
SFS102AX	2018 Fall	Secondary Fire Department Operations: Structural Fires		Introductory fire science course designed primarily for the potential fire department recruit. Includes operations applied to structural fires	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AW with		Occ	L+L 0.5 1.0 1.0	T

					a grade of C or better.				
SFS102AY	2018 Fall	Secondary Fire Department Operations: Evaluations		Introductory fire science course designed primarily for the potential fire department recruit. Includes final written evaluation and International Fire Service Accreditation Congress Practical Skills Validation.	Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AX with a grade of C or better.		Occ	L+L 0.25 1.0 1.0	T
SFS134AA	2005 Summer I	Secondary Fitness and Conditioning for Firefighters: Physical Requirements		Overview of firefighters' physical fitness, nutrition, and protective clothing	Current enrollment in the Phoenix Union High School District.		Occ	LEC 0.5 0.5 0.5	S
SGT100	2022 Fall	Fundamentals of Surgical Services	HCS100	Preparation for the Certified Registered Central Service Technician (CRCST) role. Central Service work flow, job responsibilities, growth and development in the field, anatomy and physiology, microbiology for Central Service regulations and standards, infection prevention and control, tools for cleaning, decontamination, cleaning and decontamination, disinfection, sterile packaging and storage, processing, sterilization, management of patient care equipment, tracking systems, quality assurance, safety, communication, sterile processing for ambulatory surgery and clinics.	Prerequisites: Admission into the Hospital Central Service Technology or Surgical Technology program or permission of the Program Director.		Occ	LEC 5.0 3.0 3.0 LAB 0.0 6.0 6.0	T
SGT101	2017 Spring	Medical Terminology for Surgical Services	HCS101	Medical Terminology for patient care in surgery related areas. Use of word parts, term spelling, pronunciation and abbreviations related to all surgical specialties.	Prerequisites: None. Corequisites: HCS/SGT100.		Occ	LEC 1.0 1.0 1.0	S
SGT102	2024 Fall	Basic Surgical Instrumentation for Surgical Services	HCS102	History, construction and assembly of surgical instrumentation, categories, instrument set assembly, soft tissue foundation sets, general surgery instrumentation sets.	Prerequisites: Admission into the Hospital Central Service Technology or Surgical Technology program or permission of the Program Director.		Occ	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0	T

SGT105	2021 Fall	Surgical Technology Pre- Clinical		Direct observation of principles and culture of operating room. Traffic patterns, aseptic techniques, roles, professional surgical team work, instrument handling, safety precautions with regard to exposure, surgical attire, surgical regimen and chain of command.	Prerequisites: A grade of C or better in BIO205 and PHY101.		Occ	LEC 1.0 0.5 0.5 LAB 0.0 1.5 1.5	T
SGT107	2022 Fall	Equipment and Supplies for Surgical Services	HCS107	Introduction to the surgical equipment and supplies used in surgical services areas.	Prerequisites: Admission into the Hospital Central Service Technology or Surgical Technology program or permission of the Program Director.		Occ	L+L 1.0 1.0 1.0	T
SGT135	2023 Fall	Instrument Handling I		Classification of surgical instruments for general surgery including basic laparoscopy, appendectomy, breast procedures, cholecystectomy, colon resection, gastrectomy, hemorrhoidectomy, herniorrhaphy, laparoscopic Nissen fundoplication, liver resection, splenectomy, thyroidectomy, Whipple procedure. Common and proper names for instruments in general surgery. Introduction to aseptic technique for handling instruments. Specific uses, handling, and care for surgical instruments in general surgery.	Prerequisites: None. Corequisites: HCS/SGT102 or permission of Program Director.		Occ	L+L 3.0 4.0 4.0	T
SGT152	2018 Fall	Advanced Surgical Instruments for Surgical Services	HCS152	Surgical specialty instrumentation care and assembly of instruments to include plastic, gynecologic, urologic, basic bone and joint, head and neck, neurosurgery, cardiovascular and thoracic, microscopic, endoscopes, stapling guns, and robotics procedures.	Prerequisites: A grade of C or better in HCS/SGT102.		Occ	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0	T
SGT155	2018 Fall	Instrument Handling II		Classification of specialized surgical instruments for surgical specialties including obstetric and gynecological procedures, genitourinary, otorhinolaryngology, orthopedic, oral and maxillofacial, plastic and reconstructive, ophthalmic,	Prerequisites: A grade of C or better in SGT135.		Occ	L+L 1.0 2.0 2.0	T

				cardiothoracic, peripheral vascular, and neurosurgery. Common and proper names for instruments in the surgical specialties. Specific uses, handling, and care for surgical instruments in the surgical specialties.					
SGT156	2020 Fall	Hospital Central Service Practicum for Surgical Technology		Short-term supervised student observation and application for 40 hours of central service theory and laboratory skills. Exposure to limited compilation of case carts, building of instrument trays, distribution of supplies, sterilization and inventory.	Prerequisites: A grade of C or better in HCS/SGT102 or permission of Program Director. Corequisites: HCS/SGT152 or permission of Instructor.		Occ	LAB 0.5 1.5 0.0	C
SGT165	2018 Fall	Surgical Procedures I		General Surgery arena procedures. Pre-operative procedures to include patient's charts and consent forms. Common diagnostic procedures prior to surgery. Operating room admission procedures and interview, charting, and checklist. Purpose of the post anesthesia care unit (PACU). Impact of specific chronic illnesses on body functions. Issues pertaining to death and dying. Special considerations for the pediatric and geriatric patient.	Prerequisites: A grade of C or better in SGT135.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 6.0 6.0	T
SGT180	2022 Fall	Pharmacology for Surgical Technology I		Role of surgical technologist in safe handling of drugs according to operating room policies and procedures. Uses and classification of drugs. Federal and state pharmacy regulations applicable to the surgical patient. Complications and safety issues during topical, local, regional, and general anesthesia. Antibiotic, diagnostic agent, and hemostatic agent administration in the surgical specialties of obstetrics, peripheral vascular, orthopedics, and oncology.	Prerequisites: A grade of C or better in SGT135.		Occ	L+L 2.0 3.0 3.0	T
SGT200	2017 Fall	Operating Room Practicum I		Roles and responsibilities of operating room personnel focusing on the surgical technician under the direction of the clinical facility preceptor demonstrating the role of the surgical	Prerequisites: A grade of C or better in SGT165.		Occ	LAB 1.0 6.0 0.0	C

				technologist and scope of practice and standard of recommendations.					
SGT205	2017 Fall	Operating Room Practicum II		Reinforcement and broadening of knowledge and skills of the surgical technologist required for pre-operative, intra-operative and post-operative care of the patient undergoing general surgery and specialties.	Prerequisites: A grade of C or better in SGT200.		Occ	LAB 2.0 12.0 0.0	C
SGT208	2018 Fall	Perioperative Case Management		Pre-operative procedures to include patient's charts and consent forms. Common diagnostic procedures prior to surgery. Operating room admission procedures and interview, charting, and checklist. Purpose of the post anesthesia care unit (PACU). Impact of specific chronic illnesses on body functions. Issues pertaining to death and dying. Special considerations for the pediatric and geriatric patient. Includes a clinical observation experience.	Prerequisites: A grade of C or better in SGT105.		Occ	LEC 1.0 0.5 0.5 LAB 0.0 1.5 1.5	T
SGT210	2018 Fall	Surgical Procedures II		General surgical procedures to include ophthalmic, plastic surgery, reconstruction with grafting, obstetric, gynecological, genitourinary, otorhinolaryngology, oral and maxilla facial surgery with lasers and scopes. Surgical techniques as applied to major body systems, anatomical structures. Related abbreviations and usage in the pre-operative, intra-operative and post-operative areas of surgical technology. Surgical care provided by the surgical technologist in the perioperative arena.	Prerequisites: A grade of C or better in SGT165.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 6.0 6.0	T
SGT220	2017 Fall	Operating Room Practicum III		Intermediate level reinforcement and broadening of knowledge and skills of the surgical technologist required for pre-operative, intra-operative and post-operative care of the patient undergoing general surgery and specialties.	Prerequisites: A grade of C or better in SGT205.		Occ	LAB 3.0 15.0 0.0	C
SGT225	2013 Summer I	Operating Room Practicum IV		Advanced level reinforcement and broadening of knowledge and skills of the surgical technologist required for	Prerequisites: A grade of C or better in SGT220.		Occ	LAB 3.0	C

				pre-operative, intra-operative and post-operative care of the patient undergoing general surgery and specialties.				15.0 0.0	
SGT227	2013 Summer I	Operating Room Practicum V		Continued advanced level reinforcement and broadening of knowledge and skills of the surgical technologist required for pre-operative, intra-operative and post-operative care of the patient undergoing general surgery and specialties.	Prerequisites: A grade of C or better in SGT225.		Occ	LAB 3.0 15.0 0.0	C
SGT230	2018 Fall	Surgical Technology Materials Update	PON230	Current surgical technology materials. Surgical specialty modifications, introductions, technology. Specific uses, handling, application to surgical procedures.	Prerequisites: Currently enrolled in Surgical Technology or Surgical Technology for the Operating Room Nurse program, or Certified Surgical Technologist, or permission of Program Director.		Occ	LEC 2.0 2.0 2.0 LAB 1.0 3.0 3.0	T
SGT260	2024 Fall	Surgical Procedures III		Specialized surgical procedures of orthopedic, peripheral vascular, cardiovascular, thoracic, and neurosurgery to include open and minimally invasive, including a range of techniques, interventional radiology, robot assisted, lasers, and scopes. Surgical techniques as applied to major body systems, anatomical structures. Related abbreviations and usage in the pre-operative, intra-operative, and post-operative surgical arenas. Care provided by the surgical technologist in each phase of surgery.	Prerequisites: A grade of C or better in SGT210.		Occ	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0	T
SGT275	2023 Spring	Certification Examinations Preparation		Preparation for the National Surgical Technology Certification Examination. Review of the content specifications, techniques for preparation and review of current literature determined by the Liaison Council on Certification for Surgical Technologists. Exploration of career possibilities.	Prerequisites: A grade of C or better in SGT210 or permission of the Program Director.		Occ	L+L 2.0 3.0 3.0	T



SGT298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z
SGT298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z
SGT298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z
SLC201	2010 Spring	Introduction to Linguistics		Introduction to the study of language. Study of the nature and diversity of world languages, linguistic structures and functions of language, language variation, pragmatics and the learning/acquisition of first and second languages.	Prerequisites: None.	Course Attribute(s): General Education Designation: Humanities, Arts and Design -	Acad	LEC 3.0 3.0 3.0	S

						[HU] General Education Designatio n: Social and Behavioral Sciences - [SB]			
SLC202	2019 Spring	Introduction to Literary and Cultural Theory		Introduction to the study of literary and cultural theory. Interdisciplinary approaches to analyzing literary texts for context, meaning and form. Assessment of various literary genres which may include fiction, film, visual arts and performance.	Prerequisites: A grade of C or better in ENG101 or ENG107. Corequisites: ENG102 or ENG108.	Course Attribute(s ): General Education Designatio n: Humanitie s, Arts and Design - [HU] General Education Designatio n: Literacy and Critical Inquiry - [L]	Acad	LEC 3.0 3.0 3.0	S
SLP104	2021 Fall	Speech, Language, and Hearing Development		Provides an overview of the normal development of human communication. Emphasis on normative processes involved in speech, language, and hearing development. Examines the impact of multicultural, multi-linguistic environments on speech and language development.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
SLP205	2021 Fall	Introduction to Communication Disorders		Explore a variety of communication disorders in children and adults that speech-language pathologists diagnose and treat. Provides an introduction to typical versus disordered communication, the causes, characteristics of a variety of speech, language, hearing, and swallowing disorders, and the effects	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S

				that they can have on those afflicted with them.					
SLP210	2021 Fall	Speech and Hearing Anatomy and Physiology		Provides a review of the anatomical systems of respiration, phonation, articulation and resonance and hearing and their relationship to pathologies of speech, language and hearing. Includes basic physiology of systems and the neuroanatomy and neurophysiology related to speech and hearing production mechanisms. Examines the physical characteristics of sound and the structure and function of the human auditory system.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
SLP212	2021 Fall	Language Disorders and Rehabilitation		Examines the nature, causes and treatment of language disorders across the lifespan. Focuses on developmental and acquired language disorders in childhood through adulthood. Includes multicultural/multilingual issues and therapy observations.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
SLP214	2021 Fall	Speech Sound Disorders and Phonetics		Provides an overview of English phonetics and phonetic transcription including practice with transcription of normal and disordered speech at the entry-level using the International Phonetic Alphabet (IPA). Examines the nature, causes, characteristics and treatment of a variety of speech sound disorders across the lifespan including phonological processes/disorders, articulation, dysarthria, apraxia, and other organic disorders. Includes multicultural/multilingual issues and therapy observations.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
SLP215	2021 Fall	Speech, Language, Hearing Disorders and Rehabilitation		Examines the nature, causes, and treatment of a variety of speech, language, hearing disorders. Focuses on fluency, voice, hearing, and swallowing/feeding disorders. Expands on language disorders in adolescents and young adults including metacognition and cognitive	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S

				strategies. Includes therapy observations.					
SLP217	2021 Fall	Clinical Ethics and Documentation		Examines issues associated with professional and ethical behaviors, including the Speech Language Pathology Assistant (SLPA) scope of practice as specified by state and national governing bodies for the profession. Focuses on indirect activities related to client treatment including creation of lessons, implementation of treatment, and documentation. Includes an overview of universal safety precautions, confidentiality, compliance with laws/regulations, and service delivery options in both the educational and health care systems.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
SLP218	2021 Fall	Behavior Management		Examines a variety of behavior principles, strategies and techniques used with individuals with communication disorders. Focuses on setting up a positive learning environment, increasing motivation and attention, and using Positive Behavioral Interventions and Supports (PBIS) with clients.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
SLP235AA	2021 Fall	Speech-Language Pathology Practicum		Practical experience in completing clinical fieldwork as a Speech Language Pathology Assistant (SLPA). Provides opportunity to create lesson plans, implement therapy, record client performance and maintain appropriate documentation for a variety of speech-language disorders in a therapeutic environment. A minimum of 50 hours for the clinical interaction experience in this course is required.	Prerequisites: None.	SLP235A A may be repeated for a total of two (2) credit hours.	Occ	L+L 1.0 1.0 1.0	T
SLP235AB	2021 Fall	Speech-Language Pathology Practicum		Practical experience in completing clinical fieldwork as a Speech Language Pathology Assistant (SLPA). Provides opportunity to create lesson plans, implement therapy, record client performance and maintain appropriate	Prerequisites: None.		Occ	L+L 2.0 2.0 2.0	T

				documentation for a variety of speech-language disorders in a therapeutic environment. A minimum of 100 hours for the clinical interaction experience in this course is required.					
SLP240	2021 Fall	Assistive Technology and Augmentative Communication		Examines the use of Assistive Technology (AT) and Augmentative Alternative Communication (AAC) systems within various environments to support functional interaction with individuals with disabilities. Focuses on a variety of guiding principles, strategies, accommodations, modifications, computer hardware and software as well as low-tech and high-tech AT and AAC systems. Provides guidelines for need identification and implementation of AT and AAC systems within therapeutic and natural environments.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
SLP242	2021 Fall	Low Incidence Disabilities		Examines disabilities with a focus on treatment techniques for low incidence disabilities. Focuses on blindness, deafness, moderate to severe intellectual disability, complex health issues, serious motor and physical impairment, multiple disabilities, genetic syndromes, moderate to severe autism, and social emotional disabilities. Includes therapy observations.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
SLP296WA	2001 Summer I	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled		Occ	LAB 1.0 5.0 0.0	Z

					in at least one class which is related to students major or career interest or with permission of Instructor.				
SLP296WB	2001 Summer I	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 2.0 10.0 0.0	Z
SLP296WC	2001 Summer I	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with		Occ	LAB 3.0 15.0 0.0	Z

					permission of Instructor.				
SLP296WD	2001 Summer I	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 4.0 20.0 0.0	Z
SLP298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z
SLP298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z

				combined to maximize student development.					
SLP298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z
SOC101	2013 Spring	Introduction to Sociology		The systematic study of social behavior and human groups, particularly the influence of culture, socialization, social structure, stratification, social institutions, differentiation by region, race, ethnicity, sex/gender, age, class, and socio/cultural change upon people's attitudes and behaviors.	Prerequisites: None.	Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] Arizona Shared Unique Number SUN#: SOC 1101	Acad	LEC 3.0 3.0 3.0	S
SOC105	2013 Summer I	Introduction to American Indian Studies	AIS105	Introduction to political, economic, and social structures of American Indian Nations. Provides overview of American Indian tribal cultures prior to contact, the impact of European contact, and the influence of western social systems on tribal nations.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
SOC110	2018 Fall	Drugs and Society		Provides a sociological understanding of drug use and policy. Examines social-cultural factors contributing to use and abuse and effects of commonly used drugs on the individual and society. Reviews current theories and research relating to drug use. Introduces extensive coverage of various methods and	Prerequisites: None.	Course Attribute(s): General Education Designation: Social and Behavioral	Acad	LEC 3.0 3.0 3.0	S



				statistics for measuring drug use. Explores prevention, intervention, and treatment. Examines public policies concerning drug related issues.		Sciences - [SB]			
SOC112	1999 Spring	American Indian Policy	AIS112	Reviews United States government policies and their impact on American Indian sovereignty. Examines historic, legal, economic, and social issues regarding Indian policies and how they impact Indian Nations and individual Indians. Studies historical as well as contemporary policies created by the Federal Government that define the trust relationship between the United States government and Indian Nations	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
SOC130	2022 Fall	Human Sexuality		Sociological study of human sexuality. Course examines the social forces that shape a culture's sexual practices, attitudes, and inequalities. Topics include the social construction of sexuality, social change, sexual identities, sexual inequalities, institutional influence and regulation of sexuality, as well as current trends and issues surrounding human sexuality.	Prerequisites: None.	SOC130 contains mature adult content and some of the topics discussed may be considered "controversial" or "taboo" in some societies and cultures. Students are expected to be able to engage with the content in a respectful and open-	Acad	LEC 3.0 3.0 3.0	S

						mind ed way.			
SOC141	2003 Spring	Sovereign Indian Nations	AIS141	Explores the sovereign status of American Indians as it relates to social relationships, traditions, and culture of American Indians. Reviews historic relations with non-Indian societies, the development of federal Indian law, tribal governments and their functions. Examines treaty rights, environmental issues, public policy, economic development, other current issues, and contemporary social problems	Prerequisites: None.	Course Attribute(s) ): General Education Designatio n: Cultural Diversity - [C] General Education Designatio n: Historical Awarenes s - [H] General Education Designatio n: Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S
SOC143	1995 Summer I	Sociology of African American Problems		Social, economic, political and domestic problems encountered by African Americans in typical urban environments. Emphasis on the specific dynamics of adjustment, survival and empowerment of urban African Americans	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
SOC157	2016 Fall	Sociology of Families and Relationships		Systemic analysis of socio-cultural and historical origins of modern families in the U.S. and their importance, major challenges and changing trends. Explores being single, dating and attraction, love, cohabitation and marriage, family planning and parenthood, conflict and crisis within the family, and divorce.	Prerequisites: None.	General Education Designatio n: Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S
SOC160	2017 Summer	American Indian Law	AIS160	Analyzes the legal system of the United States Government as it applies to American Indian Nations. Examines how United States legal institutions have impacted Indian	Prerequisites: None.	Course Attribute(s) ): General Education Designatio	Acad	LEC 3.0 3.0 3.0	S

				sovereignty. Units of analysis include the development of Indian law, United States Supreme Court decisions, Congressional Acts, treaty rights and the development of tribal governments. Focuses on legal institutions that have abridged the property rights of Indian Nations.		n: Cultural Diversity - [C] General Education Designation: Historical Awareness - [H]			
SOC180	2016 Fall	Social Implications of Technology		Effects of development and implementation of technology on society. Historical and multi-cultural comparisons of this process, current concerns addressed, and prospects for the future analyzed.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
SOC212	2024 Fall	Gender and Society		A sociological exploration of the way culture shapes and defines gender in contemporary U.S. society. Major emphasis on gender roles, gender stereotypes, power and the relationship between gender and other intersecting social identities such as race, ethnicity, class, and sexual identity.	Prerequisites: None.	Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S
SOC220	2018 Spring	Sport and Society		Applies the sociological perspective to the study of sport. Emphasizes how hierarchies of race, class, and gender in the United States impact the sport experience of fans, athletes, and athletic administrators, as well as how professional, collegiate, and amateur sports have at times played a transformative role in society.	Prerequisites: None.	Course Attribute(s): General Education Designation: Social & Behavioral Science - [SB]	Acad	LEC 3.0 3.0 3.0	S
SOC241	2017 Spring	Race and Ethnic Relations		Examines how the social construction of race shapes social interaction and social institutions. Explores the consequences of power, privilege and	Prerequisites: None.	Course Attribute(s): General Education	Acad	LEC 3.0 3.0 3.0	S

				oppression among major ethnic and racial groups in the United States.		Designation: Cultural Diversity - [C] General Education Designation: Social and Behavioral Sciences - [SB] Arizona Shared Unique Number SUN#: SOC 2215			
SOC245	2017 Fall	Social Deviance		A sociological analysis of social deviance including a review of theories, individual and social implications of deviant labeling, and relevant aspects of social control.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
SOC251	2024 Fall	Social Problems		An overview of the sociological study of social problems and inequalities confronting the United States. Emphasis is placed on what is known about social problems, recent trends, causes and consequences, individual and societal responses, and how social policies might solve social problems. Issues to be examined may include: health care, education, family, economy, environment, drug and alcohol abuse, crime and violence, among others.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
SOC253	2017 Spring	Social Class and Stratification		Focus on the class structure of American Society. Effects of social class position on individual life chances. The occurrence, causes and consequences of poverty in the United States.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
SOC265	2009 Summer I	Sociology of Aging		Examination of the aging process from post adolescence through old age from interdisciplinary and multicultural perspectives. Emphasis	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S

				on positive participation in major social institutions and the amelioration of age-related problems					
SOC266	2018 Spring	Sociology Through Film		Examines movie-going and the experience of spectatorship. Studies how motion pictures reflect, influence, and are influenced by American culture and societal institutions. Explores the role of the movie industry as a vehicle for social commentary, analysis, and criticism.	Prerequisites: None.	Course Attribute(s): General Education Designation: Social & Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S
SOC270	2023 Fall	The Sociology of Health and Illness		The scientific study of the social patterns and social factors (e.g., class, race, gender, religion, ethnicity, kinship networks, marriage, educational status, age, place, and cultural practices) that influence health. The roles of health care providers and patients, various modalities of treatment, prevention and access, and the history, current status, future trends in medicine and medical technology, and complementary health care approaches from a cross-cultural and global sociological perspective.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
SOC282AA	2014 Summer	Service-Learning Experience in Sociology		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: A grade of C or better in SOC101 and permission of Instructor.	SOC282A A may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 1.0 1.0 0.0	L
SOC282AB	2014 Summer	Service-Learning Experience in Sociology		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: A grade of C or better in SOC101 and	SOC282A B may be repeated	Acad	LAB 2.0	L

					permission of Instructor.	for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.		2.0 0.0	
SOC282AC	2014 Summer	Service-Learning Experience in Sociology		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: A grade of C or better in SOC101 and permission of Instructor.	SOC282A C may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 3.0 3.0 0.0	L
SOC296WA	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with		Acad	LAB 1.0 5.0 0.0	Z

					permission of the Instructor.				
SOC296WB	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 2.0 10.0 0.0	Z
SOC296WC	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 3.0 15.0 0.0	Z
SOC296WD	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and	Prerequisites: Completion of at least		Acad	LAB 4.0	Z

				employers to accomplish an outcome related to the career objectives of the students.	twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			20.0 0.0	
SOC298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0	Z
SOC298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0	Z
SOC298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an	Prerequisites: Permission of		Acad	LAB 3.0	Z



				atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Program Director or Instructor.			3.0 0.0	
SPA055	1991 Fall	Fundamentals of Spanish Grammar		Introduces basic concepts of Spanish pronunciation and grammar for successful study of the language. Emphasis on grammar, sentence structure, and practice of simple dialogues	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
SPA085AA	1998 Fall	Speedy Spanish I		Basic vocabulary and grammar to develop conversational skills in Spanish. Emphasis on speaking skills	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
SPA085AB	2014 Fall	Speedy Spanish II		Intermediate development of vocabulary and grammar to develop conversational skills in Spanish. Emphasis on speaking skills.	Prerequisites: A grade of C or better in SPA085AA. Completion of prerequisites within the last three years is required.		Acad	LEC 1.0 1.0 1.0	S
SPA085AC	2014 Fall	Speedy Spanish III		Advanced development of vocabulary and grammar to develop conversational skills in Spanish. Emphasis on speaking skills.	Prerequisites: A grade of C or better in SPA085AB. Completion of prerequisites within the last three years is required.		Acad	LEC 1.0 1.0 1.0	S
SPA095	2002 Spring	Speak Spanish I		Limited vocabulary and grammar to help develop fluency in Spanish. Emphasis on speaking skills	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
SPA096	2014 Fall	Speak Spanish II		Limited vocabulary and grammar to help develop fluency in Spanish. Emphasis on speaking skills.	Prerequisites: A grade of C or better in SPA095. Completion of prerequisites within the last three years is required.		Acad	LEC 1.0 1.0 1.0	S
SPA097	2014 Fall	Speak Spanish III		Limited vocabulary and grammar to help develop fluency in spoken	Prerequisites: A grade of C or better		Acad	LEC 1.0	S

				Spanish. Emphasis on speaking skills; some written work required.	in SPA096. Completion of prerequisites within the last three years is required.			1.0 1.0	
SPA101	2022 Summer	Elementary Spanish I		Basic grammar, pronunciation and vocabulary of the Spanish language. Includes the study of the Spanish-speaking cultures. Practice of listening, speaking, reading, and writing skills	Prerequisites: None.	Course Attribute(s): General Education Designation: Global Awareness - [G] in combination with SPA102. Arizona Shared Unique Number SUN#: SPA 1101	Acad	LEC 4.0 4.0 4.0	S
SPA101AA	2022 Summer	Elementary Spanish I		Basic grammar, pronunciation and vocabulary of the Spanish language. Includes the study of the Spanish-speaking cultures. Practice of listening, speaking, reading, and writing skills.	Prerequisites: None.	Course Attributes: General Education Designation: Global Awareness - [G]	Acad	L+L 4.0 5.0 5.0	T
SPA102	2022 Summer	Elementary Spanish II		Continued study of grammar and vocabulary of the Spanish language and study of the Spanish-speaking cultures. Emphasis on speaking, reading, and writing skills.	(A grade of C or better in SPA101 or SPA101AA), or permission of Department or Division. Completion of prerequisites within the last three years is required.	Course Attribute(s): General Education Designation: Global Awareness - [G] in combination with SPA102. Arizona Shared Unique Number	Acad	LEC 4.0 4.0 4.0	S

						SUN#: SPA 1102			
SPA102AA	2022 Summer	Elementary Spanish II		Continued study of grammar and vocabulary of the Spanish language and study of the Spanish-speaking cultures. Emphasis on speaking, reading, and writing skills.	(A grade of C or better in SPA101 or SPA101AA), or permission of Department or Division. Completion of prerequisites within the last three years is required.	Course Attributes: General Education Designation: Global Awareness - [G]	Acad	L+L 4.0 5.0 5.0	T
SPA103	1994 Fall	Elementary Spanish for Spanish Speakers I		Review of basic Spanish grammar and pronunciation. Emphasis on reading and writing skills in Spanish. For native speakers needing review of essential language skills	Spanish-speaking or permission of Department or Division.		Acad	LEC 4.0 4.0 4.0	S
SPA104	2014 Fall	Elementary Spanish for Spanish Speakers II		Continued review of grammatical problems in speaking and writing and reading in Spanish.	Prerequisites: A grade of C or better in SPA103 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 4.0 4.0 4.0	S
SPA109	2023 Fall	Law Enforcement Spanish I		Conversational and written Spanish for law enforcement personnel. Emphasis on basic sentence structure, pronunciation and vocabulary used in common job-related situations.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
SPA111	2014 Fall	Fundamentals of Spanish		Accelerated study of elementary Spanish for students with previous Spanish coursework. Includes basic Spanish grammar, pronunciation, vocabulary and the study of the Spanish-speaking cultures. Emphasis on speaking, listening, reading, and writing skills.	Prerequisites: A grade of C or better in SPA101 or SPA101AA or SPA115 or SPA115AA or two years of high school Spanish or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 4.0 4.0 4.0	S

SPA115	2007 Summer I	Beginning Spanish Conversation I		Basic pronunciation, vocabulary, sentence structures, and cultural awareness, necessary to develop speaking and listening skills in Spanish	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
SPA115AA	2018 Fall	Beginning Spanish Conversation I		Conversational Spanish. Basic sentence structure, pronunciation and vocabulary necessary to develop speaking ability in Spanish. Designed for students seeking speaking and listening abilities with little emphasis on grammar	Prerequisites: None.		Acad	L+L 3.0 4.0 4.0	T
SPA116	2014 Fall	Beginning Spanish Conversation II		Continued study of basic pronunciation, vocabulary, sentence structures, and a cultural awareness necessary to develop speaking and listening skills in Spanish.	Prerequisites: A grade of C or better in SPA115 or SPA115AA or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 3.0 3.0 3.0	S
SPA116AA	2018 Fall	Beginning Spanish Conversation II		Continued development of speaking and listening skills for effective communication in Spanish.	Prerequisites: A grade of C or better in SPA115 or SPA115AA or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	L+L 3.0 4.0 4.0	T
SPA117	2023 Fall	Health Care Spanish I		Basic conversational Spanish for health care workers or students. Emphasis on basic sentence structure, pronunciation and vocabulary used in health care settings.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
SPA117AA	2023 Fall	Health Care Spanish I: Introduction		Part one of basic medical terminology in Spanish for health care personnel or students. Emphasis on pronunciation and vocabulary needed in health care setting, including coverage of routine information gathered	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S

SPA117AB	2023 Fall	Health Care Spanish I: Intermediate		Part two of basic Spanish communication for health care personnel or students. Emphasis on pronunciation and vocabulary needed in health care settings, including medications and their use.	Prerequisites: A grade of C or better in SPA117AA or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 1.0 1.0 1.0	S
SPA118	2023 Fall	Health Care Spanish II		Basic conversational Spanish for health care personnel or students. Emphasis on basic sentence structure, pronunciation, and vocabulary used in health care settings.	Prerequisites: A grade of C or better in SPA117 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 3.0 3.0 3.0	S
SPA119	2006 Spring	Spanish for Educational Settings I		Basic conversational Spanish for teachers, counselors, administrators and other school personnel. Emphasis on basic sentence structure, pronunciation and vocabulary used in educational settings	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
SPA120	2014 Fall	Spanish for Educational Settings II		Basic conversational Spanish for teachers, counselors, administrators and other school personnel. Continuation of SPA119, expanding into secondary and post- secondary educational settings. Emphasis on basic sentence structure, pronunciation and vocabulary.	Prerequisites: A grade of C or better in SPA119 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 3.0 3.0 3.0	S
SPA130	2022 Spring	Spanish for First Responders and 911 Emergencies		Beginning conversational Spanish for first responders and 911 emergency personnel. Emphasis on basic sentence structure, pronunciation, vocabulary, and cultural awareness necessary to develop Spanish speaking and listening skills in medical and non-medical emergencies.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
SPA201	2014 Fall	Intermediate Spanish I		Continued study of essential Spanish grammar and Spanish-speaking cultures. Continued practice and	Prerequisites: A grade of C or better in SPA102, or	Course Attribute(s): General	Acad	LEC 4.0	S

				development of reading, writing, and speaking skills in Spanish. Emphasis on fluency and accuracy in spoken Spanish.	SPA102AA, or SPA111, or permission of Department or Division. Completion of prerequisites within the last three years is required.	Education Designation: Global Awareness - [G] Arizona Shared Unique Number SUN#: SPA 2201		4.0 4.0	
SPA202	2014 Fall	Intermediate Spanish II		Review of grammar, continued development of Spanish language skills with continued study of the Spanish-speaking cultures.	A grade of C or better in SPA201, or permission of Department or Division. Completion of prerequisites within the last three years is required.	Course Attribute(s): General Education Designation: Global Awareness - [G] Arizona Shared Unique Number SUN#: SPA 2202	Acad	LEC 4.0 4.0 4.0	S
SPA203	2021 Fall	Spanish for Spanish-Speaking Students I		Designed for Spanish-speaking students. Emphasis on written composition, grammar review, punctuation and spelling, literature and conversation. May be taken in lieu of SPA201.	Prerequisites: Permission of Instructor or Department Chair.	Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Global Awareness - [G]	Acad	LEC 4.0 4.0 4.0	S
SPA204	2021 Fall	Spanish for Spanish-Speaking Students II		Designed for Spanish-speaking students. Advanced study of Spanish grammar, composition, literature, and conversation.	Prerequisites: A grade of C or better in SPA203 or SPA201 or permission of Department or Division. Completion	SPA204 may be taken in lieu of SPA202. Course Attribute	Acad	LEC 4.0 4.0 4.0	S

					of prerequisites within the last three years is required.	Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Global Awareness - [G]			
SPA205	2017 Summer	Spanish for Medical Interpretation I		Introduction to Spanish interpretation for medical interpreters. Covers code of ethics, national standards and medical interpreter's responsibilities as well as cultural awareness and legal issues. Interpretation for first responders included.	Prerequisites: A grade of B or better in SPA202 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 3.0 3.0 3.0	S
SPA206	2017 Summer	Spanish for Medical Interpretation II		Continuation of Spanish interpretation for medical interpreters. Medical vocabulary and translation relating to human anatomy and physiology emphasized.	Prerequisites: A grade of B or better in SPA205 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 3.0 3.0 3.0	S
SPA217	2014 Fall	Spanish for Business Communication		Continued development of Spanish language skills with emphasis on topics related to conducting business in Spanish-speaking cultures.	Prerequisites: A grade of C or better in GBS151 and (SPA201 or permission of Department or Division). Completion of prerequisites within the last three years is required.		Acad	LEC 4.0 4.0 4.0	S
SPA225	2014 Fall	Intermediate Spanish Conversation I		Continued study of vocabulary, sentence structures, and cultural awareness necessary to improve speaking and listening skills in	Prerequisites: A grade of C or better in SPA102 or SPA102AA or		Acad	LEC 3.0 3.0 3.0	S

				Spanish. Emphasis on fluency and accuracy in spoken Spanish.	SPA116 or SPA116AA or permission of Department or Division. Completion of prerequisites within the last three years is required.				
SPA226	2014 Fall	Intermediate Spanish Conversation II		Continued study of vocabulary, sentence structures, and cultural awareness necessary to improve speaking and listening skills in increasingly complex Spanish. Emphasis on fluency and moderate accuracy in spoken Spanish.	Prerequisites: A grade of C or better in SPA201 or SPA225 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 3.0 3.0 3.0	S
SPA235	2014 Fall	Advanced Spanish Conversation I		Continued development of skills in conversational fluency. Class conducted completely in Spanish.	Prerequisites: A grade of C or better in SPA226 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 3.0 3.0 3.0	S
SPA236	2014 Fall	Advanced Spanish Conversation II		Further development of skills in conversational fluency. Grammar presented only to clarify student errors.	Prerequisites: A grade of C or better in SPA235 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 3.0 3.0 3.0	S
SPA237	2024 Fall	Spanish Legal Terminology		Emphasis on legal terminology, including specific vocabulary and linguistic structures. Conducted entirely in Spanish.	Prerequisites: A grade of C or better in SPA202, or equivalent, or permission of Instructor.		Acad	LEC 3.0 3.0 3.0	S
SPA241	2014 Fall	Spanish and Spanish-American Film I		Analysis of Spanish and Spanish-American film as art form and as social commentary. Includes documentary, biography, and films	Prerequisites: A grade of C or better in SPA202 or permission of	Course Attribute(s): General Education	Acad	LEC 3.0 3.0 3.0	S



				based on works of literature. All films, coursework, class participation, and oral and written reports conducted in Spanish.	Department or Division. Completion of prerequisites within the last three years is required.	Designation: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU]			
SPA242	2014 Fall	Spanish and Spanish-American Film II		Analysis and critique of movies presented in the Spanish language and produced by cinematographers from Bolivia, Paraguay, Venezuela, Ecuador, Puerto Rico, Costa Rica and the Mexican independent film producers. Includes documentary, biography, and works of literature and their film versions as art form and social commentary.	Prerequisites: A grade of C or better in SPA241 or permission of Department or Division. Completion of prerequisites within the last three years is required.	All SPA242 coursework, class participation, oral and written reports are in Spanish. Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
SPA251	2014 Fall	Spanish Civilization		An introduction to Spanish civilization with a focus on the culture of Spain. History of Spain and each period's cultural manifestations, including economic, sociological, and political	Prerequisites: Four years of high school Spanish or a grade of C or better in SPA202 or		Acad	LEC 3.0 3.0 3.0	S

				factors as well as cultural artifacts such as architecture, literature, visual arts, music, and gastronomy.	permission of Department or Division. Completion of prerequisites within the last three years is required.				
SPA265	2014 Fall	Advanced Spanish I		Introduction and study of Spanish and Spanish-American literature. Selected readings from most Spanish-speaking countries. All discussions, oral reports, and written assignments are in Spanish.	Prerequisites: A grade of C or better in SPA202 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 3.0 3.0 3.0	S
SPA266	2014 Fall	Advanced Spanish II		Further study of Spanish and Spanish-American literature. Reading selections from most Spanish-speaking countries. All oral reports, discussions, and written reports in Spanish. Graduated level of difficulty from the literature studied in SPA265.	Prerequisites: A grade of C or better in SPA265 or permission of Department or Division. Completion of prerequisites within the last three years is required.	Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
SPA282AA	2014 Summer	Service-Learning Experience in Spanish		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	SPA282A A may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 1.0 1.0 0.0	L
SPA282AC	2014 Summer	Service-Learning Experience in Spanish		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	SPA282A C may be repeated for a total of six (6)	Acad	LAB 3.0 3.0 0.0	L

						credit hours. Standard grading available according to procedures outlined in catalog.			
SPA296WA	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 1.0 5.0 0.0	Z
SPA296WB	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least		Acad	LAB 2.0 10.0 0.0	Z

					one class which is related to student's major or career interest or with permission of the Instructor.				
SPA296WC	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 3.0 15.0 0.0	Z
SPA296WD	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with		Acad	LAB 4.0 20.0 0.0	Z

					permission of the Instructor.				
SPA298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0	Z
SPA298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0	Z
SPA298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0	Z
SPE341	2023 Fall	Special Education: Language Development and Disorders		Language development and language acquisition of typical children and children with disabilities. Includes language characteristics of children with a variety of disabilities and the creation of enhanced learning experiences in the classroom. Covers augmentative and alternative	Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission of		Acad	LEC 2.0 2.0 2.0	S

				communication tools. Also compares language disorders and language differences.	Department or Division.				
SPE343	2023 Fall	Special Education: Effective Collaboration and Communication Practices		Focuses on principles of effective collaboration, consultation, and co-teaching to improve programs, services, and outcomes for students with disabilities and their families. Topics include interpersonal communication strategies and collaboration tools for working with diverse groups of people.	Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission of Department or Division.		Acad	LEC 1.0 1.0 1.0	S
SPE376	2023 Fall	Special Education: Classroom Management and Behavioral Analysis		Application of research-based strategies in classroom management and behavioral analysis. Focuses on the classroom as a multidimensional environment in which principles of design, communication, management, and resources determine behavioral management success. Emphasis on positive behavior supports, group dynamics, student motivation, discipline models, and current research findings related to classroom management and behavior analysis.	Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission of Department or Division. EDU221 recommended but not required.	SPE376 requires field experience in a K-12 classroom.	Acad	LEC 3.0 3.0 3.0	S
SPE409	2023 Fall	Special Education: Law, Policy, and Practice		Overview of special education legislation and litigation as it applies in K-12 settings. Examines federal and state level statutes and regulations, including the Individuals with Disabilities Education Act (IDEA), the Americans with Disabilities Act (ADA), Section 504 of the Rehabilitation Act of 1973. Covers regulations governing assessment and evaluation procedures, due process, mediation, manifestation determination, and disciplinary action. Emphasis on the development, implementation, and evaluation of individual education plans (IEPs), free appropriate public education (FAPE), and least restrictive environment (LRE). Focuses on students' and parents' legal rights and schools' responsibilities regarding special	Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission of Department or Division. EDU222 recommended but not required.		Acad	LEC 3.0 3.0 3.0	S

				education. The Council for Exceptional Children (CEC) Code of Ethics will be examined.					
SPE422	2023 Fall	Special Education: Mild to Moderate Disabilities		Application of research-based instruction in special education, including lesson planning, instructional design, assessment accommodations, modification, strategies, and materials appropriate for teaching individuals with mild to moderate disabilities in a variety of educational settings. Covers characteristics, etiologies, legal and educational provisions.	Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission of Department or Division.	SPE422 requires an approved field experience.	Acad	LEC 4.0 4.0 4.0	S
SPE424	2023 Fall	Special Education: Assessment and Eligibility of Exceptional Learners		Examines eligibility criteria for students to receive and maintain special education and related services. Overviews nondiscriminatory assessments and adaptive behavior measurements, including educational achievement tests, standardized diagnostic tests, and intelligence tests, as well as the concepts, laws, current issues, and procedures that relate to formal and informal assessment of students. Analyzes the relationship between assessment data and instruction.	Prerequisites: Formal acceptance to a Maricopa Community College undergraduate state approved teacher preparation program or permission of Department or Division.		Acad	LEC 4.0 4.0 4.0	S
SPE477	2023 Fall	Student Teaching: Special Education (Mild to Moderate Disabilities)		Supervised student teacher practicum in a K-12 special education setting. Students are expected to demonstrate appropriate assessment strategies, develop lesson plans, implement instructional strategies, and utilize behavior management systems and programs. Emphasis on the provision of individualized instruction to meet the requirements of Individuals with Disabilities Education Act (IDEA).	Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission of Department or Division.	SPE477 requires a minimum of eight (8) weeks, full-time classroom instruction.	Acad	LAB 6.0 6.0 0.0	Z
SPH241	2014 Fall	Spanish and Latin American Film in Translation		A survey of Spanish and Spanish-American film as art form and as social commentary. Includes documentary, biography, and films based on works of literature. Coursework, class participation, and	Prerequisites: None.	Course Attribute(s): General Education Designation: Global	Acad	LEC 3.0 3.0 3.0	S

				oral and written reports conducted in English.		Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU]			
SPH245	1996 Fall	Hispanic Heritage in the Southwest		A survey of Hispanic heritage in the Southwest. Cultural and social institutions and their contribution to the development of the region and its heritage	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
SPH296WA	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 1.0 5.0 0.0	Z
SPH296WB	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals		Acad	LAB 2.0 10.0 0.0	Z



					(students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.				
SPH296WC	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 3.0 15.0 0.0	Z
SPH296WD	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor.		Acad	LAB 4.0 20.0 0.0	Z

					Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.				
SPH298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0	Z
SPH298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0	Z
SPH298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0	Z

SPT150	2024 Fall	Introduction to Sports Management		Introduction to the field of sports management, including sports marketing and sales, facility management, event management, professional sports, public relations, intercollegiate and interscholastic athletics.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
SPT265	2023 Fall	Theory of Coaching		Discusses the impact of sports on the American culture, legal liabilities of coaching, principles of a coaching philosophy, the role of teaching skill, physical conditioning and nutrition in coaching, components of team/group psychology and dynamics, motivation and aggression in sport.	Prerequisites: None. SPT281281 suggested but not required.		Occ	LEC 3.0 3.0 3.0	S
SPT265BA	2023 Fall	Baseball Theory of Coaching		Reviews the principles, philosophy, strategies and theory of coaching baseball, as a competitive sport.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
SPT265BB	2023 Fall	Basketball Theory of Coaching		Reviews the principles, philosophy, strategies and theory of coaching basketball, as a competitive sport.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
SPT265GO	2023 Fall	Golf Theory of Coaching		Reviews the principles, philosophy, strategies and theory of coaching golf, as a competitive sport.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
SPT265SB	2023 Fall	Softball Theory of Coaching		Reviews the principles, philosophy, strategies and theory of coaching softball, as a competitive sport.	Prerequisites: None.	SPT265S B may not be repeated for credit.	Occ	LEC 3.0 3.0 3.0	S
SPT271	2023 Fall	Sports Medicine Foundations		Introduction to sports medicine knowledge, techniques, and careers. Exploration of current trends in athletic injury prevention, management and rehabilitation including wound care, taping, wrapping, bracing, splinting and protective equipment.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
SPT273	2023 Fall	Athletic Training: Advanced Wrapping and Taping Techniques		Expands and enhances practical uses of basic taping and wrapping skills. Hands-on experience in the use of braces, athletic taping, and elastic wraps to care for athletic injuries	Prerequisites: A grade of C or better in SPT271 or permission of Instructor.		Occ	LEC 2.0 2.0 2.0	S

SPT275	2024 Fall	Rehabilitation and Therapeutic Interventions in Sports Medicine		Exploration of current trends in the basic and advanced methodologies used in the rehabilitation of athletic injuries. Incorporates demonstrations of injury-appropriate strength and fitness training and therapeutic exercise techniques.	Prerequisites: A grade of C or better in SPT271 or permission of Department or Division.		Occ	L+L 3.0 4.0 4.0	T
SPT281	2023 Fall	Methods of Coaching		Comprehensive overview of the art and science of coaching, including development of coaching philosophy, techniques of sport pedagogy, practical application of sports skill teaching, sport physiology, nutrition, sport/team management and self management.	Prerequisites: None. PED265 suggested but not required.		Occ	LEC 3.0 3.0 3.0	S
SPT281BA	2023 Fall	Baseball Methods of Coaching		Overview of the art and science of coaching baseball including: identifying various coaching styles, elements of effective communication, methods and techniques of coaching baseball.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
SPT281GO	2023 Fall	Golf Methods of Coaching		Overview of the art and science of coaching golf including: identifying various coaching styles, elements of effective communication, methods and techniques of coaching golf.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
SPT281SO	2023 Fall	Soccer Methods of Coaching		Overview of the art and science of coaching soccer including: identifying various coaching styles, elements of effective communication, methods and techniques of coaching soccer.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
SSH111	2012 Fall	Sustainable Cities		Introduction to the field of sustainability and exploration of the practices leading to the development of sustainable cities. Explores the concept of sustainable development of cities within local, regional, and global contexts.	Prerequisites: None.	Course Attribute(s) ): General Education Designatio n: Global Awarenes s - [G] General Education Designatio n: Humanitie s, Arts and	Acad	LEC 3.0 3.0 3.0	S

						Design - [HU] General Education Designation: Social and Behavioral Sciences - [SB]			
SSH298AA	2014 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0	Z
SSH298AB	2014 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0	Z
SSH298AC	2014 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0	Z

STO100	2008 Summer I	Introduction to Storytelling		Introduction to the art of storytelling. Finding, crafting and telling traditional, fact-based, and personal stories in and out of class	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
STO100AA	2008 Summer I	How to Tell Traditional Stories		Introduction to the art of storytelling. Finding, crafting and telling a traditional story in and out of class	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
STO100AB	2008 Summer I	How to Tell Fact- Based Stories		Introduction to the art of storytelling. Finding, crafting and telling fact-based stories in and out of class	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
STO100AC	2008 Summer I	How to Tell Personal Stories		Introduction to the art of storytelling. Finding, crafting and telling personal stories in and out of class	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
STO101	2002 Spring	Storytelling for Literacy		Introduction to the natural process from oral to written language and the role of storytelling in both. Focus will be on the development and sharing of oral and written stories	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
STO145	2018 Fall	Digital Storybook	ART145 COM145	Enables students to find and develop a narrative representing an aspect of their personal histories. Use of digital technology to produce and archive a storybook	Prerequisites: None.		Acad	L+L 1.0 2.0 2.0	T
STO200AA	2002 Summer I	Biographical Storytelling		Exploration of the art and craft of finding, developing and telling biographical stories	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
STO202	2013 Spring	Bilingual Storytelling		Introduction to bilingual storytelling as a genre. Research, develop, and craft bilingual stories. Find appropriate contexts and venues for telling. Assist in the integration and application of bilingual storytelling to the learning environment in the classroom.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
STO205	2012 Fall	Establishing a Family Storytelling Tradition		Developing a family storytelling tradition. Finding, crafting, telling and preserving the stories of family members past and present, including the traditional stories associated with the family's cultural heritages. Sharing stories in family and community contexts.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S

STO250AA	2007 Fall	Benefiting from the Storytelling Festival Experience		Observation of master storytellers in performance. Structured observation, inquiry, and reflection in the context of a major national storytelling festival.	Prerequisites: None.	STO250A A may be taken up to 3 times for different festival experiences.	Acad	LEC 1.0 1.0 1.0	S
STO273	2018 Summer	The Biblical Storytelling Tradition		Introduction to the history and practice of biblical storytelling. Overview of the oral foundation of biblical texts and teachings. Utilization of exegesis to develop and adapt stories for modern audiences. Researching, developing, and crafting Bible stories for telling. Telling biblical stories in family, community, and spiritual settings.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
STO279	2020 Fall	Creating and Telling Fact-Based Historical Stories	HIS279	Creating and telling fact-based stories and stories from history.	Prerequisites: A grade of C or better in EDU/HUM/STO292.	HIS/STO279 may be repeated for a total of six (6) credit hours.	Acad	LEC 3.0 3.0 3.0	S
STO282AA	2014 Summer	Service-Learning Experience in Storytelling		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	STO282A A may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 1.0 1.0 0.0	L
STO282AB	2014 Summer	Service-Learning Experience in Storytelling		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	STO282A B may be repeated for a total of six (6)	Acad	LAB 2.0 2.0 0.0	L

						credit hours. Standard grading available according to procedures outlined in catalog.			
STO282AC	2014 Summer	Service-Learning Experience in Storytelling		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	STO282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 3.0 3.0 0.0	L
STO283	2008 Fall	The African Storytelling Tradition		Introduction to the history and practice of storytelling in Africa. Overview of African myths, legends, folktales, parables, and fables. Great story tellers and story collectors of the past and present. Researching, developing, and crafting African stories for telling	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
STO284	2012 Fall	Storytelling and Music		Introduction to the role and importance of music in storytelling. Research, craft, and tell stories that include percussion, vocal, or instrumental elements.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
STO285	2012 Fall	Creating/Performing Solo/Collaborative Works	THP285	Developing, rehearsing, and performing solo and collaborative works for fringe festivals and other storytelling and theatre venues.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
STO286	2001 Fall	Using Storytelling in a Variety of Settings		The application of storytelling and storytelling activities in the world of health care, business, parks, museums, hospitals, and education	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S



STO287	2018 Summer	Norse and Scandinavian Storytelling Tradition		Overview of Norse and Scandinavian myths, legends, folktales. Impact of Norse and Scandinavian myth on popular culture. Researching, developing, and crafting Norse and Scandinavian stories for telling, game development, structuring graphic novels and other applications.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
STO288	2019 Spring	Telling Sacred Stories from Around the World		Introduction to sacred stories as a genre. Researching, developing, and crafting traditional and personal sacred stories. Finding appropriate applications and venues for telling.	Prerequisites: None.	Course Attribute(s) ): General Education Designatio n: Global Awarenes s - [G]	Acad	LEC 3.0 3.0 3.0	S
STO289AA	2023 Fall	Using Storytelling in Educational Settings		The application of storytelling and storytelling activities in educational settings.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
STO289AB	2001 Fall	Using Storytelling in Business Settings		The application of storytelling and storytelling activities in business settings	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
STO289AC	2001 Fall	Using Storytelling in Healing Settings		The application of storytelling and storytelling activities in healing settings	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
STO289AD	2001 Fall	Using Storytelling in Interpretive Settings		The application of storytelling and storytelling activities in interpretive settings including museums, gardens, parks, and zoos	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
STO289AE	2012 Fall	Using Storytelling in Toastmasters		The application of storytelling and storytelling activities in speaking and leadership groups such as Toastmasters.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
STO289AF	2012 Fall	Using Storytelling in Family Settings		The application of storytelling and storytelling activities in family settings, such as family story nights, holidays, and reunions. Emphasis on finding and sharing family stories.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
STO289AG	2012 Fall	Using Storytelling in Advocacy Settings		The application of storytelling and storytelling activities in contexts of advocacy and civic engagement. Focus on stories that reflect the goals and aims of a civic organization.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S

STO290	2016 Spring	The Irish Storytelling Tradition		Introduction to the history and practice of storytelling in Ireland. Overview of Irish myths, legends, folktales, and humorous tales. Great story tellers and story collectors of the past and present. Researching, developing, and crafting Irish stories for telling	Prerequisites: None.	Course Attribute(s): General Education Designation: Global Awareness - [G]	Acad	LEC 3.0 3.0 3.0	S
STO291AA	2018 Fall	Storytelling Circle		Designed to provide opportunities for students to practice and develop critical listening and storytelling skills.	Prerequisites: A grade of C or better in EDU/HUM/STO292 or permission of Instructor.	STO291A A may be repeated for a total of three (3) credits.	Acad	L+L 1.0 1.5 1.5	T
STO292	2023 Fall	The Art of Storytelling	EDU292 HUM292	Explore the art and origin of storytelling. Provide a variety of storytelling techniques, styles and exercises to enhance the delivery of telling stories. Assist in the integration and application of storytelling to the learning environment in the classroom.	Prerequisites: None.	Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
STO293	2001 Fall	The Art of Storytelling II		Further exploration of the art of storytelling. Provide opportunities for the expansion of storytelling skills and a deeper appreciation of storytelling and its applications	Prerequisites: A grade of C or better in EDU292 or HUM292 or STO292.		Acad	LEC 3.0 3.0 3.0	S
STO294	2001 Fall	Multicultural Folktales	EDU294 ENH294	Study of multicultural folktales, exploring the impact of the oral tradition in American society and showing classroom applications	Prerequisites: None.	General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S

STO295	2021 Spring	Traditional Storytelling Around the World		Introduction to traditional storytelling practices around the world. Understanding the roles and techniques of traditional storytellers. Telling traditional stories ethically.	Prerequisites: None.	Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] General Education Designation: Global Awareness - [G]	Acad	LEC 3.0 3.0 3.0	S
STO297	2001 Summer I	Creating and Telling Personal Stories		Exploration of the art and craft of finding, developing and telling personal stories.	Prerequisites: A grade of C or better in EDU292 or HUM292 or STO292.		Acad	LEC 3.0 3.0 3.0	S
STO298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to m	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0	Z
STO298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to m	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0	Z
STO298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an	Prerequisites: Permission of		Acad	LAB 3.0	Z

				atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to m	Program Director or Instructor.			3.0 0.0	
SUN101	2005 Spring	Basic Math for Carpenters		Mathematical concepts and operations for the carpentry trade. Addition, subtraction, multiplication and division of whole, decimal, fractional and metric numbers. Linear, angular, circular, surface and volume measurements. Basic geometry	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 2.0 2.0 2.0	S
SUN104	2005 Spring	Site Preparation I		Trade terms, local zoning and building ordinances, and plot plan layout. Installation of batter boards and establishing building lines. Set up and use of a builder's level.	Prerequisites: (Registered apprentice status and a grade of C or better in SUN101) or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0	S
SUN105	2011 Fall	Reading Plans and Elevations		Construction drawings, lines, symbols, dimensions and abbreviations. Specifications and site and plot plan development. Includes plan and elevation reading exercises.	Prerequisites: (Registered apprentice status and a grade of C or better in ABC123) or permission of the Apprenticeship Coordinator.		Occ	LEC 2.0 2.0 2.0	S
SUN108	2005 Spring	Wall Systems, Tilt-Up		History and evolution of tilt-up construction processes. Tilt- up versus concrete block or poured in place concrete walls. Testing of concrete and preparation of the slab for tilt-up. Grading and finishing concrete slabs and forming tilt-up panels. Lifting and bracing panels.	Prerequisites: (Registered apprentice status and a grade of C or better in SUN103) or permission of the Apprenticeship Coordinator.		Occ	LEC 1.5 1.5 1.5	S
SUN109	2010 Spring	Site Preparation II		Basic field engineering including terminology, methods of land description and the use of tools and instruments. Government land survey system procedures and specific procedures for field surveying.	Prerequisites: Registered apprentice status and a grade of C or better in SUN101 and SUN104 or permission of the		Occ	LEC 2.0 2.0 2.0	S

					Apprenticeship Coordinator.				
SUN110	2005 Spring	Forming		Concrete formwork including terminology, layout, materials and tolerances. Construction forms for columns, footings, walls, beams and stairs.	Prerequisites: (Registered apprentice status and a grade of C or better in SUN101) or permission of the Apprenticeship Coordinator.		Occ	LEC 1.5 1.5 1.5	S
SUN110AA	2010 Spring	Forming (Loose) Fundamentals		Cushion cone and cam-lock forming system. Various form and scaffold bracket systems. Forming teams, snap ties, aluma gang forms. Lumber versus Laminated Veneer Lumber (LVL) strongbacks.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0	S
SUN111	2002 Fall	Introduction to Light Equipment		Use, operation and maintenance of light equipment used in the construction trades. Types, assemblies, operator qualifications, controls, safety precautions, operating procedures, and maintenance of aerial lifts, skid steer loaders, trenchers, generators, compressors, compactors and forklifts	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
SUN112	2010 Spring	Framing Fundamentals		Wall and ceiling layout procedures. Assembly and erection of exterior walls using common materials and methods. Masonry construction wall framing techniques and use of metal studs.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0	S
SUN201	2005 Spring	Reinforcing Concrete		Use of reinforced concrete and reinforcing steel. Reinforced concrete in specific settings. Reinforcing steel; bar supports, bar lists, fabrication options, cutting and bending, tying, splicing and placing bars	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.5 1.5 1.5	S
SUN202	2010 Spring	Horizontal and Vertical Formwork		Concrete forming and shoring systems and accessories, panel and gang wall patented wall forming systems. Column patented forms, flying form systems and culvert and roof support systems. Slipforming, paving and architectural forms. Application and construction methods for various types of forming and form	Prerequisites: (Registered apprentice status and a grade of C or better in SUN201) or permission of the Apprenticeship Coordinator.		Occ	LEC 2.0 2.0 2.0	S

				hardware systems for walls, columns, and stairs as well as slip forms, climbing forms, and shaft forms. Overview of assembly, erection and stripping of gang forms.					
SUN207	2005 Spring	Metal Studs and Drywall		Installation of metal framing members and gypsum dry wall. Gypsum ceiling products and installation procedures	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.5 1.5 1.5	S
SUN208	2005 Spring	Construction Plans and Elevations		Construction drawings, plans and elevations. Lines, symbols, dimensions and abbreviations. Specifications and site and plot plan development. Includes plan and elevation reading exercises.	Prerequisites: (Registered apprentice status and a grade of C or better in SUN105) or permission of the Apprenticeship Coordinator.		Occ	LEC 1.5 1.5 1.5	S
SUN298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z
SUN298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z
SUN298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an	Prerequisites: Permission of		Occ	LAB 3.0	Z

				atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Program Director or Instructor.			3.0 0.0	
SUS100	2011 Summer I	Introduction to Sustainability		Introduction to the basic concepts of sustainability. Includes challenges of land, ocean, and resource management as well as the built environment. Also covers connections between global, local and personal sustainability challenges and responses at each level.	Prerequisites: None.	Course Attribute(s): General Education Designation: Global Awareness - [G]	Acad	LEC 3.0 3.0 3.0	S
SUS110	2016 Spring	Sustainable World		Introduction to the field of sustainability and exploration of the interaction between human and natural global systems. Framework for analyzing and investigating the global challenges such as land use change, competition for water and other natural resources, and renewable energy concerns and crises.	Prerequisites: None.	Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S
SUS230	2014 Fall	Practical Skills for Sustainability Problem Solving		Introduction to professional skills in sustainability problem solving. Emphasis on four skill areas: teamwork basics, project management tools and professional behaviors, self-directed learning techniques, and stakeholder engagement. Also covers techniques for identification of challenges and conflict resolution within a sustainability project.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
SUS231	2014 Fall	Careers in Sustainability		Introduction to career pathways in sustainability. Exploration of career paths, development of interview skills, and resume creation covered in addition to articulation of personal interests and values related to careers in sustainability. Also includes	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S

				an introduction to networking skills and job search assistance.					
SUS232	2017 Fall	Professional Skills in Sustainability Practice		Introduction to professional skills in sustainability through interpersonal competence. Emphasis on teamwork, project management, stakeholder engagement, communication, and continuous learning.	Prerequisites: A grade of C or better in SUS110 and SSH111 and (ENG101 or ENG107).		Acad	LEC 3.0 3.0 3.0	S
SWU101AA	2023 Fall	Self-Awareness for Paraprofessional Helpers		Explores the paraprofessional helper's feelings and values, and encourages examination of one's own strengths, weaknesses and coping skills within the context of the helping relationship.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
SWU101AB	2023 Fall	Awareness of Others for Paraprofessional Helpers		Applies the paraprofessional helper's insights about themselves within the context of knowledge about client populations, diversity, ethics, and beginning stages of assessment.	Prerequisites: A grade of C or better in SWU101AA.		Acad	LEC 1.0 1.0 1.0	S
SWU101AC	2023 Fall	Intervention Assessment for Paraprofessional Helpers		Introduction for the paraprofessional helper to intervention techniques, beginning communication skills, community resources, and development of action plans.	Prerequisites: A grade of C or better in SWU101AB.		Acad	LEC 1.0 1.0 1.0	S
SWU130	2023 Fall	Addictions and Substance Use Disorders		Sociological, psychological and physiological aspects of addictive behaviors and chemical abuse. Consideration of a variety of treatment programs offered in community agencies.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
SWU171	2021 Spring	Introduction to Social Work		Analysis of contemporary social welfare services and professional social work.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
SWU181	2018 Fall	Economics: A Social Issues Perspective		Introduction to economic principles through the lens of contemporary social issues for social work and related fields.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
SWU182	2023 Fall	A Social Services Perspective of Government		Government and the role of policy practice in advancing social and economic justice and effective social services within the southwest.	Prerequisites: None.	Course Attribute(s): General Education Designation: Social-Behavioral	Acad	LEC 3.0 3.0 3.0	S



						Sciences - [SB]			
SWU183	2023 Fall	Introductory Ethics: A Social Service Perspective		Introductory exploration of ethics from a historical and multicultural perspective viewed through the lens of contemporary social issues.	Prerequisites: None.	Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
SWU225	2023 Fall	Statistics for Social Research/Justice and Government		Introductory course in descriptive and inferential statistics for social research. Designed to serve as preparation for interpreting and understanding research related to Justice and Government related agencies.	Prerequisites: A grade of C or better in MAT092 or completion of higher level mathematics course.	Course Attribute(s): General Education Designation: Computer/Statistics/Quantitative Applications - [CS]	Acad	LEC 3.0 3.0 3.0	S
SWU250	2013 Fall	Mindfulness for Stress Management		Introduction to the theory, research and practice behind mindfulness and stress management as it relates to quality of life issues and professional self-care. Focus on maintaining a healthy lifestyle and managing personal/professional stress by incorporating evidence based research on nutrition, mindfulness, communication, positive psychology, exercise, environmental factors contributing to wellness and disease; immune system support, activity management and developing practices that facilitate maintaining living in balance.	Prerequisites: None.	Course Attribute(s): General Education Designation: Social-Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S
SWU258	2023 Fall	Victimology and Crisis, a Social Services Perspective		A social work response to victimology, working with the criminal justice system, evidence-based techniques in crisis intervention, and the importance of a multicultural and	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S

				global perspective. Includes a therapeutic approach to topics such as sexual assault, family violence, post-traumatic stress disorder, stress management, natural disasters, effective coping skills, appropriate community resources, and the responsiveness of the justice system.					
SWU275AA	2023 Fall	Case Report Writing I		Documentation skills for human service helpers. Includes privacy and legal issues.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
SWU282AA	1993 Fall	Volunteerism for Social Work: A ServiceLearning Experience		Service-learning field experience within private/public agencies, and citizen volunteer groups.	Prerequisites: Permission of Instructor.	SWU282A A may be repeated for a total of six (6) credit hours; may not repeat specific assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 1.0 1.0 0.0	L
SWU282AB	1993 Fall	Volunteerism for Social Work: A ServiceLearning Experience		Service-learning field experience within private/public agencies, and citizen volunteer groups.	Prerequisites: Permission of Instructor.	SWU282A B may be repeated for a total of six (6) credit hours; may not repeat specific	Acad	LAB 2.0 2.0 0.0	L

						assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in catalog.			
SWU282AC	1993 Fall	Volunteerism for Social Work: A ServiceLearning Experience		Service-learning field experience within private/public agencies, and citizen volunteer groups.	Prerequisites: Permission of Instructor.	SWU282A C may be repeated for a total of six (6) credit hours; may not repeat specific assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 3.0 3.0 0.0	L
SWU285	2023 Fall	Social Services Seminar		Special topics in social services with an emphasis on current issues not covered in other Social Work courses.	Prerequisites: None.	SWU285 may be repeated for a total of four 4 credit hours.	Acad	LEC 1.0 1.0 1.0	S

SWU291	2023 Fall	Social Service Delivery Systems		Purposes, structures, and delivery systems of human service agencies. Includes 40 hours of volunteer experience in local human service agencies.	Prerequisites: A grade of C or better in SWU171, or permission of Department or Division or Corequisites: SWU171.		Acad	LEC 3.0 3.0 3.0	S
SWU295	2023 Fall	Effective Helping in a Diverse World		Introduction to professional helper communication skills with respect to cross-cultural practice and diversity issues, in a social work setting.	Prerequisites: None. SWU171 suggested but not required.	Course Attribute(s): General Education Designation: Cultural Diversity [C] General Education Designation: Social-Behavioral Sciences [SB]	Acad	LEC 3.0 3.0 3.0	S
SWU296WA	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 1.0 5.0 0.0	Z
SWU296WB	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and	Prerequisites: Completion of at least		Acad	LAB 2.0	Z

				employers to accomplish an outcome related to the career objectives of the students.	twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			10.0 0.0	
SWU296WC	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 3.0 15.0 0.0	Z
SWU296WD	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain		Acad	LAB 4.0 20.0 0.0	Z

					a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.				
SWU298AA	2023 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0	Z
SWU298AB	2023 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0	Z
SWU298AC	2023 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0	Z

				for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.					
TDR102	2006 Fall	Construction Soft Skills I: Workplace Skills		First impressions, relationship building, and team work. Diversity in the work place. Individual and group activities.	Prerequisites: Registered apprentice status or permission of Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0	S
TDR104	2006 Fall	Construction Soft Skills II: Listening and Speaking		Effective listening, speaking, reading and writing skills for the construction industry. Communication process: channel, receiver and feedback. Communication issues, problems, and noise. Business and form writing for the construction industry. On-the-job site factors. Individual and group activities	Prerequisites: A grade of C or better in TDR102.		Occ	LEC 1.0 1.0 1.0	S
TDR106	2006 Fall	Construction Soft Skills III: Resolving Workplace Issues		Stress recognition and management. Time management. Critical thinking and problem solving. Conflict prevention and resolution. Annoying behavior. Coping skills. Criticism. Sexual harassment. drug, alcohol, and substance abuse. Individual and group activities	Prerequisites: A grade of C or better in TDR104.		Occ	LEC 1.0 1.0 1.0	S
TDR122	2009 Spring	Basic Electrical Theory		Introduction to electrical theory, direct current (DC) circuits, series, parallel, and series-parallel circuits, DC power sources, DC motors, DC generators	Prerequisites: Permission of Instructor.		Occ	LEC 5.0 5.0 5.0	A
TDR296WA	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be		Occ	LAB 1.0 5.0 0.0	Z

					concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.				
TDR296WB	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 2.0 10.0 0.0	Z
TDR296WC	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or		Occ	LAB 3.0 15.0 0.0	Z



					career interest or with permission of Instructor.				
TDR296WD	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 4.0 20.0 0.0	Z
TDR298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z
TDR298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z

				combined to maximize student development.					
TDR298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z
TEC103	2007 Fall	Developing Your Fashion Business		Creating and understanding a financial plan, developing operating and control systems, planning growth strategies and a business plan for the Fashion Entrepreneur. Emphasis on fashion merchandise and successful fashion business development	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
TEC105	2019 Fall	Cultural Aspects of Clothing		Psychological, aesthetic, and economic factors applied to the systematic study of dress and adornment in relationship to world cultures and the global fashion industry.	Prerequisites: None.	Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] General Education Designation: Social-Behavioral Sciences [SB]	Occ	LEC 3.0 3.0 3.0	S
TEC106	2015 Summer	History of Fashion		Consideration of historic factors influencing fashion and fashion change with special emphasis on historic costume.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
TEC108	2023 Fall	Flat-Pattern Design		Beginning flat-pattern design techniques. Introductory work with pattern accuracy, markings, style	Prerequisites: A grade of C or better in TEC110 or	TEC108 may be repeated	Occ	L+L 3.0	T

				variations, seams, and garment features to create basic designs.	permission of Instructor.	for a total of six (6) credit hours.		4.0 4.0	
TEC109	2017 Fall	Introduction to Fashion Merchandising	MKT109	Explores the various levels and specialized segment of the fashion industry, the principles of fashion, the fundamentals of merchandising apparel, consumers' influence on demand and marketing activities.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
TEC110	2020 Fall	Beginning Apparel Construction		Basic apparel construction techniques. Use of commercial patterns and sewing machine in the construction of basic garments.	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0	T
TEC111	2020 Fall	Intermediate Apparel Construction		Intermediate clothing construction techniques. Emphasis on fit and construction details of commercial patterns.	Prerequisites: A grade of C or better in TEC110 or permission of Instructor.	TEC111 may be repeated for a total of twelve (12) credit hours with Permission of Instructor. If student has no previous sewing experience, TEC110 should be taken prior to and not during this course.	Occ	L+L 3.0 5.0 5.0	T
TEC112AQ	2018 Fall	Pattern Alteration and Fit		Structural features of patterns and altering patterns to achieve proper fit. Includes figure irregularities, pattern style variations, fashion, and individual figure problems.	Prerequisites: A grade of C or better in TEC111 or permission of Instructor.	TEC112AQ may be repeated for a total of six (6) credit hours with Instructor permission.	Occ	L+L 2.0 3.0 3.0	T

TEC112AU	2018 Fall	Sewing Clothing Accessories		Construction of clothing accessories for personal or professional use. Includes overview of accessories, principles of design, selection of fabrics and trims, use of commercial patterns, creation of custom patterns, construction techniques, and evaluation of accessories.	Prerequisites: A grade of C or better in TEC111 or permission of Instructor.	TEC112AU may be repeated for a total of twelve (12) credit hours.	Occ	L+L 3.0 5.0 5.0	T
TEC113	2018 Fall	Textiles: Dyeing		Demonstrations and projects emphasizing skills and techniques in creating textile designs on fabric for fashion and interior design applications. Fabric dyeing techniques through hands-on practices such as tie dyeing, shibori dyeing and batik dyeing.	Prerequisites: None.	TEC113 may be repeated for a total of three (3) credits.	Occ	L+L 1.0 1.5 1.5	T
TEC114	2018 Fall	Textiles: Block Printing/Silk Screening		Block printing and silk screening techniques used to create designs on fabric for apparel and interiors.	Prerequisites: None.	TEC114 may be repeated for a total of three (3) credits.	Occ	L+L 1.0 2.0 2.0	T
TEC115	2018 Fall	Textiles: Hand Painting		Techniques used to hand paint designs on textiles for fashion and interior design. Techniques include water color and ombre, marbledizing, stenciling, stamping and various resist methods such as gutta and taping. Includes color theory and design development.	Prerequisites: None.	TEC115 may be repeated for a total of three (3) credits.	Occ	L+L 1.0 1.5 1.5	T
TEC116	2018 Fall	Textiles: Stitchery and Embellishment		Materials and techniques used for stitchery and embellishment on textiles. Includes color schemes and design development.	Prerequisites: None.	TEC116 may be repeated for a total of three (3) credits.	Occ	L+L 1.0 1.5 1.5	T
TEC120	2020 Fall	Specialty Apparel Construction		Application of specialty fabrics in clothing construction. Emphasis on improved construction quality and garment fit.	Prerequisites: A grade of C or better in TEC111, or THP206, or permission of Instructor.	TEC120 may be repeated for a total of nine (9) credit hours with permission of Instructor.	Occ	L+L 3.0 5.0 5.0	T

TEC121	2023 Fall	Creative Sewing Machine Use		Use of the sewing machine for other than construction of garments or household items. Emphasis on decorative uses of the sewing machine on items made or purchased by the user.	Prerequisites: A grade of C or higher in TEC110 or permission of Instructor.		Occ	L+L 3.0 3.0 3.0	T
TEC122	2020 Fall	Sewing with Knits		Skills and techniques used in the construction of garments made from knit fabrics.	Prerequisites: A grade of C or better in TEC111, or THP206, or permission of Instructor.		Occ	L+L 3.0 5.0 5.0	T
TEC124	2020 Fall	Advanced Apparel Construction		Advanced garment construction techniques. Emphasis on lined jacket construction and working with patterned and specialty fabrics.	Prerequisites: A grade of C or better in TEC111, or THP206, or permission of Instructor.	TEC124 may be repeated for a total of twelve (12) credit hours with permission of Instructor.	Occ	L+L 3.0 5.0 5.0	T
TEC125	2021 Fall	Fashion Design		Overview of the fashion design industry. Includes terminology, fashion trends, elements and principles of design, sources of inspiration, fabric selection, sketching and costing a collection, an introduction to pattern making techniques, and global fashion centers' design and manufacturing specialties.	Prerequisites: None.	Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU]	Occ	LEC 3.0 3.0 3.0	S
TEC126	2019 Fall	Sewing for the Home	INT126	Provides students systemic skills and knowledge to plan and construct draperies, shades, pillows, bedding and other home furnishings through instructional projects. Emphasizes techniques used in producing textile goods for the home.	Prerequisites: None.	Basic sewing skills are recommended. INT/TEC126 may be repeated for a total of nine (9) credit hours.	Occ	LEC 3.0 3.0 3.0	S

TEC128	2018 Fall	Home Upholstery		Demonstration and application of knowledge and skills involved in upholstering stools, chairs, headboards, and other home furnishings. Includes measuring and cutting upholstery fabric and sewing outdoor/indoor cushions.	Prerequisites: None.	TEC128 may be repeated for credit.	Occ	L+L 3.0 5.0 5.0	T
TEC129	2020 Fall	Sewing with a Serger		Operation of a home serger. Use in constructing, finishing, and decorating garments and home decorations. Home serger required.	Prerequisites: A grade of C or better in TEC110 or permission of Instructor.		Occ	L+L 3.0 5.0 5.0	T
TEC130	2020 Fall	Alteration of Ready Made Garments		Knowledge, skills, and techniques of altering ready-made garments for personal or professional use. Experience using a sewing machine and constructing garments assumed.	Prerequisites: A grade of C or better in TEC111 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
TEC133	2022 Spring	Fashion Illustration: Croquis		Techniques for working with female and male croquis. Applications for illustrating clothing on croquis and preparing a fashion layout.	Prerequisites: None.	TEC133 may be repeated for a total of six (6) credit hours.	Occ	L+L 2.0 4.0 4.0	T
TEC134	2018 Fall	Fashion Illustration I		Proportions and techniques used in drawing fashion figures and clothing. Introduction of media and illustrative styles for portfolio design, trade sketches, and fashion advertisements.	Prerequisites: None.	TEC134 may be repeated for a total of nine (9) credits.	Occ	L+L 3.0 5.0 5.0	T
TEC135	2018 Fall	Fashion Illustration II		Intermediate-level study of proportion and techniques used in drawing fashion figures, clothing, and flats. Continued study of garments, fabric textures and patterns. Development of skills in presentation drawing and commencing fashion design portfolio illustrations.	Prerequisites: A grade of C or better in TEC134 or permission of Instructor.	TEC135 may be repeated for a total of nine (9) credits.	Occ	L+L 3.0 5.0 5.0	T
TEC136	2018 Fall	Fashion Illustration III		Advanced-level study of proportions and techniques used in drawing fashion figures, clothing, and flats. Continued study of illustrative styles for garments, fabric textures and patterns. Further development of skills in portfolio presentation.	Prerequisites: A grade of C or better in TEC135 or permission of Instructor.	TEC136 may be repeated for a total of nine (9) credits.	Occ	L+L 3.0 5.0 5.0	T

TEC138	2018 Fall	Fashion Illustration: Menswear		Study of proportions and techniques used in drawing menswear fashion figures, clothing, accessories, and flats. Focus on the male physique and specific fitting variations of clothing. Introduction of traditional menswear fabrications and poses for tailored clothing and sportswear.	Prerequisites: A grade of C or better in TEC134 or permission of Instructor.	TEC138 may be repeated for a total of nine (9) credit hours.	Occ	L+L 3.0 5.0 5.0	T
TEC139	2020 Fall	Fashion Illustration: Children's Wear		Study of proportions and techniques used in drawing children's wear fashion figures, clothing, and flats from infants through teenagers. Introduction of body and feature characteristics unique to the various ages of growth for children. Includes emphasis on common clothing styles, fabrics, effects, and details.	Prerequisites: A grade of C or better in TEC134 or permission of Instructor.		Occ	L+L 3.0 5.0 5.0	T
TEC141	2018 Fall	Fashion Design: CAD		Use of computer-assisted design (CAD) in the fashion design industry. Create and illustrate fashion designs using these applications. Color and design principles applied in creating an apparel line and developing a portfolio	Prerequisites: None.	TEC141 may be repeated for a total of six (6) credits.	Occ	L+L 2.0 2.0 2.0	T
TEC143	2022 Fall	Industrial Sewing I		Introduction to industrial sewing machine usage with emphasis on techniques, applications, and stitching control. Basic methods used in constructing, finishing, and decorating apparel.	Prerequisites: A grade of C or better in TEC111 or permission of Instructor.	TEC143 may be repeated for a total of six (6) credit hours.	Occ	L+L 2.0 3.0 3.0	T
TEC144	2022 Fall	Industrial Sewing II		Use of standard industrial sewing machines with emphasis on techniques, applications, speed, and stitching control. Expanded methods in intermediate and advanced construction, finishing, and decorating apparel.	Prerequisites: A grade of C or better in TEC143 or permission of Instructor.	TEC144 may be repeated for a total of six (6) credit hours.	Occ	L+L 2.0 3.0 3.0	T
TEC146	2018 Fall	Manufacturing Sewing Methods I		Introduction to skills and techniques of sewing for apparel manufacturing ready-made-garments. Focus on applying correct clothing construction methods required to achieve the right quality level for the apparel customer using the proper commercial design and materials.	Prerequisites: A grade of C or better in TEC144 or permission of Instructor.	TEC146 may be repeated for a total of six (6) credit hours.	Occ	L+L 2.0 3.0 3.0	T

TEC147	2018 Fall	Manufacturing Sewing Methods II		Advanced skills and techniques of sewing for apparel manufacturing ready-made-garments. Advanced application of correct clothing construction methods required to achieve the right quality level for the apparel customer using the proper commercial design and materials.	Prerequisites: A grade of C or better in TEC146 or permission of Instructor.	TEC147 may be repeated for a total of six (6) credit hours.	Occ	L+L 2.0 3.0 3.0	T
TEC150	2019 Spring	Fashion Show Production		Students will learn and experience real-time production techniques and skills of a fashion show. Includes but not limited to, budget planning, project management, marketing, staffing, décor, staging, and production.	Prerequisites: None.	TEC150 may be repeated for a total of six (6) credit hours.	Occ	L+L 3.0 4.0 4.0	T
TEC151	2018 Fall	Display and Visual Merchandising	MKT151	An examination of the principles of design including line, color, balance, and texture as they relate to the display of merchandise. Participation in displays, field trips, and individual projects	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
TEC161	2018 Fall	Digital Machine Embroidery Laboratory		Use of the sewing machine and computer for development of decorative designs for garment and fabric design	Prerequisites: None.	TEC161 may be repeated for a total of six (6) credits.	Occ	LAB 1.0 2.0 2.0	T
TEC162	2018 Fall	Product Development Laboratory		Focus on current trends in fashion product development; methods and techniques to translate design ideas into a realistic production product	Prerequisites: A grade of C or better in TEC125 or permission of Instructor.	TEC162 may be repeated for a total of six (6) credits.	Occ	LAB 1.0 1.0 1.0	T
TEC200	2005 Spring	Retail Buying	MKT200	Examines management/buyer role in investment, pricing, planning, controlling sales and inventories Any BPC/CIS spreadsheet course recommended	Prerequisites: None. A grade of C or better in any BPC/CIS spreadsheet course recommended.		Occ	LEC 3.0 3.0 3.0	S
TEC221	2019 Spring	Computer- Assisted Fashion Design		The use of computer hardware and software in the fashion design industry. Create and illustrate fashion designs using computer hardware and software. Color and design principles applied in creating an apparel line and developing a portfolio.	Prerequisites: A grade of C or better in (TEC125 and TEC134) or permission of Instructor.		Occ	L+L 3.0 5.0 5.0	T



TEC222	2018 Fall	Textiles		Study of textile fibers, yarns, fabrication, color and finishes and their impact on product performance. Includes labeling laws, fiber manufacturing processes, technical textiles, fiber properties, care, end use, and global sustainability efforts.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
TEC223	2018 Fall	Tailoring		Principles of tailoring as applied in the construction of a coat or suit. Alteration of patterns and fitting techniques.	Prerequisites: A grade of C or better in TEC124 or permission of Instructor.	TEC223 may be repeated for a total of twelve (12) credit hours with permission of instructor.	Occ	L+L 3.0 6.0 6.0	T
TEC224	2018 Fall	Pattern Drafting		Draft patterns from measurements of dress forms and human figures. Development of slopers and garment patterns. Design and produce an original garment using pattern drafting techniques.	Prerequisites: A grade of C or better in TEC111 or permission of Instructor.	TEC224 may be repeated for a total of six (6) credit hours.	Occ	L+L 2.0 3.0 3.0	T
TEC225	2020 Fall	Pattern Design I		Creation of pattern designs by flat pattern methods. Produce a variety of styles. Production of an original pattern design and garment.	Prerequisites: A grade of C or better in TEC111, or THP206, or permission of Instructor.	TEC225 may be repeated for a total of twelve (12) credits.	Occ	L+L 3.0 5.0 5.0	T
TEC226	2020 Fall	Draping for Fashion Design		Manipulation of fabrics on a dress form and/or live figure to create designs and patterns. Use of woven fabrics to create basic and intermediate designs. Introduction of knitwear draping. Drape and construct an original design.	Prerequisites: A grade of C or better in TEC111, or THP206, or permission of Instructor.	TEC226 may be repeated for a total of nine (9) credits.	Occ	L+L 3.0 5.0 5.0	T
TEC227	2020 Fall	Couture Sewing		Construction techniques used in couture sewing. Includes fabric selection, fabric preparation, hand sewing, garment shaping, edge finishes, embellishments, and closures. Emphasis on fitting and couture construction techniques used to construct skirts, pants, blouses,	Prerequisites: A grade of C or better in TEC111, or THP206, or permission of Instructor.	TEC227 may be repeated for a total of twelve (12) credit hours with permission	Occ	L+L 3.0 5.0 5.0	T

				dresses, sleeves, pockets, jackets, coats, and evening wear.		n of Instructor.			
TEC228	2018 Fall	Advanced Draping for Fashion Design		Advanced draping techniques for fashion design. Includes draping jackets/coats, shorts/pants, dresses/gowns and other woven fabrics. Also includes draping swimwear/leotards and other garments in knit fabrics. Drape and construct an original design.	Prerequisites: A grade of C or better in TEC226 or permission of Instructor.	TEC228 may be repeated for a total of nine (9) credits.	Occ	L+L 3.0 5.0 5.0	T
TEC229	2018 Fall	Advanced Serging		Operation of a home serger in advanced application of construction and embellishment for garments and home decoration projects. Home serger required.	Prerequisites: A grade of C or better in TEC129 or permission of Instructor.		Occ	L+L 3.0 5.0 5.0	T
TEC230	2018 Fall	Pattern Design II		Practical application in designing clothing/patterns using flat pattern method. Principles of flat pattern and use of sloper reviewed. Includes creation of woven and knit original designs.	Prerequisites: A grade of C or better in TEC225 or permission of Instructor.	TEC230 may be repeated for a total of twelve (12) credits.	Occ	L+L 3.0 5.0 5.0	T
TEC231	2018 Fall	Pattern Grading		Grading patterns to change sizes. Includes grading terminology, grading methods, figure types, grading charts, types of grade, even and uneven grades, and grading basic and intermediate designs.	Prerequisites: A grade of C or better in TEC111 or permission of Instructor.	TEC231 may be repeated for a total of six (6) credit hours.	Occ	L+L 3.0 5.0 5.0	T
TEC232	2018 Fall	Costume Construction		Costume construction techniques applied to period reproduction, vintage, fantasy and anime; stage and dance costumes. Includes alteration of commercial patterns, drafting of original patterns, and fitting techniques.	Prerequisites: A grade of C or better in TEC111 and (TEC224 or TEC225 or TEC226 or permission of Instructor).	TEC232 may be repeated for a total of twelve (12) credit hours with permission of Instructor.	Occ	L+L 3.0 5.0 5.0	T
TEC233	2018 Fall	Computer-Assisted Pattern Making		Pattern making using the computer and various software programs. Includes measuring, block patterns, pattern development, production patterns, modifications for size and fit, and markers	Prerequisites: A grade of C or better in TEC225 or permission of Instructor.	TEC233 may be repeated for a total of twelve (12) credit hours with	Occ	L+L 3.0 5.0 5.0	T

						permission of Instructor.			
TEC234	2019 Fall	Vintage Fashion Design		Research of 20th-century fashions from the 1920s through the 1990s influencing vintage garment styles. Analysis of vintage era and revival trends. Development and construction of an original vintage garment/ensemble including design, fabric selection, and commercial pattern use with flat-patternmaking and/or draping variations.	Prerequisites: A grade of C or better in (TEC225 or TEC226) or permission of Instructor.	TEC234 may be repeated for a total of twelve (12) credit hours.	Occ	L+L 3.0 5.0 5.0	T
TEC235	2018 Fall	Custom Tailored Pants		Designed for the home sewing enthusiast or dressmaker who desires a perfectly fitted pant pattern. Pattern adjustments; selecting proper size; fitting procedures for a personalized pant. Fabric draft of the basic pant to be fitted on each student	Prerequisites: A grade of C or better in TEC111 or equivalent.		Occ	L+L 2.0 3.0 3.0	T
TEC236	2018 Fall	Portfolio Development		This course is designed to assist students in the preparation and presentation of an original professional portfolio. Students will design, produce, and present artistic sketches and illustrations of fashion figures wearing designs, flats for garment designs, and fabric swatches/samples selected for designs. Including but not limited to using computer-assisted design software, presentation boards, and other required components in the field of portfolio development.	Prerequisites: A grade of C or better in TEC134 and permission of Department or Division. TEC221 is recommended.	TEC236 may be repeated for a total of three (3) credits.	Occ	LAB 1.0 3.0 0.0	C
TEC237	2021 Fall	Intermediate Computer-Assisted Fashion Design		Intermediate-level study in the use of computer hardware and software in the fashion design industry. Draw fashion figures, create textile designs, develop and illustrate an original portfolio collection.	Prerequisites: A grade of C or better in (TEC134 and TEC221) or permission of Instructor.		Occ	L+L 3.0 5.0 5.0	T
TEC238	2019 Fall	Industry Patternmaking Standards		Study of patternmaking techniques for industry. Specifications for production patterns, labeling methods, and direction cards.	Prerequisites: A grade of C or better in TEC225 or permission of Instructor.	TEC238 may be repeated for a total of three	Occ	L+L 1.0 2.0 2.0	T

						(3) credit hours.			
TEC240	2018 Fall	Apparel Production Management		Overview of apparel production management for the global marketplace examining component details of the technical package, tech-pack, which include specifications and costing in the most time-efficient manner.	Prerequisites: None.	TEC240 may be repeated for a total of six (6) credit hours.	Occ	L+L 2.0 3.0 3.0	T
TEC241	2021 Fall	Advanced Computer-Assisted Fashion Design		Advanced techniques and use of computer hardware and software in the fashion design industry. Create and illustrate fashion designs using multiple computer applications. Create advanced textile surface pattern design using color and design principles on the computer. Manipulate CAD pattern design for original patterns, grading, and markers. Create storyboards for product development and personal portfolio.	Prerequisites: A grade of C or better in TEC124 and TEC237.		Occ	L+L 3.0 5.0 5.0	T
TEC244	2018 Fall	Industrial Sewing III		Mastery study of industrial sewing machine usage for straight-stitch, zigzag, over-lock, cover stitch and blind-hem machines. Use in detailed or complex constructing, finishing, and decorating apparel and home decor.	Prerequisites: A grade of C or better in TEC144 or permission of Instructor.	TEC244 may be repeated for a total of six (6) credit hours.	Occ	L+L 2.0 3.0 3.0	T
TEC245	2020 Fall	Wardrobe Strategies		Methods of clothing selection, coordination, evaluation, and planning to meet men's and women's wardrobe needs.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
TEC247	2018 Fall	Manufacturing Sewing Methods III		Mastery knowledge, skills, and techniques of sewing for apparel manufacturing ready-made-garments. Mastery level application of correct clothing construction methods required to achieve the right quality level for the apparel customer using the proper commercial design and materials.	Prerequisites: A grade of C or better in TEC147 or permission of Instructor.	TEC247 may be repeated for a total of six (6) credit hours.	Occ	L+L 2.0 3.0 3.0	T
TEC250	2005 Spring	Apparel Quality Analysis		Quality analysis of construction components that affect the appearance, function, and cost of ready-to-wear apparel	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S

TEC255	2007 Fall	Fashion Retail Merchandising		Surveys the structure and operation of fashion retail organizations. Emphasizes the global nature of fashion merchandising and techniques of merchandising for the fashion merchandising major.	Prerequisites: A grade of C or better in MKT/TEC109.		Occ	LEC 3.0 3.0 3.0	S
TEC260	2007 Fall	Fashion Sales Management		Emphasizes the fashion aspects of sales, and the application and management of a sales force for the fashion industry.	Prerequisites: A grade of C or better in MKT/TEC109.		Occ	LEC 3.0 3.0 3.0	S
TEC270	2020 Fall	Design Studio		Design and production of original garments for a line/collection. Includes design inspirations, sketches/illustrations, fabric/materials selection, pattern development, construction and fit.	Prerequisites: A grade of C or better in (TEC225 or TEC226) or permission of Instructor.	TEC270 may be repeated for a total of twelve (12) credit hours.	Occ	LAB 3.0 4.0 4.0	T
TEC271AA	2017 Fall	Fashion Design Internship		Work experience in fashion design business or industry. Work hours are coordinated for a minimum of 80 hours per semester. Supervision and evaluation by internship coordinator.	Prerequisites: Permission of Department or Division.	TEC271A A may be repeated for a total of three (3) credit hours.	Occ	LAB 1.0 5.0 0.0	C
TEC271AC	1997 Fall	Fashion Design Internship		Work experience in fashion design business or industry. Fifteen hours of work weekly. Supervision and evaluation by an internship coordinator	Prerequisites: Permission of Department or Division.		Occ	LAB 3.0 15.0 0.0	C
TEC272AA	2019 Spring	Retail Merchandising Internship		Retail Merchandising work experience in a Fashion Retail business or industry. Supervision and evaluation by an internship coordinator. Eighty hours of designated work, per credit per semester.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify); or permission of Instructor.		Occ	LAB 1.0 1.0 0.0	C
TEC272AC	2019 Spring	Retail Merchandising Internship		Retail Merchandising work experience in a Fashion Retail business or industry. Supervision and evaluation by an internship coordinator. Eighty	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6		Occ	LAB 3.0 3.0 0.0	C

				hours of designated work, per credit per semester.	grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify); or permission of Instructor.				
TEC274AA	2018 Spring	Fashion Merchandising Study Tour		A tour of the fashion merchandising industry outside the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance awareness of this multifaceted career	Prerequisites: Permission of Department or Division.		Occ	LAB 1.0 5.0 1.0	F
TEC274AB	2018 Spring	Fashion Merchandising Study tour		A tour of the fashion merchandising industry outside the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance awareness of this multifaceted career.	Prerequisites: Permission of Department or Division.		Occ	LAB 2.0 10.0 2.0	F
TEC274AC	2001 Fall	Fashion Merchandising Study Tour	MKT274AC	A tour of the fashion merchandising industry outside the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance awareness of this multifaceted career	Prerequisites: Permission of Department or Division.		Occ	LAB 3.0 15.0 3.0	F
TEC275AA	2019 Spring	Image Consultant Internship		Image Consultant work experience in a Fashion Retail business or industry. Supervision and evaluation by an internship coordinator. Eighty hours of designated work, per credit per semester.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify); or permission of Instructor.		Occ	LAB 1.0 1.0 0.0	C
TEC275AC	2019 Spring	Image Consultant Internship		Image Consultant work experience in a Fashion Retail business or industry. Supervision and evaluation by an internship coordinator. Eighty hours of designated work, per credit per semester.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals		Occ	LAB 3.0 3.0 0.0	C

					(student's present job may qualify); or permission of Instructor.				
TEC277AA	2019 Spring	Alteration Internship		Alteration work experience in a business or industry. Supervision and evaluation by an internship coordinator. Eighty hours of designated work, per credit per semester.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify); or permission of Instructor.		Occ	LAB 1.0 1.0 0.0	C
TEC277AC	2019 Spring	Alteration Internship		Alteration work experience in a business or industry. Supervision and evaluation by an internship coordinator. Eighty hours of designated work, per credit per semester.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify); or permission of Instructor.		Occ	LAB 3.0 3.0 0.0	C
TEC278AA	2019 Spring	Costume Design and Production Internship		Costume Design and Production work experience in a business or industry. Supervision and evaluation by an internship coordinator. Eighty hours of designated work, per credit per semester.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of Instructor		Occ	LAB 1.0 1.0 0.0	C
TEC278AC	2019 Spring	Costume Design and Production Internship		Costume Design and Production work experience in a business or industry. Supervision and evaluation by an	Prerequisites: Completion of at least twelve (12) college		Occ	LAB 3.0	C

				internship coordinator. Eighty hours of designated work, per credit per semester.	credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify); or permission of Instructor.			3.0 0.0	
TEC282AA	2015 Summer	Service-Learning in Fashion Merchandising and Design		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	TEC282A A may be repeated for a total of six (6) TEC282A A credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 1.0 1.0 0.0	L
TEC282AB	2015 Summer	Service-Learning Experience in Fashion Merchandising and Design		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	TEC282A B may be repeated for a total of six (6) TEC282A B credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 2.0 2.0 0.0	L
TEC282AC	2015 Summer	Service-Learning Experience in Fashion		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	TEC282A C may be repeated for a total	Occ	LAB 3.0 3.0 0.0	L



		Merchandising and Design				of six (6) TEC282A C credit hours. Standard grading available according to procedures outlined in catalog.			
TEC296WA	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 1.0 5.0 0.0	Z
TEC296WB	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor		Occ	LAB 2.0 10.0 0.0	Z

					Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.				
TEC296WC	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 3.0 15.0 0.0	Z
TEC296WD	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to		Occ	LAB 4.0 20.0 0.0	Z

					students major or career interest or with permission of Instructor.				
TEC298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z
TEC298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z
TEC298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z
THE111	2020 Fall	Introduction to Theatre		A survey of theatre, including basic elements and principles of production, styles, and/or historical perspectives of theatre, dramatic literature, and criticism	Prerequisites: None.	General Education Designation: Humanities, Arts	Acad	LEC 3.0 3.0 3.0	S

						and Design - [HU] Arizona Shared Unique Number SUN# THE1100			
THE220	2011 Fall	Modern Drama		Analysis of dramatic literature studied within political, historical, and cultural contexts and examined from the perspective of the playwright's structure and style.	Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent.	Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] General Education Designation: Literacy and Critical Inquiry - [L] Arizona Shared Unique Number SUN#: THE 2220	Acad	LEC 3.0 3.0 3.0	S
THE260	2021 Fall	Film Analysis		Understanding and enjoyment of film and its correlation to literature, art, music, and other disciplines	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
THE274AA	2002 Summer I	Theatre Study Tour		A tour that focuses on theatre production outside of the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance knowledge about theatre production	Prerequisites: Permission of Department or Division.		Acad	LAB 1.0 5.0 1.0	F
THE274AB	2002 Summer I	Theatre Study Tour		A tour that focuses on theatre production outside of the metropolitan Phoenix area. Includes a variety of	Prerequisites: Permission of		Acad	LAB 2.0	F

				experiences and activities to enhance knowledge about theatre production	Department or Division.			10.0 2.0	
THE274AC	2002 Summer I	Theatre Study Tour		A tour that focuses on theatre production outside of the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance knowledge about theatre production	Prerequisites: Permission of Department or Division.		Acad	LAB 3.0 15.0 3.0	F
THE282AA	2014 Summer	Service-Learning Experience in Theatre		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	THE282A A may be repeated for a total of six (6) credit hours. Standard grading available according to procedure s outlined in catalog.	Acad	LAB 1.0 1.0 0.0	L
THE282AB	2014 Summer	Service-Learning Experience in Theatre		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	THE282A B may be repeated for a total of six (6) credit hours. Standard grading available according to procedure s outlined in catalog.	Acad	LAB 2.0 2.0 0.0	L
THE282AC	2014 Summer	Service-Learning Experience in Theatre		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	THE282A C may be repeated for a total of six (6) credit hours. Standard grading	Acad	LAB 3.0 3.0 0.0	L

						available according to procedures outlined in catalog.			
THE298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0	Z
THE298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0	Z
THE298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0	Z
THF120AA	2018 Fall	Audition Techniques for Stage and Screen:		Practice in the techniques of auditioning for stage and screen. Identifies and illustrates techniques of the prepared monologue audition.	Prerequisites: None.		Acad	L+L 1.0 2.0 2.0	T

		Prepared Monologue							
THF120AB	2018 Fall	Audition Techniques for Stage and Screen: Cold Readings		Practice in the techniques of auditioning for stage and screen. Identifies and illustrates techniques of the cold reading audition.	Prerequisites: None.		Acad	L+L 1.0 2.0 2.0	T
THF205	2014 Fall	Introduction to Cinema	HUM205	Survey of the history and development of the art of motion pictures, including criticism of aesthetic and technical elements.	Prerequisites: None.	Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
THF206	2017 Spring	Introduction to Television Arts	HUM206	History and development of electronic media and its impact on popular arts.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
THF209	2018 Fall	Acting for the Camera		Special technical aspects of acting before a camera.	Prerequisites: A grade of C or better in THP112 or permission of Instructor.		Acad	L+L 3.0 4.0 4.0	T
THF210	2014 Fall	Contemporary Cinema	HUM210	A study of contemporary films, directors and critics with emphasis on evaluating film as an art form.	Prerequisites: None.	Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
THF219	2018 Fall	Advanced Acting for the Camera		Focuses on special technical aspects of advanced acting before a camera.	Prerequisites: A grade of C or better in THF209 or permission of Instructor.		Acad	L+L 3.0 4.0 4.0	T
THO115	2024 Fall	Makeup for Stage and Screen		Purposes, materials, and techniques of makeup for stage and screen.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T

THO118	2023 Fall	Playwriting		Practice and study of theories and techniques of writing for the stage; creating characters, dialogue, and plot for monodramas, scenes, and plays	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0	T
THO130	2024 Fall	Combat for Stage and Screen		Fundamental techniques and terminology of staged combat with and without weapons. Analysis and performance of safely choreographed violence that tells a story for stage and screen.	Prerequisites: None.	THO130 may be repeated for a total of twelve (12) credit hours.	Occ	L+L 3.0 4.0 4.0	T
THO130AA	2023 Fall	Specialized Stage Combat: Unarmed		Teaches fundamental techniques and terminology of unarmed staged combat as required for professional certification by the Society of American Fight Directors (SAFD). Includes the analysis and performance of safely choreographed violence that tells a story for stage and screen. Prepares students for the SAFD skills proficiency test in unarmed stage combat.	Prerequisites: None.	THO130A A will be taught by a Society of American Fight Directors certified teacher, Fight Director, or Fight Master.	Occ	L+L 1.5 2.0 2.0	T
THO130AB	2023 Fall	Specialized Stage Combat: Broadsword		Teaches fundamental techniques and terminology of staged combat utilizing the broadsword as required for professional certification by the Society of American Fight Directors (SAFD). Includes the analysis and performance of safely choreographed violence that tells a story for stage and screen. Prepares students for the SAFD skills proficiency test in the use of the broadsword in stage combat.	Prerequisites: None.	THO130A B will be taught by a Society of American Fight Directors certified teacher, Fight Director, or Fight Master.	Occ	L+L 1.5 2.0 2.0	T
THO130AC	2023 Fall	Specialized Stage Combat: Rapier and Dagger		Teaches fundamental techniques and terminology of staged combat utilizing the rapier and dagger as required for professional certification by the Society of American Fight Directors (SAFD). Includes the analysis and	Prerequisites: None.	THO130A C will be taught by a Society of American	Occ	L+L 1.5 2.0 2.0	T



				performance of safely choreographed violence that tells a story for stage and screen. Prepares students for the SAFD skills proficiency test in the use of the rapier and dagger in stage combat.		Fight Directors (SAFD) certified teacher, Fight Director, or Fight Master.			
THO130AD	2023 Fall	Specialized Stage Combat: Single Sword		Teaches fundamental techniques and terminology of staged combat utilizing the single sword as required for professional certification by the Society of American Fight Directors (SAFD). Includes the analysis and performance of safely choreographed violence that tells a story for stage and screen. Prepares students for the SAFD skills proficiency test in the use of the single sword in stage combat.	Prerequisites: None.	THO130AD will be taught by a Society of American Fight Directors certified teacher, Fight Director, or Fight Master.	Occ	L+L 1.5 2.0 2.0	T
THO130AE	2023 Fall	Specialized Stage Combat: Small Sword		Teaches fundamental techniques and terminology of staged combat utilizing the small sword as required for professional certification by the Society of American Fight Directors (SAFD). Includes the analysis and performance of safely choreographed violence that tells a story for stage and screen. Prepares students for the SAFD skills proficiency test in the use of the small sword in stage combat.	Prerequisites: None.	THO130AE will be taught by a Society of American Fight Directors certified teacher, Fight Director, or Fight Master.	Occ	L+L 1.5 2.0 2.0	T
THO130AF	2023 Fall	Specialized Stage Combat: Sword and Shield/Buckler		Teaches fundamental techniques and terminology of staged combat utilizing the sword and shield/buckler as required for professional certification by the Society of American Fight Directors (SAFD). Includes the analysis and performance of safely choreographed violence that tells a story for stage and screen. Prepares	Prerequisites: None.	THO130AF will be taught by a Society of American Fight Directors certified	Occ	L+L 1.5 2.0 2.0	T

				students for the SAFD skills proficiency test in the use of the sword and shield/buckler in stage combat.		teacher, Fight Director, or Fight Master.			
THO130AG	2023 Fall	Specialized Stage Combat: Quarterstaff		Teaches fundamental techniques and terminology of staged combat utilizing the quarterstaff as required for professional certification by the Society of American Fight Directors (SAFD). Includes the analysis and performance of safely choreographed violence that tells a story for stage and screen. Prepares students for the SAFD skills proficiency test in the use of the quarterstaff in stage combat.	Prerequisites: None.	THO130AG will be taught by a Society of American Fight Directors certified teacher, Fight Director, or Fight Master.	Occ	L+L 1.5 2.0 2.0	T
THO130AH	2023 Fall	Specialized Stage Combat: Knife		Teaches fundamental techniques and terminology of staged combat utilizing the knife as required for professional certification by the Society of American Fight Directors (SAFD). Includes the analysis and performance of safely choreographed violence that tells a story for stage and screen. Prepares students for the SAFD skills proficiency test in the use of the knife in stage combat.	Prerequisites: None.	THO130AH will be taught by a Society of American Fight Directors certified teacher, Fight Director, or Fight Master.	Occ	L+L 1.5 2.0 2.0	T
THO135AA	2023 Fall	Stage Combat Recertification: Unarmed		Course to provide Society of American Fight Directors (SAFD) recertification in unarmed stage combat. Course taught by SAFD certified teacher, Fight Director, or Fight Master.	Prerequisites: Certification in specified weapon by SAFD or permission of Program Director.	THO135AA may be repeated for credit.	Occ	L+L 0.5 1.0 1.0	T
THO135AB	2023 Fall	Stage Combat Recertification: Broadsword		Course to provide Society of American Fight Directors (SAFD) recertification in using the broadsword in stage combat. Course taught by SAFD certified teacher, Fight Director, or Fight Master.	Prerequisites: Certification in specified weapon by SAFD or permission of Program Director.	THO135AB may be repeated for credit.	Occ	L+L 0.5 1.0 1.0	T

THO135AC	2023 Fall	Stage Combat Recertification: Rapier and Dagger		Course to provide Society of American Fight Directors (SAFD) recertification in using the rapier and dagger in stage combat. Course taught by SAFD certified teacher, Fight Director, or Fight Master.	Prerequisites: Certification in specified weapon by SAFD or permission of Program Director.	THO135A C may be repeated for credit.	Occ	L+L 0.5 1.0 1.0	T
THO135AD	2023 Fall	Stage Combat Recertification: Single Sword		Course to provide Society of American Fight Directors (SAFD) recertification in using the single sword in stage combat. Course taught by SAFD certified teacher, Fight Director, or Fight Master.	Prerequisites: Certification in specified weapon by SAFD or permission of Program Director.	THO135A D may be repeated for credit.	Occ	L+L 0.5 1.0 1.0	T
THO135AE	2023 Fall	Stage Combat Recertification: Small Sword		Course to provide Society of American Fight Directors (SAFD) recertification in using the small sword in stage combat. Course taught by SAFD certified teacher, Fight Director, or Fight Master.	Prerequisites: Certification in specified weapon by SAFD or permission of Program Director.	THO135A E may be repeated for credit.	Occ	L+L 0.5 1.0 1.0	T
THO135AF	2023 Fall	Stage Combat Recertification: Sword and Shield/Buckler		Course to provide Society of American Fight Directors (SAFD) recertification in using the sword and shield/buckler in stage combat. Course taught by SAFD certified teacher, Fight Director, or Fight Master.	Prerequisites: Certification in specified weapon by SAFD or permission of Program Director.	THO135A F may be repeated for credit.	Occ	L+L 0.5 1.0 1.0	T
THO135AG	2023 Fall	Stage Combat Recertification: Quarterstaff		Course to provide Society of American Fight Directors (SAFD) recertification in using the quarterstaff in stage combat. Course taught by SAFD certified teacher, Fight Director, or Fight Master.	Prerequisites: Certification in specified weapon by SAFD or permission of Program Director.	THO135A G may be repeated for credit.	Occ	L+L 0.5 1.0 1.0	T
THO135AH	2023 Fall	Stage Combat Recertification: Knife		Course to provide Society of American Fight Directors (SAFD) recertification in using the knife in stage combat. Course taught by SAFD certified teacher, Fight Director, or Fight Master.	Prerequisites: Certification in specified weapon by SAFD or permission of Program Director.	THO135A H may be repeated for credit.	Occ	L+L 0.5 1.0 1.0	T
THO202AA	2023 Fall	Theatre Production I Scene Shop		The objective of this course is to provide hands-on experience in the creation of a theatrical production. This course is tailored around the work done in a Theatre Scenic Shop. Structured to provide the student with an atmosphere of professional expertise and guidance. Professional-	Prerequisites: None.	THO202A A may be repeated for a total of four (4) credit hours.	Occ	LAB 1.0 2.0 0.0	C

				type facilities and equipment are made available for student use.					
THO202AB	2023 Fall	Theatre Production I Electrics		The objective of this course is to provide hands-on experience in the creation of a theatrical production. This course is tailored around the work done in a Theatre Electric Shop. Structured to provide the student with an atmosphere of professional expertise and guidance. Professional-type facilities and equipment are made available for student use.	Prerequisites: None.	THO202A B may be repeated for a total of four (4) credit hours.	Occ	LAB 1.0 2.0 0.0	C
THO202AC	2023 Fall	Theatre Production I Costume Shop		The objective of this course is to provide hands-on experience in the creation of a theatrical production. This course is tailored around the work done in a Theatre Costume Shop. Structured to provide the student with an atmosphere of professional expertise and guidance. Professional-type facilities and equipment are made available for student use.	Prerequisites: None.	THO202A C may be repeated for a total of four (4) credit hours.	Occ	LAB 1.0 2.0 0.0	C
THO202AD	2023 Fall	Theatre Production Advanced Projects		The objective of this course is to provide hands-on experience in the creation of a theatrical production. This course is tailored around the work done in a leadership role on a theatrical production. Structured to provide the student with an atmosphere of professional expertise and guidance. Professional-type facilities and equipment are made available for student use.	Prerequisites: None.	THO202A D may be repeated for a total of four (4) credit hours.	Occ	LAB 1.0 2.0 0.0	C
THO203	2023 Fall	Technical Theatre Production		Designed to give college credit to the technical production crews of college theatre productions.	Prerequisites: None.	THO203 may be repeated for up to a maximum of nine (9) credits.	Occ	LAB 3.0 6.0 6.0	T
THO208	2023 Fall	Costume Play Solo Performance Practicum		Introduction to Costume Play (Cosplay) skills for the creation of a solo based performance through practical experience. Focus on the origins of Cosplay and use of tools for	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T

				prop and costume development, design and application of make-up, safety practices, character development and performance, and growing a social presence for promotion.					
THO209	2023 Fall	Costume Play Group Performance Practicum		Introduction to Costume Play (Cosplay) skills for the creation of a group based performance through practical experience. Focus on the development and collaborative performance of Cosplay characters within a canon/shared world. Use of tools for prop and costume development, design and application of make-up, safety practices, and growing a social presence for promotion.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
THO215	2024 Fall	Advanced Makeup Techniques for Stage and Screen		Advanced character analysis and makeup design for stage and screen. Technical application of makeup for stage and screen.	Prerequisites: A grade of C or better in THO115.		Occ	L+L 3.0 4.0 4.0	T
THO216	2023 Fall	Wig and Hair Production for Theatre and Film		Introduction to wig technology, including the use of tools and techniques for making, ventilating, measuring, and styling period wigs.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
THO218	2023 Fall	Beginning Stage Lighting		Basic theories and methods of stage lighting for all production types. Emphasis on technical/theoretical facts, artistic/design concept development, and teamwork structure of theatre. Examines stage lighting optics, instrument selection and application, color theory, circuiting and control systems, and basic design.	Prerequisites: A grade of C or better in THP213 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
THO219	2023 Fall	Introduction to Puppetry		Use of different types of puppets in a variety of performance settings. Practical experience with diverse audiences.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
THO225	2023 Fall	Visual Script Analysis		Theory and practice in analysis of dramatic literature for the technician and designer. Emphasis on techniques of script analysis for visual information.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S

THO226	2023 Fall	Theatrical Design: Costuming		Basic techniques involved in researching and designing costumes for the stage.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
THO235	2023 Fall	Principles of Stage Combat Safety/Fight Captain		Evaluate stage combat performances for safety in order to identify issues that might require intervention, communication, and revision. Course to prepare students for work as a fight captain in a stage or film environment. Provides opportunity to practice weapon maintenance and instruction; safe choreography; analysis of how choreography design elements affect safety; written and recorded choreography notation; and the implementation and communication of choreography and intervention strategies. Includes practical experience as a teaching assistant for other stage combat courses or as an assistant fight captain on dramatic productions.	Prerequisites: A grade of C or better in at least four (4) stage combat courses (THO130AA, THO130AB, THO130AC, THO130AD, THO130AE, THO130AF, THO130AG, or THO130AH) or permission of Program Director.		Occ	L+L 4.0 5.0 5.0	T
THO246	2023 Fall	Digital Fabrication	AVC246	Introduction to concepts and application of computer visualization, modeling, and rapid prototyping for interdisciplinary arts. Students will design sculptures applying 3D computer modeling techniques, rapid prototyping, and other available digital output devices to produce solid models.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0	T
THO250	2023 Fall	Stage Properties		Introduction to stage properties including design, construction and maintenance features. Provides skills in property design and construction using an assortment of standard materials.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
THO251	2023 Fall	Safety Practices in Theatre and Film Production		Safety practices in theatre and film production. Includes Focus on national safety organizations and production practices of theatre stages and soundstages, theatrical rigging, electrical, scenic construction, paint and chemical handling, automation,	Prerequisites: None		Occ	L+L 1.0 2.0 2.0	T

				special effects, welding, and personal safety practices.					
THO260	2023 Fall	Theatrical Design: Rendering		Provides experience and explores multiple illustration techniques used to communicate ideas in entertainment production. Provides basic skills including pictorial drawing and sketching.	Prerequisites: None.		Occ	L+L 2.0 4.0 4.0	T
THO261	2023 Fall	Previsualization Modeling		Provides experience and explores basic pre-visualization methods used to communicate ideas in entertainment preproduction. Provides basic models skills.	Prerequisites: None.		Occ	L+L 2.0 4.0 4.0	T
THO262	2023 Fall	Entertainment Industry Design Drafting		The fundamentals of drafting for the Entertainment Industry. Includes drafting equipment, geometry, lettering, symbols, drawings (orthographic, isometric, oblique, sectional) and standard drawings used in the entertainment industry including floor plans, sections, elevations, working drawings, and perspective.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0	T
THO263	2023 Fall	Entertainment Industry Drafting I: 2D CAD		Introduction to Computer Aided Drafting (CAD) for the Entertainment industry, including stage, screen and television venues, using CAD software. Includes basic set-ups, formats, two-dimensional drawing and editing commands, dimensions, text, and plotting typical to entertainment industries.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0	T
THO265	2024 Fall	Introduction to Stage Management		The focus of this course is the role of the stage manager. Topics include all aspects of preparation and implementation of rehearsals and performances for the stage manager position.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
THO266	2023 Fall	Production Careers in Technical Theatre		Provides the continuing design, stage management and technical student with opportunities to explore the versatility of the job opportunities within the Tech Theatre industry. Emphasis on presenting the work and talent both in person and on paper.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0	T

				Development of a professional resume and vita.					
THO267	2023 Fall	Painting Techniques for Film, TV and Theatre		Theory and skills in scenic artistry. Techniques of painting two-dimensional and three-dimensional scenery, tools, and the use of color.	Prerequisites: A grade of C or better in THP213.		Occ	L+L 3.0 4.0 4.0	T
THO268	2023 Fall	Opportunities in Production		Provides the continuing design student, dramaturge, stage management, technical director, and directing students with opportunities to expand the versatility of professional skills. Emphasis on relating their work to the total production process. Linking design ideas to production concept. Maintain dramaturge, stage manager, director documentation. Practical application of student work for portfolio development.	Prerequisites: Permission of Department or Division.		Occ	L+L 3.0 6.0 6.0	T
THO269	2023 Fall	Technical Theatre Portfolio Development		The analysis and preparation of all elements of a Technical Theatre/Design Portfolio including the use of digital portfolios and application to specific disciplines. Practice with portfolio presentation and maintaining and updating portfolio materials.	Prerequisites: None.		Occ	L+L 1.0 1.0 1.0	T
THO270	2023 Fall	Musical Theatre Workshop	MUP270	Workshop in the study and performance of Musical Theatre repertoire. Includes audition techniques, stage directions, character role development, rehearsal techniques, vocal acting styles and vocal technique, stage movement, crew roles, and performance.	Prerequisites: None.	MUP/THO 270 may be repeated for credit.	Occ	L+L 2.0 5.0 5.0	T
THO270AA	2023 Fall	Musical Theatre Workshop	MUP270A A	Workshop in the study and performance of musical theatre repertoire. Includes audition techniques, stage directions, character role development, rehearsal techniques, vocal acting styles and vocal technique, stage movement, crew roles, and performance.	Prerequisites: None.	MUP/THO 270AA may be repeated for a total of two (2) credits.	Occ	LAB 1.0 3.0 3.0	T
THO296WA	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome	Prerequisites: Completion of at least twelve (12) college		Occ	LAB 1.0	Z



				related to the career objectives of the students.	credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.			5.0 0.0	
THO296WB	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Occ	LAB 2.0 10.0 0.0	Z
THO296WC	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to		Occ	LAB 3.0 15.0 0.0	Z

					students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.				
THO296WD	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.	Completion of at least twelve (12) college credits minimum 2.6	Occ	LAB 4.0 20.0 0.0	Z
THP102	2019 Spring	Theatre Service Practicum		Use and develop theatrical skills for service to the community through practical experience.	Prerequisites: Permission of Department or Division.		Acad	LAB 1.0 2.0 2.0	T
THP112	2020 Fall	Acting I		Fundamental techniques and terminology of acting through physical and vocal expression, improvisation, and monologue and scene work. Emphasis on characterization.	Prerequisites: None.		Acad	L+L 3.0 4.0 4.0	T
THP131	2018 Fall	Stage Movement		Movement skills for the actor to develop a flexible, expressive	Prerequisites: None.		Acad	L+L 3.0	T

				physical instrument. Includes pantomime, physical isolation, and awareness exercises				4.0 4.0	
THP151	2018 Fall	Theatre for Youth		Principles and techniques of selecting plays, adapting stories, playwriting, directing, designing, producing, and acting in theatre for youth. The course will provide the opportunity to analyze and experience the production process from creating a script to performing a theatre production for a youth audience.	Prerequisites: None.	THP151 may be repeated for a total of six (6) credit hours.	Acad	L+L 3.0 4.0 4.0	T
THP201AA	2018 Fall	Theatre Production I		Designed to give college credit to the cast and technical production crews of college theatre productions.	Prerequisites: None.	THP201A A may be repeated for a total of four (4) credit hours.	Acad	LAB 1.0 2.0 2.0	T
THP201AB	2018 Fall	Theatre Production II		Designed to give college credit to the cast and technical production crews of college theatre productions.	Prerequisites: None.	THP201A B may be repeated for a total of four (4) credit hours.	Acad	LAB 2.0 4.0 4.0	T
THP202	2018 Fall	Theatre Production Projects		The objective of this course is to provide hands-on experience in the creation of a theatrical production. This course is tailored around the work done on a production. Structured to provide the student with an atmosphere of professional expertise and guidance. Professional-type facilities and equipment are made available for student use.	Prerequisites: None.	THP202 may be repeated for a total of four (4) credit hours. Repeats 4.0 4.0	Acad	LAB 1.0 2.0 0.0	C
THP206	2020 Fall	Introduction to Costume Construction for Theatre		Introduction to basic principles used in costuming for theatre including the use of tools and techniques for costume construction, understanding of fabrics and materials, and a selected survey of historical fashion.	Prerequisites: None.		Acad	LEC 4.0 4.0 4.0 LAB 0.0 2.0 2.0	T
THP211	1995 Fall	Creative Drama		Theory and practice of creative drama, including improvisation,	Prerequisites: None.		Acad	LEC 3.0	S

				storytelling, puppetry, and script and program development in drama, and their application to elementary and secondary school levels				3.0 3.0	
THP211AA	1995 Fall	Creative Drama: Improvisation		Theory and practice of creative drama, including improvisation. Covers improvisation theatre-based activities. Emphasis on application in elementary and secondary school levels	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
THP211AB	1995 Fall	Creative Drama: Storytelling/ Puppets		Theory and practice of creative drama in storytelling and puppetry. Covers use of puppets to enhance storytelling skills. Emphasis on application in elementary and secondary school levels	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
THP211AC	1995 Fall	Creative Drama: Script Development		Theory and practice of creative drama in script development. Covers creation and adaptation of dramatic materials from a variety of sources. Emphasis on application in elementary and secondary school levels	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
THP212	2018 Fall	Acting II		Fundamental techniques of acting through script analysis, rehearsal, and performance	Prerequisites: A grade of C or better in THP112 or permission of Department or Division.		Acad	L+L 3.0 4.0 4.0	T
THP213	2020 Fall	Introduction to Technical Theatre		Procedures of technical theatre production and demonstration. Topics include design and construction of scenery, lighting, and properties.	Prerequisites: None.		Acad	LEC 4.0 4.0 4.0 LAB 0.0 2.0 2.0	T
THP214	2018 Fall	Directing Techniques		Contemporary theory and practice in directing, the evolution of present-day directing procedures, and a sampling of scripts for directing practice. Principles of script analysis, blocking, casting, rehearsing, and performing.	Prerequisites: A grade of C or better in THP112 or THE220, or permission of Instructor.		Acad	L+L 3.0 4.0 4.0	T
THP217	2021 Fall	Introduction to Design Scenography		The role of the theatre designer in creating scenic, lighting, costume, sound, and multimedia effects for	Prerequisites: None.	Course Attribute(s) ): General	Acad	L+L 3.0	T

				stage productions. Elements of the design process and communication of dramatic themes and visions to the audience.		Education Designation: Humanities, Arts and Design - [HU]		4.0 4.0	
THP241	2010 Fall	Oral Interpretation of Literature	COM241	The study, analysis, and preparation for performance of prose, poetry, and dramatic literature. Preparation of material for public audiences.	Prerequisites: A grade of C or better in ENG101 or ENG107.	Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] General Education Designation: Literacy and Critical Inquiry - [L]	Acad	LEC 3.0 3.0 3.0	S
THP271	1995 Fall	Voice and Diction	COM271	Exercises and techniques to free the voice and improve projection, resonance, and articulation. Covers international phonetic alphabet and standard stage speech	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
THP273	2020 Fall	Musical Theatre Production	MUP273	Principles and techniques for musical theatre production performance. Includes audition techniques, stage directions, character role development, rehearsal techniques, vocal acting styles and vocal technique, stage movement, crew roles, and performance.	Prerequisites: By audition.		Acad	LAB 1.0 5.0 5.0	T
THP281	2018 Fall	Production and Acting I		Provides the continuing acting student with opportunities to expand the versatility of characterization skills. Emphasis on relating the actor's work to the total production process.	Prerequisites: Permission of Department or Division.		Acad	L+L 3.0 4.0 4.0	T

				Performance of monologues, scenes, and one-act plays.					
THP282	2018 Fall	Production and Acting II		Provides the continuing acting student with opportunities to expand the versatility of characterization skills. Emphasis on relating the actor's work to the total production process. Performance of monologues, scenes, and one-act plays	Prerequisites: A grade of C or better in THP281 or permission of Department or Division.		Acad	L+L 3.0 4.0 4.0	T
THP285	2012 Fall	Creating/Performing Solo/Collaborative Works	STO285	Developing, rehearsing, and performing solo and collaborative works for fringe festivals and other storytelling and theatre venues.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
THP291AA	2024 Fall	Summer Conservatory: Stage Movement		Techniques of body centering, coordination, relaxation, energization, and physical expression for the actor.	Prerequisites: By audition and interview only, or permission of Instructor, or Program Director.	RDG100 satisfies RDG091 requirement. RDG100 may be repeated for a total of twelve (12) credit hours.	Acad	L+L 1.0 2.0 2.0	T
THP291AB	2024 Fall	Summer Conservatory: Voice and Diction		Basic principles and techniques of voice production and stage speech for the actor.	Prerequisites: By audition and interview only, or permission of Instructor, or Program Director.	THP291A A may be repeated for a total of three (3) credit hours.	Acad	L+L 1.0 2.0 2.0	T
THP291AC	1988 Fall	Summer Conservatory: Script Analysis (ACT)		Theory and practice in analysis of dramatic literature for the actor. Emphasis on techniques of character analysis for interpretation.	By audition and interview only.	THP291A C may be repeated for a total of three (3) credit hours.	Acad	LEC 1.0 1.0 1.0	S
THP291AD	2024 Fall	Summer Conservatory: Improvisation		Techniques of improvisation to develop the actor's creativity. Emphasis on inner resources, sensory memory, and emotional memory.	Prerequisites: By audition and interview only, or permission of Instructor, or Program Director.	THP291A B may be repeated for a total of three (3) credit hours.	Acad	L+L 1.0 2.0 2.0	T

THP291AE	2024 Fall	Summer Conservatory: Scene Study		Basic methodology and process of rehearsing and creating a character through prepared scenes for faculty critique and analysis.	Prerequisites: By audition and interview only, or permission of Instructor, or Program Director.	THP291A D may be repeated for a total of three (3) credit hours.	Acad	L+L 1.0 2.0 3.0	T
THP291AG	2018 Fall	Summer Conservatory: Production (ACT)		Practicum in rehearsal and stage performance through public productions.	Prerequisites: By audition and interview only.	THP291A G may be repeated for a total of twelve (12) credit hours.	Acad	L+L 4.0 5.0 5.0	T
THP292AA	2018 Fall	Summer Conservatory: Theatre Technology		Theory and practice of technical phases of play production. Includes applications in scenery, properties, and lighting.	Prerequisites: By interview only.	THP292A A may be repeated for a total of nine (9) credit hours.	Acad	L+L 3.0 4.0 4.0	T
THP292AB	2018 Fall	Summer Conservatory: Projects		Independent supervised studies in technical theatre applications. Emphasis on topic selection addressing individual student interests and abilities.	Prerequisites: By interview only.	THP292A B may be repeated for a total of nine (9) credit hours.	Acad	L+L 3.0 4.0 4.0	T
THP292AC	1988 Fall	Summer Conservatory: Script Analysis (TECH)		Theory and practice in analysis of dramatic literature as preparation for technical production applications.	Prerequisites: By interview only.	THP292A C may be repeated for a total of three (3) credit hours.	Acad	LEC 1.0 1.0 1.0	S
THP292AD	2018 Fall	Summer Conservatory: Career Development (TECH)		Techniques of preparation and presentation of professional materials for the theatre technician and designer.	Prerequisites: By interview only.	THP292A D may be repeated for a total of three (3) credit hours.	Acad	L+L 1.0 2.0 2.0	T
THP292AE	2018 Fall	Summer Conservatory: Production (TECH)		Practicum in various aspects of technical theatre production for public performance.	Prerequisites: By interview only.	THP292A E may be repeated for a total	Acad	L+L 4.0 5.0 5.0	T

						of twelve (12) credit hours.			
THP296WA	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 1.0 5.0 0.0	Z
THP296WB	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 1.0 5.0 0.0	Z



THP296WC	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 3.0 15.0 0.0	Z
THP296WD	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.		Acad	LAB 4.0 20.0 0.0	Z
THP298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0	Z

				and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.					
THP298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0	Z
THP298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0	Z
TLT100	2020 Summer	Telecommunications Math		Application of the scientific calculator to solve mathematical problems in telecommunications electronics. Scientific notation, engineering notation, metric conversion, algebraic equations, linear equations, graph interpretation, exponents, logarithmic expressions and, binary/hexadecimal concepts related to subnetting.	Prerequisites: A grade of C or better in college-level math course, or appropriate District placement, or permission of Department/Division Chair.		Occ	LEC 2.0 2.0 2.0	S
TLT142	2023 Summer	Drop Connections		Technical concepts for drop connections. Includes passive and active devices as well as use of filters. Also covers electronics hook up and troubleshooting procedures.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S

TLT143	2023 Summer	Digital Video Systems		Customer cable digital video signal reception establishment procedures. Covers system feature information, signal fault identification, and system and end-use equipment troubleshooting procedures. Also includes customer education information.	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0	T
TLT144	2023 Summer	Drop Planning and Maintenance		Procedures for the planning and installation of Broadband Networks to a customer address. Emphasis on drop connection location, configuration, and hardware component selection. Covers internal cable routing considerations and grounding, splitting, and directional tap/coupler component information. Also includes basic Broadband Network operation information and electronic hook-up procedures.	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0	T
TLT149	2023 Summer	Digital Phone Network Installation		Telephone network installation procedures. Emphasis on multi dwelling unit, multiple broadband applications, and residential telephone networks. Covers component connection as well as basic electronics principles.	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0	T
TLT162	2023 Summer	High Speed Internet/Networkin g		High speed internet installation and networking. Includes features and services of high-speed internet as well as procedures for installation. Also covers home network installation and configuration.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
TLT163	2023 Summer	High Speed Internet Technical Training		Procedures for presenting high speed internet products and services. Includes service tiers as well as network facilities and responsibilities. Also covers navigation of operating systems and troubleshooting common problems and procedures.	Prerequisites: None.		Occ	L+L 2.0 4.0 4.0	T
TLT298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z

				and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.					
TLT298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z
TLT298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z
TOO101	2024 Fall	Elementary Tohono O'odham I		Basic grammar, pronunciation, and vocabulary of the Tohono O'odham language. Practice of listening, speaking, reading, and writing skills. Includes the study of the Tohono O'odham culture, with participation in an off-campus Tohono O'odham cultural event.	Prerequisites: None.	TOO101 may be repeated for a total of twelve (12) credit hours.	Acad	LEC 4.0 4.0 4.0	S
TQM101	2006 Fall	Quality Customer Service	CSM101	Examines the nature of quality customer service and the attitudes, knowledge, and skill needed to work effectively in a quality customer service environment. Foundation	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S

				skills for quality customer services are taught, applied, and practiced					
TQM220	2018 Spring	Leadership and Empowerment Strategies		Methods for facilitating teams and empowering employees which effectively enable all employees to act upon a shared vision.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
TQM230	2018 Spring	Teamwork Dynamics		Theory and practice of how team members and team leaders use listening, negotiating and interpersonal skills for the enhancement of team process. Included are concepts of team development and team problem-solving techniques.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
TQM235	2018 Spring	Motivation, Evaluation, and Recognition Systems		Presents methods for benchmarking, assessing team performance, linking recognition to team performance, and valuing victories and mistakes with all personnel.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
TQM240	2007 Fall	Project Management in Quality Organizations		Presents methods for quality organizations in how to plan and schedule a project in use of Critical Path Method (CPM) and Program Evaluation and Review Technique (PERT) techniques and software to monitor and control projects	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
TRS100	2004 Fall	Survey of Translation and Interpretation		Professional, sociolinguistic, and cognitive aspects of translation and interpretation. Includes social justice goals and language policy for interpretation and translation, role of translators and interpreters, consecutive interpretation, role of norms in legal translation, conservation of meaning, register, and style, meaning of translation, health care interpretation and translation, business and technical translation	Prerequisites: None.		Acad	LEC 4.0 4.0 4.0	S
TRS102	2014 Fall	Translation of English to Spanish		Analysis of the Spanish language with an emphasis on cross-language similarities and differences. Includes the structure of Spanish, cultural and stylistic components, semantics, dialectal differences and lexical obstacles. Widening of lexicon across	Prerequisites: A grade of C or better in (SPA202 or SPA204) and permission of Department or Division. Completion		Acad	LEC 3.0 3.0 3.0	S

				specific lexical fields and wider shared underpinnings of Greco-Latin etymologies. Brief introduction to historical development of the Spanish language with specific focus on cognates and false cognates.	of prerequisites within the last three years is required.				
TRS103	2014 Fall	Translation of Spanish to English		Analysis of the English language with an emphasis on cross-language similarities and differences. Course includes the structure of English, cultural and stylistic components, semantics, Standard English conventions, and metaphorical and idiomatic English. Introduction to translation of basic documents from Spanish to English.	Prerequisites: A grade of C or better in (ENG102 or ENG108) and (SPA202 or SPA204) and permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	LEC 3.0 3.0 3.0	S
UAS100	2020 Fall	sUAS Batteries and Electronics		Small Unmanned Aircraft Systems (sUAS) basic electronics and circuits, communications, information display systems, transmitter and receiver fundamentals, flight controller installation and tuning, lithium polymer battery basics, radio telemetry, basic electrical troubleshooting and repair techniques.	Prerequisites: Appropriate placement test score in Reading, Writing and Math, or [eligibility in ENG101, (RDG100 or RDG100LL), MAT120, MAT121 and MAT122].		Occ	LEC 5.0 5.0 5.0	S
UAS101	2019 Summer	Introduction to Unmanned Aircraft Systems Operation		Introduction to Unmanned Aircraft Systems (UAS) history, flight, avionics, sensors, communication systems, and an introduction to data analysis and applications, such as first responders, Geographic Information Systems, and Precision Agriculture.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
UAS107	2019 Summer	Unmanned Aircraft Systems Operator Certification		Develop knowledge and skills needed to manage and operate small Unmanned Aircraft Systems (sUAS). Includes Federal Aviation Regulations, radio communications, weather, airspace and airport authorization criteria, loading and performance, aeronautical decision making, sUAS flight operations, and maintenance. Operational skills	Prerequisites: None.	AET138 students must complete the appropriate flight lessons to satisfactorily complete	Occ	LEC 3.0 3.0 3.0	S

				acquired through both classroom and hands-on flight activities.		the course.			
UAS205	2021 Spring	sUAS Instruments and Autopilot Programming and Uses		Small unmanned aircraft systems (sUAS) proper operation of ground control stations with remote aircraft, troubleshooting radio link issues, changing parameters, setting up waypoints, flying on autopilot only.	Prerequisites: A grade of C or better in UAS101 and UAS107. Corequisites: UAS206,		Occ	LEC 3.0 3.0 3.0	S
UAS206	2021 Spring	sUAS Instrument and Autopilot Flight Lab		Students will use their advanced skills to manipulate a ground control station in the practical operation of Small Unmanned Aircraft Systems (sUAS) in a controlled, but realistic environment.	Prerequisites: A grade of C or better in UAS101 and UAS107. Corequisites: UAS205.		Occ	LAB 2.0 2.0 2.0	T
UAS207	2020 Fall	sUAS Dynamics and Design		Design, configuration, and concepts of Small Unmanned Aircraft Systems (sUAS). Platform types including multi-rotors, single rotor, and fixed wing aircraft.	Prerequisites: A grade of C or better in UAS205 and UAS206. Corequisites: UAS208.		Occ	LEC 5.0 5.0 5.0	S
UAS208	2020 Fall	sUAS Dynamics and Design Lab		Students will assemble, program, preflight, and fly a Small Unmanned Aircraft System (sUAS) manufacturing equipment.	Prerequisites: A grade of C or better in UAS205 and UAS206. Corequisites: UAS207.		Occ	LAB 2.0 2.0 2.0	T
UAS211	2020 Fall	sUAS Ground Control Stations, Telemetry, and Communications		Small Unmanned Aircraft Systems (sUAS) proper set-up, operation, and basic troubleshooting of many different Ground Control Stations used in the industry. Set-up, use, and configuration of different radio telemetry units. Proper use and procedures of communications with Air Traffic Control. Proper use of applications for use in Air Traffic Management.	Prerequisites: A grade of C or better in UAS207 and UAS208.		Occ	L+L 3.0 4.0 4.0	T
UAS212	2020 Fall	sUAS Maintenance Lab		Proper inspection, troubleshooting, and repair techniques for Small Unmanned Aircraft Systems (sUAS).	Prerequisites: A grade of C or better in UAS207 and UAS208.		Occ	LAB 2.0 2.0 2.0	T
UAS215	2020 Fall	sUAS Commercial Flight Training		Proper pre-flight and operation techniques used in a Small Unmanned Aircraft (sUAS) Commercial Environment. Gathering digital information from an inspection	Prerequisites: A grade of C or better in UAS207 and UAS208.		Occ	L+L 3.0 6.0 6.0	T

				or surveillance flight, then demonstrate post-production skills and techniques for a useable customer product.					
UCS101	2022 Summer	Introduction to Billing		An introduction to basic billing procedures in the public utility industry. Includes computer familiarization, coordinates system, billing cycle, payment plans, and components of the bill.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
UCS108	2022 Summer	Account Services for Public Utilities		Overview of procedures for accessing and maintaining customer accounts. Includes the billing cycle, rates and payment options as well as various types of service orders	Prerequisites: Permission of Department or Division.		Occ	LEC 1.0 1.0 1.0	S
UCS110	2023 Fall	Meter and Trouble Orders		Fundamentals of meters and their functions. Instruction on handling trouble calls and determining and processing corrective action.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
UCS115	2014 Spring	Introduction to Water Customer Services		Introduction to water customer account services. Includes the irrigation process, accounts, and schedules. Also covers delivery systems, controls, and use of a mapping system in addition to water rights and typical irrigation problems.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
UCS116	2014 Spring	Water Services Accounts I		Water services procedures and restrictions for opening, combining, and updating accounts as well as responding to billing and payment inquiries and opening accounts. Also covers Supplemental Supply Program (SSP) water and various user accounts in addition to company role and responsibilities.	Prerequisites: A grade of C or better in UCS115.		Occ	LEC 2.0 2.0 2.0	S
UCS117	2014 Spring	Water Services Accounts II		Water services rules and restrictions for handling property sales, special requests, and order revisions in addition to typical irrigation problems. Also covers procedures for handling private system controls, flood calls, and water theft issues as well as facility notices.	Prerequisites: A grade of C or better in UCS116.		Occ	LEC 2.0 2.0 2.0	S
UCS118	2018 Fall	Water Customer Services Procedures I		Practical application of water customer account services. Includes procedures for creating, accessing,	Prerequisites: A grade of C or better in UCS115.		Occ	L+L 2.0	T



				and updating accounts as well as completing and documenting water orders. Also covers use of the mapping system and procedures for handling typical irrigation calls.				4.0 4.0	
UCS119	2018 Fall	Water Customer Services Procedures II		Procedures for completing billing and payment account procedures. Covers refunds, overdraft accounts, and procedures for handling water theft. Also covers special requests, flood calls, and townsite issues in addition to Supplemental Supply Program (SSP) requests.	Prerequisites: A grade of C or better in UCS118.		Occ	L+L 2.0 4.0 4.0	T
UCS120	2022 Summer	Payments, Credits and Rates		Examination of procedures to perform payment, deposit and credit operations. Includes various connect orders and rate calculations.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
UCS130	1996 Spring	Service Orders I		Fundamentals of processing service orders. Emphasis on customer service, making determinations of services required and placing appropriate orders	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
UCS135	1996 Spring	Service Orders II		Further examination of the processing of service orders. Emphasis on customer account data, account status, third party billings and placing appropriate orders	Prerequisites: A grade of C or better in UCS130.		Occ	LEC 2.0 2.0 2.0	S
UCS140	2018 Fall	Service Order Procedures		Practical application of service order processing. Includes meter and trouble orders, requests for service, billings and rates, as well as account turn-offs and reconnects.	Prerequisites: A grade of C or better in UCS135.		Occ	L+L 2.0 4.0 4.0	T
UCS180	2022 Summer	Introduction to Water Delivery Customer Service		Introduction to water customer delivery operations. Includes an overview of the irrigation process, the irrigation system, delivery responsibilities and schedules. Also covers delivery systems, controls, and use of a mapping system in addition to water rights and typical irrigation problems.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
UCS182	2022 Summer	Water Delivery Management		Water delivery procedures for managing the flow of irrigation water through the irrigation system to both residential and agricultural customers. Also covers field customer service for	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S

				agricultural and residential water customers as well as role and responsibilities for irrigation water delivery.					
UCS184	2022 Summer	Water Delivery Operations		Water delivery service areas, delivery devices, and responsibilities for managing irrigation water. Covers procedures for handling system controls and issues as it relates to water delivery in addition to procedures for dry-up and clearance.	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0	T
UCS186	2022 Summer	Water Delivery Measurements		Practical application of irrigation water delivery measurement. Includes procedures to safely and correctly open water delivery devices, determine accuracy of and correct water flow. Also covers safety and security procedures.	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0	T
UCS188	2022 Summer	Water Delivery Operations Lab		Practical application of water delivery procedures for managing the flow of water through the irrigation system to both residential and agricultural customers.	Prerequisites: None.		Occ	L+L 1.0 3.0 3.0	T
UTP110	2016 Spring	Hand and Power Tools for Linemen		Use, maintenance, and safety procedures for common hand and power tools used in the electric power industry.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
UTP111	2016 Spring	Line Work Equipment and Safety		Overview of the line work industry including its history, technological developments, and current practices. Covers an introduction to industry equipment and tools with a focus on safety practices and procedures. Inspection and maintenance of equipment and tools used in pole climbing and cover-up procedures. Emphasis on safety operations.	Prerequisites: None.		Occ	LEC 4.0 4.0 4.0	S
UTP112	2016 Spring	Line Construction		Introduction to line construction equipment and procedures. Includes personal protective equipment, climbing equipment, and basic line materials. Also covers procedures for handling wood poles, de-energized lines, and one-man pole-top rescues, in addition to equipment and	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S

				procedures for grounding and creating a safe zone.					
UTP113	2016 Spring	Rigging Fundamentals		Fundamentals of rigging for linemen. Includes safe use of rigging components including ropes, knots, handlines, and block and tackle. Covers rigging calculations and approaches to basic rigging tasks, in addition to hazards.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
UTP114	2016 Spring	Line Construction Procedures		Line construction procedures including pole change out, horizontal line construction, and taking lines out of service. Covers distribution line symbols, compatible units, and second point of contact, in addition to calculating pulling tension and procedures for stringing overhead service and approaching hot circuits.	Prerequisites: A grade of C or better in UTP112.		Occ	LEC 3.0 3.0 3.0	S
UTP115	2016 Spring	Underground Line Construction		Introduction to underground line construction. Includes a comparison of duct and vault underground systems. Also covers Blue Stake laws and markings, procedures for pulling and maintaining underground cable, and safety considerations for trenching and excavating.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
UTP150	2016 Spring	Introduction to Transformer Theory		Introduction to transformers and transformer theory. Covers the basic structure, components and applications of single-phase and three phase transformers. Includes interpretation of transformer nameplates, in addition to characteristics and functions of distribution transformers.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
UTP151	2016 Spring	Transformer Theory Design and Function		Comparison of function of various types of transformers. Includes design of single-phase and three-phase transformers, as well as safety procedures and precautions for energizing transformers. Also covers wiring transformers in parallel and three-phase connection diagrams.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
UTP152	2016 Spring	Transformer Diagramming and Calculations		Diagramming and calculations in transformer theory. Includes use of the Pythagorean Theorem and sine	Prerequisites: None.		Occ	LEC 3.0	S

				and cosine waves and functions to complete calculations. Also covers secondary and primary voltage, voltage ratio and loss calculations, in addition to blueprint reading.				3.0 3.0	
UTP155	2016 Spring	Introduction to Hot Stick		Introduction to hot stick terminology, tools, and procedures. Includes procedures for cleaning, storage, and handling in addition to inspection and testing. Also covers tie-wires, preform ties, hold tags, and live line tailboard development.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
UTP156	2016 Spring	Hot Stick Theory and Calculations		Rigging theory and calculations for hot stick application, including Working Load Limit (WLL). Also covers slings, personal protective grounding, and protective cover, in addition to energized conductors and lines.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
UTP157	2016 Spring	Hot Stick Work Site and Equipment		Hot stick work site, materials, and equipment procedures. Covers fault location, meter load, tower erection, and phasing sequences in addition to procedures for managing safety in confined spaces. Also includes cable preparation and pulling procedures as well as equipment and site operations and safety.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
UTP210	2016 Spring	Personal Protective Grounding		Considerations and procedures for personal protective grounding with a review of basic electrical circuits. Covers function, sizing, and installation of protective grounding sets on trucks, underground distribution systems, and construction projects. Also covers resistance testing, equipotential zones, lightning protection, and live line tools.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
UTP211	2016 Spring	Overhead Distribution Line Design		Introduction to overhead distribution line construction design. Includes overhead construction standards, distribution pole standards, and primary construction units as well as controls and installation standards for various types of capacitors. Also covers clearances, calculations,	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S

				drawings, and design criteria for overhead distribution line design.					
UTP212	2016 Spring	Underground Distribution Line Design		Introduction to underground distribution line construction design. Includes construction assembly units, capacitor banks, switching, and fusing as well as applications for conduit and feeder riser compatible units. Also covers clearances, calculations, drawings, and design criteria for underground distribution line design.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
UTP215	2016 Spring	Emerging Technologies		Overview of emerging technologies in electrical energy production. Includes applications, limitations, and advantages of various types of alternative energy. Also covers characteristics of and advantages to the use of fiber optics. Design and function of Extra High Voltage (EHV) lines also examined.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
UTP216	2016 Spring	Transformer Operations and Troubleshooting		Advanced transformer operation and troubleshooting procedures. Includes characteristics of three-phase systems, distribution capacitors, and fusing. Covers transformer calculation including voltage regulation, fault current, and load. Procedures for isolating and testing transformers and system change-out also covered.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
UTP217	2016 Spring	Electrical Substations		A comparison of operation and design of various types of substations. Includes construction planning, design, diagrams, and blueprints, in addition to hazards and safety issues. Also covers substation stresses, superstructures, and equipment function and maintenance.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
UTP250	2016 Spring	Maps and Schematics for Linemen		Components, coordinates, and symbols for maps and schematics used by linemen. Also includes procedures for access and navigation of mobile Geographic Information Systems (GIS).	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
UTP251	2016 Spring	Metering Theory for Linemen		Concepts of energy measurement and metering theory for linemen. Includes the power triangle and	Prerequisites: None.		Occ	LEC 2.0	S

				various metering types, ratings, and strategies for troubleshooting metering problems.				2.0 2.0	
UTP255	2016 Spring	Power Distribution Operations		Transmission and Generation Operations (TGO), Distribution Operations Center (DOC), and Power Distribution Operations (PDO) organization and responsibilities.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
UTP258	2018 Fall	Applied Line Topics		Applied line topics for linemen. Includes rigging calculations and derating factors as well as diagramming of three-phase vectors and wiring. Also covers procedures, documentation, and restrictions for receiving, modifying, and releasing clearances.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
VET101	2020 Fall	Introduction to Veterinary Technology		Introduces the role of the veterinary paraprofessional to the veterinary science industry. Addresses professional development, including ethics, professionalism, and legal implications of veterinary practice. Students will be introduced to animal husbandry and nutrition, animal behavior, species and breed identification, the human-animal bond, biosecurity, equine medicine, livestock medicine, companion animal medicine, and lab animal medicine.	Prerequisites: None. Corequisites: VET101LL.	Completion of High school biology is recommended prior to enrolling in VET101.	Occ	LEC 3.0 3.0 3.0	S
VET101LL	2020 Fall	Animal Care Skills I Laboratory		Principles of daily animal husbandry, socialization, enrichment, and clinical care of animals housed in campus facilities. Introductory veterinary technology students work on building teamwork, communication and veterinary technical skills encountered in the daily operations of a multi-species veterinary facility.	Prerequisites: None. Corequisites: VET101.		Occ	LAB 2.0 2.0 0.0	P
VET103	2022 Fall	Veterinary Assisting I		Provides students with the hands-on skills needed to perform the duties of a veterinary assistant. Introduction of the basic veterinary assistant skills needed to assist veterinary professionals in the quality care of animals. Includes basic introduction to anatomy and physiology of domestic	Prerequisites: None.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0	T

				animals, front office skills, communication and client relations, animal restraint, nursing, vaccinations and other basic assisting skills.					
VET104	2022 Fall	Veterinary Assisting II		This is a lecture/laboratory course where students will learn hands on skills needed to perform the duties of a veterinary assistant. The course will build foundation skills for veterinary clinical care for the veterinary assistant. This course includes foundations in pharmacy and pharmacology, surgical preparation and assisting, the veterinary assistant's role in collection of laboratory samples, and diagnostic imaging.	Prerequisites: A grade of C or better in VET101 and VET103. High school biology strongly recommended.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0	T
VET109	2022 Fall	Veterinary Assisting Internship		Provides students with clinical experience in a small animal general veterinary practice. Provides the opportunity for practical application and development of knowledge, skills, and abilities acquired in program coursework at a veterinary assistant level. Students have exposure to practice philosophies, methodologies, and real-life situations requiring critical thinking and decision-making abilities. Includes instruction and evaluation by veterinarians or veterinary technicians guided by the National Association of Veterinary Technicians in America Veterinary Assistant Student Essential and Recommended Skills list.	Prerequisites: A grade of C or better in VET101 and VET103. Corequisites: VET104.		Occ	LAB 1.0 1.0 0.0	C
VET112	2018 Fall	Animal Nursing I		Training in and supervised performance of skills necessary in the husbandry and clinical care and treatment of animals. Occupational hazards and safety in livestock, companion animal, and laboratory animal facilities. Introduction to medical terminology. Restraint and handling, feeding, and housing of a variety of animal species. Physical examination of various species of	Prerequisites: A grade of C or better in VET101 and admission to the Veterinary Technology/Animal Health program or permission of Instructor.		Occ	LEC 2.0 2.0 2.0 LAB 0.0 3.0 3.0	T

				animals. Principles of sanitation, disinfection, sterilization, and aseptic technique. Principles and techniques of medication administration, fluid therapy, and vaccination. Familiarization with operation of various types of animal care equipment. Introduction to laboratory techniques. Professional ethics and the human-animal bond.					
VET132	2017 Fall	Veterinary Office Management and Client Communication		Principles and practice of veterinary office management for veterinary technology students. Client relations, receptionist skills, telephone techniques, interpersonal skills, and personnel management. Generation and maintenance of correspondence, medical records, legal forms, and hospital logs. Basic bookkeeping, accounting, and financial management principles. Marketing and public relations. Professional ethics and professionalism. Use of computers for data entry, patient record management and inventory control.	Prerequisites: A grade of C or better in VET101 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0	S
VET140	2020 Fall	Animal Care Skills II		Practical application of animal care skills and principles of animal care and management using techniques and knowledge learned in the veterinary technology classes. Students expand their animal care knowledge, skills and abilities to include skills needed to be successful in clinical internships.	Prerequisites: None. Corequisites: VET150 or VET151 and admission to the Veterinary Technology program.	VET140 may be repeated for a total of four (4) credit hours.	Occ	LAB 2.0 2.0 0.0	P
VET150	2019 Spring	Veterinary Anatomy and Physiology I		Comparative evaluation of the anatomy and physiological functions of various body systems of livestock, companion animals, and laboratory animals.	Prerequisites: A grade of C or better in (BIO181, CHM130, CHM130LL, CRE101, ENG102, MAT120, and VET101) and admission to the Veterinary Technology/Animal Health Program.		Occ	LEC 3.0 3.0 3.0	S



VET150LL	2018 Fall	Veterinary Anatomy and Physiology Laboratory I		Laboratory experience in support of VET150. Includes dissection of preserved animal specimens.	Prerequisites: None. Corequisites: VET150.		Occ	LAB 1.0 3.0 3.0	T
VET151	2019 Spring	Veterinary Anatomy and Physiology II		Focuses on unique anatomic structures and physiological processes which are clinically important in veterinary medicine. Anatomical and physiological bases of clinic procedures, animal disease processes, and veterinary treatments.	Prerequisites: A grade of C or better in VET150 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0 LAB 0.0 3.0 3.0	T
VET200	2023 Fall	Veterinary Clinical Pathology Methods		Fundamental studies of laboratory techniques and procedures involved in evaluating veterinary clinical samples. Includes hematology, urinalysis, hemostasis, blood biochemistry and enzymology, serology, cytology, and parasitology. The veterinary technician's role in sample collection, sample storage and handling, and performance of analytic procedures. Use of laboratory equipment, laboratory safety and management, and quality control.	Prerequisites: A grade of C or better in BIO205 or permission of Instructor. Corequisites: VET223		Occ	LEC 2.0 2.0 2.0 LAB 0.0 3.0 3.0	T
VET201	2020 Fall	Animal Care Skills III		Practical application of animal care skills and principles of animal care and management using techniques and knowledge learned in the veterinary technology classes. Students expand their animal care knowledge, skills and abilities to include skills needed to be successful in clinical internships.	Prerequisites: None. Corequisites: VET210 and VET240 and admission to the Veterinary Technology program.	VET201 may be repeated for a total of four (4) credit hours.	Occ	LAB 2.0 2.0 0.0	P
VET210	2023 Fall	Animal Nursing II		Instruction in and hands-on application of techniques of veterinary nursing care, patient assessment, equipment operation, diagnostic sample collection, and medical treatment. Physical examination, clinical nutrition, and reproductive management of the dog and cat. Operation of E.C.G. and anesthetic machine. Fluid therapy, wound therapy, and bandaging. Surgical instruments and packs. Common	Prerequisites: A grade of C or better in (VET112 and VET151) or permission of Instructor.		Occ	LEC 3.0 3.0 3.0 LAB 0.0 3.0 3.0	T

				diagnostic and therapeutic procedures on animals.					
VET220	2021 Spring	Veterinary Pharmacology for the Veterinary Technician		Actions and uses of pharmacological agents used in veterinary medicine; drug classifications, modes of action, indications and contraindications, routes of administration, and mechanisms of elimination. Dispensing and pharmacy management, and laws regulating controlled substances. Solving medical math problems and calculating drug doses.	Prerequisites: A grade of C or better in VET101 and VET151. Corequisites: VET223.		Occ	LEC 3.0 3.0 3.0	S
VET223	2021 Spring	Animal Diseases		Study of common infectious, parasitic, metabolic, immunologic, and degenerative diseases of domestic animals. Infectious disease transmission, mechanisms of disease, the host-parasite relationship, and host responses to disease agents. Clinical signs and management of common diseases. Life cycles of common parasites. Principles of disease prevention, environmental management, vaccination, and zoonosis. Diagnostic techniques including gross and microscopic identification of common animal pathogens.	Prerequisites: A grade of C or better in VET151. BIO205 recommended.		Occ	LEC 3.0 3.0 3.0	S
VET230	2018 Fall	Veterinary Radiology and Imaging for the Veterinary Technician		Veterinary and radiographic terminology, radiation and electrical protection, technical principles, radiographic equipment operation - manual and digital, and radiographic duties of the Veterinary Technician. Introduction to ultrasound, MRI, CAT scans, and other non-traditional imaging uses and techniques. Lab allows for practical application of theories and radiographic positioning as taught in lecture.	Prerequisites: A grade of C or better in (VET150 and VET150LL) or permission of Instructor.		Occ	LEC 3.0 3.0 3.0 LAB 0.0 3.0 3.0	T
VET235	2018 Fall	Veterinary Technician Proficiency		Review of pertinent subject matter in preparation for the Arizona State Veterinary Technician Examination and the Veterinary Technician National Examination. Guided review	Prerequisites: A grade of C or better in VET210, VET220, and VET223.		Occ	L+L 2.0 2.0 2.0	T

				and discussion of exam application process. Review of student's Veterinary Technology Student Essential and Recommended Skills to ensure completion for graduation as required by the American Veterinary Medical Association. May included field trips or guest lecturers.	Corequisites: VET240.				
VET240	2020 Spring	Veterinary Anesthesia, Surgery, and Emergency Nursing		Veterinary surgical nursing skills associated with aseptic technique and proper protocol in the surgery suite. Pre and post-op monitoring, record keeping, and client education skills. Procedures and techniques with intravenous and inhalation anesthetics, surgical asepsis, skin preparation, instrument sterilization techniques and monitoring veterinary patients for vital signs.	Prerequisites: A grade of C or better in VET210 and VET220.		Occ	LEC 3.0 3.0 3.0 LAB 0.0 4.0 4.0	T
VET250AA	2019 Fall	Veterinary Technician Internship		Provides Veterinary Technology program students with off-campus clinical experience in a small animal general veterinary practice. Opportunity for practical application and development of knowledge, skills, and abilities acquired in program coursework. Exposure to practice philosophies, methodologies, and real-life situations requiring critical thinking and decision-making abilities. Includes instruction and evaluation by veterinarians or veterinary technicians guided by the American Veterinary Medical Association's Veterinary Technology Student Essential and Recommended Skills list.	Prerequisites: A grade of C or better in VET112, VET132, and VET151.		Occ	LAB 0.5 0.5 0.0	C
VET250AB	2019 Fall	Veterinary Technician Internship		Provides Veterinary Technology program students with off-campus clinical experience in a large animal general veterinary practice. Opportunity for practical application and development of knowledge, skills, and abilities acquired in program coursework. Exposure to practice philosophies, methodologies, and real-life situations requiring critical	Prerequisites: A grade of C or better in VET250AA.		Occ	LAB 0.5 0.5 0.0	C

				thinking and decision-making abilities. Includes instruction and evaluation by veterinarians or veterinary technicians guided by the American Veterinary Medical Association's Veterinary Technology Student Skills Essential and Recommended Skills list.					
VET250AC	2019 Fall	Veterinary Technician Internship		Provides Veterinary Technology program students with off-campus clinical experience in an emergency veterinary clinic and in a veterinary specialty practice. The internship hours will be split equally between the emergency clinic and the specialty practice. Specialty practices my include surgery, ophthalmology, internal medicine, dentistry, dermatology, radiology, exotics, zoo, research, and others. Opportunity for practical application and development of knowledge, skills, and abilities acquired in program coursework. Exposure to practice philosophies, methodologies, and real-life situations requiring critical thinking and decision-making abilities. Includes instruction and evaluation by veterinarians or veterinary technicians guided by the American Veterinary Medical Association's Veterinary Technology Student Skills Essential and Recommended Skills list.	Prerequisites: A grade of C or better in VET250AB or permission of Instructor.		Occ	LAB 0.5 0.5 0.0	C
VET250AD	2019 Fall	Veterinary Technician Internship		Continuing practical application and mastery of knowledge, skills, and abilities in the selected clinical setting. Exposure to practice philosophies, methodologies, and real-life situations requiring critical thinking and decision-making abilities. Includes instruction and evaluation by veterinarians or veterinary technicians guided by the American Veterinary Medical Association's Veterinary Technology Student Skills Essential and Recommended Skills list.	Prerequisites: A grade of C or better in VET250AC or permission of Instructor.	VET250A D allows the last-semester Veterinary Technology Program student to elect to repeat the off-campus clinical experienc	Occ	LAB 0.5 0.5 0.0	C

						e of either VET250A A, VET250A B, or VET250A C, depending upon their career interest.			
WAC101	2020 Fall	Writing Across the Curriculum		Expressive, expository, and academic writing experiences to develop students' rhetoric and composition foundation. Experience planning and drafting multi-paragraph essays through a writing process with emphasis on essay and paragraph structure and the elements of sentence structure. Participation in writing workshop, group work, reading to support writing tasks, and writing from sources. A minimum of three multi-paragraph essays and a final reflection paper.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
WED105	1991 Fall	Minimizing Workplace Stress		Introduction of the application of Practical Relaxation Techniques for reducing workplace stress. Defines the characteristics, process and signs of worplace stress. Includes discussions of the physiology of stress and how these responses impact daily living. Use of the biofeedback instruments to monitor the relaxation techniques such as self-hypnosis, visualization, guided imagery, and meditation	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5	S
WED106	2023 Fall	Cardiopulmonary Resuscitation (CPR)/Automated External Defibrillator (AED)		Basic overview of Cardiopulmonary Resuscitation (CPR) and Automated External Defibrillator (AED). Covers choking procedures and the importance, guidelines, and techniques for performing CPR and utilizing an AED.	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5	S
WED107	2023 Fall	Community First Aid		Basic first aid course for the layperson. Training with the	Prerequisites: None.		Occ	L+L 0.5	T

				assessments and skills that be performed with minimal equipment in common home or workplace emergencies until emergency medical personnel arrive.				0.5 0.5	
WED120	2018 Fall	Massage Therapy: Anatomy Refresher - Upper Body		This course is designed for individuals in the field of massage therapy and provides a review of upper body musculature affecting the neck, shoulder, spine, elbow and wrist joints. Origins and insertions and resistive stretches included.	Prerequisites: None.	WED120 may be repeated for a total of six (6) credit hours.	Occ	L+L 1.0 1.0 1.0	T
WED125	2018 Fall	Reiki: Healing and Symbols		Introduction to Reiki as a Japanese technique for stress reduction and relaxation that also promotes healing. Instruction in the Usui method of Reiki and its symbols and applications to personal health and everyday life.	Prerequisites: None.	WED125 may be repeated for a total of ten (10) credits.	Occ	L+L 2.0 2.0 2.0	T
WED126	2020 Fall	Cupping Therapy		Introduction to cupping therapy for individuals in the field of massage therapy. In addition but not limited to the history, techniques and application in various therapeutic settings.	Prerequisites: None.	WED126 may be repeated for credit.	Occ	L+L 1.0 1.0 1.0	T
WED145	2023 Fall	Reflexology		History and application of specific pressure points on the hands and feet that have correlation to different body organs and systems. Practice of micromovement techniques with the goal of creating a response throughout the body.	Prerequisites: None.	WED145 may be repeated for a total of six (6) credit hours.	Occ	L+L 1.0 1.0 1.0	T
WED151	2004 Fall	Introduction to Alternative Medicine		Definition of health; exploration of mind-body-spirit connection in health; various therapeutic modalities; identification of strengths and limitations of alternative therapies. Also includes development of ability to critically review written material in the alternative therapy area	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
WED152	2023 Fall	Comparative Healing Techniques		Comparative approaches to healing, including allopathy, homeopathy, chiropractic, osteopathy, Chinese medicine, Ayurveda, Shamanism, and therapeutic touch. Contrast explanations for causation of disease,	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S

				diagnostic procedures, and healing methodology.					
WED154	2023 Fall	First Aid/Cardiopulmonary Resuscitation		Cardiopulmonary Resuscitation (CPR) and first aid for the adult, child and infant patients includes Automated External Defibrillator (AED), rescue breathing, obstructed airway, and other first aid procedures. Designed to train citizen responders in skills and procedures required during emergency situation.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
WED155	2023 Fall	Introduction to Chinese Medicine		Basic theories, principles, and methods that constitute the backbone of Chinese Medicine. Explores concepts of Yin, Yang, the Five Elements (Wood, Fire, Earth, Metal, and Water), and the Five Vital substances (Qi, Blood, Body Fluids, Jing, and Shen). Overview of the physiology of the major internal organs (Five Zang and Six Fu) with a focus on their various interrelationships.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
WED162	2023 Fall	Meditation and Wellness		Physiology of meditation and its effects on physical and mental health; scholastic abilities and interpersonal relationships; differentiation between meditation and other relaxation techniques.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
WED165	2001 Fall	Overview of Massage Therapy		History of massage; overview of bodywork systems; benefits and indications of massage; legal requirements for practice in Arizona	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
WED166	2023 Fall	Overview of FELDENKRAIS (R) Awareness Through Movement (R)		Movement activity lessons which are verbally directed, exploratory in nature, designed to clarify the full range of possibility for human movement and action. Self-paced lessons in a noncompetitive environment.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
WED170	1997 Fall	Principles of Homeopathy		Origins of homeopathy; key concepts; perceptions of disease; schools of homeopathy; scientific studies; preparation of remedies; case taking	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
WED172	2000 Fall	Overview of Herbal Remedies		History and evolution of herbs for healing applications. Preparation,	Prerequisites: None.		Occ	LEC 1.0	S

				usage, and effects of certain herbs used for healing purposes. Basic literature review skills in the area of herbal medicine				1.0 1.0	
WED174	2023 Fall	Myofascial Release		Introduction to myofascial release techniques and application. Myofascial Release (MFR) is a therapeutic modality that allows restricted fascia to release from a tightened state. MFR improves nerve conductivity and circulation of blood and lymph, which allows the healing powers of the body to flow to restricted tissues. The result is relief from chronic pain and the potential for healing injured tissue.	Prerequisites: None.	WED174 may be repeated for credit. Counts as 13.3 continuing education units (CEUs).	Occ	L+L 1.0 1.0 1.0	T
WED176	1997 Fall	Flower Essences		Healing properties of Bach flower remedies; Bach's development of remedies and his philosophy of healing; use and preparation of a variety of flower essences	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
WED181	2018 Fall	Essential Oil Properties and Formulations		Focuses on the benefits of individual plant oils, profiling past to present day uses and documented properties; experiential evaluation of the oils; how to formulate topical blends; oil substitution using less expensive oils; hands-on learning.	Prerequisites: None.		Occ	L+L 1.0 1.0 1.0	T
WED182	2006 Fall	Health Conditions and Popular Herbs		In-depth look at some of today's most popular herbs and their relationship to specific health conditions. Emphasis on research skills in relation to popular herbs. Includes the effects, uses, and application strategies of herbs.	Prerequisites: None. WED172 suggested but not required.		Occ	LEC 2.0 2.0 2.0	S
WED183	2018 Fall	Introduction to Ayurvedic Principles		Introduction to Ayurveda: "the science of life"; a complete system of balancing the body, mind and spirit, originating from ancient India. Introduction to foundational Ayurvedic principles, health philosophy and self assessment of basic constitution. Application of basic health and self care practices such as food selection and preparation, exercise and movement, renewal and restoration	Prerequisites: None.	WED183 may be repeated for a total of six (6) credits.	Occ	L+L 2.0 2.0 2.0	T



				activities, environmental influences to promote health and well-being.					
WED185	2012 Fall	Overview of Movement Therapy Systems		Definition of health, exploration of mind-body-spirit connection in health, various therapeutic modalities, identification of strengths and limitation of movement based therapies. Also includes development of ability to critically review written material in the physical or movement therapy area.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
WED195	2023 Fall	Special Topic in Wellness Education		Introduction to current topics and contemporary issues related to developing and maintaining a healthy lifestyle.	Prerequisites: None.	WED195 may be repeated for credit.	Occ	LEC 0.5 0.5 0.5	S
WED195AA	2023 Fall	Special Topics in Wellness Education A		Introduction to current topics and contemporary issues related to developing and maintaining a healthy lifestyle.	Prerequisites: None.	WED195A A may be repeated for credit.	Occ	L+L 0.5 1.0 1.0	T
WED195AB	2023 Fall	Special Topics in Wellness Education A		Introduction to current topics and contemporary issues related to developing and maintaining a healthy lifestyle. Focuses on a variety of techniques and strategies to promote wellness.	Prerequisites: None.	WED195A B may be repeated for credit.	Occ	L+L 1.0 1.0 1.0	T
WED195AC	2023 Fall	Special Topics in Wellness Education A		Introduction to current topics and contemporary issues related to developing and maintaining a healthy lifestyle. Focuses on a variety of techniques and strategies to promote wellness.	Prerequisites: None.	WED195A C may be repeated for credit.	Occ	L+L 2.0 2.0 2.0	T
WED195AD	2023 Fall	Special Topics in Wellness Education A		Introduction to current topics and contemporary issues related to developing and maintaining a healthy lifestyle. Focuses on a variety of techniques and strategies to promote wellness.	Prerequisites: None.	WED195A D may be repeated for credit.	Occ	LEC 3.0 3.0 3.0	S
WED195BB	2023 Fall	Special Topics in Wellness Education B		Introduction to current topics and contemporary issues related to developing and maintaining a healthy lifestyle.	Prerequisites: None.	WED195B B may be repeated for credit.	Occ	L+L 1.0 1.0 1.0	T
WED195BC	2023 Fall	Special Topics in Wellness Education B		Introduction to current topics and contemporary issues related to developing and maintaining a healthy lifestyle.	Prerequisites: None.	WED195B C may be repeated for credit.	Occ	L+L 2.0 2.0 2.0	T

WED204	2009 Fall	Establishing a Massage Practice		Explore career options in therapeutic massage, including state licensing requirements, and determine how to lay the groundwork for a successful massage practice	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
WED210	2018 Fall	Sports Massage		Purpose, benefits, and contraindications of sports massage; principles of sports physiology; massage techniques, applications, and procedures; treatment of injuries.	Prerequisites: A grade of C or better in WED165 and WED230 or permission of Program Director.		Occ	L+L 2.0 3.0 3.0	T
WED215	2018 Fall	Self-Care for Health Care Providers		Emphasis on mind-body methods for personal wellness through integration of physical, emotional, social, and spiritual dimensions of being. Development of a personal practice to achieve and sustain a balanced program to support personal health and well being	Prerequisites: None.		Occ	L+L 2.0 5.0 5.0	T
WED218	1997 Fall	Aromatherapy		Physiology of aromatherapy; methods of use; preparation of oils; uses in sports, beauty care, massage, child care, health care, at work, and in the home	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
WED220	2023 Fall	Gentle Touch for Individuals Living with Cancer		Introduction to the gentle-touch approach to massage for individuals who are living with or have survived cancer. Overview of cancer and principal cancer treatments. Clinical considerations, including practice guidelines and hands-on adjustments related to cancer and treatment side effects. Administrative considerations for client intake, treatment plans and session documentation. In addition, comprehensive practical application of massage.	Prerequisites: None.	Previous training in Swedish strokes and massage draping required. WED220 may be repeated for a total of eight (8) credit hours.	Occ	L+L 2.0 2.0 2.0	T
WED225	2016 Fall	Reiki: Master Level and Teacher Training		Advanced Usui method of Reiki, including but not limited to the preparation for placement of symbols, hand movements and attunements. Exploration of the four pillars of Reiki and 4th Reiki symbol and strategies	Prerequisites: A grade of C or better in WED125 or permission of Department or Division.	WED225 may be repeated for a total of eight (8) credits. WED225	Occ	LEC 2.0 2.0 2.0	S

				for instruction, relationships and classroom management.		requires an approved field experience.			
WED230	2018 Fall	Therapeutic Massage Practices I		Principles of professionalism, ethics, and legalities. Includes use of terminology related to massage therapy. Applications, indications, and contraindications of the nine strokes of Swedish massage. Study of the human osseous and muscular structure. Emphasis on normal movement patterns, origins, insertions, and functions of the muscular system	Acceptance into the Therapeutic Massage program or permission of Program Director.		Occ	L+L 6.0 9.0 9.0	T
WED231	2018 Fall	Therapeutic Massage Practices II		Refined application of the nine strokes of Swedish massage and contraindications to avoid. Application of advanced principles and techniques of trigger point therapy, muscle energy technique, stretching, hydrotherapy protocols, hot and cold applications, reflexology, and corporate massage. Study of the human osseous and muscular structure. Emphasis on normal movement patterns and the origin, insertion, and function of the muscular system	Prerequisites: A grade of C or better in WED230.		Occ	L+L 6.0 9.0 9.0	T
WED232	2018 Fall	Therapeutic Massage Practices III		Refinement and integration of technical skills, psychosocial competencies, and role identity. Exploration of techniques to assess and facilitate range of motion and function; purpose, benefits, indications, and contraindications of therapeutic massage for specific neuro-musculoskeletal disorders/injury and special populations. Application of massage techniques with therapists pre- and post-client evaluations of the client. Adaptation of massage techniques for special populations.	Prerequisites: A grade of C or better in WED231. Corequisites: WED250 or permission of Program Director.		Occ	L+L 6.0 10.0 10.0	T

WED250	2009 Spring	Clinical Practicum		Application of fundamental massage techniques.	Prerequisites: A grade of C or better in WED231. Corequisites: WED232 and permission of Program Director.		Occ	LAB 3.0 6.0 0.0	C
WED250AA	2014 Spring	Clinical Practicum: Part I		Application of fundamental massage techniques.	Prerequisites: A grade of C or better in WED231. Corequisites: WED232 and permission of Program Director.		Occ	LAB 1.5 3.0 0.0	C
WED250AB	2014 Spring	Clinical Practicum: Part II		Continued application of fundamental massage techniques.	Prerequisites: A grade of C or better in WED250AA.		Occ	LAB 1.5 3.0 0.0	C
WED257	2018 Fall	Kinetic Meditation		Focuses on posture, body movement, and energy centered meditations. In depth discussion of Chinese Chi Kung exercises and Chi Meditation. Reviews influence of Taoist and Buddhist philosophies on Chi Kung practice and stress management. Explores Kinetic Meditations, and scientific research into health benefits of Chi Kung practice.	Prerequisites: A grade of C or better in WED151, WED162, PED101DD and (PED101VR or PED101YJ) or permission of Department or Division.		Occ	L+L 2.0 2.0 2.0	T
WED258	2018 Fall	Auditory Meditation		Focuses on the East Indian Yogic (Siddha) and Ayurvedic (Transcendental) meditation traditions and use of mantras, sounds and music in meditation. Discussion of the Vedanta System of Philosophy and the Bhagavad Gita. Explores the history and popularity of auditory meditations, and scientific research into the health benefits of Transcendental Meditation (TM) and other auditory meditations.	Prerequisites: A grade of C or better in WED257 or Corequisites: WED257 or permission of Department or Division.		Occ	L+L 2.0 2.0 2.0	T
WED259	2018 Fall	Visual Meditation		Focuses on the use of physical objects and mental images as the focal point for meditation. Focuses on the standing and sitting meditation of the Egyptian and West African traditions and the pantheon of images	Prerequisites: A grade of C or better in WED257 and WED258 or Corequisites: WED257 and		Occ	L+L 2.0 2.0 2.0	T

				used to represent life's day-to-day processes. Includes discussion of Egyptian and Yoruba philosophy and the use of natural and artistic items, special words or symbols, religious allegories, and graphic images as focal points for meditation.	WED258 or permission of Department or Division.				
WED275	2016 Fall	Practicum: Teaching Healing, Meditation and Stress Management		Application, teaching, and training of fundamental healing meditation and stress management techniques.	Prerequisites: A grade of C or better in WED259 and permission of Instructor.		Occ	LAB 3.0 15.0 0.0	C
WED282AA	2012 Fall	Service-Learning Experience in Wellness Education		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	WED282A A may be repeated for a total of six (6) credit hours. Standard grading available according to procedure s outlined in catalog.	Occ	LAB 1.0 1.0 0.0	L
WED282AB	2012 Fall	Service-Learning Experience in Wellness Education		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	WED282A B may be repeated for a total of six (6) credit hours. Standard grading available according to procedure s outlined in catalog.	Occ	LAB 2.0 2.0 0.0	L
WED282AC	2012 Fall	Service-Learning Experience in Wellness Education		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	WED282A C may be repeated for a total	Occ	LAB 3.0 3.0 0.0	L

						of six (6) credit hours. Standard grading available according to procedures outlined in catalog.			
WED297AA	2018 Fall	Special Topics: Therapeutic Massage		Explores a special topic related to therapeutic massage. Topics vary and include concepts relevant to those pursuing careers in therapeutic massage	Prerequisites: None.		Occ	L+L 1.0 1.0 1.0	T
WED297AB	2018 Fall	Special Topics: Therapeutic Massage		Explores a special topic related to therapeutic massage. Topics vary and include concepts relevant to those pursuing careers in therapeutic massage	Prerequisites: None.		Occ	L+L 2.0 2.0 2.0	T
WED297AC	2018 Fall	Special Topics: Therapeutic Massage		Explores a special topic related to therapeutic massage. Topics vary and include concepts relevant to those pursuing careers in therapeutic massage	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0	T
WED298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z
WED298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z

				aspects of independent study and individualized learning to be combined to maximize student development.					
WED298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z
WFR110	2007 Summer I	Re-Entry Skills: Personal Skill Development		Personal skill development necessary for transition from incarceration to community. Includes development of a personal value system and decision-making strategies as well as conflict management. Also covers time and money management, goal setting, and the basics for everyday life	Prerequisites: Permission of Department or Division.		Occ	LEC 3.0 3.0 3.0	S
WFR112	2007 Summer I	Re-Entry Skills: Family Reunification		Reunification procedures for the incarcerated person's effective transition. Includes building and maintaining self- esteem and effective communication for healthy families or support systems. Also covers family and networking culture, discipline, and expectations for release	Prerequisites: Permission of Department or Division.		Occ	LEC 3.0 3.0 3.0	S
WFR114	2007 Summer I	Re-entry Skills: Social Skill Development		Social skill development for the incarcerated person preparing to re-enter society. Includes identifying and establishing boundaries as well as modeling these behaviors. Also covers identification of core emotions and development of positive character traits	Prerequisites: Permission of Department or Division.		Occ	LEC 1.0 1.0 1.0	S
WFR116	2007 Summer I	Re-Entry Skills: Substance Abuse Education		Substance abuse education for incarcerated persons. Includes warning signs and the "chain of events" to addiction. Also covers decision making skills as well as	Prerequisites: Permission of Department or Division.		Occ	LEC 1.0 1.0 1.0	S

				strategies and resources available for prevention					
WFR118	2007 Summer I	Re-Entry Skills: Job Readiness		Preparing the incarcerated person for release into the working world. Includes education, skills assessment, and work experience. Also covers job search skills such as resume writing, applications, and interviewing	Prerequisites: Permission of Department or Division.		Occ	LEC 3.0 3.0 3.0	S
WFR120	2007 Summer I	Re-Entry Skills: Job Retention		Job retention procedures and techniques for incarcerated persons in transition. Includes workplace protocol, job performance, and employer-employee interaction. Also covers stress management and communication skills as well as interpersonal relationships in the workplace	Prerequisites: Permission of Department or Division.		Occ	LEC 2.0 2.0 2.0	S
WKO298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z
WKO298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z
WKO298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z



				and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.					
WLD100	2005 Spring	Basic Welding		Shop procedures, safety and personal protection. Grinders, drill presses, and saws. Resistance and oxyacetylene welders. Arc welders: alternating current (AC) and direct current (DC) modes, electrodes, positioning and securing	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 2.0 2.0 2.0	S
WLD101	2020 Fall	Introduction to Welding		Introduction to safe operation of shop equipment and common joining and thermal cutting processes used in the welding industry. It is designed to provide a brief exposure to the SMAW, GMAW, FCAW, GTAW, OFW, OFC, PAC processes while developing incremental hands-on skills through sequenced lab experiences.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0	T
WLD102	2018 Fall	Basic Welding Metal Sculpture		Practical training for welders in artistic welding and metal sculpter with emphasis on oxy-ace welding, arc welding, and metal inert gas (MIG) welding.	Prerequisites: None.	WLD102 may be repeated for a total of one hundred fifty (150) credit hours.	Occ	L+L 3.0 6.0 6.0	T
WLD103	2018 Fall	Basic Blacksmithing and Metal Shaping		Selection and safe use of blacksmithing and metal shaping tools and equipment. Material selection and conditioning, practical forging techniques, metal shaping experience, and finishing processes.	Prerequisites: None.	WLD103 may be repeated for a total of one hundred fifty (150) credit hours.	Occ	L+L 3.0 8.0 8.0	T
WLD106	2018 Fall	Arc Welding		Electric welding with emphasis on metallic arc welding in out-of-position practice and procedures	Prerequisites: None.		Occ	L+L 5.0	T

								8.0 8.0	
WLD106AA	2020 Fall	Introduction to SMAW		Introduction to arc welding with emphasis in Shielded Metal Arc Welding (SMAW). Designed to provide the knowledge and skills needed to cut and prepare weld joints utilizing current technology. Develops hands-on skills through sequenced lab experiences.	Prerequisites: None.		Occ	L+L 5.0 8.0 8.0	T
WLD106AB	2020 Fall	SMAW 6010 Plate		Continued training in shielded metal arc welding (SMAW) with emphasis on using E6010 (fast-freeze) electrodes in all joint positions. Focus is on fillet welds for structural steel and open root groove weld joints.	Prerequisites: A grade of C or better in WLD106AA or permission of Instructor.		Occ	L+L 5.0 8.0 8.0	T
WLD106AC	2020 Fall	SMAW 7018 Plate		Continued training in shielded metal arc welding (SMAW) with emphasis on using E7018 (low hydrogen) electrodes in all joint positions. Focus is on fillet welds and groove weld joints with backing to prepare students for welding code certification testing.	Prerequisites: A grade of C or better in WLD106AA or permission of Instructor.		Occ	L+L 5.0 8.0 8.0	T
WLD106AD	2020 Fall	SMAW Introduction to Pipe		Advanced training in shielded metal arc welding (SMAW) with emphasis on pipe welding using E6010 and E7018 electrodes in various pipe joint positions (1G, 2G, 5G, 6G). Focus is on the open root groove pipe weld joints to prepare students for industry code certification.	Prerequisites: A grade of C or better in WLD106AA or permission of Instructor.		Occ	L+L 5.0 8.0 8.0	T
WLD131	1994 Spring	Ferrous Metals		Use of ferrous metals, specification of ferrous metals, use of identification and study of welding industry standards	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
WLD150	2019 Spring	Welding Blueprint Reading		Analysis and interpretation of technical drawings common to the metal fabrication and construction trades. Welding blueprint symbols.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
WLD201	2020 Fall	Advanced Welding Concepts		Further study of electric arc and oxyacetylene welding with emphasis on GTAW (heliarc) and GMAW (mig) processes to weld both ferrous and nonferrous metal.	Prerequisites: A grade of C or better in WLD101.		Occ	L+L 3.0 6.0 6.0	T

WLD202	2021 Fall	Construction Welding III		Metal arc welding processes, blueprint and weld symbol reading, joint layout preparation and welding procedures, gas-tungsten arc welding with related instruction in practice on ferrous and nonferrous metals	Prerequisites: Permission of Instructor.		Occ	L+L 3.0 5.0 5.0	T
WLD203	2018 Fall	Welding Certification Preparation		Emphasis on the weld certification process including the Welding Procedure Qualification Record (WPQR), Welder Performance Qualification Test Record (WPQTR), and the Weld Procedure Specification (WPS) in Shielded Metal Arc Welding (SMAW), Gas Tungsten Arc Welding (GTAW), or Gas Metal Arc Welding (GMAW) welding processes.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 6.0 6.0 6.0	T
WLD206	2018 Fall	Advanced Welding - Heliarc and Wire Feed		Instruction in theory and practice on tungsten inert gas and wire feed welding. Welding procedures on ferrous and nonferrous metals. Set up and operation of all types of machines used in tig and mig welding	Prerequisites: A grade of C or better in WLD106 or permission of Department or Division.		Occ	L+L 5.0 8.0 8.0	T
WLD206AA	2020 Fall	Introduction to GMAW/FCAW and GTAW		Instruction in theory and practice of gas metal arc welding (GMAW, commonly referred to as MIG), flux cored arc welding (FCAW), and gas tungsten arc welding (GTAW, commonly referred to as TIG). Basic welding procedures on ferrous and nonferrous metals. Setup and operation of welding process equipment. Covers selection of proper filler materials and shielding gas options.	Prerequisites: A grade of C or better required in WLD106AA or permission of Instructor or Corequisites: WLD106AA.		Occ	L+L 5.0 8.0 8.0	T
WLD206AB	2020 Fall	Advanced GMAW and FCAW		Instruction and practice of gas metal arc welding (GMAW) and flux cored arc welding (FCAW) in the horizontal, vertical, and overhead positions. Prepare for industry code performance qualification plate tests with both welding processes.	Prerequisites: A grade of C or better in WLD206AA or permission of Instructor.		Occ	L+L 5.0 8.0 8.0	T
WLD206AC	2020 Fall	Advanced GTAW Non-Ferrous		Instruction and practice of gas tungsten arc welding (GTAW) aluminum sheet in the flat, horizontal, and vertical positions. Prepare for industry code performance	Prerequisites: A grade of C or better in WLD206AA or permission of Instructor.		Occ	L+L 5.0 8.0 8.0	T

				qualification tests in any welding position.					
WLD206AD	2020 Fall	Advanced GTAW Ferrous		Instruction and practice of gas tungsten arc welding (GTAW) carbon and stainless-steel in any position. Prepare for industry code performance qualification tests in any welding position.	Prerequisites: A grade of C or better in WLD206AA or permission of Instructor.		Occ	L+L 5.0 8.0 8.0	T
WLD208	2018 Fall	Advanced Arc Welding - Certification		Advanced metallic arc welding emphasizing out-of-position welding in preparation for certification. Includes various test methods. Provides training on machine flame cutting and gouging and arc air cutting and gouging	Prerequisites: A grade of C or better in WLD106 or permission of Instructor.		Occ	L+L 5.0 8.0 8.0	T
WLD208AA	2020 Fall	SMAW Code Welding		Advanced training in shielded metal arc welding (SMAW) to achieve successful welder performance qualification testing in any position. Focus is on single v-groove weld joints per industry codes and specification requirements.	Prerequisites: A grade of C or better in WLD106AA or permission of Instructor.		Occ	L+L 5.0 8.0 8.0	T
WLD208AB	2020 Fall	GMAW Code Welding		Advanced training in gas metal arc welding (GMAW) with emphasis on achieving successful welder performance qualification testing in any position. Focus is on groove weld joints per industry codes.	Prerequisites: A grade of C or better in WLD206AA or permission of Instructor.		Occ	L+L 5.0 8.0 8.0	T
WLD208AC	2020 Fall	FCAW Code Welding		Advanced training in flux cored arc welding (FCAW) with emphasis on achieving successful welder performance qualification testing in any position. Focus is on groove weld joints per industry codes.	Prerequisites: A grade of C or better in WLD206AA or permission of Instructor.		Occ	L+L 5.0 8.0 8.0	T
WLD208AD	2020 Fall	SMAW Code Welding Pipe		Advanced training in pipe welding using either shielded metal arc welding (SMAW), gas metal arc welding (GMAW), or flux cored arc welding (FCAW) with emphasis on achieving successful welder performance qualification testing in any position. Focus is on groove weld joints per industry codes.	Prerequisites: A grade of C or better in WLD106AD or WLD208AA, or permission of Instructor.		Occ	L+L 5.0 8.0 8.0	T
WLD214	2018 Fall	American Welding Society		Principles and techniques of electric arc welding and American Welding Society (AWS) certification	Prerequisites: A grade of C or better in (WLD101 and		Occ	L+L 2.0	T

		Certification Preparation		requirements, certification pretest and preparation. Technical theory and skill training in all position welding processes.	registered apprenticeship status) or permission of the Apprenticeship Coordinator.			2.0 2.0	
WLD215	2023 Spring	Welding Fabrication		Introduction to layout, basic welding, and fabrication. Introduction to the basic skills of measuring, equipment setup and cutting, shaping, grinding, welding, filing, and heating and bending of metal parts.	Prerequisites: WLD101, or WLD106++, or WLD206++, or Apprentice status, or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 6.0 6.0	T
WLD215AA	2021 Fall	Weld Fabrication I for Millwrighting		Layout, fabrication and basic skills of measuring, cutting, shaping, grinding, drilling and tapping, welding, filing, shimming, heating and bending of metal parts. Safe and proper use of all necessary hand and power tools.	Prerequisites: Permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0	T
WLD215AB	2018 Fall	Weld Fabrication II for Millwrighting		Welding layout and fabrication. Advanced skills in measuring, cutting, shaping, grinding, drilling and tapping, welding, filing, shimming, heating and bending of metal parts. Safe and proper use of all necessary hand and power tools.	Prerequisites: A grade of C or better in (WLD215AA and registered apprenticeship status) or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 2.0 2.0	T
WLD225	2017 Spring	Welding Inspection and Quality Control		Welding inspection and quality control standards and practices in the construction and fabrication industries. Welding inspector certification requirements and functions performed in industry.	Prerequisites: A grade of C or better in WLD106++ or permission of Instructor.		Occ	LEC 3.0 3.0 3.0	S
WLD296WA	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor		Occ	LAB 1.0 5.0 0.0	Z

					Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.				
WLD296WB	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 2.0 10.0 0.0	Z
WLD296WC	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to		Occ	LAB 3.0 15.0 0.0	Z

					students major or career interest or with permission of Instructor.				
WLD296WD	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students.	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.		Occ	LAB 4.0 20.0 0.0	Z
WLD298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z
WLD298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z

				individualized learning to be combined to maximize student development.					
WLD298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z
WRT100	2020 Fall	Introduction to Water Resources		Fundamental principles of water resources. Basic concepts and strategies in the study of water, the current focus on water pollution and water purification. Topics include ground water, surface water, water quality, water purification, and water pollution. Presentation of ongoing studies related to work of earth scientists.	Prerequisites: Admission to the Water Resources Technology program and placement into MAT120, MAT121, MAT122, MAT150, MAT151, MAT152, or higher-level mathematics course for which College Algebra is a prerequisite or permission of the Program Director.		Occ	LEC 3.0 3.0 3.0	S
WRT102	2017 Spring	Water Resources Computations and Data Analysis		Fundamentals of water resources technology formulas for real-world problems. Discussion of best practices in water resources given the results of the calculations.	Prerequisites: Math assessment score on District placement exam placing students into MAT090 or MAT091 or MAT092 or higher level mathematics course.		Occ	LEC 3.0 3.0 3.0	S
WRT108	2020 Fall	Fundamentals of Environmental Science Technology		This course provides fundamental concepts and problem-solving methods that address environmental conditions, pollution monitoring and prevention, and approaches for protecting air, land and water using technology.	Prerequisites: Admission into the Water Resources Technology program. Corequisites: WRT100 or		Occ	LEC 3.0 3.0 3.0	S



					permission of Program Director.				
WRT110	2020 Fall	Principles of Water Treatment Plant Operations		Principles in the safe and effective operation and maintenance of drinking water treatment plants, reservoir management and intake structuring. The source of water, basic water laboratory test procedures and calculations also covered.	A grade of C or better required in all Prerequisites. Prerequisites: Admission to the Water Resources Technology program. Prerequisites or Corequisites: WRT100 or permission of Program Director.		Occ	LEC 3.0 3.0 3.0	S
WRT115	2020 Fall	Water Technology Calculations		Application of water technology formulas for operation and maintenance of water/wastewater plants and distribution and collections systems. Includes operator examination preparation and discussion of best practices in water technologies given the results of the calculations.	A grade of C or better required in all Prerequisites. Prerequisites: Admission to the Water Resources Technology program. Prerequisites or Corequisites: WRT100 or permission of Program Director.		Occ	LEC 3.0 3.0 3.0	S
WRT117	2020 Fall	Geographic Information Systems (GIS)		Purpose and applications of desktop Geographic Information Systems (GIS) technology applied to water resources and planning. ArcView software program applications and data management. Includes data query and spatial data functions. Analysis of spatial relationships and presentation of spatial information.	Prerequisites: Admission into the Water Resources Technology program and (a grade of C or better in BPC110, or CIS105, or permission of Program Director).		Occ	LEC 3.0 3.0 3.0	S
WRT121	2020 Fall	Operation of Wastewater Treatment Plants		Safe and effective operation and maintenance of wastewater treatment plants. Overview of treatment processes and laboratory testing used in wastewater treatment plants. Principles and processes involved in waste treatment ponds, disinfection and chlorination process.	A grade of C or better required in all Prerequisites. Prerequisites: Admission to the Water Resources Technology program. Prerequisites or Corequisites: WRT100 or		Occ	LEC 3.0 3.0 3.0	S

					permission of Program Director.				
WRT125	2020 Fall	Surveying for Water Resources		Fundamental surveying principles utilized in water field studies. Level and transit, horizontal measurement by tape or stadia. Benchmark and profile leveling traverse surveys and computations and establishment of line and grade.	Prerequisites: Admission into the Water Resources Technology program and (a grade of C or better in WRT100 or permission of Program Director).		Occ	LEC 2.0 2.0 2.0	S
WRT130	2020 Fall	Groundwater Hydrology		Fundamentals of groundwater resources. Includes basic flow equations, well hydraulics, groundwater fluctuations, artificial recharge and basic-data collection techniques. Emphasis on the use of data in analysis of local and regional flow systems.	Prerequisites: Admission into the Water Resources Technology program and (a grade of C or better in WRT100 or permission of Program Director).		Occ	LEC 3.0 3.0 3.0	S
WRT130LL	2018 Fall	Groundwater Field Techniques		Field exercises to acquire groundwater data and service data-gathering equipment. Safety procedures stressed.	Prerequisites: A grade of C or better in WRT130 or Corequisites: WRT130 or permission of Department or Division.		Occ	LAB 1.0 3.0 3.0	T
WRT131	2020 Fall	Wastewater Collection Systems Operation and Maintenance		Overview of wastewater collection systems with an emphasis on inspection and cleaning of sewer systems. Safety considerations, maintenance and underground repair procedures also covered.	Prerequisites: Admission into the Water Resources Technology program and (a grade of C or better in WRT100 and WRT115, or permission of Program Director).		Occ	LEC 3.0 3.0 3.0	S
WRT134	2020 Fall	Water Distribution System Operation and Maintenance		Safe and effective operation and maintenance of water distribution systems. Water contaminants, disinfection and chlorination in addition to development of a plant safety plan.	Prerequisites: Admission into the Water Resources Technology program and (a grade of C or better in WRT100 and WRT115, or permission of Program Director).		Occ	LEC 3.0 3.0 3.0	S

WRT140	2020 Fall	Water Quality for Treatment Industry		Introduction to water quality including common parameters in the treatment industry, regulations, and types and methods of monitoring. Laboratory safety, sampling and reporting, wet analytical methods, sample analyses, and process chemistry.	Prerequisites: Admission to the Water Resources Technology program. Prerequisites: A grade of C or better in WRT100 or Corequisites: WRT100 or permission of the Program Director.		Occ	LEC 5.0 3.0 3.0 LAB 0.0 6.0 6.0	T
WRT140LL	2018 Fall	Water Quality for Treatment Industry Laboratory		Laboratory safety, sampling and reporting; wet analytical methods; sample analyses; process chemistry.	Prerequisites: A grade of C or better in WRT140 or Corequisites: WRT140 or permission of Department or Division.		Occ	LAB 1.0 3.0 3.0	T
WRT150	2020 Fall	Introduction to Surface Water Data Collection		Fundamentals of surface water data collection while stressing safe practices. Map reading and navigation, field inspections, accessing, collecting, recording and retrieving surface water data.	Prerequisites: Admission into the Water Resources Technology program and (a grade of C or better in WRT100 or permission of Program Director).		Occ	LEC 3.0 3.0 3.0	S
WRT150LL	2018 Fall	Introduction to Surface Water Data Collection Field Techniques		Hands-on experience in surface water data collection while stressing safe practices. Map reading and navigation, field inspections, accessing, collecting, and recording surface water data.	Prerequisites: A grade of C or better in WRT150 or Corequisites: WRT150 or permission of Department or Division.		Occ	L+L 2.0 3.0 3.0	T
WRT152	2020 Fall	Water Resources Field Investigations I: Groundwater and Surface Water		Hands-on experience and field exercises to acquire surface water and groundwater data and service data-gathering equipment. Hands-on experience in surface water data collection while stressing safe practices. Map reading and navigation, field inspections, accessing, collecting, and recording surface water and groundwater data. Safety procedures stressed.	A grade of C or better required in all Prerequisites. Prerequisites: Admission to the Water Resources Technology program. Prerequisites or Corequisites: WRT130 and WRT150, or		Occ	L+L 3.0 6.0 6.0	T

					permission of Program Director.				
WRT153	2020 Fall	Environmental Law and Regulations		Introduction to various environmental laws and fundamentals of environmental laws relating to federal, state, and local levels. Overview and application of the permitting processes related to drinking and wastewater designed to provide a better sense of real-world issues from a regulator and regulated standpoint.	Prerequisites: Admission into the Water Resources Technology program and (a grade of C or better in WRT108 or permission of Program Director).		Occ	LEC 3.0 3.0 3.0	S
WRT180	2020 Fall	Environmental Sampling and Analysis		Introduction to the theory and methodology of sampling and analysis of environmentally significant parameters in water, wastewater, hazardous waste, soil, sediment, and air.	Prerequisites: Admission into the Water Resources Technology program and (a grade of C or better in WRT100 and WRT108, or permission of Program Director).		Occ	LEC 5.0 3.0 3.0 LAB 0.0 6.0 6.0	T
WRT190AA	2017 Spring	Water Resources Technologies Seminar		Interaction with other students and professionals in the water resources technologies industry. Stress placed on sharing knowledge and demonstrating understanding through discussion of current issues in the industry, operational tasks, and emerging issues.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
WRT200	2020 Fall	Industrial Pretreatment		Principles of industrial pretreatment programs. Overview of industrial facilities inspections and pollution prevention strategies. Sampling techniques of industrial wastewaters. Field exercises to acquire industrial wastewater quality data and industrial discharge flow measurements. Quality Assurance/Quality Control (QA/QC), and data processing techniques included. Safety procedures stressed.	A grade of C or better required in all Prerequisites. Prerequisites: Admission to the Water Resources Technology program. Prerequisites or Corequisites: WRT100 or permission of Program Director.		Occ	LEC 3.0 3.0 3.0	S
WRT204	2020 Fall	Water/Wastewater Mechanical Systems, Power, and Instrumentation		Maintenance of facilities and equipment in both water and wastewater systems. Principles of basic electricity, electrical circuits, motors, transformers, and process control instrumentation.	Prerequisites: Admission to the Water Resources Technology program and permission of the Program Director.		Occ	LEC 3.0 3.0 3.0	S

WRT205	2014 Spring	Power and Instrumentation		Principles of basic electricity, electrical circuits, motors, transformers, and process control instrumentation.	Prerequisites: A grade of C or better in WRT110 or WRT121 or WRT131 or WRT134.		Occ	LEC 3.0 3.0 3.0	S
WRT207	2021 Spring	Groundwater Production and Management		Basic hydrology and hydrogeology; construction of water wells from site selection and specifications through drilling, design, development, testing, and equipping; rehabilitation of existing wells, Arizona Groundwater Management Law of 1980; water quality; common operational problems of well fields; types and purposes of monitoring wells.	Prerequisites: A grade of C or better in WRT100 or permission of Program Director.		Occ	LEC 3.0 3.0 3.0	S
WRT221	2020 Fall	Water and Wastewater Treatment Plants Administration		Administration safety and maintenance of a water and wastewater treatment plants. Handling and disposal of process wastes and instrumentation use. Emphasis on reporting data in reports, graphs, and record keeping.	A grade of C or better required in all Prerequisites. Prerequisites: Admission to the Water Resources Technology program. Prerequisites or Corequisites: WRT110 or WRT121 or permission of Program Director.		Occ	LEC 3.0 3.0 3.0	S
WRT240	2014 Spring	Water Quality		Fundamental chemical and physical factors involved in evaluating water quality. Water quality deterioration from land fills, underground storage tanks, and hazardous waste. Sampling techniques of groundwater, soil, and surface water. Quality assurance, quality control, and data processing techniques included.	Prerequisites: A grade of C or better in WRT140, or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0	S
WRT240LL	2018 Fall	Water Quality Field Techniques		Field exercises to acquire water quality data and service data gathering equipment. Safety procedures stressed.	Prerequisites: A grade of C or better in WRT240 or Corequisites: WRT240 or permission of Department or Division.		Occ	LAB 1.0 3.0 3.0	T
WRT252	2020 Fall	Water Resources Field		Field reconnaissance of water resources. Lab experiences in	Prerequisites: Admission into the		Occ	L+L 3.0	T

		Investigations II: Surveying and Surface Water		surveying techniques and procedures. Field exercises to acquire surface water data and develop hydrologic models. Safety procedures stressed.	Water Resources Technology program and (a grade of C or better in WRT152 or permission of Program Director).			6.0 6.0	
WRT270AA	2017 Spring	Water Resources Internship		Water resources work experience in business, industry, or government. Eighty (80) hours of designated work per credit.	Prerequisites: Permission of Department or Division.		Occ	LAB 1.0 6.0 0.0	C
WRT270AB	2017 Spring	Water Resources Internship		Water resources work experience in business, industry, or government. Eighty (80) hours of designated work per credit [total of one hundred sixty (160) hours].	Prerequisites: Permission of Department or Division.		Occ	LAB 2.0 12.0 0.0	C
WRT270AC	2017 Spring	Water Resources Internship		Water resources work experience in business, industry, or government. Eighty (80) hours of designated work per credit [total of two hundred forty (240) hours].	Prerequisites: Permission of Department or Division.		Occ	LAB 3.0 18.0 0.0	C
WRT298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z
WRT298AB	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z
WRT298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual	Prerequisites: Permission of		Occ	LAB 3.0	Z

				student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Program Director or Instructor.			3.0 0.0	
WST100	2011 Fall	Introduction to Women's and Gender Studies		Introduction to critical issues in women's studies.	Prerequisites: None.	Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S
WST105	2024 Fall	Women of Color in the Americas		Interdisciplinary, multi-perspective, and comparative study of the experiences of Women of Color in the Americas and their impact on the arts, literature, social structures and political movements. Examines how the intersection of race, class, gender, and sexuality has shaped their lived experiences and legacy.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
WST120	2007 Fall	Gender, Class and Race		A feminist discussion of gender, class and race as basic and central social categories that determine how we see ourselves and others and how they circumscribe our opportunities and privileges in American society.	Prerequisites: None.	Course Attribute(s): General Education Designation: Cultural Diversity - [C]	Acad	LEC 3.0 3.0 3.0	S
WST128	2023 Fall	Law and Violence Against Women		Covers cases and materials on systems of oppression particularly as related to women in our society.	Prerequisites: None.		Acad	LEC 3.0	S

				Areas covered include battering, sexual harassment, sexual assault, prostitution, and pornography as exemplified in present-day society. Designed to give students the ability to identify problems of violence against women and participate in current societal discourse on various ways to resolve them.				3.0 3.0	
WST160	2015 Summer	Women and the Early American Experience		Introduction to American women's history, from the colonial period to suffrage in 1920, based on a feminist perspective.	Prerequisites: None.	Course Attribute(s) ): General Education Designatio n: Historical Awarenes s - [H]	Acad	LEC 3.0 3.0 3.0	S
WST161	2003 Spring	American Women Since 1920		Continuation of the history of women in America from 1920 to the present, based on a feminist perspective. Includes discussion of the roles and status of immigrant and ethnic minority women	Prerequisites: None.	Course Attribute(s) ): General Education Designatio n: Cultural Diversity - [C] General Education Designatio n: Historical Awarenes s - [H] General Education Designatio n: Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S
WST200	2009 Spring	Essential Feminist Writing		Literary tracing of feminism from 18th century to present. Explores major issues related to women in the 20th century	Prerequisites: A grade of C or better in ENG101 or permission of Instructor.	General Education Designatio n: General Education	Acad	LEC 3.0 3.0 3.0	S



						Designation: Historical Awareness - [H]			
WST206	2008 Fall	La Mujer		Analysis and discussion of critical issues for Latinas in America today	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
WST207	2008 Fall	Black Women	AFR207	Analysis and discussion of critical issues for Black women in America today	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
WST209	2018 Spring	Women and Films	HUM209	Analysis of images of women in films from both historical and contemporary perspectives	Prerequisites: None.	Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
WST244	2010 Spring	Women in Muslim Societies		Overview of Muslim women's religious and secular roles and rights. Relationship of the Qur'an and Hadiths' teachings on women to the interpretations of those teachings within the variegated cultural contexts of Islam	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
WST261	2024 Fall	Indigenous Women's Literature of the Americas	AIS/ENH261	Explores contemporary voices of Indigenous women authors and artists in the Americas as expressed in poetry, fiction, nonfiction, drama, and oral traditions. Focuses on themes relevant to Indigenous women and examines the trends and movements within Indigenous peoples and women's literary history. Examines	Prerequisites: A grade of C or better in ENG101 or ENG107.		Acad	LEC 3.0 3.0 3.0	S

				themes relevant to Indigenous women such as racial and gender oppression, reservation life, acculturation, and their sociopolitical activism in the Americas.					
WST282AA	2003 Summer I	Volunteerism for Women's Studies: A Service Learning Experience		Service learning field experience within private/public agencies and citizen volunteer groups. Students will develop writing skills, analysis, and synthesis in an on-site volunteer experience.	Prerequisites: A grade of C or better in WST100 and permission of Instructor.	WST282A A may be repeated for a total of six (6) WST282 credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 1.0 1.0 0.0	L
WST282AB	2003 Summer I	Volunteerism for Women's Studies: A Service Learning Experience		Service learning field experience within private/public agencies and citizen volunteer groups. Students will develop writing skills, analysis, and synthesis in an on-site volunteer experience.	Prerequisites: A grade of C or better in WST100 and permission of Instructor.	WST282A B may be repeated for a total of six (6) WST282 credit hours. Standard grading available according to procedures outlined in catalog.	Acad	LAB 2.0 2.0 0.0	L
WST282AC	2003 Summer I	Volunteerism for Women's Studies: A Service Learning Experience		Service learning field experience within private/public agencies and citizen volunteer groups. Students will develop writing skills, analysis, and synthesis in an on-site volunteer experience.	Prerequisites: A grade of C or better in WST100 and permission of Instructor.	WST282A C may be repeated for a total of six (6) WST282 credit hours. Standard	Acad	LAB 3.0 3.0 0.0	L

						grading available according to procedures outlined in catalog.			
WST284	1995 Fall	19th Century Women Writers	ENH284	Investigates major themes in literature by women writing in the 19th century including the nature of women's lives in the family, in work situations, and in society. Poetry, prose, essays and drama are examined with an emphasis on common themes	Prerequisites: None.	Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
WST285	1995 Fall	Contemporary Women Writers	ENH285	Explores twentieth century literature (short stories, essays, plays, and poetry) written by women and about women. Focus on themes relevant to women's lives regardless of age, creed, or ethnic background	Prerequisites: None.	Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
WST286	2023 Fall	Women and Health: Body/Mind/Spirit/C onnection		Economic, sociopolitical, and demographic factors affecting women's health. Methods for optimizing physical, emotional, and spiritual health. Specific health	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S

				concerns of women throughout the lifespan. Activism for health promotion					
WST290	2012 Spring	Women and World Religions	REL290	Focus on the role of women in several organized religions and/or religious sects. Study of myth and symbols as they are used to establish, maintain, and enforce sex-roles within specific cultural contexts around the world.	Prerequisites: None.	Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
WST292	2012 Summer I	Goddess Religions	REL292	Introduction to Goddess religions from pre-historic to modern times. Focuses on ancient origins, myths and practices of religions with female deities, their historical replacement by male religious deities, and their modern re-emergence in neo-Goddess movements.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
WST295	2024 Fall	Women's Studies Seminar		Special topics in women, gender, and sexuality studies with an emphasis on current issues not covered in other Women's Studies (WST) courses.	Prerequisites: None.	WST295 may be repeated for a total of six (6) credit hours.	Acad	LEC 1.0 1.0 1.0	S
WST298AA	2023 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0	Z

WST298AB	2023 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0	Z
WST298AC	2023 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0	Z
WTO106AA	2023 Fall	Introduction to SMAW		Introduction to arc welding with emphasis in Shielded Metal Arc Welding (SMAW). Designed to provide the knowledge and skills needed to cut and prepare weld joints utilizing current technology. Develops hands-on skills through sequenced lab experiences.	Prerequisites: None.		CLK	180	
WTO106AB	2023 Fall	SMAW 6010 Plate		Continued training in shielded metal arc welding with emphasis on using E6010 (fast-freeze) electrodes in all joint positions. Focus is on fillet welds for structural steel and open root groove weld joints.	Prerequisites: A grade of C or better in WTO106AA or permission of Instructor.		CLK	180	
WTO106AC	2023 Fall	SMAW 7018 Plate		Continued training in shielded metal arc welding with emphasis on using E7018 (low hydrogen) electrodes in all joint positions. Focus is on fillet welds and groove weld joints with backing to prepare students for welding code certification testing.	Prerequisites: A grade of C or better in WTO106AA or permission of Instructor.		CLK	180	

WTO106AD	2023 Fall	SMAW Introduction to Pipe		Advanced training in shielded metal arc welding with emphasis on pipe welding using E6010 and E7018 electrodes in various pipe joint positions (1G, 2G, 5G, 6G). Focus is on the open root groove pipe weld joints to prepare students for industry code certification.	Prerequisites: A grade of C or better in WTO106AA or permission of Instructor.		CLK	180	
WTO206AA	2022 Fall	Introduction to GMAW/FCAW and GTAW		Instruction in theory and practice of gas metal arc welding (GMAW) and gas tungsten arc welding (GTAW), commonly referred to as MIG and TIG. Basic welding procedures on ferrous and nonferrous metals. Setup and operation of welding process equipment. Covers selection of proper filler materials and shielding gas options.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: WTO106AA or permission of Instructor.		CLK	141	
WTO206AB	2022 Fall	Advanced GMAW and FCAW		Instruction and practice of gas metal arc welding (GMAW) and flux cored arc welding (FCAW) in the horizontal, vertical, and overhead positions. Prepare for industry code performance qualification plate tests with both welding processes.	Prerequisites: A grade of C or better in WTO206AA or permission of Instructor.		CLK	165	
WTO206AC	2023 Fall	Advanced GTAW Non-Ferrous		Instruction and practice of gas tungsten arc welding (GTAW) aluminum sheet in the flat, horizontal, and vertical positions. Prepare for industry code performance qualification tests in any welding position.	Prerequisites: A grade of C or better in WTO206AA or permission of Instructor.		CLK	180	
WTO206AD	2023 Fall	Advanced GTAW Ferrous		Instruction and practice of gas tungsten arc welding (GTAW) carbon and stainless-steel in any position. Prepare for industry code performance qualification tests in any welding position.	Prerequisites: A grade of C or better in WTO206AA or permission of Instructor.		CLK	180	
WTO206DA	2023 Fall	Introduction to GMAW/FCAW and GTAW		Instruction in theory and practice of gas metal arc welding (GMAW) and gas tungsten arc welding (GTAW), commonly referred to as MIG and TIG. Basic welding procedures on ferrous and nonferrous metals. Setup and operation of welding process equipment. Covers selection of proper	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: WTO106AA or permission of Instructor.		CLK	180	

				filler materials and shielding gas options.					
WTO206DB	2023 Fall	Advanced GMAW and FCAW		Instruction and practice of gas metal arc welding (GMAW) and flux cored arc welding (FCAW) in the horizontal, vertical, and overhead positions. Prepare for industry code performance qualification plate tests with both welding processes.	Prerequisites: A grade of C or better in WTO206AA or permission of Instructor.		CLK	180	
WTO208AA	2023 Fall	SMAW Code Welding		Advanced training in shielded metal arc welding (SMAW) to achieve successful welder performance qualification testing in any position. Focus is on single v-groove weld joints per industry codes and specification requirements.	Prerequisites: A grade of C or better in WTO106AA or permission of Instructor.		CLK	180	
WTO208AB	2022 Fall	GMAW Code Welding		Advanced training in gas metal arc welding (GMAW) with emphasis on achieving successful welder performance qualification testing in any position. Focus is on groove weld joints per industry codes.	Prerequisites: A grade of C or better in WTO206AA or permission of Instructor.		CLK	165	
WTO208AD	2023 Fall	SMAW Code Welding Pipe		Advanced training in pipe welding using either shielded metal arc welding (SMAW), gas metal arc welding (GMAW), or flux cored arc welding (FCAW) with emphasis on achieving successful welder performance qualification testing in any position. Focus is on groove weld joints per industry codes.	Prerequisites: A grade of C or better in WTO106AD or WTO208AA or permission of Instructor.		CLK	180	
WTO208AE	2023 Fall	GTAW Code Welding		Advanced training in welding using gas tungsten arc welding (GTAW) with emphasis on achieving successful welder performance qualification testing in any position. Focus is on groove weld joints per industry codes.	Prerequisites: None.		CLK	180	
WTO208DB	2023 Fall	GMAW Code Welding		Advanced training in gas metal arc welding (GMAW) with emphasis on achieving successful welder performance qualification testing in any position. Focus is on groove weld joints per industry codes.	Prerequisites: A grade of C or better in WTO206AA or permission of Instructor.		CLK	180	

YAQ100	2009 Summer I	Yaqui Indian History and Culture		Surveys Yaqui Indian history and culture from pre-contact to the present. Explores themes of resistance, dispersion, survival, tradition, family, community, belief systems, and identity. Places Yaqui history within the context of Arizona, American Indian, Mexican, and Mexican-American History. Examines historical writing and analysis, life histories, poetry, language, and emphasis on Yaqui experiences in 20th century Arizona.	Prerequisites: None.	Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S
YAQ110	2000 Spring	Yaqui Language and Culture		Introduction to the Yaqui language and overview of the traditional culture as a background for language use. Instruction in the grammar and writing system to assist student in speaking, reading, and writing Yaqui	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
YOG101	2024 Fall	Beginning Yoga		Yoga practice at the beginning level, including poses (asanas), breathing, meditation and relaxation techniques.	Prerequisites: None.	YOG101 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0	T
YOG101PA	2024 Fall	Beginning Yoga		Yoga practice at the beginning level, including poses (asanas), breathing, meditation and relaxation techniques.	Prerequisites: None.	YOG101PA may be repeated for credit. Does not meet requirements for CCL Yoga Instruction Program.	Occ	L+L 0.5 1.5 1.5	T
YOG102	2024 Fall	Intermediate Yoga		Yoga practice at the intermediate level, including poses (asanas), breathing, meditation and relaxation techniques.	Prerequisites: None. Prior experience recommended.	YOG102 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0	T
YOG102PA	2024 Fall	Intermediate Yoga		Yoga practice at the intermediate level, including poses (asanas), breathing, meditation and relaxation techniques.	Prerequisites: None. Prior experience recommended.	YOG102PA may be repeated for credit. Does not	Occ	L+L 0.5 1.5 1.5	T



						meet requirements for CCL Yoga Instruction Program.			
YOG130	2024 Fall	Yoga and the Body		In-depth study of how the human body functions during yoga both theoretically and practically. Attention given to correct body alignment and mechanics while performing yoga, exploring essential areas of the body individually and analyzing the body as a whole.	Prerequisites: None. YOG101, or YOG102, or YOG201 recommended.		Occ	L+L 2.0 3.0 3.0	T
YOG150	2023 Fall	Tradition and Practice of Yoga I		Introduction to the art and science of yoga, including terminology, concepts, issues, trends and health benefits. Explores the history and philosophy of yoga and the teaching of yoga as a career.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
YOG170	2023 Fall	Teaching Yoga: Level I		Methods of teaching yoga. Studies assessment techniques, establishing course goals, and organizing the classroom. Reviews yoga instruction techniques and how these differ from other movement-based activities; application of anatomical knowledge and practice teaching experiences.	Prerequisites: None. Corequisites: YOG101, or YOG102, or YOG201, or permission of Instructor.		Occ	L+L 2.0 2.0 2.0	T
YOG171	2023 Fall	Teaching Yoga: Level II		Emphasizes practice teaching experiences. Reviews instructional methods and techniques for assessing student skill levels, organizing the classroom and writing lesson plans. Application of anatomical knowledge to build movement skills, improvement of observational skills and development of an individual teaching style.	Prerequisites: A grade of C or better in YOG170 or permission of instructor. Corequisites: YOG101, or YOG102, or YOG201, or permission of Instructor.		Occ	L+L 2.0 2.0 2.0	T
YOG172	2023 Fall	Teaching Yoga: Level III		Instructional methods for teaching more advanced asanas. Principles of alignment of back bending, inversion, forward bending and arm balancing asanas and techniques for identifying and correcting misalignments. Emphasis on instructional techniques	Prerequisites: A grade of C or better in YOG171 or permission of Instructor. Corequisites: YOG101, or		Occ	L+L 2.0 2.0 2.0	T

				that safely build yoga movement skills while encouraging progression in the practice of challenging asanas.	YOG102, or YOG201, or permission of Instructor.				
YOG174	2024 Fall	Teaching Yoga: Level I		Emphasizes practice teaching experiences. Reviews instructional methods and techniques for assessing student skill levels, organizing the classroom and writing lesson plans. Application of anatomical knowledge to build movement skills, improvement of observational skills and development of an individual teaching style.	Prerequisites: None.		Occ	L+L 4.0 6.0 6.0	T
YOG175	2024 Fall	Teaching Yoga: Level II		Instructional methods for teaching more advanced asanas. Principles of alignment of back bending, inversion, forward bending and arm balancing asanas and techniques for identifying and correcting misalignments. Emphasis on instructional techniques that safely build yoga movement skills while encouraging progression in the practice of challenging asanas.	Prerequisites: A grade of C or better in YOG174 or permission of Instructor.		Occ	L+L 4.0 6.0 6.0	T
YOG201	2024 Fall	Advanced Yoga		Yoga practice at the advanced level, including poses (asanas), breathing, meditation and relaxation techniques.	Prerequisites: A grade of C or better in PED102YO, or PED103YO, or YOG102, or YOG102PA, or permission of Instructor.	YOG201 may be repeated for credit.	Occ	L+L 1.0 3.0 3.0	T
YOG201PA	2024 Fall	Advanced Yoga		Yoga practice at the advanced level, including poses (asanas), breathing, meditation and relaxation techniques.	Prerequisites: A grade of C or better in PED102YO, or PED103YO, or YOG102, or YOG102PA, or permission of Instructor.	YOG201P A may be repeated for credit. Does not meet requirements for CCL Yoga Instruction Program.	Occ	L+L 0.5 1.5 1.5	T
YOG250	2023 Fall	Tradition and Practice of Yoga II		Examination of the art and science of yoga. Explores the history and philosophy of yoga. In-depth review of	Prerequisites: A grade of C or better in YOG150.		Occ	LEC 2.0	S

				significant literature associated with the yoga tradition. Examines cultural aspects of yoga, relevance of yoga to modern day life and health benefits of yoga.				2.0 2.0	
YOG274	2024 Fall	Teaching Yoga: Practicum Level I		Guided, practical experience in teaching yoga students. Requires implementation of lesson plans, application of individual teaching techniques and analysis of teaching sessions.	Prerequisites: A grade of C or better in YOG174 or permission of Instructor.		Occ	L+L 4.0 6.0 6.0	T
YOG275	2024 Fall	Teaching Yoga: Practicum Level II		Guided, practical experience in teaching intermediate level yoga students. Requires implementation of lesson plans, application of individual teaching techniques and analysis of teaching sessions.	Prerequisites: A grade of C or better in YOG274 or permission of Instructor.		Occ	L+L 4.0 6.0 6.0	T
YOG298AA	2024 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	C

Starting Term: 2023 Fall  
Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN ACCOUNTING**

Total Credits: 62-73  
Major Code: 3149

### **Description**

The Associate in Applied Science (AAS) in Accounting program is designed to provide fundamental skills for individuals planning to enter the field of accounting. Possible entry-level jobs for this program include accounting clerk, accounts payable/receivable clerk, claims clerk, payroll clerk, credit clerk, bookkeeper, accounting intern, tax preparation or comparable positions. This program may prepare students for certification in Certified Bookkeeper (CB), Enrolled Agent (EA), and Certified Payroll Professional (CPP). Certificates of Completion (CCL) in Accounting and Enrolled Agent are available.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program. Consultation with an Academic Advisor is recommended for course selection.

### **Admission Criteria**

None

### **Required Courses**

Required courses

Credits: 34-39

ACC111 Accounting Principles I (3) AND  
ACC230 Uses of Accounting Information I (3) AND  
ACC240 Uses of Accounting Information II (3) OR  
ACC111 Accounting Principles I (3) AND  
ACC112 Accounting Principles II (3) AND  
ACC212 Managerial Accounting (3)

OR

ACC211 Financial Accounting (3) AND  
ACC212 Managerial Accounting (3) 6-9  
ACC105 Payroll, Sales and Property Taxes (3) OR  
ACC222 Payroll Accounting (3)3

ACC115 Computerized Accounting 3

ACC121	Individual Tax Preparation (3) OR	
ACC221	Tax Accounting (3)	3
ACC219	Intermediate Accounting I	3
CIS114DE	Excel Spreadsheet	3
CIS105	Survey of Computer Information Systems	3
FYE101	Introduction to College, Career and Personal Success (1) OR	
FYE103	Exploration of College, Career and Personal Success (3)	1-3
GBS151	Introduction to Business	3
GBS205	Legal, Ethical, and Regulatory Issues in Business	3
GBS120	Workplace Communication Skills (3) OR	
GBS233	Business Communication (3)	3

## Restricted Electives

Restricted Electives

Credits: 6

Students must select six (6) credits from the list below:

ACC+++ Any additional ACC Accounting course(s) except ACC111, ACC112, ACC211, ACC212, ACC230, ACC240 0-6

GBS131	Business Calculations	3
GBS220	Quantitative Methods in Business	3
GBS221	Business Statistics	3
GBS261	Investments I	3
MGT101	Techniques of Supervision (3) OR	
MGT175	Business Organization and Management (3) OR	
MGT229	Management and Leadership I (3)	3

## Free Electives

Free Electives

## General Education Requirements

General Education Requirement Credits: 22-28

General Education Core Credits: 12-18

First-Year Composition Credits: 6

ENG101	First-Year Composition (3) OR	
ENG107	First-Year Composition for ESL (3) AND	
ENG102	First-Year Composition (3) OR	
ENG108	First-Year Composition for ESL (3)	6

Oral Communication Credits: 3

COM100 Introduction to Human Communication (3) OR

COM110 Interpersonal Communication (3) OR

COM225 Public Speaking (3) OR

COM230 Small Group Communication (3) 3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR

Equivalent by assessment 0-3

Mathematics Credits: 3-6

Any approved general education course from the Mathematics area. 3-6

General Education Distribution Credits: 10

Humanities and Fine Arts Credits: 3

Any approved general education course from the Humanities, Arts and Design [HU] area.

Social and Behavioral Sciences Credits: 3

ECN211 Macroeconomic Principles (3) OR

ECN212 Microeconomic Principles (3) OR

SBU200 Society and Business (3) 3

Natural Sciences Credits: 4

Any approved general education course from the Natural Sciences area.

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=179873>

Starting Term: 2023 Fall

Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN ADMINISTRATION OF JUSTICE STUDIES**

Total Credits: 61-65

Major Code: 3181

### **Description**

The Associate in Applied Science (AAS) in Administration of Justice Studies provides in-depth preparation for students desiring to be practitioners or pursue continued education and advancement in several fields including local and federal law enforcement, the courts, corrections, security, and investigations. The program also provides criminal justice practitioners with the opportunity to complete the Certificate of Completion (CCL) in Administration of Justice as well as one of five Certificates of Completion (CCLs) in Corrections, Homeland Security, Law Enforcement, Legal Studies, and Victimology. A transfer pathway in Criminal Justice is also available (Associate Arts (AA), Emphasis in Criminal Justice) as well as an Associate in Applied

Science (AAS) in Forensics and related Certificates of Completion. Additionally, a transfer pathway is also available for the Bachelor of Applied Science (BAS) Public Safety Administration.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Required courses

Credits: 28-30

AJS101	Introduction to Criminal Justice	3
AJS109	Substantive Criminal Law	3
AJS123	Ethics and the Administration of Justice	3
AJS200	Current Issues in Criminal Justice (3) OR	
AJS/EMT/FSC258	Victimology and Crisis Management in Public Safety (3)	3
AJS212	Juvenile Justice Procedures	3
AJS225	Criminology	3
AJS230	The Police Function	3
AJS240	The Correction Function	3
AJS260	Procedural Criminal Law	3
FYE101	Introduction to College, Career and Personal Success (1) OR	
FYE103	Exploration of College, Career and Personal Success (3)	1-3

## Restricted Electives

Restricted Electives

Credits: 12-13

Complete twelve to thirteen (12-13) credits from the course options below. Some of these options fulfill requirements for one or more related certificates of completion (CCLs). Consult with an AJS faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.

AJS113	Criminal Justice Crime Control Policies and Practices	3
AJS119	Computer Applications in Justice Studies	3
AJS270	Community Relations	3

The following courses fulfill the requirements for the Corrections certificate (5776N):

AJS205	Effective Communication and Report Writing in Criminal Justice	3
AJS255	The Criminal Justice System Handling of the Mentally Ill	3
AJS275	Criminal Investigation I	3

The following course fulfills the requirements for the Crime Scene Investigation (5964) and Fingerprint Identification and Photography (5010N):

AJS290BN Courtroom Testimony Seminar 1

The following courses fulfill the requirements for the Homeland Security (5322N):

AJS/FSC139 Emergency Response to Terrorism 3  
AJS/FSC147 Emergency Preparedness 3  
AJS/FSC148 Fundamentals of Emergency Management 3  
AJS/FSC149 Hazard Mitigation 3  
AJS195 International and Domestic Terrorism 3

The following courses fulfill the requirements for the Law Enforcement certificate (5987N):

AJS205 Effective Communication and Report Writing in Criminal Justice 3  
AJS275 Criminal Investigation I 3

The following courses fulfill the requirements for the Legal Studies certificate (5966N):

AJS201 Rules of Evidence 3  
AJS205 Effective Communication and Report Writing in Criminal Justice 3  
AJS210 Constitutional Law 3

The following courses fulfill the requirements for the Victimology certificate (5392N):

AJS162 Domestic Violence 3  
AJS255 The Criminal Justice System Handling of the Mentally Ill 3

AJS+++++ Any AJS Administration of Justice Studies course not listed under the Required Courses area 3

## Free Electives

Free Electives  
Credits: 0-6

Select additional courses 100-level or higher to complete the minimum total program credits required for this degree.

Select courses not already listed in Required Courses, Restrictive Electives, or General Education requirements. Consult with an AJS faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.

## General Education Requirements

General education requirements

General Education Requirement Credits: 16-22

General Education Core Credits: 12-18



First-Year Composition Credits: 6  
ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Oral Communication Credits: 3  
COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 3

Critical Reading Credits: 0-3  
CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment

Mathematics Credits: 3-6  
MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR  
MAT145 College Mathematics with Review (5) OR  
MAT146 College Mathematics with Review (6) OR  
Any higher approved general education course in the Mathematics area 3-6

General Education Distribution Credits: 4

Humanities and Fine Arts Credits: 0  
Met by AJS123 in the Required Courses area

Social and Behavioral Sciences Credits: 0  
Met by AJS101, AJS200, AJS225 or AJS/EMT/FSC/SWU258 Required Courses area

Natural Sciences Credits: 4  
Any approved general education course from the Natural Sciences area.  
Recommended:  
FOR105 Forensic Science: Physical Evidence (4) OR  
FOR106 Forensic Science: Biological Evidence (4) OR  
a course with the [SQ] or [SG] general education designation (4) 4

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Starting Term: 2024 Fall  
Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN ANIMATION AND TIME-BASED MEDIA**

Total Credits: 69-77  
Major Code: 3199

## Description

The Associate in Applied Science (AAS) in Animation and Time-Based Media is designed for the student who wishes to develop marketable skills in the area of digital animation and time-based media development. The program provides the student with an understanding of the equipment, operations, and knowledge of the terminology related to still image, video, and animation production. It allows for the exploration of personal interest in this area, prepares students for employment, and upgrades skills of those already employed in this field. Employment opportunities are included in video and multimedia fields, such as digital animator, media production, marketing, publishing, motion graphics, photography, storyboard artist, freelance artist designer, web and interactivity design, and multimedia artist/designer. A Certificate of Completion (CCL) in Animation and in Time-Based Media are also available.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Required courses

Credits:	17-19	
AVC169	2D Media Design (3) OR	
AVC178	Digital Arts Studies (3)	3
AVC177	Digital Photographic Imaging I	3
AVC/MMT184	Digital Animation I	3
AVC100	Introduction to Digital Arts	1
AVC248	Design Self Promotion (3) OR	
ART255	Art Marketing (3)	3
AVC280AC	Digital Media Arts and Design Capstone (3) OR	
AVC297AC	Commercial Art Internship (3)	3
FYE101	Introduction to College, Career and Personal Success (1) OR	
FYE103	Exploration of College, Career and Personal Success (3)	1-3

## Restricted Electives

Restricted Electives

Credits: 30

Specialization 1: Digital Animation

ART111	Drawing I	3
ART116	Life Drawing I	3
AVC150	Multimedia Storytelling (3) OR	
CRW150	Introduction to Creative Writing (3) OR	
CRW172	Introduction to Comic Book Writing (3) OR	
CRW176	Writing Narrative for Video Games (3) OR	
FMT121	Story Theory for Film, Television and Media (3)	3

AVC170 3D Computer Design (3) OR  
 AVC/THO246 Digital Fabrication (3) 3

AVC/MMT185 3D Modeling and Animation I 3  
 AVC200 Animation and Interactivity 3  
 AVC240 Cinematography and Directing for 2D/3D Animation 3  
 AVC284 Digital Animation II 3  
 AVC/MMT285 3D Modeling and Animation II 3  
 AVC287 3D Character Animation 3

Specialization 2: Time-Based Media

ART111 Drawing I (3) OR  
 ART116 Life Drawing I (3) 3  
 AVC142 Introduction to Digital Photography 3

AVC150 Multimedia Storytelling (3) OR  
 FMT121 Story Theory for Film, Television and Media (3) OR

JRN213 Writing for Online (3) 3

AVC202 Media Productions I (3) OR  
 FMP108 Video Production (3) 3

AVC279 Media Productions II (3) OR  
 FMP215 Digital Video Effects (3) 3

MUC122 Sound Design I (3) OR  
 MUC191 Electronic Music I (3) 3

Complete twelve (12) credits from courses not already selected in the Required Courses area. Students may choose from one emphasis or from among multiple emphasis areas according to their occupational needs.

Photography Emphasis

ART131 Photography I 3

AVC138 Commercial Photography I 3  
 AVC140 Portrait Photography 3  
 AVC143 Intermediate Digital Photography 3  
 AVC270 Digital Photographic Imaging II 3

Audio Emphasis

FMP114 Audio Production 3  
 MUC122 Sound Design I 3  
 MUC191 Electronic Music I 3  
 MUC192 Electronic Music II 3  
 MUC195 Studio Music Recording I 3  
 MUC222 Sound Design II 3

Media Production Emphasis

ART/COM/STO145 Digital Storybook 1

AVC/MMT190 Art of Web Site Design 3  
 AVC192 Advanced Web Presentation Design 3  
 AVC/THO246 Digital Fabrication 3  
 CIS133DA Internet/Web Development Level I 3  
 FMP/FMT151 TV and New Media Production 3  
 FMP204 Advanced Video Production 3  
 FMP215 Digital Video Effects 3

Motion Graphics Emphasis

ART116 Life Drawing I 3  
 AVC174 Electronic Color Principles 1  
 AVC/MMT185 3D Modeling and Animation I 3  
 AVC200 Animation and Interactivity 3  
 AVC240 Cinematography and Directing for 2D/3D Animation 3  
 AVC273AC Special Topics: Multimedia Arts 3  
 AVC287 3D Character Animation 3  
 FMP215 Digital Video Effects 3

**General Education Requirements**

General Education Requirement Credits: 22-28

General Education Core Credits: 12-18

First-Year Composition Credits: 6

ENG101 First-Year Composition (3) OR  
 ENG107 First-Year Composition for ESL (3) AND  
 ENG102 First-Year Composition (3) OR  
 ENG108 First-Year Composition for ESL (3) 6

Oral Communication Credits: 3

COM100 Introduction to Human Communication (3) OR  
 COM110 Interpersonal Communication (3) OR  
 COM225 Public Speaking (3) OR  
 COM230 Small Group Communication (3) 3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR

Equivalent as indicated by assessment. (0) 0-3

Mathematics Credits: 3-6

Any approved general education course from the Mathematics area. 3-6

Recommended for students planning to transfer to a four-year university:

MAT140 College Mathematics (5) OR  
 MAT141 College Mathematics (4) OR  
 MAT142 College Mathematics (3) OR  
 MAT145 College Mathematics with Review (5) OR  
 MAT146 College Mathematics with Review (6) 3-6

General Education Distribution      Credits: 10

Humanities and Fine Arts      Credits: 3

ARH101      Art from Prehistory Through Middle Ages (3) OR

ARH102      Art from Renaissance to Modernism (3) OR

ARH115      History of Photography (3) OR

HUM/THF205 Introduction to Cinema (3)      3

Social and Behavioral Sciences      Credits: 3

Any approved general education course from the Social-Behavioral Sciences area.

Natural Sciences      Credits: 4

Any approved general education course from the Natural Sciences area.

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=182599>

Starting Term: 2023 Fall

Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN AUDIO PRODUCTION TECHNOLOGIES**

Total Credits: 62-71

Major Code: 3024

### **Description**

The Associate in Applied Science (AAS) in Audio Production Technologies offers students hands-on study of audio engineering and related media fields. Students learn and apply the concepts and theories associated with music recording, live sound reinforcement, and sound design. The program is designed to give students foundational knowledge and experience essential in the field of audio production. An embedded Certificate of Completion (CCL) in Audio Production Technologies is also available.

### **Program Notes**

Students must earn a grade of C or better for all courses required within the program.

### **Required Courses**

Credits:      31-34

In addition to the required course work, students must consult with a program advisor to select nine credits within the Restricted Electives area.

FYE101      Introduction to College, Career and Personal Success (1) OR

FYE103      Exploration of College, Career and Personal Success (3)      1-3

MTC101	Introduction to Music Theory	3
MUC109	Music Business: Content Creation and Copyright	3
MUC110	Music Business: Marketing and Monetization (3) OR	
MUC145	Recording Studio Business Operations (2)	2-3
MUC111	Digital Audio Workstation I (DAW I)	3
MUC191	Electronic Music I	3
MUC192	Electronic Music II	3
MUC194	Audio Mixing Techniques	3
MUC195	Studio Music Recording I (3) OR	
MUC195AA	Studio Music Recording I (3)	3
MUC196	Studio Music Recording II (3) OR	
MUC196AA	Studio Music Recording II (3)	3
MUC197	Live Sound Reinforcement I	3
MUC297AA	Audio Production Internship (1) OR	
MUC296WA	Cooperative Education (1) OR	
MUC298AA	Special Projects (1)	1

## Restricted Electives

Credits: 9

Students must select a total of nine (9) credits from the list below in consultation with an academic advisor.

NOTE: at least one (1) of the following courses must be completed: MUC281, MUC289, MUC292, or MUC295.

MUC112	Digital Audio Workstation II (DAW II)	3
MUC122	Sound Design I	3
MUC193	Computer-Based Sound Synthesis	3
MUC198	Live Sound Reinforcement II	3
MUC222	Sound Design II	3
MUC281	Electronic Music III	3
MUC289	Live Sound Reinforcement III	3
MUC292	Sound Design III	3
MUC295	Studio Music Recording III	3

## General Education Requirements

General Education Requirement Credits: 22-28

General Education Core Credits: 12-18

First-Year Composition Credits: 6

ENG101	First-Year Composition (3) OR	
ENG107	First-Year Composition for ESL (3) AND	
ENG102	First-Year Composition (3) OR	
ENG108	First-Year Composition for ESL (3) OR	
ENG111	Technical and Professional Writing (3)	6

Oral Communication Credits: 3

COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 3

COM110 is recommended.

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

Mathematics Credits: 3-6

Any approved general education course from the Mathematics area.

Students who intend to transfer must take:

MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR  
MAT145 College Mathematics with Review (5) OR  
MAT146 College Mathematics with Review (6) 3-6

General Education Distribution Credits: 10

Humanities and Fine Arts Credits: 3

Any approved general education courses from the Humanities, Arts and Design area.  
MHL140 or MHL145 or MHL153 are recommended.

Social and Behavioral Sciences Credits: 3

Any approved general education course from the Social-Behavioral Sciences area.

PSY101 is recommended.

Natural Sciences Credits: 4

Any approved general education course from the Natural Sciences area.

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=186429>

Starting Term: 2024 Fall

Final Term: 2024 Fall

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN AUTOMATED INDUSTRIAL TECHNOLOGY**

Total Credits: 64-76

Major Code: 3177

### **Description**

The Associate in Applied Science (AAS) in Automated Industrial Technology prepares students to troubleshoot, maintain and repair a variety of automated electro-mechanical, product assembly, process control, and product distribution systems that use programmable controls and other methodologies to accomplish system management. These systems include robotic, mechanical, hydraulic, pneumatic, electrical and electronic devices. Through this degree, graduates will gain the skills to define, integrate, install, program, and maintain complex control systems. Additionally, students will gain the communication, problem solving and professional skills needed to be successful in this field. The Automated Industrial Technology courses are designed to prepare students for industry recognized certifications. Certificates of Completion (CCL) in Automated Industrial Technology I and II, Data Center Operations, and Robotics Technology are also available at select colleges. Please check with your local college for program availability.

## Program Notes

Students must earn a grade of C or better in all courses within the program. This program may require students to be able to lift objects as heavy as 50 pounds.

## Required Courses

Credits: 36-38

AIT100	Industrial Safety	1	
AIT105	Modern Maintenance Operations	3	
AIT110	Mechanical Power Transmission Systems	3	
AIT115	Hydraulic Systems	3	
AIT120	Pneumatic Systems	3	
AIT125	DC and AC Components and Circuits	3	
AIT205	Power Electronics and Variable Frequency Drives	3	
AIT210	Programmable Logic Controller Programming and Troubleshooting	3	3
AIT215	Process Control Systems	4	
AIT225	Industrial Motors and Motor Control	3	
AIT250	Automated Industrial Technology Capstone (3) OR		
AIT291	Automated Industrial Technology Internship (3)	3	3
AIT270	Robotics I	3	
FYE101	Introduction to College, Career and Personal Success (1) OR		
FYE103	Exploration of College, Career and Personal Success (3)	1-3	

## Restricted Electives

Credits: 6-10

Students should work with their program advisor to select six to ten (6-10) credits from courses that align with the academic/career goals and further their development in the areas of controls, mechanical tech, electrical/electronic, or power systems. Courses from Required Courses area may not be used.



Any AIT, ELC, MIT, or PPT courses except courses used to satisfy Required Courses area. Students may also choose courses from the following focus areas.

#### Controls Focus Area

AIT275      Robotics II      3  
CIS105      Survey of Computer Information Systems      3  
CIS156      Python Programming: Level I      3  
CNT140AB      Introduction to Networks      4

#### Mechanical Tech Focus Area

DFT105AA      Computer Aided Drafting I: AutoCAD      3  
DFT255      3D Printing/Additive Manufacturing      4  
HVA+++++      Any Heating, Ventilating and Air Conditioning      1-4  
MPT101      Technical Documentation (3) OR  
MPT101MP      Technical Documentation (3)  
  
MPT111      Geometric Dimensioning and Tolerance (GDT) (3) OR  
MPT111MP      Geometric Dimensioning and Tolerance (GDT) (3)      3  
  
MPT120      Introduction to Manual Machining (4) OR  
MPT120MP      Introduction to Manual Machining (4)      4  
MPT150      Introduction to SolidWorks      3  
WLD106++      Arc Welding (any suffixed course)      5

#### Electrical/Electronic Focus Area

AIT123J-STD      Soldering Certification      3  
AIT128A-620      Cable and Wire Harness Assembly Certification      3  
AIT227      Power Distribution Systems      3  
DFT254AA      Computer Aided Drafting II: AutoCAD      3  
ELE131      Digital Logic and Circuits      3  
ELE173      Fabrication Techniques      3  
ELE241      Microprocessor Concepts      4

### **General Education Requirements**

General Education Requirement      Credits: 22-28

General Education Core      Credits: 12-18

First-Year Composition      Credits: 6

ENG101      First-Year Composition (3) OR  
ENG107      First-Year Composition for ESL (3) AND  
ENG102      First-Year Composition (3) OR  
ENG108      First-Year Composition for ESL (3)      6

Oral Communication      Credits: 3

COM100      Introduction to Human Communication (3) OR  
COM110      Interpersonal Communication (3) OR  
COM225      Public Speaking (3) OR

COM230 Small Group Communication (3) 3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

Mathematics Credits: 3-6

GTC107 Technical Mathematics I (3) OR  
Equivalent as indicated by assessment (0) AND  
GTC108 Technical Mathematics II (3) 3-6

OR

MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR  
MAT145 College Mathematics with Review (5) OR  
MAT146 College Mathematics with Review (6) 3-6

OR

MAT150 College Algebra/Functions (5) OR  
MAT151 College Algebra/Functions (4) OR  
MAT152 College Algebra/Functions (3) OR  
MAT155 College Algebra/Functions with Review (5) OR  
MAT156 College Algebra/Functions with Review (6) 3-6

General Education Distribution Credits: 10

Humanities and Fine Arts Credits: 3

Any approved general education courses in the Humanities, Arts and Design area. 3

Social and Behavioral Sciences Credits: 3

Any approved general education course in the Social-Behavioral Sciences area. 3

Natural Sciences Credits: 4

Any approved general education course in the Natural Sciences area. 4

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=181228>

Starting Term: 2023 Fall

Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN AUTOMOTIVE SERVICE**

Total Credits: 64-77  
Major Code: 3180

## Description

The Associate in Applied Science (AAS) in Automotive Service prepares individuals to apply technical knowledge and skills to repair, service, and maintain automobiles. Instruction is in both the theoretical and practical aspects of automotive repair, service and maintenance, and includes brake systems, electrical systems, engine performance, engine repair, suspension and steering, automatic and manual transmissions and drivetrains, and heating and air conditioning systems. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile Certification Tests (A1 - A8).

See program advisor for additional certificate offerings.

## Program Notes

Students must earn a grade of C or better for each course listed in the Required Courses area.

## Required Courses

Required courses

Credits: 43-45

ASE100 Introduction to Automotive Service 2

ASE110 Engine Fundamentals (4) OR  
ASE110AU Engine Fundamentals (4) 4

ASE120 Automatic Transmission and Transaxle (4) OR  
ASE120AU Automatic Transmission and Transaxle (4) 4

ASE130 Manual Drive Trains and Axles (4) OR  
ASE130AU Manual Drive Trains and Axles (4) 4

ASE140 Automotive Steering, Suspension and Alignment (4) OR  
ASE140AU Automotive Steering, Suspension and Alignment (4) 4

ASE150 Automotive Brake Systems (4) OR  
ASE150AU Automotive Brake Systems (4) 4

ASE160 Introduction to Automotive Electrical (4) OR  
ASE160AU Introduction to Automotive Electrical (4) 4

ASE170 Automotive Heating, Ventilation and Air Conditioning Systems (4) OR  
ASE170AU Automotive Heating, Ventilation and Air Conditioning Systems (4) 4

ASE180 Introduction to Engine Management (4) OR  
ASE180AU Introduction to Engine Management OR (4) 4

ASE260      Advanced Automotive Electrical (4) OR  
 ASE260AU    Advanced Automotive Electrical (4)    4

ASE280      Engine Management (4) OR

FYE101      Introduction to College, Career and Personal Success (1) OR  
 FYE103      Exploration of College, Career and Personal Success (3)    1-3

### Restricted Electives

Credits:      3-8

ASE240      Advanced Driver Assistance Systems      2  
 ASE265      Introduction to Electric and Hybrid Vehicles    2  
 ASE290++    Automotive Service Internship (any suffixed courses)      1-4  
 ASE296++    Cooperative Education (any suffixed courses)      1-4  
 ASE298++    Special Projects (any suffixed courses)      1-3

### General Education Requirements

General Education Requirement      Credits: 18-24

General Education Core      Credits: 12-18

First-Year Composition      Credits: 6

ENG101      First-Year Composition (3) OR  
 ENG107      First-Year Composition for ESL (3)  
 AND  
 ENG102      First-Year Composition (3) OR  
 ENG108      First-Year Composition for ESL (3) OR  
 ENG111      Technical and Professional Writing (3)      6

Oral Communication      Credits: 3

COM100      Introduction to Human Communication (3) OR  
 COM110      Interpersonal Communication (3) OR  
 COM225      Public Speaking (3) OR  
 COM230      Small Group Communication (3)

Critical Reading      Credits: 0-3

CRE101      College Critical Reading and Critical Thinking (3) OR  
 Equivalent as indicated by assessment      0-3

Mathematics      Credits: 3-6

GTC107      Technical Mathematics I (3) OR  
 MAT140      College Mathematics (5) OR  
 MAT141      College Mathematics (4) OR  
 MAT142      College Mathematics (3) OR  
 MAT145      College Mathematics with Review (5) OR  
 MAT146      College Mathematics with Review (6) OR  
 Any approved general education course from the Mathematics area      3-6

General Education Distribution      Credits: 6

Humanities and Fine Arts      Credits: 3

Any approved general education course from the Humanities and Fine Arts area

Social and Behavioral Sciences      Credits: 3

Any approved general education course from the Social and Behavioral Sciences area

Natural Sciences      Credits: 0

Area Waived

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=178637>

Starting Term: 2023 Fall

Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN BEAUTY AND WELLNESS**

Total Credits: 61-70

Major Code: 3209

### **Description**

The Associate in Applied Science (AAS) in Beauty and Wellness promotes progressive thinking, skills, and experiences to enhance personal growth and professional success. This interdisciplinary AAS is designed to provide students with business and financial acumen, effective and collaborative communication skills, critical thinking techniques, and leadership qualities to be empowered professionals. Students who complete this AAS have fundamental strategies to effectively and successfully implement innovative principles in the beauty industry to serve consumers. The Associate in Applied Science (AAS) in Beauty and Wellness may transfer to a Bachelor of Applied Science (BAS) program for students who want to pursue a bachelor's degree.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Admission Criteria**

Entry into this program requires a current, active aesthetician, cosmetology, hairstyling, or instructor license. All licenses must be in good standing. Credits for prior learning will be awarded for equivalent Beauty and Wellness (BAW) prefix courses based on licensure.

### **Program Prerequisites**

Program prerequisites

Entry into this program requires a current, active Aesthetician or Aesthetician Instructor; or Cosmetology or Cosmetology Instructor; or Hairstylist or Hairstylist Instructor, or Massage

Therapist or Massage Therapist Instructor license. Credits for prior learning will be awarded for equivalent Beauty and Wellness (BAW) prefix courses based on licensure.

Credits: 12-30

Aesthetician License/Aesthetician Instructor License Credits: 12

BAW102 Aesthetics Essentials 4  
BAW110 Advanced Aesthetics 4  
BAW115 Aesthetics Mastery 4  
OR

Cosmetology License/Instructor Cosmetology License Credits: 30

BAW104 Hair Essentials I 4  
BAW106 Hair Essentials II 4  
BAW114 Student Salon I 4  
BAW116 Student Salon II 4  
BAW119 Nail Essentials 4  
BAW212 Skin Essentials 4  
BAW214 Student Salon III 4  
BAW218 Cosmetology State Licensure2

OR

Hairstylist License/Instructor Hairstylist License Credits: 20

BAW104 Hair Essentials I 4  
BAW106 Hair Essentials II 4  
BAW114 Student Salon I 4  
BAW116 Student Salon II 4  
BAW118 Hair Stylist State Licensure 4

OR

Nail Technician/Nail Technician Instructor License Credits: 12

BAW100 Nail Technology I 4  
BAW105 Nail Technology II 4  
BAW111 Nail Technology III 4

OR

Massage Therapist/Massage Therapist Instructor License Credits: 14

BAW120 Massage Therapy Basics 3.5  
BAW121 Massage Therapy Advanced 3.5  
BAW220 Massage Therapy Mastery I 3.5  
BAW221 Massage Therapy Mastery II 3.5

## Required Courses

Credits: 10-12

FYE101 Introduction to College, Career and Personal Success (1) OR

FYE103 Exploration of College, Career and Personal Success (3) 1-3

Select courses to complete a total of nine (9) credits:

BAW298++	Special Projects	1-3	
GBS132	Personal and Family Financial Security		3
MGT253	Owning and Operating a Small Business		3
MKT110	Marketing and Social Networking	3	

## Free Electives

Credits: 0-17

Select additional courses, 100-level or higher, to complete the minimum credits required for this degree. Consult with the Program Director or an Academic Advisor.

## General Education Requirements

General Education Requirement Credits: 22-28

General Education Core Credits: 12-18

First-Year Composition Credits: 6

ENG101	First-Year Composition (3) OR	
ENG107	First-Year Composition for ESL (3) AND	
ENG102	First-Year Composition (3) OR	
ENG108	First-Year Composition for ESL (3)	6

Oral Communication Credits: 3

COM100	Introduction to Human Communication (3) OR	
COM110	Interpersonal Communication (3) OR	
COM225	Public Speaking (3) OR	
COM230	Small Group Communication (3)	3

Critical Reading Credits: 0-3

CRE101	College Critical Reading and Critical Thinking (3) OR	
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Equivalent as indicated by assessment. (0) 0-3

Mathematics Credits: 3-6

MAT140	College Mathematics (5) OR	
MAT141	College Mathematics (4) OR	
MAT142	College Mathematics (3) OR	
MAT145	College Mathematics with Review (5) OR	
MAT146	College Mathematics with Review (6) OR	

Equivalent or higher level mathematics course in the Mathematical Applications [MA] area.3-6

General Education Distribution Credits: 10

Humanities and Fine Arts Credits: 3

Any approved general education course from the Humanities, Arts, and Design area

Social and Behavioral Sciences Credits: 3

Any approved general education course from the Social-Behavioral Sciences area

Recommended:

HES120 Principles of Physical Fitness and Wellness (3) OR

PSY101 Introduction to Psychology (3) OR

PSY132 Psychology and Culture (3) OR

SOC101 Introduction to Sociology (3) OR

SOC157 Sociology of Families and Relationships (3) OR

SWU250 Mindfulness for Stress Management (3) 3

Natural Sciences Credits: 4

Any approved general education course from the Natural Sciences area

Recommended:

BIO160 Introduction to Human Anatomy and Physiology (4) OR

CHM107 Chemistry and Society (3) AND

CHM107LL Chemistry and Society Laboratory (1) 4 OR

CHM130 Fundamental Chemistry (3) AND

CHM130LL Fundamental Chemistry Laboratory (1) 4 OR

FON241 Principles of Human Nutrition (3) AND

FON241LL Principles of Human Nutrition Laboratory (1) 4

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=176800>

Starting Term: 2022 Fall

Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN CATERPILLAR TECHNICIAN TRAINING**

Total Credits: 74-82

Major Code: 3005

### **Description**

The Associate in Applied Science (AAS) in Caterpillar Technician Training degree prepares students with the skills required to service and repair Caterpillar machines. The program combines general education curriculum, specialized Caterpillar machine coursework, and practical experience through internships to prepare students to work in authorized Caterpillar service facilities. Students receive training in diesel engines, electrical principles and electronic controls, sophisticated computer-based diagnosis, state-of-the-art hydraulics and powertrains, HVAC certification, as well as other high demand skills.

### **Program Notes**



Students must earn a grade of C or better in all courses within the program. Students are encouraged to complete General Education requirements prior to Caterpillar coursework. Consult with your faculty mentor or academic advisor to determine educational requirements, including possible university transfer options, for your chosen career field.

## Required Courses

Credits:	59-64
CTT110	Introduction to Caterpillar Service Industry 3
CTT111	Caterpillar Engine Fundamentals 4
CTT112	Hydraulic Fundamentals 3
CTT113	Fuel Systems 3
CTT114	Basic Electrical Fundamentals 3
CTT115	Air Conditioning Fundamentals 3
CTT116	Power Trains I 3
CTT117	Machine Hydraulic Systems 3
CTT118	Caterpillar Dealer Internship I 3
CTT119	Caterpillar Dealer Internship II 3
CTT200	Power Train II 3
CTT201	Machine Electronics 3
CTT202	Engine Diagnostics and Repair 3
CTT203	Machine Diagnostics 3
CTT204	Machine Specific Systems 3
CTT205	Caterpillar Dealer Internship III 3
CTT206	Caterpillar Dealer Internship IV 3
FYE101	Introduction to College, Career and Personal Success (1) OR
FYE103	Exploration of College, Career and Personal Success (3) 1-3
WLD101	Introduction to Welding 3
GTC107	Technical Mathematics I (3) OR
MAT150	College Algebra/Functions (5) OR
MAT151	College Algebra/Functions (4) OR
MAT152	College Algebra/Functions (3) OR
MAT155	College Algebra/Functions with Review (5)
MAT156	College Algebra/Functions with Review (6) 3-6
	MAT15+ is recommended for students interested in transferring to Pittsburgh State University.

## General Education Requirements

General Education Requirement Credits: 15-18

General Education Core Credits: 9-12

First-Year Composition Credits: 6

ENG101	First-Year Composition (3) OR
ENG107	First-Year Composition for ESL (3) AND
ENG111	Technical and Professional Writing (3) OR
ENG102	First-Year Composition (3) OR

ENG108 First-Year Composition for ESL (3) 6

Oral Communication Credits: 3

COM100 Introduction to Human Communication (3) OR

COM110 Interpersonal Communication (3) OR

COM225 Public Speaking (3) OR

COM230 Small Group Communication (3) 3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR

Equivalent as indicated by assessment 0-3

Mathematics Credits: 0

Met by GTC107 or MAT15+ in the Required Courses area

General Education Distribution Credits: 6

Humanities and Fine Arts Credits: 3

Any approved general education course in the Humanities, Arts and Design area

Social and Behavioral Sciences Credits: 3

Any approved general education course from the Social-Behavioral Sciences area

Natural Sciences Credits: 0

Requirement waived

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=172284>

Starting Term: 2022 Fall

Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN CONSTRUCTION MANAGEMENT**

Total Credits: 60-85

Major Code: 3502

### **Description**

The Associate in Applied Science (AAS) in Construction Management provides instruction in management skills, construction industry specific technical and occupational subjects, such as construction planning, design, and OSHA 30 safety. This degree helps prepare graduates for a productive career in the construction industry as an owner, foreman, project engineer, manager, project manager, or property manager. Provides knowledge in construction ethics, estimating, and contracts and prepares graduates for the Leadership in Energy and Environmental Design (LEED) Green Associates exam in order to become LEED Certified. This curriculum also

provides good preparation for transfer to a four-year bachelor program in Construction and satisfies much of the requirements for the AGECA and Associate in Arts Degrees.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Program Prerequisites

Program prerequisites: None

## Required Courses

Required courses

Credits: 42-44

CON100 Introduction to Construction 2

CON101 Construction and Culture 3

CON220 Statics Application for Construction (3) OR

CON221 Applied Statics (3) 3

Note: Students intending to transfer to ASU to pursue a Bachelor of Science in Construction Management and Technology should select CON221

CON223 Strength of Materials 3

CIS224 Project Management Microsoft Project for Windows (3) OR

CON241 Surveying (3) OR

MGT229 Management and Leadership I (3) OR

MGT253 Owning and Operating a Small Business (3) 3

Note: Students intending to transfer to ASU to pursue a Bachelor of Science in Construction Management and Technology should select CON241

CON243 Heavy Construction Equipment, Methods, and Materials 3

CON244 Working Drawing Analysis: Blueprint Reading 3

CON251 Microcomputers for Constructors 3

CON252 Building Construction Methods, Materials, and Equipment 3

CON262 Introduction International Residential Code (IRC) 3

CON263 Building Codes 3

CON271 Construction Safety 3

CON273 Electrical Construction Fundamentals 3

ECN211 Macroeconomic Principles (3) OR

ECN212 Microeconomic Principles (3) 3

Note: Both ECN211 and ECN212 are required for ASU's Bachelor of Science in Construction Management and Technology

FYE101 Introduction to College, Career and Personal Success (1) OR  
FYE103 Exploration of College, Career and Personal Success (3) 1-3

## Restricted Electives

Credits: 6-16

Students must choose 1 of the following Specializations

Specialization I: Construction Management

CON181 Cost Estimating 3

GTC107 Technical Mathematics I (3) AND

GTC108 Technical Mathematics II (3) 3 OR

Equivalent or any approved course in the Mathematics area (3-6) 3-6

Specialization II: Construction Management Arizona State University Transfer

MAT150 College Algebra/Functions (5) AND

MAT182 Plane Trigonometry (3) OR

MAT151 College Algebra/Functions (4) AND

MAT182 Plane Trigonometry (3) OR

MAT152 College Algebra/Functions (3) AND

MAT182 Plane Trigonometry (3) OR

MAT155 College Algebra/Functions with Review (5) AND

MAT182 Plane Trigonometry (3) OR

MAT156 College Algebra/Functions with Review (6) AND

MAT182 Plane Trigonometry (3) OR

MAT187 Precalculus (5) 5-9

PHY111 General Physics I 4

An additional course with the Humanities, Arts and Design [HU] and Cultural Diversity in the US [C] general studies designations 3

## Free Electives

Credits: 0-9

For students intending to transfer to Arizona State University to pursue a Bachelor of Science in Construction Management and Technology, the following courses are recommended to ensure junior standing at the time of transfer:

ECN211 Macroeconomic Principles (3) OR

ECN212 Microeconomic Principles (3) 3

MAT206 Elements of Statistics 3

A course with the Humanities, Arts and Design [HU] and Cultural Diversity in the US [C] general studies designations 3

## General Education Requirements

General Education Requirement Credits: 9-16

General Education Core Credits: 9-12

First-Year Composition Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Oral Communication Credits: 3

COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 3

For students intending to transfer to ASU to pursue a Bachelor of Science in Construction Management and Technology select COM225

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

Mathematics Credits: 0

Met by GTC108, or (MAT15+ and MAT182), or MAT187 in Restricted Electives area

General Education Distribution Credits: 0-4

Humanities and Fine Arts Credits: 0

Met by CON101 in the Required Courses area.

Social and Behavioral Sciences Credits: 0

Met by ECN211, ECN212, or MGT229 in Required Courses area.

Natural Sciences Credits: 0-4

Any approved course in the Natural Sciences area OR  
May be met by PHY111 in Restricted Electives area

CON106 recommended

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Starting Term: 2024 Fall

Final Term: 9999

# ASSOCIATE IN APPLIED SCIENCE (AAS) IN CONSTRUCTION TECHNOLOGY

Total Credits: 61  
Major Code: 3193

## Description

The Associate in Applied Science (AAS) in Construction Technology prepares individuals to apply technical knowledge and skills in carpentry or plumbing or electrical systems in residential and commercial settings. Instruction is in both the theoretical and practical aspects of the construction trade, and includes course work in safety, tools and equipment, construction calculations, blueprint reading, and trade-specific codes, material characteristics, and installation techniques. Certificates of Completion (CCL) and Certificates of Competency (CCT) in Carpentry, Electrical, and Plumbing are also available and are embedded in this AAS.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

Credits: 8-12

CON102 Foundations of Construction Trades (6) OR  
CON102AA Foundations of Construction Trades: Tools, Equipment, and Workspace (2) AND  
CON102AB Foundations of Construction Trades: Construction Calculations (2) AND  
CON102AC Foundations of Construction Trades: Construction Drawings and Materials (2) 6

CON103 Foundation of Construction Safety (1) OR  
CON271 Construction Safety (3) 1-3

FYE101 Introduction to College, Career and Personal Success (1) OR  
FYE103 Exploration of College, Career and Personal Success (3) 1-3

## Restricted Electives

Restricted Electives

Credits: 18

Specialization 1: Carpentry

CON110 Construction: Carpentry (9) OR  
CON110AA Construction: Carpentry/Floor Systems (3) AND  
CON110AB Construction: Carpentry/Wall Systems (3) AND  
CON110AC Construction: Carpentry/Ceiling and Roof Systems (3) 9

CON210 Carpentry: Commercial and Residential 9

Specialization 2: Electrical

CON132 Construction: Electrical Systems (9) OR  
CON132AA Construction: Electrical Systems/Introduction to Electrical (3) AND

CON132AB Construction: Electrical Systems/Electrical Power Generation (3) AND  
CON132AC Construction: Electrical Systems/Raceways and Wireways (3) 9

CON232 Construction: Advanced Electrical 9

### Specialization 3: Plumbing

CON122 Construction: Plumbing (9) OR

CON122AA Construction: Plumbing/Pipes and Fittings (3) AND

CON122AB Construction: Plumbing/Drain, Waste and Vent (3) AND

CON122AC Construction: Plumbing/Fixtures, Faucets and Water Distribution Systems (3) 9

CON222 Construction: Advanced Plumbing 9

## Free Electives

Credits: 3-13

Select additional courses 100-level or higher to complete the minimum 61 credits required for this degree. Consult with the Program Director or an Academic Advisor.

The following courses are recommended:

CON244 Working Drawing Analysis: Blueprint Reading 3

CON271 Construction Safety 3

## General Education Requirements

General Education Requirement Credits: 22-28

General Education Core Credits: 12-18

First-Year Composition Credits: 6

ENG101 First-Year Composition (3) OR

ENG107 First-Year Composition for ESL (3)

AND

ENG102 First-Year Composition (3) OR

ENG108 First-Year Composition for ESL (3) OR

ENG111 Technical and Professional Writing (3) 6

Oral Communication Credits: 3

COM100 Introduction to Human Communication (3) OR

COM110 Interpersonal Communication (3) OR

COM225 Public Speaking (3) OR

COM230 Small Group Communication (3) 3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR

Equivalent as indicated by assessment (0) 0-3

Mathematics Credits: 3-6

GTC108 Technical Mathematics II (3) OR

MAT140 College Mathematics (5) OR

MAT141 College Mathematics (4) OR

MAT142 College Mathematics (3) OR

MAT145 College Mathematics with Review (5) OR  
MAT146 College Mathematics with Review (6) OR

Any approved general education course from the Mathematics area (3-6) 3-6

Recommend one of the following mathematics courses for transfer to a university program:

MAT150 College Algebra/Functions (5) OR  
MAT151 College Algebra/Functions (4) OR  
MAT152 College Algebra/Functions (3) OR  
MAT155 College Algebra/Functions with Review (5) OR  
MAT156 College Algebra/Functions with Review (6) 3-6

General Education Distribution Credits: 10

Humanities and Fine Arts Credits: 3

Any approved general education course from the Humanities and Fine Arts area 3

Recommended: CON101 Construction and Culture 3

Social and Behavioral Sciences Credits: 3

Any approved general education course from the Social and Behavioral Sciences area 3

Natural Sciences Credits: 4

CON106 Foundations of Concrete (4) OR

Any approved general education course from the Natural Sciences area (4) 4

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=183070>

Starting Term: 2024 Fall

Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN CYBERSECURITY**

Total Credits: 62-77

Major Code: 3197

### **Description**

The Associate in Applied Science (AAS) in Cybersecurity is designed to focus on the necessary skills required to secure, protect and identify vulnerabilities in a network, including various operating systems and network devices. Emphasis is placed on developing the theoretical, legal, ethical and practical skills needed to maintain security on mission-critical networking and server systems. The program is designed to meet the training needs of government and industry employees. The program covers a variety of information security technologies and structured languages. The Cybersecurity program also focuses on the skills needed for internationally recognized IT certifications and high demands in business, industry, and



government. Certificates of Completion (CCLs) are also available in the following areas: Cybersecurity Fundamentals, Cyber Operations, Linux System Administration, Microsoft, Cisco Networking CCNA Security, Cyber Engineering, and Critical Infrastructure. Some of these programs are available at select colleges. Please check with your local college for program availability.

## Program Notes

Students must earn a grade of C or better in all courses within the program. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 25-28

BPC270 A+ Exam Prep: Operating System Configuration and Support (3) OR  
MST150++ Any Microsoft Windows course (3) 3

(MST150++ required for Cloud System Administration specialization and Critical Infrastructure specialization)

CIS105 Survey of Computer Information Systems 3  
CIS111 Ethics in Information Technology (3) OR  
ITS120Legal, Ethical and Regulatory Issues (3) 3

CIS126DL Linux Operating System (3) OR  
CIS126RH Red Hat System Administration I (3) 3

CIS156 Python Programming: Level I 3  
CIS190 Introduction to Networking (3) OR  
CNT140AB Introduction to Networks (4) 3-4

(CNT140AB required for Cisco Network Administration and Security specialization and Critical Infrastructure specialization)

CIS270 Essentials of Network and Information Security (3) OR  
ITS110Information Security Fundamentals (3) 3

(ITS110 required for Cyber Operations specialization; CIS270 required for Critical Infrastructure specialization)

FYE101 Introduction to College, Career and Personal Success (1) OR  
FYE103 Exploration of College, Career and Personal Success (3) 1-3

ITS240Ethical Hacking and Network Defense 3

## Restricted Electives

Credits: 12-18

Students must complete 12-18 credits from the following list of courses. Courses that are required for a specialization in Cyber Operations, Linux System Administration, Cloud System Administration, Cisco Network Administration and Security, Cyber Engineering, and/or Critical Infrastructure are noted. Courses cannot be repeated for credit.

Specialization I: Cyber Operations

BPC170 A+ Exam Prep: Computer Hardware Configuration and Support 3

CIS238DL Linux System Administration (3) OR  
 CIS238RH Red Hat System Administration II (3) 3

CIS290AC Computer Information Systems Internship (3) OR  
 CIS298AC Special Projects (3) 3

ITS291 Computer Forensics Foundations 4  
 ITS292 Advanced Computer Forensics 4

Specialization II: Linux System Administration

CIS238DL Linux System Administration (3) OR  
 CIS238RH Red Hat System Administration II (3) 3

CIS239DL Linux Shell Scripting 3

CIS240DL Linux Network Administration (3) OR  
 CIS240RH Red Hat System Administration III (3) 3

CIS271DL Linux Security (3) OR  
 CIS271RH Red Hat System Administration IV (3) 3

CIS275DL Linux Capstone 3

Specialization III: Cloud System Administration

BPC274 Advanced Server Computer Maintenance: Server+ Prep 3  
 CIS121AH Microsoft PowerShell/Command Line Operations 3  
 CIS239DL Linux Shell Scripting 3

MST160 Azure Administrator (4), OR  
 CLD110 Amazon Web Services Cloud Foundations (3) 3-4

MST260 Microsoft Azure Cloud Development and Operations (3), OR  
 CLD120 Amazon Web Services Cloud Architect Associate (3) 3

Specialization IV: Cisco Network Administration and Security

CNT150AB Switching, Routing, and Wireless Essentials 4  
 CNT160AB Enterprise Networking, Security, and Automation 4

CNT202 Cisco Secure Firewall Appliance Configuration (4) OR  
 CNT205 Cisco Certified Network Associate Security (4) 4

### Specialization V: Cyber Engineering

CIS119DO Introduction to Oracle: SQL (3) OR  
CIS276++ Any SQL Database course (3) 3

CIS162++ Any C Programming: Level I course 3

(Students intending to transfer to U of A South should take CIS162 C Programming)

CIS227 Assembler Language 3

CIS238DL Linux System Administration (3) OR  
CIS238RH Red Hat System Administration II (3) 3

CIS250 Management of Information Systems 3  
CIS262++ Any C Programming: Level II course 3

### Specialization VI: Critical Infrastructure

CIS143 Introduction to Critical Infrastructure Protection 3

CIS201 Introduction to Operational Technology 3

CIS202 Introduction to Smart Grid Security 3

CIS203 Principles of the Risk Management Framework 3

CNT150AB Switching, Routing, and Wireless Essentials 4

### Free Electives

Credits: 0-3

Select additional courses 100-level or higher to complete the minimum total program credits required for this degree. It is recommended to select from the Restricted Elective options. Consult with a faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.

### General Education Requirements

General Education Requirement Credits: 22-28

General Education Core Credits: 12-18

First-Year Composition Credits: 6

ENG101 First-Year Composition (3) OR

ENG107 First-Year Composition for ESL (3) AND

ENG102 First-Year Composition (3) OR

ENG108 First-Year Composition for ESL (3) 6

Oral Communication Credits: 3

COM100 Introduction to Human Communication (3) OR

COM110 Interpersonal Communication (3) OR

COM225 Public Speaking (3) OR

COM230 Small Group Communication (3) 3

COM100 required for students intending to transfer to ASU West to earn a Bachelor of Science in Applied Computing (Cybersecurity).

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

Mathematics Credits: 3-6

Any approved general education course in the Mathematics area. 3-6

General Education Distribution Credits: 10

Humanities and Fine Arts Credits: 3

Any approved general education course(s) in the Humanities, Arts and Design area.

Social and Behavioral Sciences Credits: 3

Any approved general education course(s) in the Social-Behavioral Sciences area.

Natural Sciences Credits: 4

Any approved general education course(s) from the Natural Sciences area.

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=181656>

Starting Term: 2023 Fall

Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN DENTAL HYGIENE**

Total Credits: 96-115.5

Major Code: 3831

### **Description**

The Associate in Applied Science (AAS) in Dental Hygiene degree prepares students to become primary care oral health professionals. A licensed dental hygienist may provide education, assessment, diagnostic, preventive and therapeutic services, research, and administrative services that support overall health through the promotion of optimal oral health. Hygienists may be employed in general or specialty dental practice in private or public healthcare settings. The program also prepares students for university transfer.

The dental hygiene program offers a rigorous, intensive, science-based curriculum. Students will provide services in clinical settings and will develop a commitment to the community through offsite educational and enrichment experiences serving diverse populations. Successful students will develop and demonstrate critical thinking, as well as ethical and professional behaviors required by the field.

Applicants should possess hand-eye coordination, manual dexterity, attention to detail, and the ability to persevere through a rigorous academic and clinical full-time program workload. Students in an MCCCDC Dental Hygiene program will be exposed to bloodborne pathogens and infectious diseases. The program strictly adheres to established policies and procedures regarding infection control as recommended by the Centers for Disease Control and Prevention, American Dental Association, the Organization for Safety and Asepsis Procedures, and the Occupational Safety and Health Administration.

The Commission on Dental Accreditation of the American Dental Association (211 E. Chicago Ave., Suite 1900, Chicago, IL 60611-2637; (312) 440-4653) grants accreditation to the Phoenix College, Rio Salado College, and Mesa Community College programs. The Commission is a specialized accrediting body recognized by the United States Department of Education. Graduates are eligible for board examinations and licensure in all fifty states.

This program is designed to meet education requirements for licensure or certification in the State of Arizona. Granting licensure and certification is the sole responsibility of the state board or approval agency. This program is only offered and available to students located in the State of Arizona. The Maricopa County Community College District and colleges define student location within Administrative Regulation 2.2.3(7).

## **Program Notes**

Students must earn a grade of C or better in all courses within the program. Students must complete the Basic Science courses with a GPA of 3.5 or better and General Education courses with a GPA of 3.25 or better as indicated in the Program Prerequisites. Basic Science courses must have been completed within the last five years upon application submission or as determined by the Dental Health Professions Instructional Council. Students must earn a grade of 75% or better in the Required Courses area within the core program. Students should consult with an advisor prior to applying to the program. For students pursuing a Concurrent Enrollment Program (CEP) or to complete an AGECA: MHL155 and PHI213 are recommended for the Humanities, Arts and Design area for a total of 6 credits in this area. COM225 with the [L] designation is recommended for the Oral Communication area. PSY101 and SOC101 are recommended for the Social Behavioral area. MAT140 or MAT141 or MAT142, MAT145 or MAT146 or higher level is required for the Mathematics area. An additional course, MAT206 or PSY230 or PSY230WL, is required to meet the Computer/Statistics area. Note: Total credits to obtain a Bachelor of Science degree in Dental Hygiene through NAU as part of the CEP program are 124-129. Some of the courses listed in the prerequisites area are for students pursuing the CEP, and thus are not counted as part of the AAS total program credits.

## **Admission Criteria**

High school diploma or GED equivalency is required. Completion of program prerequisites. Program applications will not be accepted without a copy of an Arizona Department of Public Safety Level One Fingerprint Clearance Card. Acknowledgement of ability to fully participate in classroom, laboratory, or clinical setting program activities. Formal application and acceptance to the program is required. After being placed in the program, the following are required: Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Supplemental Background Check policy. Upon conditional program admission, the student must comply with all requirements of the current MCCCDC background check policy. Complete and submit the required proof of immunity and health declaration form signed by a licensed health care provider. Submit to a drug screening

and demonstrate negative results. Submit current CPR card for Health Care Provider and maintain current status throughout the program.

## Program Prerequisites

Credits: 37-54.5

The credit hour range is subject to change depending on the student's educational experiences.

BIO156 Introductory Biology for Allied Health (4) OR  
BIO181 General Biology (Majors) I (4) OR  
One (1) year of high school Biology 0-4

HCC/RES109 CPR for Health Care Provider (0.5) OR  
Current CPR certification at the health care provider Professional rescuer level 0-0.5

Students must complete the following Basic Science courses with a GPA of 3.50.

BIO201 Human Anatomy and Physiology I 4  
BIO202 Human Anatomy and Physiology II 4  
BIO205 Microbiology 4

CHM130 Fundamental Chemistry (3) AND  
CHM130LL Fundamental Chemistry Laboratory (1) 4 OR  
CHM130AA Fundamental Chemistry with Lab (4) OR

CHM151 General Chemistry I (3) AND  
CHM151LL General Chemistry I Laboratory (1) 4 OR  
CHM151AA General Chemistry I with Lab (4) OR

CHM152 General Chemistry II (3) AND  
CHM152LL General Chemistry II Laboratory (1) 4 OR  
CHM152AA General Chemistry II (4) OR

CHM230 Fundamental Organic Chemistry (3) AND  
CHM230LL Fundamental Organic Chemistry Laboratory (1) 4 OR  
CHM230AA Fundamental Organic Chemistry with Lab (4) OR

CHM235 General Organic Chemistry I (3) AND  
CHM235LL General Organic Chemistry I Laboratory (1) 4 OR  
CHM235AA General Organic Chemistry I with Lab (4) OR

CHM236 General Organic Chemistry IIA (3) AND  
CHM236LL General Organic Chemistry IIA Laboratory (1) 4 OR  
CHM236AA General Organic Chemistry IIA with Lab (4) 4

Students who have completed CHM138 and CHM138LL prior to Fall 2019 have fulfilled the CHM requirement for acceptance into the MCCC Dental Hygiene program. CHM138 and CHM138LL completed Fall of 2019 or after, will no longer meet the MCCC Dental Hygiene Application Admissions requirement as this class is being phased out. Please note that CHM130 is required for participation in the CEP program through NAU.

Students must complete the following General Education courses with a GPA of 3.25.

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 3  
COM225 is recommended for students pursuing a CEP or to complete the AGEC-A to meet the Oral Communication and the Literacy [L] designation.

MAT112 Mathematical Concepts and Applications (3) OR  
MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR  
MAT145 College Mathematics with Review (5) OR  
MAT146 College Mathematics with Review (6) OR  
satisfactory completion of higher level Mathematics course.3-6

MAT140 or MAT141 or MAT142 or MAT145 or MAT146 or Higher course in the Mathematical Applications [MA] area is required for students pursuing a CEP or to complete the AGEC-A.

MAT206 Elements of Statistics (3) OR  
PSY230 Introduction to Statistics (3) OR  
PSY230WL Introduction to Statistics with Lab (4) 0-4  
MAT206 or PSY230 or PSY230WL is required for students pursuing a CEP or baccalaureate degree to meet the [CS] designation.

Any SOC+++ meeting the Social Behavioral [SB] designation. 3  
Any PSY+++ meeting the Social Behavioral [SB] designation. 3

For students pursuing a CEP or a baccalaureate and selecting PSY230 or PSY230WL to meet the [CS] designation, complete PSY101 to meet the [SB] designation and to fulfill the prerequisite for PSY230 or PSY230WL.

CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment 0-3.

Students who are exempt from CRE101 must complete a course with an [L] designation if pursuing a CEP or to complete the AGEC-A.

Any approved general education course from the Humanities, Arts and Design area. 3-6

MHL155 and PHI213 for a total of 6 credits are recommended for the Humanities, Arts and Design area for students pursuing a CEP or to complete the AGEC-A.

## Required Courses

Credits: 59-61

DHE110	Pharmacology	3
DHE112	Oral Pathology	3
DHE115	Emergency Medicine	2
DHE117	Dental Radiography	2
DHE119	Head and Neck Anatomy	3
DHE120	Pre-Clinical Dental Hygiene	6
DHE121	Dental Anatomy, Embryology and Histology	2
DHE125	Dental Radiography Laboratory	1
DHE127	Prevention of Dental Disease	3
DHE132	Dental Hygiene Theory I	3
DHE133	Dental Hygiene Clinic I	3
DHE201	Dental Materials	2
DHE202	Dental Materials Laboratory	1
DHE212	Dental Hygiene Theory II	2
DHE213	Dental Hygiene Clinic II	5
DHE219	Practice Management	2
DHE225	Periodontics	3
DHE227	Dental Anesthesia	2
DHE229	Community Oral Health	3
DHE232	Dental Hygiene Theory III	2
DHE233	Dental Hygiene Clinic III	5
FYE101	Introduction to College, Career and Personal Success (1)	OR
FYE103	Exploration of College, Career and Personal Success (3)	1-3

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Starting Term: 2023 Fall

Final Term: 9999

## ASSOCIATE IN APPLIED SCIENCE (AAS) IN DISC JOCKEY TECHNIQUES

Total Credits: 61-65

Major Code: 3159

### Description

The Associate in Applied Science (AAS) in Disc Jockey Techniques program is designed to prepare students for employment as a live-performance disc jockey (DJ). This program is designed to provide the student with the technical skills required for a successful performance or production and to demonstrate an understanding of common business practices in a highly competitive and rapidly changing entertainment industry. There are Certificates of Completion (CCL) in Disk Jockey Techniques I and Disc Jockey Techniques II available.



## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 36-38

MHL204	Hip-Hop Music and Culture	3
MUC109	Music Business: Content Creation and Copyright	3
MUC110	Music Business: Marketing and Monetization	3
MUC135	Introduction to Disc Jockey Techniques	3
MUC136	Turntablism: The Art of the Scratch DJ	3
MUC137	Digital DJ Performance Techniques	3
MUC138	Disc Jockey Laboratory	1
MUC139	Introduction to Emcee-Rapping Techniques	3
MUC191	Electronic Music I	3
MUC197	Live Sound Reinforcement I	3
MUC293	Self-Promotion for Music	1
COM225	Public Speaking (3) OR	
COM110	Interpersonal Communication (3) OR	
COM230	Small Group Communication (3)	3
FYE101	Introduction to College, Career and Personal Success (1) OR	
FYE103	Exploration of College, Career and Personal Success (3)	1-3
MKT101	Introduction to Public Relations (3) OR	
HRM145	Events Management (3) OR	
GBS151	Introduction to Business (3)	3

## Restricted Electives

Credits: 6-9

Students should choose six (6) to nine (9) credits from the following list of courses to complete the minimum total program credits required for this degree.

MTC101	Introduction to Music Theory	3
MUC192	Electronic Music II	3
MUC195	Studio Music Recording I (3) OR	
MUC195AA	Studio Music Recording I (3)	3
MUC198	Live Sound Reinforcement II	3
MUC237	Electronic Dance Music Production	3

## Free Electives

## General Education Requirements

General Education Requirement Credits: 16-21

General Education Core Credits: 9-14

First-Year Composition Credits: 6  
ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL(3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Oral Communication Credits: 0  
Met by COM110 or COM225 or COM230 in the Required Courses area.

Critical Reading Credits: 0-3  
CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment 0-3

Mathematics Credits: 3-5  
MAT112 Mathematical Concepts and Applications (3) OR  
MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR  
Higher level course in the Mathematical Applications [MA] area (3-5) 3-5

General Education Distribution Credits: 7

Humanities and Fine Arts Credits: 0  
Met by MHL204 in the Required Courses area.

Social and Behavioral Sciences Credits: 3  
Any approved general education course from the Social and Behavioral Sciences area. 3

Natural Sciences Credits: 4  
Any approved general education course from the Natural Sciences area. 4

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Starting Term: 2022 Fall  
Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN DRAFTING AND DESIGN TECHNOLOGY**

Total Credits: 61-69  
Major Code: 3504

### **Description**

The Associate in Applied Science (AAS) in Drafting and Design Technology program is designed to prepare students as drafting technicians. Students will learn Computer Aided Design, Computer Numerical Control (CNC) programming, and basic manufacturing processes. Students develop skills in completing orthographic layouts, dimensioning, exploded/assembled and working drawings, 2D and 3D computer aided drafting and design, 3D printing, geometric dimensioning and tolerance (GD&T), and a general understanding of manufacturing in industry, all using American standards (ANSI). Students can also apply for the Certificate of Completion (CCL) in Computer Aided Drafting (5547) while pursuing the AAS.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 42-47

FT105AA	Computer Aided Drafting I: AutoCAD	3
DFT110	Introduction to Drafting	3
DFT111	Intermediate Drafting	3
DFT112	Advanced Drafting	3
DFT115	Geometric Dimensioning and Tolerancing	3
DFT254AA	Computer Aided Drafting II: AutoCAD	3
DFT255	3D Printing/Additive Manufacturing	3
FYE101	Introduction to College, Career and Personal Success (1)	OR
FYE103	Exploration of College, Career and Personal Success (3)	1-3
GTC/MIT/OSH106	Industrial Safety	2
GTC107	Technical Mathematics I (3) OR	
Equivalent as indicated by assessment (0)		0-3
GTC108	Technical Mathematics II	3
GTC216	Properties of Materials	3
MPT130MP	CNC Machining Level I	6
MPT150	Introduction to SolidWorks	3
MPT260MP	Computer Aided Manufacturing (CAM) I	3

## General Education Requirements

General Education Requirement Credits: 19-22

General Education Core Credits: 9-12

First-Year Composition Credits: 6

ENG101	First-Year Composition (3) OR
ENG107	First-Year Composition for ESL (3) AND
ENG102	First-Year Composition (3) OR

ENG108 First-Year Composition for ESL (3) 6

Oral Communication Credits: 3

COM100 Introduction to Human Communication (3) OR

COM110 Interpersonal Communication (3) OR

COM230 Small Group Communication (3) 3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment. 0-3

Mathematics Credits: 0  
Waived

General Education Distribution Credits: 10

Humanities and Fine Arts Credits: 3  
Any approved general education course from the Humanities, Arts and Design [HU] area.

Social and Behavioral Sciences Credits: 3  
Any approved general education course from the Social-Behavioral Sciences [SB] area.

Natural Sciences Credits: 4  
Any approved general education course from the Natural Sciences (Quantitative) [SQ] area or  
the Natural Sciences (General) [SG] area.

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=175658>

Starting Term: 2023 Fall  
Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN EARLY CHILDHOOD EDUCATION**

Total Credits: 60-74  
Major Code: 3186

### **Description**

The Associate in Applied Science (AAS) in Early Childhood Education (ECE) is designed to prepare individuals for employment as early childhood professionals in a variety of educational settings. The AAS program includes courses based on current ECE theory and practice as well as general education classes to broaden a student's base of knowledge. Certificates of Completion are also available. Some of these programs are available at select colleges. Please check with your local college for program availability.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program. For some employment and field experiences (including internship courses), students will be required to have a current Identity Verified Print (IVP) Fingerprint Clearance Card and a current TB test.

## Required Courses

Credits: 30-37

- CFS101AH Art Activities for the Young Child (1) AND  
ECH281 Movement/Music for the Young Child (1) OR  
ECH128 Early Learning: Play and the Arts (3) OR  
EED210 Creative and Cognitive Play (3) 2-3  
CFS123 Health and Nutrition In Early Childhood Settings (1) AND  
CFS125 Safety in Early Childhood Settings (1) AND  
ECH280 Food Experiences With Young Children (1) OR  
EED215 Early Learning: Health, Safety, Nutrition and Physical Fitness (3) 3
- CFS/ECH176 Child Development (3) OR  
CFS235 Developing Child: Theory into Practice, Prenatal to Age Eight (3) OR  
EED205 The Developing Child: Prenatal to Age Eight (3) 3
- CFS/ECH269 Child Care Seminar (1) AND  
CFS/ECH287 Professional Development in Early Childhood Education (1) OR  
EED255 Portfolio Development and Writing for the Profession (3) 2-3
- CFS/ECH271 Arranging the Environment (1) AND  
CFS282 Mainstreaming The Young Child with A Disability (1) AND  
ECH282 Discipline/Guidance of Child Groups (1) OR  
EED212 Guidance, Effective Interactions and the Environment (3) 3
- CFS/ECH284AB Early Childhood Teaching Internship (3) OR  
EED260 Early Childhood Infant/Toddler Internship (1) AND  
EED261 Early Childhood Preschool Internship (1) OR  
CFS/ECH284AA Early Childhood Teaching Internship (1) 2-3
- ECH140 Learning Made Visible Through Documentation (1) AND  
ECH270 Observing Young Children (1) OR  
EED280 Standards, Observation and Assessment of Typical/Atypical Behaviors of Young Children Birth Age Eight (3) 2-3
- CFS/ECH273 Math for the Young Child (1) AND  
CFS/ECH275 Literacy Development and the Young Child (1) AND  
ECH272 Science for the Young Child (1) AND  
ECH279 Early Childhood Curriculum Development (1) OR  
EED278 Early Learning Curriculum and Instruction - Birth to Age Eight (3) 3-4
- EED200 Foundations of Early Childhood Education 3  
EED222 Introduction to the Exceptional Young Child: Birth to Age Eight 3  
EED225 Language and Literacy in the Context of Culture and Relationships 3
- FYE101 Introduction to College, Career and Personal Success (1) or

FYE103 Exploration of College, Career and Personal Success (3) 1-3

## Restricted Electives

Credits: 9-12

Students must select nine (9) to twelve (12) credits from the following to complete the minimum total program credits required for this degree. Students are encouraged to consult with a faculty advisor or student services analyst to identify the requirements for their desired academic and professional goals:

CFS+++ Any CFS Child/Family Studies course(s)  
ECH+++ Any ECH Early Childhood Education course(s)  
EDU+++ Any EDU Education course(s)  
EED+++ Any EED Early Education course(s)  
FCS+++ Any FCS Family and Consumer Science course(s)  
ITD+++ Any ITD Infant/Toddler Development course(s)

## General Education Requirements

General education requirements

General Education Requirement Credits: 19-25

General Education Core Credits: 12-18

First-Year Composition Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Oral Communication Credits: 3

Any approved general education course from the Oral Communication area. 3

Note: COM225 Public Speaking is recommended for students who wish to transfer to the BAE at ASU.

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

Mathematics Credits: 3-6

MAT112 Mathematical Concepts and Applications (3) OR  
Satisfactory completion of a higher-level mathematics course (3-6) 3-6

Note: MAT14+ College Mathematics or any approved general education course in the Mathematical Application [MA] area may be required for students intending to transfer to a bachelor's degree program.

General Education Distribution Credits: 7

Humanities and Fine Arts Credits: 3  
Any approved general education course from the Humanities, Arts and Design area. 3

Recommend: EDU/ENH291 Children's Literature OR EDU/HUM/STO292 The Art of Storytelling

Social and Behavioral Sciences Credits: 0  
Fulfilled by EED222 in Required Courses area.

Natural Sciences Credits: 4  
Any approved general education course from the Natural Sciences area. 4

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Starting Term: 2022 Fall  
Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN ELECTRONICS ENGINEERING TECHNOLOGY**

Total Credits: 62-68  
Major Code: 3224

### **Description**

The Associate in Applied Science (AAS) in Electronics Engineering Technology is designed to give students a foundation of experience important in engineering assistants, field engineers, prototype designers, specification writers, technical representatives, and in other positions in organizations that specialize in electronic design, manufacturing, service, and development. Students with this degree may work in industries that include, but are not limited to, aerospace, biotechnology, communications, entertainment, industrial, medical, power, semiconductor, and transportation. The Electronics Engineering Technology program is designed to enable industry employment while still providing transfer credits to a four year engineering program.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 39-41

ECE102	Engineering Analysis tools and Techniques	2
ECE103	Engineering Program Solving and Design	2
ELE111	Circuit Analysis I	4
ELE112	Circuit Analysis II	4
ELE121	Solid State Devices and Circuits I	4

ELE131	Digital Logic and Circuits	3	
ELE181	Computer Programming for Technology	3	
ELE222	Solid-State Devices and Circuits II	4	
ELE241	Microprocessor Concepts	4	
FYE101	Introduction to College, Career and Personal Success (1)	OR	
FYE103	Exploration of College, Career and Personal Success (3)	1-3	
PHY111	General Physics I	4	
PHY112	General Physics II (4)	OR	
CHM130	Fundamental Chemistry (3)	AND	
CHM130LL	Fundamental Chemistry Laboratory (1)	4	

### Restricted Electives

Credits: 0-3

Students should work with Program Director to select courses 100-level or higher in the ECE, EEE, ELE or MAT prefix that are not listed in the Required or General Education Courses areas to complete the minimum total program credits required for this degree.

### General Education Requirements

General Education Requirement Credits: 23-27

General Education Core Credits: 17-21

First-Year Composition Credits: 6

ENG101	First-Year Composition (3)	OR	
ENG107	First-Year Composition for ESL (3)	AND	
ENG102	First-Year Composition (3)	OR	
ENG108	First-Year Composition for ESL (3)	OR	
ENG111	Technical and Professional Writing (3)	6	

Oral Communication Credits: 3

COM100	Introduction to Human Communication (3)	OR	
COM110	Interpersonal Communication (3)	OR	
COM225	Public Speaking (3)	OR	
COM230	Small Group Communication (3)	3	

Critical Reading Credits: 0-3

CRE101	College Critical Reading and Critical Thinking (3)	OR	
	Equivalent as indicated by assessment		

Mathematics Credits: 8-9

MAT220	Calculus with Analytic Geometry I (5)	OR	
MAT221	Calculus with Analytic Geometry I (4)	4-5	
MAT231	Calculus with Analytic Geometry II	4	

General Education Distribution Credits: 6



Humanities and Fine Arts Credits: 3

Any approved general education course from the Humanities, Arts and Design area.

Social and Behavioral Sciences Credits: 3

Any approved general education course from the Social and Behavioral Sciences area.

Natural Sciences Credits: 0

Met by PHY111 AND (PHY112 OR (CHM130 AND CHM130LL)) in Required Courses area.

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Starting Term: 2022 Fall

Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN ELECTRONICS TECHNOLOGY**

Total Credits: 68-76

Major Code: 3220

### **Description**

The Associate in Applied Science (AAS) in Electronics Technology program is designed to give students a foundation of experience important in electronics technicians, manufacturing supervisors, test equipment specialists, prototype fabricators, and in other positions in organizations that specialize in electronic design, manufacturing, service, and development. Students with this degree may work in industries that include, but are not limited to, aerospace, biotechnology, communications, entertainment, industrial, medical, power, semiconductor, and transportation.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 46-48

ELE111	Circuit Analysis I	4	
ELE112	Circuit Analysis II	4	
ELE121	Solid-State Devices and Circuits I	4	
ELE131	Digital Logic and Circuits	3	
ELE173	Fabrication Techniques	3	
ELE181	Computer Programming for Technology	3	
ELE222	Solid State Devices and Circuits II	4	
ELE241	Microprocessor Concepts	4	
ELE/ELT243	Microprocessor Applications	3	

ELE251 Electronic Measurements 3  
ELE261 Communication Systems 4  
ELE263 Digital Data Communications 4

FYE101 Introduction to College, Career and Personal Success (1) OR  
FYE103 Exploration of College, Career and Personal Success (3) 1-3

GTC/OSH/MIT106 Industrial Safety 2

## General Education Requirements

General Education Requirement Credits: 22-28

General Education Core Credits: 12-18

First-Year Composition Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) OR  
ENG111 Technical and Professional Writing (3) 6

Oral Communication Credits: 3

COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by Assessment (0) 0-3

Mathematics Credits: 3-6

MAT120 Intermediate Algebra (5) OR  
MAT121 Intermediate Algebra (4) OR  
MAT122 Intermediate Algebra (3) OR  
MAT126 Intermediate Algebra with Review (6) OR  
Equivalent or higher level mathematics course in the Mathematical Applications [MA] area.  
3-6

General Education Distribution Credits: 10

Humanities and Fine Arts Credits: 3

Any approved general education course from the Humanities and Fine Arts area.

Social and Behavioral Sciences Credits: 3

Any approved general education course from the Social and Behavioral Sciences area.

Natural Sciences Credits: 4

Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the Natural Sciences (General) [SG] area.

Starting Term: 2023 Fall  
Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN EXERCISE SCIENCE: HEALTH, FITNESS, AND SPORTS PERFORMANCE**

Total Credits: 62-74.5  
Major Code: 3059

### **Description**

The Associate in Applied Science (AAS) in Exercise Science: Health, Fitness, and Sports Performance prepares students for the American College of Sports Medicine (ACSM), National Strength and Conditioning Association (NSCA), National Academy of Sports Medicine (NASM) and the American Council on Exercise (ACE) personal trainer certifications. The curriculum is designed to prepare students for employment in positions such as personal training within health and fitness clubs, wellness centers, and public and private recreation facilities. The curriculum includes the foundational courses required for the Certificate of Completion (CCL) in Personal Training coupled with advanced hands-on courses required for the CCL in Personal Training: Advanced that foster the development of critical thinking, leadership, and communication skills important for developing, implementing and leading exercise programs. This curriculum also provides a good foundation for transfer to a four-year bachelor program. Students who complete this AAS also qualify for the CCL in Personal Training and Personal Training: Advanced. An Associate in Arts (AA), Emphasis in Exercise Science is also available for students interested in continuing their studies in this field.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 46-52.5

BIO181++ General Biology (Majors) I (4) OR  
One (1) year of high school biology (0) 0-4

BIO160 Introduction to Human Anatomy and Physiology (4) OR  
BIO201++ Human Anatomy and Physiology I (4) 4

EMT101 Basic Life Support/Cardiopulmonary Resuscitation (CPR) for Health Care Providers (0.5) OR

WED106      Cardiopulmonary Resuscitation (CPR)/Automated External Defibrillator (AED)  
(0.5) OR

Current CPR/AED certification (0) 0-0.5

EXS101	Introduction to Exercise Science	3
EXS125	Introduction to Exercise Physiology	3
EXS146	Introduction to Exercise Testing	1
EXS215	Resistance Training and Recovery Techniques	3
EXS217	Cardiorespiratory and Flexibility Training	3
EXS246	Advanced Exercise Testing	2
EXS255	Program Design: Muscular Fitness and Performance	3
EXS257	Program Design: Cardiorespiratory Fitness	3

Student must complete three (3) credits from the following EXS internship course options:

EXS270	Exercise Science Internship (3) OR	
EXS270AA	Exercise Science Internship (1) AND	
EXS270AB	Exercise Science Internship (2) OR	
EXS275	Sport Science Internship (3) OR	
EXS275AA	Sport Science Internship (1) AND	
EXS275AB	Sport Science Internship (2) OR	
EXS270AA	Exercise Science Internship (1) AND	
EXS275AB	Sport Science Internship (2) OR	
EXS270AB	Exercise Science Internship (2) AND	
EXS275AA	Sport Science Internship (1)	3
EXS290	Introduction to Evidence Based Practice	3
FON100	Introductory Nutrition (3) OR	
FON241	Principles of Human Nutrition (3)	3
FYE101	Introduction to College, Career and Personal Success (1) OR	
FYE103	Exploration of College, Career and Personal Success (3)	1-3
HES100	Healthful Living	3
HES210	Cultural Aspects of Health and Illness	3
PED101ST	Strength Training (1) OR	
PED101RT	Resistance Training for Improved Sports Performance (1)	1
PED101BC	Boot Camp (1) OR	
PED101BS	Body Sculpting (1) OR	
PED101CY	Cycling - Indoor (1) OR	
PED101GF	Group Fitness/Aerobics (1) OR	
PED101KB	Kickboxing (1) OR	
PED101LD	Latin Dancing (1) OR	
PED101PC	Physical Conditioning (1) OR	
PED101PS	Pilates (1) OR	
PED101SR	Stretch and Relaxation (1) OR	
PED101TC	Tai Chi (1) OR	
PED101TX	Suspension Training (1) OR	

PED101YG Gentle Yoga (1) OR  
 PED101YH Hatha Yoga (1) OR  
 PED101YO Yoga (1) OR  
 PED101YP Power Yoga (1) OR  
 PED101YR Restorative Yoga (1) OR  
 PED101ZU Zumba Fitness (1) 1

PSY101 Introduction to Psychology 3

## Restricted Electives

Credits: 1

Complete one (1) credit from one of the following course options not already selected in the Required Courses area. Choose a course that best aligns with your academic and professional goals. Consult with an academic, faculty, or program advisor as needed.

EXS+++++ Any EXS Exercise Science course 1  
 FON+++++ Any FON Food and Nutrition course 1  
 HES+++++ Any HES Health Science course 1  
 PED+++++ Any PED Physical Education course 1  
 IFS110 Critical Research for College Success 1

## General Education Requirements

General Education Requirement Credits: 15-21

General Education Core Credits: 12-18

First-Year Composition Credits: 6  
 ENG101 First-Year Composition (3) OR  
 ENG107 First-Year Composition for ESL (3) AND  
 ENG102 First-Year Composition (3) OR  
 ENG108 First-Year Composition for ESL (3) 6

Oral Communication Credits: 3

COM100 Introduction to Human Communication (3) OR  
 COM110 Interpersonal Communication (3) OR  
 COM225 Public Speaking (3) OR  
 COM230 Small Group Communication (3) 3

Critical Reading Credits: 0-3  
 CRE101++ College Critical Reading and Critical Thinking (3) OR  
 Equivalent as indicated by assessment (0) 0-3

Mathematics Credits: 3-6  
 MAT140 College Mathematics (5) OR  
 MAT141 College Mathematics (4) OR  
 MAT142 College Mathematics (3) OR  
 MAT145 College Mathematics with Review (5) OR  
 MAT146 College Mathematics with Review (6) OR

MAT150 College Algebra/Functions (5) OR  
MAT151 College Algebra/Functions (4) OR  
MAT152 College Algebra/Functions (3) OR  
MAT155 College Algebra/Functions with Review (5) OR  
MAT156 College Algebra/Functions with Review (6) OR  
Higher level course in the Mathematical Applications [MA] area (3-6) 3-6

General Education Distribution Credits: 3

Humanities and Fine Arts Credits: 3  
Any approved general education course from the Humanities, Arts and Design area.

Social and Behavioral Sciences Credits: 0  
Met by HES100 in Required Courses.

Natural Sciences Credits: 0  
Met by BIO160 or BIO201++ in Required Courses.

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=175465>

Starting Term: 2023 Fall  
Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN FASHION DESIGN**

Total Credits: 63-74  
Major Code: 3355

### **Description**

The Associate in Applied Science (AAS) in Fashion Design guides students in developing technical and creative design skills for employment opportunities in the fashion industry or self-employment in fashion design. The program includes training in multiple levels of apparel construction, design, fashion illustration, patternmaking, and draping, and supports students in building inspirational sources through analysis of cultural, historical, and contemporary works of fashion and design.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program. This program replaces: AAS/3260 Fashion Merchandising and Design

### **Required Courses**

Credits: 38-43

FYE101 Introduction to College, Career and Personal Success (1) OR

FYE103	Exploration of College, Career and Personal Success (3)	1-3
TEC105	Cultural Aspects of Clothing	3
TEC106	History of Fashion	3
TEC110	Beginning Apparel Construction (3) OR Permission of Program Director (0)	0-3
TEC111	Intermediate Apparel Construction	3
TEC122	Sewing with Knits	3
TEC124	Advanced Apparel Construction	3
TEC125	Fashion Design	3
TEC134	Fashion Illustration I	3
TEC221	Computer-Assisted Fashion Design	3
TEC222	Textiles	3
TEC223	Tailoring (3) OR	
TEC227	Couture Sewing (3) OR	
TEC234	Vintage Fashion Design (3) OR	
TEC270	Design Studio (3)	3
TEC225	Pattern Design I	3
TEC226	Draping for Fashion Design	3
TEC236	Portfolio Development (1) OR	
TEC271AA	Fashion Design Internship (1) OR	
TEC277AA	Alteration Internship (1) OR	
TEC278AA	Costume Design and Production Internship (1) OR	
TEC298AA	Special Projects (1)	1

### Restricted Electives

Credits: 4-6

In consultation with the program director, select four to six (4-6) credits from the following except courses used in the Required Courses area.

ART113	Color	3
TEC+++++	Any TEC Textiles and Clothing course	1-6

### General Education Requirements

General Education Requirement Credits: 22-28

General Education Core Credits: 12-17

First-Year Composition Credits: 6

ENG101	First-Year Composition (3) OR	
ENG107	First-Year Composition for ESL (3) AND	
ENG102	First-Year Composition (3) OR	
ENG108	First-Year Composition for ESL (3)	6

Oral Communication Credits: 3

COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

Mathematics Credits: 3-6

MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR  
MAT145 College Mathematics with Review (5) OR  
MAT146 College Mathematics with Review (6) OR  
Equivalent or higher level mathematics course in the Mathematical Applications [MA] area. (3-6)  
3-6

General Education Distribution Credits: 10

Humanities and Fine Arts Credits: 3

ARH100 Introduction to Art (3) OR  
ARH101 Art from Prehistory Through Middle Ages (3) OR  
ARH102 Art from Renaissance to Modernism (3) OR  
INT115 Historical Architecture and Furniture (3) OR  
INT120 Modern Architecture and Furniture (3) 3  
ARH100, ARH101, or ARH102 Recommended for University Transfer

Social and Behavioral Sciences Credits: 3

Any approved general education course in the Social-Behavioral Sciences area.

Natural Sciences Credits: 4

Any approved general education course from the Natural Sciences area

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=187823>

Starting Term: 2023 Fall

Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN FASHION MERCHANDISING**

Total Credits: 62-72

Major Code: 3266

### **Description**



The Associate in Applied Science (AAS) in Fashion Merchandising program places students at the intersection of fashion, business and marketing. Our curriculum stresses the importance of leadership, teamwork, creativity, and effective communication throughout the product life cycle process. Students will leave this program equipped with knowledge of fashion theory; the societal and technological aspects of the textile and apparel industry; and the creation, promotion, distribution, and retailing of consumer goods in a global environment. This program provides a foundation for students to pursue a wide range of careers in the fashion industry. A Certificate of Completion (CCL) in Fashion Merchandising program is also available.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Admission Criteria

None

## Required Courses

Credits: 28-30

BPC110	Computer Usage and Applications (3) OR	
CIS105	Survey of Computer Information Systems (3)	3
FYE101	Introduction to College, Career and Personal Success (1) OR	
FYE103	Exploration of College, Career and Personal Success (3)	1-3
MGT251	Human Relations in Business	3
MKT/TEC109	Introduction to Fashion Merchandising	3
MKT/TEC151	Display and Visual Merchandising	3
MKT/TEC200	Retail Buying	3
MKT263	Advertising Principles	3
MKT268	Merchandising	3
MKT271	Principles of Marketing	3
TEC222	Textiles	3

## Restricted Electives

Credits: 6-12

Students should select a total of 6-12 credits from the following courses in consultation with a Department Advisor.

GBS151	Introduction to Business	3
IBS101	Introduction to International Business	3
MGT+++++	Any MGT Management course except courses used to satisfy Required Courses area	
MKT+++++	Any MKT Marketing course except courses used to satisfy Required Courses area	

TEC+++++ Any TEC Textiles and Clothing course except courses used to satisfy Required Courses area

## General Education Requirements

General Education Requirement Credits: 22-28

General Education Core Credits: 12-18

First-Year Composition Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Oral Communication Credits: 3

COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

Mathematics Credits: 3-6

Any approved general education course from the Mathematics [MA] area. 3-6

General Education Distribution Credits: 10

Humanities and Fine Arts Credits: 3

TEC105 Cultural Aspects of Clothing 3

Social and Behavioral Sciences Credits: 3

SBU200 Society and Business 3

Natural Sciences Credits: 4

Any approved general education course from the Natural Sciences area.

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=176683>

Starting Term: 2022 Fall

Final Term: 9999

## ASSOCIATE IN APPLIED SCIENCE (AAS) IN FIRE SCIENCE

Total Credits: 61.5-92  
Major Code: 3205

## Description

The Associate in Applied Science (AAS) in Fire Science provides the opportunity for individuals seeking careers in the fire service to acquire standard firefighting skills and prepare for state and/or national certifications, including the Firefighter I and II Certification. Students will gain broad knowledge and skills necessary to work effectively in the fire service as firefighters. A Certificate of Completion (CCL) in Firefighter Operations is also available.

## Program Notes

Students must earn a grade of C or better in all courses within the program. Consult with your faculty mentor or academic advisor to determine educational requirements, including possible university transfer options, for your chosen career field.

## Admission Criteria

Admission to program is required. See Program Director for details.

## Required Courses

Credits: 38.5-61

EMT101 Basic Life Support/Cardiopulmonary Resuscitation (CPR) for Health Care Providers (0.5) OR  
Current validation in Basic Life Support (BLS) Health Care Provider/Professional Rescuer (0)  
AND  
Credit By Evaluation (0.5) 0.5

EMT104 Emergency Medical Technology (10) AND  
EMT104AB Applied Practical Studies for Emergency Medical Technology (0.5) AND  
EMT104LL Emergency Medical Technology Practicum (2) OR  
Arizona State EMT Certification (0) OR  
Arizona State Paramedic Certification (0) OR  
Permission of Program Director (0) 0-12.5

FSC101 Introduction to Fire Service Selection and Entry (4) OR  
Current employment as a firefighter as determined by the Program Director (0) 0-4

FSC102 Fire Department Operations 11

FSC105 Hazardous Materials/First Responder (3) OR  
Permission of Program Director (0) 0-3

FSC108 Fundamentals of Fire Prevention (3) OR  
FSC110 Wildland Firefighter (3) 3

(FSC110 is recommended)

FSC113 Introduction to Fire Suppression 3  
 FSC117 Fire Apparatus 3  
 FSC118 Fire Hydraulics 3  
 FSC119 Introduction Fire Service Ethics 3  
 FSC130 Fitness for Firefighters/CPAT (1) OR  
 Verification of CPAT completion (0) 0-1

FSC134 Fitness and Conditioning for Firefighters (3) OR

FSC234 Fitness and Wellness for Firefighter Candidates (3) 3

(FSC234 is recommended for students who have already completed the Fire Academy equivalent of FSC102)

FSC174 Functions of Command 2  
 FSC208 Firefighter Safety and Building Construction 3  
 FSC215 Customer Service in the Public Sector 3

FYE101 Introduction to College, Career and Personal Success (1) OR  
 FYE103 Exploration of College, Career and Personal Success (3) 1-3

### Restricted Electives

Credits: 1-3

FSC+++++ Any Fire Science Technology course.

Recommend the following:

FSC202 Supervisory Training for Firefighters 3  
 FSC204 Firefighting Tactics and Strategy 3  
 FSC282AC Service-Learning Experience in Fire Science 3  
 FSC296WC Cooperative Education 3

### General Education Requirements

General Education Requirement Credits: 22-28

General Education Core Credits: 12-18

First-Year Composition Credits: 6

ENG101 First-Year Composition (3) OR  
 ENG107 First-Year Composition for ESL (3) AND  
 ENG102 First-Year Composition (3) OR  
 ENG108 First-Year Composition for ESL (3) 6

Oral Communication Credits: 3

COM100 Introduction to Human Communication (3) OR  
 COM110 Interpersonal Communication (3) OR  
 COM225 Public Speaking (3) OR  
 COM230 Small Group Communication (3) 3  
 COM100 is recommended.

Critical Reading Credits: 0-3  
CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

Mathematics Credits: 3-6  
MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR  
MAT145 College Mathematics with Review (5) OR  
MAT146 College Mathematics with Review (6) OR  
Equivalent or higher level mathematics course in the Mathematical Applications [MA] area (3-6)  
3-6

General Education Distribution Credits: 10

Humanities and Fine Arts Credits: 3  
Any approved general education course from the Humanities, Fine Arts and Design [HU] area.

Social and Behavioral Sciences Credits: 3  
Any approved general education course from the Social and Behavioral Sciences [SB] area.

Natural Sciences Credits: 4  
Any approved general education course from the Natural Sciences [SG/SQ] area.

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=187230>

Starting Term: 2024 Fall  
Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN FORENSIC SCIENCE**

Total Credits: 60-64  
Major Code: 3183

### **Description**

The Associate in Applied Science (AAS) in Forensic Science provides the student with a specialization in forensic investigation as it relates to crime. The curriculum presents a specialized scope of knowledge about photography, collection and preservation of evidence, and investigative strategies. The program provides students with an important knowledge base for investigative specialization in a wide range of disciplines and careers. This degree pathway also provides students with the opportunity to complete two Certificates of Completion (CCL) in Crime Scene Investigation, and Fingerprint Identification and Photography.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 32-44

AJS101	Introduction to Criminal Justice	3	
AJS123	Ethics and the Administration of Justice	3	
AJS275	Criminal Investigation I	3	
AJS290BN	Courtroom Testimony Seminar	1	
AJS215	Criminalistics: Physical Evidence (3) OR		
AJS219	Crime Scene Technology: Physical Evidence (3) OR		
FOR105	Forensic Science: Physical Evidence (4)	3-4	
AJS216	Criminalistics: Biological Evidence (3) OR		
FOR106	Forensic Science: Biological Evidence (4)	3-4	
FYE101	Introduction to College, Career and Personal Success (1) OR		
FYE103	Exploration of College, Career and Personal Success (3)	1-3	

Students should select courses from one of the following specializations based on career goals.

### Specialization 1: Crime Scene (15 credits)

AJS109	Substantive Criminal Law	3	
AJS210	Constitutional Law	3	
AJS213	Evidence Technology: Fingerprints	3	
AJS214	Evidence Technology/Photography	3	
AJS260	Procedural Criminal Law	3	

### Specialization 2: Lab Science (23 credits)

BIO181	General Biology (Majors) I	4	
BIO182	General Biology (Majors) II	4	
CHM151	General Chemistry I	3	
CHM151LL	General Chemistry I Laboratory	1	
CHM152	General Chemistry II	3	
CHM152LL	General Chemistry II Laboratory	1	
FOR286	Principles of Forensic Science	4	

Any course or combination of courses that include HU, C, and either G or H General Education designations. 3

## Restricted Electives

Credits: 3

Students must complete three (3) credits of restricted electives.

Students interested in Specialization 1: Crime Scene

CIS105	Survey of Computer Information Systems (3) OR		
BPC110	Computer Usage and Applications (3) OR		

AJS+++++ Any AJS Administration of Justice Studies course not listed in the required courses area. (3) 3

Students interested in Specialization 2: Lab Science

CIS105 Survey of Computer Information Systems (3) OR  
BPC110 Computer Usage and Applications (3) 3

## Free Electives

Credits: 0-13

Students must choose zero to thirteen (0-13) additional credits of General Elective courses. Total number of General Electives required will largely depend upon specialization selected.

## General Education Requirements

General education requirements

General Education Requirement Credits: 12-21

General Education Core Credits: 12-17

First-Year Composition Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3)

Oral Communication Credits: 3

COM225 Public Speaking 3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent by assessment (0) 0-3

Mathematics Credits: 3-5

For Specialization 1: Crime Scene

MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR  
Higher course with an [MA] general education designation 3-5

For Specialization 2: Lab Science

MAT150 College Algebra/Functions (5) OR  
MAT151 College Algebra/Functions (4) OR  
MAT152 College Algebra/Functions (3) OR  
Higher course with an [MA] general education designation 3-5

General Education Distribution Credits: 0-4

Humanities and Fine Arts Credits: 0  
Met by AJS123 in Required Courses area

Social and Behavioral Sciences Credits: 0  
Met by AJS101 in Required Courses area

Natural Sciences Credits: 0-4  
For Specialization 1: Crime Scene  
Any approved general education course from the Natural Sciences area (4) OR

May be met by FOR105 or FOR106 in Required Courses area (0) 0-4

#### Recommended

CHM130 Fundamental Chemistry (3) AND  
CHM130LL Fundamental Chemistry Laboratory (1) OR

CHM151 General Chemistry I (3) AND  
CHM151LL General Chemistry I Laboratory (1) OR

FOR105 Forensic Science: Physical Evidence (4) OR  
FOR106 Forensic Science: Biological Evidence (4) 4

For Specialization 2: Lab Science  
Met by CHM151 and CHM151LL in Required Courses area

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=179415>

Starting Term: 2023 Fall  
Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN GENERAL BUSINESS**

Total Credits: 62-69  
Major Code: 3148

### **Description**

The Associate in Applied Science (AAS) in General Business program is designed to meet the needs of students who wish a broad overview of business and desire not to enroll in a specialized curriculum in business. The program is designed to acquaint students with major subject areas of business, to improve the student's business vocabulary, and to provide students with an understanding of influencing factors in business decision making and activities. In addition, this program may aid a student in recognizing a specific business field to be pursued in future studies. A Certificate of Completion (CCL) in General Business is available.



## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 22-24

ACC111	Accounting Principles I	3
CIS105	Survey of Computer Information Systems	3
FYE101	Introduction to College, Career and Personal Success (1)	OR
FYE103	Exploration of College, Career and Personal Success (3)	1-3
GBS120	Workplace Communication Skills (3)	OR
GBS233	Business Communication (3)	3
GBS151	Introduction to Business	3
GBS205	Legal, Ethical and Regulatory Issues in Business	3
MGT175	Business Organization and Management (3)	OR
MGT251	Human Relations in Business (3)	3
MKT271	Principles of Marketing	3

## Restricted Electives

Credits: 18

Students should select 18 credits from the following courses/subjects. Any 100/200 level courses in the following subjects can be used, except courses used to satisfy the Required Courses area.

ACC+++ Any ACC Accounting course(s)  
CIS114DE Excel Spreadsheet 3  
CIS117DM Microsoft Access: Database Management 3  
CIS133DA Internet/Web Development Level I 3  
EPS+++ Any EPS Entrepreneurial Studies course(s)  
GBS+++ Any GBS General Business course(s)  
IBS+++ Any IBS International Business course(s)  
MGT+++ Any MGT Management course(s)  
MKT+++ Any MKT Marketing course(s)  
REA+++ Any REA Real Estate course(s)  
SBS+++ Any SBS Small Business Management course(s)  
TQM+++ Any TQM Total Quality Management course(s)

## General Education Requirements

General Education Requirement Credits: 22-27

General Education Core Credits: 12-17

First-Year Composition Credits: 6  
ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3)

Oral Communication Credits: 3  
COM100 Introduction to Human Communication (3)  
COM110 Interpersonal Communication (3)  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 3

Critical Reading Credits: 0-3  
CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent by assessment 0-3

Mathematics Credits: 3-5  
Any approved general education course from the Mathematics area.

General Education Distribution Credits: 10

Humanities and Fine Arts Credits: 3

Any approved general education course in the Humanities, Arts and Design area.

Social and Behavioral Sciences Credits: 3

ECN211 Macroeconomic Principles (3) OR  
ECN212 Microeconomic Principles (3) OR  
SBU200 Society and Business (3) 3

Natural Sciences Credits: 4  
Any approved general education course in the Natural Sciences area.

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm3?id=182625>

Starting Term: 2023 Fall  
Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN GEOSPATIAL TECHNOLOGIES**

Total Credits: 61-73  
Major Code: 3108

### **Description**

The Associate in Applied Science (AAS) in Geospatial Technologies prepares students for entry level positions within the field of Geographic Information Systems. The Geospatial Technologies program will also provide students with the educational foundation necessary for a four-year degree. A Certificate of Completion (CCL) is also available.

## Program Notes

Students must earn a grade of C or better in all courses within the program. Program is designed for students with varying skills; consult with a program director. Depending on a student's educational experience, additional coursework may be needed to be eligible for MAT220 or MAT221.

## Required Courses

Credits: 29-33

CIS105	Introduction to Computer Information Systems	3
FYE101	Introduction to College, Career and Personal Success (1) OR	
FYE103	Exploration of College, Career and Personal Success (3)	1-3
GCU102	Introduction to Human Geography	3
GCU/GPH298++	Special Projects	1-3
GIS205	Geographic Information Technologies	3
GIS211	Geographic Information Science	4
GIS220	Introduction to ArcPy Scripting	3
GIS222	Geographic Information Science	3
GPH113	Introduction to Physical Geography	4
GPH211	Landform Processes	4

## Restricted Electives

Credits: 9-13

### Specialization 1: Technician

CIS163AA	Java Programming Level I	3
CIS117DM	Microsoft Access: Database Management	3
GIS223	Introduction to Digital Image Processing	3

### Specialization 2: Analyst/Developer

CSC110	Introduction to Computer Science (Java)	3
CIS276DB	SQL Server Database3	
GIS223	Introduction to Digital Image Processing	3

### Related Area

GPH212	Introduction to Meteorology I (4) OR	
GPH213	Climate and Weather (3) OR	
GPH267	Extreme Weather and Climate (3)	3-4

### Specialization 3: Transfer Emphasis

CSC110	Introduction to Computer Science (Java)	3
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CSC205AB Object Oriented Programming and Data Structures 4

Related Area

GPH212 Introduction to Meteorology I (4) OR  
GPH213 Climate and Weather (3) OR  
GPH267 Extreme Weather and Climate (3) 3-4

**Free Electives**

Credits: 0-5

Students must select 0-5 credits of any course with a CIS prefix in consultation with their program advisor to further develop skills in the areas of Geographic Information Systems (GIS).

**General Education Requirements**

General Education Requirement Credits: 18-24

General Education Core Credits: 12-18

First-Year Composition Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Oral Communication Credits: 3

COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

Mathematics Credits: 3-6

Specialization 1: Technician

Any approved general education course in the Mathematics [MA] area 3-6

Specialization 2: Analyst/Developer

MAT120 Intermediate Algebra (5) OR  
MAT121 Intermediate Algebra (4) OR  
MAT122 Intermediate Algebra (3) OR  
MAT126 Intermediate Algebra with Review (6) OR  
MAT150 College Algebra/Functions (5) OR  
MAT151 College Algebra/Functions (4) OR  
MAT152 College Algebra/Functions (3) OR  
MAT155 College Algebra/Functions with Review (5) OR  
MAT156 College Algebra/Functions with Review (6) OR

Higher course in the Mathematics [MA] area (3-5) 3-6

Specialization 3: Transfer Emphasis

MAT220 Calculus with Analytic Geometry I (5) OR  
MAT221 Calculus with Analytic Geometry I (4) 4-5

General Education Distribution Credits: 6

Humanities and Fine Arts Credits: 3

Any approved general education course from the Humanities, Arts and Design [HU] area.3

Social and Behavioral Sciences Credits: 3

Any approved general education course from the Social-Behavioral Sciences [SB] area. 3

Natural Sciences Credits: 0

Met by GPH211 in the Required Courses area

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=187297>

Starting Term: 2024 Fall

Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN GRAPHIC DESIGN**

Total Credits: 61-68

Major Code: 3201

### **Description**

The Associate in Applied Science (AAS) in Graphic Design develops the knowledge and skills required in the areas of photography, digital imaging, and graphic design. The coursework includes creating graphic designs, including images, layouts, typography, packaging, motion and interactive graphics, and branding in various print and digital media. This degree prepares students for employment and upgrades the skills of persons employed in occupations such as production artists, graphic designers, freelance artist-designers, and art directors. A Certificate of Completion (CCL) in Graphic Design is also available.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 33-37

AVC169 2D Media Design 3  
AVC177 Digital Photographic Imaging I 3

AVC183	Digital Graphic Arts I	3
AVC248	Design Self Promotion (3) OR	
ART255	Art Marketing (3)	3
AVC283	Digital Graphic Arts II	3
AVC100	Introduction to Digital Arts	1
ART111	Drawing I (3) OR	
ART116	Life Drawing I (3)	3
ART113	Color (3) OR	
AVC114	Digital Color (3)	3
AVC142	Introduction to Digital Photography	3
AVC178	Digital Arts Studies	3
AVC/MMT190	Art of Web Site Design	3

Capstone/Internship Course:

AVC280++	Digital Media Arts and Design Capstone (1-3) OR	
AVC297++	Computer Graphic Design Internship (1-3)	1-3

FYE101	Introduction to College, Career and Personal Success (1) OR	
FYE103	Exploration of College, Career and Personal Success (3)	1-3

## Restricted Electives

Credits: 3

Students must select three (3) credits from the following list of courses:

ART103	Typography in the Digital Age	3
AVC150	Multimedia Storytelling	3
AVC175	Electronic Publishing Design I	3
AVC192	Advanced Web Presentation Design	3
AVC200	Animation and Interactivity	3
AVC210	Design Tools for Imagery, Production, and Publishing	3
AVC/THO246	Digital Fabrication	3
AVC289	Computer Illustration	3

## Free Electives

Credits: 0-3

Select additional courses 100-level or higher to complete the minimum credits required for this degree. Consult with the Program Director or an Academic Advisor.

## General Education Requirements

General Education Requirement Credits: 22-28

General Education Core Credits: 12-18

First-Year Composition Credits: 6  
ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Oral Communication Credits: 3  
COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 3

Critical Reading Credits: 0-3  
CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

Mathematics Credits: 3-6  
Any approved general education course from the Mathematics area 3-6

Recommended for students planning to transfer to a four-year university:

MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR  
MAT145 College Mathematics with Review (5) OR  
MAT146 College Mathematics with Review (6) 3-6

General Education Distribution Credits: 10

Humanities and Fine Arts Credits: 3  
Students who intend to transfer should choose either ARH101 or ARH102 to fulfill the [HU] requirement for transfer.

ARH101 Art from Prehistory Through Middle Ages (3) OR  
ARH102 Art from Renaissance to Modernism (3) OR  
ARH110 History of Graphic Design (3) 3

Social and Behavioral Sciences Credits: 3  
Any approved general education course from the Social-Behavioral Sciences area.

Natural Sciences Credits: 4  
Any approved general education course from the Natural Sciences area.

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=182854>

Starting Term: 2024 Fall  
Final Term: 9999

# ASSOCIATE IN APPLIED SCIENCE (AAS) IN ILLUSTRATION AND SEQUENTIAL ART

Total Credits: 61-74  
Major Code: 3203

## Description

The Associate in Applied Science (AAS) in Illustration and Sequential Art is designed for the student who wishes to develop an area of specialization in illustration and comics and sequential art. Students will develop narratives through traditional and digital media. The program emphasizes art principles, knowledge, and skills needed to solve design and compositional problems. Areas of emphasis include comic book and sequential art, illustration for publications, and storyboarding. It allows for the development of an individual's personal interest in this area, prepares students for employment, and upgrades skills of those already employed in this field. Employment opportunities are available in a variety of fields including, but not limited to, freelance artist-designer, concept artist, comics/sequential art, visual development artist for gaming/film, and storyboarder. A Certificate of Completion (CCL) in Illustration and in Sequential Art is also available.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 24-28

ART111	Drawing I	3	
AVC100	Introduction to Digital Arts	1	
AVC169	2D Media Design	3	
AVC177	Digital Photographic Imaging I		3
AVC289	Computer Illustration	3	

ART113	Color (3) OR		
AVC114	Digital Color (3)	3	

ART116	Life Drawing I	3	
AVC178	Digital Arts Studies	3	

Capstone/Internship Course:

AVC280++	Digital Media Arts and Design Capstone (1-3) OR		
AVC297++	Computer Graphic Design Internship (1-3)	1-3	

FYE101	Introduction to College, Career and Personal Success (1) OR		
FYE103	Exploration of College, Career and Personal Success (3)	1-3	



## Restricted Electives

Credits: 9-18

### Specialization 1: Sequential Art

AVC119	Penciling for Sequential Art	3
AVC120	Inking for Sequential Art	3
AVC219	Coloring, Toning and Lettering for Sequential Art	3
AVC220	Publishing for the Comic Industry	3
AVC221	Comics Creation	3

CRW172	Introduction to Comic Book Writing (3) OR	
CRW176	Writing Narrative for Video Games (3) OR	
CRW190	Introduction to Screenwriting (3)	3

### Specialization 2: Illustration

AVC248	Design Self Promotion (3) OR	
ART255	Art Marketing (3)	3

Students must select six (6) credits from the following list of courses. Students may select from one emphasis or may select from different emphases to fulfill the six (6) credit requirement.

### Animation Emphasis

AVC/MMT184	Digital Animation I	3
AVC/MMT185	3D Modeling for Animation I	3

### Drawing Emphasis

ART117	Life Drawing II	3
ART118	Art Anatomy	3
ART122	Drawing and Composition II	3

### Painting Emphasis

ART165	Watercolor Painting I	3
ART166	Watercolor Painting II	3
ART167	Painting I	3
ART168	Painting II	3
ART263	Figure Painting	3

## Free Electives

Credits: 0-6

Select additional courses 100-level or higher to complete the minimum credits required for this degree. Consult with the Program Director or an Academic Advisor.

## General Education Requirements

General Education Requirement Credits: 22-28

General Education Core Credits: 12-18

First-Year Composition Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Oral Communication Credits: 3

COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment. (0) 0-3

Mathematics Credits: 3-6

Any approved general education course from the Mathematics area 3-6

Recommended for students planning to transfer to a four-year university:

MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR  
MAT145 College Mathematics with Review (5) OR  
MAT146 College Mathematics with Review (6) 3-6

General Education Distribution Credits: 10

Humanities and Fine Arts Credits: 3

ARH101 Art from Prehistory Through Middle Ages (3) OR  
ARH102 Art from Renaissance to Modernism (3) 3

Social and Behavioral Sciences Credits: 3

Any approved general education course from the Social-Behavioral Sciences area.

Natural Sciences Credits: 4

Any approved general education course from the Natural Sciences area.

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=183073>

Starting Term: 2024 Fall

Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN INFORMATION TECHNOLOGY**

Total Credits: 60-69

Major Code: 3196

## Description

The Associate in Applied Science (AAS) in Information Technology (IT) program is designed to provide students with skills to meet information technology needs across industries. This program includes instruction in the principles of computer hardware components and business software, programming, databases, networking, customer service, web development, and information systems and project management. Coursework helps prepare students for a variety of industry-recognized examinations and certifications. This degree also provides students with the opportunity to earn one of the following Certificate of Completion (CCL): Cybersecurity Fundamentals, Database Development, Desktop Support, Foundations of Mobile App Development, Microsoft Office Professional, Microsoft System Administration, Programming and Systems Analysis Level I, Oracle Database Operations, Red Hat Linux Engineer, and Web Foundations.

## Program Notes

Students must earn a grade of C or better in all courses within the program. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 33-41

FYE101 Introduction to College, Career and Personal Success (1) OR  
FYE103 Exploration of College, Career and Personal Success (3) 1-3

Complete all courses in the specialization below that best aligns with your academic and professional goals. Consult with an academic, faculty, or program advisor.

Specialization 1: Cybersecurity Fundamentals Credits: 33-34  
Information Technology Core Credits: 24-25

BPC270 A+ Exam Prep: Operating System Configuration and Support (3) OR  
MST150++ Any Microsoft Windows course (3) 3

CIS105 Survey of Computer Information Systems 3

CIS117DM Microsoft Access: Database Management (3) OR  
CIS119DO Introduction to Oracle: SQL (3) OR  
CIS276DA MySQL Database (3) OR  
CIS276DB SQL Server Database (3) 3

CIS126DL Linux Operating System (3) OR  
CIS126RH Red Hat System Administration I (3) 3

CIS133DA Internet/Web Development Level I 3  
CIS156 Python Programming: Level I 3

CIS190 Introduction to Networking (3) OR  
CNT140AB Introduction to Networks (4) 3-4

CIS224 Project Management Microsoft Project for Windows (3) OR  
CIS250 Management of Information Systems (3) 3

Cybersecurity Fundamentals Credits: 9  
CIS111 Ethics in Information Technology (3) OR  
ITS120 Legal, Ethical and Regulatory Issues (3) 3

CIS270 Essentials of Network and Information Security (3) OR  
ITS110 Information Security Fundamentals (3) 3

ITS240 Ethical Hacking and Network Defense 3

Related Area Credits: 0-5

Select courses with one of the following prefixes to complete the minimum total program credits required for this degree:

BPC+++++ Any BPC Business-Personal Computers courses  
CIS+++++ Any CIS Computer Information Systems courses  
CLD+++++ Any CLD Cloud Computing courses  
CNT+++++ Any CNT Cisco Network Technology courses  
ITS+++++ Any ITS Information Technology Security courses  
MST+++++ Any MST Microsoft Technology courses

Specialization 2: Database Development 36-38  
Information Technology Core Credits: 21-22

BPC270 A+ Exam Prep: Operating System Configuration and Support (3) OR  
CIS126DL Linux Operating System (3) OR  
CIS126RH Red Hat System Administration I (3) OR  
MST150++ Microsoft Windows (3) 3

CIS105 Survey of Computer Information Systems 3  
CIS119DO Introduction to Oracle: SQL 3  
CIS133DA Internet/Web Development Level I 3

CIS156 Python Programming: Level I (3) OR  
CIS162++ Any C Programming: Level I course (3) OR  
CIS163AA Java Programming: Level I (3) 3

CIS190 Introduction to Networking (3) OR  
CNT140AB Introduction to Networks (4) 3-4

CIS224 Project Management Microsoft Project for Windows (3) OR  
CIS250 Management of Information Systems (3) 3

Database Development Credits: 15  
CIS117DM Microsoft Access: Database Management (3) OR  
CIS154 Database Modeling and Design (3) 3

CIS150++ Programming Fundamentals 3

CIS164AB Oracle: PL/SQL Programming (3) OR  
 CIS276DA MySQL Database (3) OR  
 CIS276DB SQL Server Database (3) 3

CIS217AM Advanced Microsoft Access: Database Management (3) OR  
 CIS276DB SQL Server Database (3) 3

CIS225AB Object-Oriented Analysis and Design 3

Related Area Credits : 0-2

Select courses with one of the following prefixes to complete the minimum total program credits required for this degree:

BPC+++++ Any BPC Business-Personal Computers courses  
 CIS+++++ Any CIS Computer Information Systems courses  
 CLD+++++ Any CLD Cloud Computing courses  
 CNT+++++ Any CNT Cisco Network Technology courses  
 ITS+++++ Any ITS Information Technology Security courses  
 MST+++++ Any MST Microsoft Technology courses

Specialization 3: Desktop Support Credits: 32-38

Information Technology Core Credits: 24-25

BPC270 A+ Exam Prep: Operating System Configuration and Support 3  
 CIS105 Survey of Computer Information Systems 3

CIS117DM Microsoft Access: Database Management (3) OR  
 CIS119DO Introduction to Oracle: SQL (3) OR  
 CIS276DA MySQL Database (3) OR  
 CIS276DB SQL Server Database (3) 3

CIS126DL Linux Operating System (3) OR  
 CIS126RH Red Hat System Administration I (3) 3

CIS133DA Internet/Web Development Level I 3

CIS150AB Object-Oriented Programming Fundamentals (3) OR  
 CIS156 Python Programming: Level I (3) OR  
 CIS162++ Any C Programming: Level I course (3) OR  
 CIS163AA Java Programming: Level I (3) 3

CIS190 Introduction to Networking (3) OR  
 CNT140AB Introduction to Networks (4) 3-4

CIS224 Project Management Microsoft Project for Windows (3) OR  
 CIS250 Management of Information Systems (3) 3

Desktop Support Credits: 6

BPC170 A+ Exam Prep: Computer Hardware Configuration and Support 3

CIS102DA Customer User Support 3

Related Area Credits: 2-8

Select courses with one of the following prefixes to complete the minimum total program credits required for this degree:

BPC+++++ Any BPC Business-Personal Computers courses  
CIS+++++ Any CIS Computer Information Systems courses  
CLD+++++ Any CLD Cloud Computing courses  
CNT+++++ Any CNT Cisco Network Technology courses  
ITS+++++ Any ITS Information Technology Security courses  
MST+++++ Any MST Microsoft Technology courses

Specialization 4: Foundations of Mobile App Development Credits: 33-38

Information Technology Core Credits: 21-22

CIS105 Survey of Computer Information Systems 3

BPC270 A+ Exam Prep: Operating System Configuration and Support (3) OR  
CIS126DL Linux Operating System (3) OR  
CIS126RH Red Hat System Administration I (3) OR  
MST150++ Microsoft Windows (3) 3

CIS117DM Microsoft Access: Database Management (3) OR  
CIS119DO Introduction to Oracle: SQL (3) OR  
CIS276DA MySQL Database (3) OR  
CIS276DB SQL Server Database (3) 3

CIS133DA Internet/Web Development Level I 3  
CIS162++ Any C Programming: Level I course 3  
CIS190 Introduction to Networking (3) OR  
CNT140AB Introduction to Networks (4) 3-4

CIS224 Project Management Microsoft Project for Windows (3) OR  
CIS250 Management of Information Systems (3) 3

Foundations of Mobile App Development Credits: 12

CIS120DF Introduction to Adobe Photoshop 3  
CIS165 Introduction to IOS Application Development 3  
CIS165DA Introduction to Android Application Development 3  
CIS165DB C#/VB.NET: Windows 8 App Development (3) OR  
CIS165DC Xamarin/C# Cross Platform Development (3) 3

Related Area Credits: 0-5

Select courses with one of the following prefixes to complete the minimum total program credits required for this degree:

BPC+++++ Any BPC Business-Personal Computers courses  
CIS+++++ Any CIS Computer Information Systems courses  
CLD+++++ Any CLD Cloud Computing courses

CNT+++++ Any CNT Cisco Network Technology courses  
ITS+++++ Any ITS Information Technology Security courses  
MST+++++ Any MST Microsoft Technology courses

Specialization 5: Microsoft Office Professional Credits: 31-38

Information Technology Core Credits: 18-19

CIS105 Survey of Computer Information Systems 3  
CIS117DM Microsoft Access: Database Management 3  
CIS133DA Internet/Web Development Level I 3

CIS150AB Object-Oriented Programming Fundamentals (3) OR  
CIS156 Python Programming: Level I (3) OR  
CIS162++ Any C Programming: Level I course (3) OR  
CIS163AA Java Programming: Level I (3) 3

CIS190 Introduction to Networking (3) OR  
CNT140AB Introduction to Networks (4) 3-4

MST150++ Microsoft Windows (3) OR  
BPC270 A+ Exam Prep: Operating System Configuration and Support (3) 3

Microsoft Office Professional Credits: 11-13 BPC/OAS111AA Computer  
Keyboarding (1) OR  
Permission of Program Director (0) 0-1

CIS113DE Microsoft Word: Word Processing 3  
CIS114DE Excel Spreadsheet 3  
CIS118DB Desktop Presentation: PowerPoint 3

CIS124AA Project Management Software: Level I (1) AND  
CIS124BA Project Management Software: Level II (1) OR  
CIS224 Project Management Microsoft Project for Windows (3) 2-3

Related Area Credits: 0-8

Select courses with one of the following prefixes to complete the minimum total program credits required for this degree:

BPC+++++ Any BPC Business-Personal Computers courses  
CIS+++++ Any CIS Computer Information Systems courses  
CLD+++++ Any CLD Cloud Computing courses  
CNT+++++ Any CNT Cisco Network Technology courses  
ITS+++++ Any ITS Information Technology Security courses  
MST+++++ Any MST Microsoft Technology courses

Specialization 6: Microsoft Server 36-38

Information Technology Core: 21-22

CIS105 Survey of Computer Information Systems 3

CIS117DM Microsoft Access: Database Management (3) OR

CIS119DO Introduction to Oracle: SQL (3) OR  
 CIS276DA MySQL Database (3) OR  
 CIS276DB SQL Server Database (3) 3  
  
 CIS133DA Internet/Web Development Level I 3  
  
 CIS150AB Object-Oriented Programming Fundamentals (3) OR  
 CIS156 Python Programming: Level I (3) OR  
 CIS162++ Any C Programming: Level I course (3) OR  
 CIS163AA Java Programming: Level I (3) 3  
  
 CIS190 Introduction to Networking (3) OR  
 CNT140AB Introduction to Networks (4) 3-4  
  
 CIS224 Project Management Microsoft Project for Windows (3) OR  
 CIS250 Management of Information Systems (3) 3  
  
 MST150++ Microsoft Windows 3

Microsoft Server Credits: 15

CIS121AH Microsoft PowerShell/Command Line Operations 3  
 MST155DC Installation, Storage, and Compute with Windows Server 4  
 MST157DC Networking with Windows Server 4  
 MST158DC Identity Management with Windows Server 2016 4

Related Area Credits: 0-2

Select courses with one of the following prefixes to complete the minimum total program credits required for this degree:

BPC+++++ Any BPC Business-Personal Computers courses  
 CIS+++++ Any CIS Computer Information Systems courses  
 CLD+++++ Any CLD Cloud Computing courses  
 CNT+++++ Any CNT Cisco Network Technology courses  
 ITS+++++ Any ITS Information Technology Security courses  
 MST+++++ Any MST Microsoft Technology courses

Specialization 7: Oracle Database Operations 32-38

Information Technology Core Credits: 21-22

BPC270 A+ Exam Prep: Operating System Configuration and Support (3) OR  
 CIS126DL Linux Operating System (3) OR  
 CIS126RH Red Hat System Administration I (3) OR  
 MST150++ Microsoft Windows (3) 3

CIS105 Survey of Computer Information Systems 3  
 CIS119DO Introduction to Oracle: SQL 3  
 CIS133DA Internet/Web Development Level I 3

CIS150AB Object-Oriented Programming Fundamentals (3) OR  
 CIS156 Python Programming: Level I (3) OR



CIS162++ Any C Programming: Level I course (3) OR  
 CIS163AA Java Programming: Level I (3) 3

CIS190 Introduction to Networking (3) OR  
 CNT140AB Introduction to Networks (4) 3-4

CIS224 Project Management Microsoft Project for Windows (3) OR  
 CIS250 Management of Information Systems (3) 3

Oracle Database Operations Credits: 9

CIS119DP Oracle: Database Administration 3  
 CIS154 Database Modeling and Design 3  
 CIS164AB Oracle: PL/SQL Programming 3

Related Area Credits : 2-8  
 Select courses with one of the following prefixes to complete the minimum total program credits required for this degree:

BPC+++++ Any BPC Business-Personal Computers courses  
 CIS+++++ Any CIS Computer Information Systems courses  
 CLD+++++ Any CLD Cloud Computing courses  
 CNT+++++ Any CNT Cisco Network Technology courses  
 ITS+++++ Any ITS Information Technology Security courses  
 MST+++++ Any MST Microsoft Technology courses

Specialization 8: Programming and Systems Analysis Level 1 Courses: 32-38  
 Information Technology Core Credits: 21-22

CIS105 Survey of Computer Information Systems 3  
 CIS119DO Introduction to Oracle: SQL (3) OR  
 CIS276DA MySQL Database (3) OR  
 CIS276DB SQL Server Database (3) 3

CIS126DL Linux Operating System (3) OR  
 CIS126RH Red Hat System Administration I (3) OR  
 MST150++ Microsoft Windows (3) 3

CIS133DA Internet/Web Development Level I 3  
 CIS150AB Object-Oriented Programming Fundamentals 3  
 CIS190 Introduction to Networking (3) OR  
 CNT140AB Introduction to Networks (4) 3-4

CIS224 Project Management Microsoft Project for Windows (3) OR  
 CIS250 Management of Information Systems (3) 3

Programming and Systems Analysis Credits: 9

CIS159 Visual Basic Programming I (3) OR  
 CIS162++ Any C Programming: Level I course (3) OR  
 CIS163AA Java Programming: Level I (3) OR  
 CIS165++ Any Mobile Application Development course (3) 3

CIS166++ Any Web Scripting course 3  
GBS151 Introduction to Business 3

Related Area Credits: 1-8

Select courses with one of the following prefixes to complete the minimum total program credits required for this degree:

BPC+++++ Any BPC Business-Personal Computers courses  
CIS+++++ Any CIS Computer Information Systems courses  
CLD+++++ Any CLD Cloud Computing courses  
CNT+++++ Any CNT Cisco Network Technology courses  
ITS+++++ Any ITS Information Technology Security courses  
MST+++++ Any MST Microsoft Technology courses

Specialization 9: Redhat Linux Engineer 32-38  
Information Technology Core Credits: 21-22

CIS105 Survey of Computer Information Systems 3

CIS117DM Microsoft Access: Database Management (3) OR  
CIS119DO Introduction to Oracle: SQL (3) OR  
CIS276DA MySQL Database (3) OR  
CIS276DB SQL Server Database (3) 3

CIS126RH Red Hat System Administration I 3  
CIS133DA Internet/Web Development Level I 3

CIS150AB Object-Oriented Programming Fundamentals (3) OR  
CIS156 Python Programming: Level I (3) OR  
CIS162++ Any C Programming: Level I course (3) OR  
CIS163AA Java Programming: Level I (3) 3

CIS190 Introduction to Networking (3) OR  
CNT140AB Introduction to Networks (4) 3-4

CIS224 Project Management Microsoft Project for Windows (3) OR  
CIS250 Management of Information Systems (3) 3

Redhat Linux Engineer Credits: 6

CIS238RH Red Hat System Administration II 3  
CIS240RH Red Hat System Administration III 3

Related Area Credits: 5-11

Select courses with one of the following prefixes to complete the minimum total program credits required for this degree:

BPC+++++ Any BPC Business-Personal Computers courses  
CIS+++++ Any CIS Computer Information Systems courses  
CLD+++++ Any CLD Cloud Computing courses  
CNT+++++ Any CNT Cisco Network Technology courses  
ITS+++++ Any ITS Information Technology Security courses

MST+++++ Any MST Microsoft Technology courses

Specialization 10: Web Foundations Credits: 36-38

Information Technology Core Credits: 21-22

BPC270 A+ Exam Prep: Operating System Configuration and Support (3) OR

CIS126DL Linux Operating System (3) OR

CIS126RH Red Hat System Administration I (3) OR

MST150++ Microsoft Windows (3) 3

CIS105 Survey of Computer Information Systems 3

CIS117DM Microsoft Access: Database Management (3) OR

CIS119DO Introduction to Oracle: SQL (3) OR

CIS276DA MySQL Database (3) OR

CIS276DB SQL Server Database (3) 3

CIS133DA Internet/Web Development Level I 3

CIS150AB Object-Oriented Programming Fundamentals (3) OR

CIS156 Python Programming: Level I (3) OR

CIS162++ Any C Programming: Level I course (3) OR

CIS163AA Java Programming: Level I (3) 3

CIS190 Introduction to Networking (3) OR

CNT140AB Introduction to Networks (4) 3-4

CIS224 Project Management Microsoft Project for Windows (3) OR

CIS250 Management of Information Systems (3) 3

Web Foundation Credits: 15

CIS120DF Introduction to Adobe Photoshop 3

CIS136 Content Management Systems: WordPress 3

CIS166AA Introduction to Javascript 3

CIS233DA Internet/Web Development Level II 3

CIS235 e-Commerce 3

Related Area Credits: 0-2

Select courses with one of the following prefixes to complete the minimum total program credits required for this degree:

BPC+++++ Any BPC Business-Personal Computers courses

CIS+++++ Any CIS Computer Information Systems courses

CLD+++++ Any CLD Cloud Computing courses

CNT+++++ Any CNT Cisco Network Technology courses

ITS+++++ Any ITS Information Technology Security courses

MST+++++ Any MST Microsoft Technology courses

Specialization 11: A related Certificate of Completion (CCL) at the discretion of the Program Director (minimum of 11 credits) AND the following core courses with permission of the Program Director.

Information Technology Core Credits: 21-22

CIS105 Survey of Computer Information Systems 3

CIS117DM Microsoft Access: Database Management (3) OR  
CIS119DO Introduction to Oracle: SQL (3) OR  
CIS276DA MySQL Database (3) OR  
CIS276DB SQL Server Database (3) 3

BPC270 A+ Exam Prep: Operating System Configuration and Support (3) OR  
CIS126DL Linux Operating System (3) OR  
CIS126RH Red Hat System Administration I (3) OR  
MST150++ Microsoft Windows (3) 3

CIS150AB Object-Oriented Programming Fundamentals (3) OR  
CIS156 Python Programming: Level I (3) OR  
CIS162++ Any C Programming: Level I course (3) OR

CIS163AA Java Programming: Level I (3) 3

CIS190 Introduction to Networking (3) OR  
CNT140AB Introduction to Networks (4) 3-4

CIS133DA Internet/Web Development Level I 3  
CIS224 Project Management Microsoft Project for Windows (3) OR

CIS250 Management of Information Systems (3) 3

## General Education Requirements

General Education Requirement Credits: 22-28

General Education Core Credits: 12-18

First-Year Composition Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3)

Oral Communication Credits: 3

COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment 0-3

Mathematics Credits: 3-6

MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR  
MAT145 College Mathematics with Review (5) OR  
MAT146 College Mathematics with Review (6) OR  
Equivalent or higher level mathematics course in the Mathematical area. 3-6

General Education Distribution Credits: 10

Humanities and Fine Arts Credits: 3  
Any approved general education course from the Humanities, Arts and Design area. 3

Social and Behavioral Sciences Credits: 3  
Any approved general education course from the Social-Behavioral Sciences area. 3

Natural Sciences Credits: 4  
Any approved general education course from the Natural Science area. 4

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Starting Term: 2023 Fall  
Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN INSTRUCTIONAL ASSISTANCE**

Total Credits: 60-63  
Major Code: 3119

### **Description**

The Associate in Applied Science (AAS) in Instructional Assistance program is designed to prepare students for employment as an assistant to the classroom teacher in grades K through 12. The program emphasizes the philosophical, cultural, and linguistic processes involved in teaching children through required coursework in foundations of education combined with practical application within practicum experiences.

### **Program Notes**

Students must earn a grade of C or better for all courses required within the program.

### **Required Courses**

Credits: 19-21

CFS/ECH176 Child Development 3  
EDU220 Introduction to Serving English Language Learners (ELL) 3  
EDU221 Introduction to Education 3

EDU222	Introduction to the Exceptional Learner	3
EDU230	Cultural Diversity in Education	3
FYE101	Introduction to College, Career and Personal Success (1) OR	
FYE103	Exploration of College, Career and Personal Success (3)	1-3

Students must select one of the following technology/computer usage courses

BPC110	Computer Usage and Applications (3) OR	
CIS105	Survey of Computer Information Systems (3)	3

## Restricted Electives

Credits: 17-22

CFS101AH	Art Activities for the Young Child	1
CFS101AJ	Music Activities for the Young Child	1
CFS101AR	Learning with Toys	1
CFS160	Using Music, Speech and Movement with Children's Literature	1
ECH128	Early Learning Play and the Arts	3
CFS/ECH273	Math for the Young Child	1
ECH274	Books and Verse for the Young Child	1
CFS/ECH275	Literacy Development of the Young Child	1
ECH279	Early Childhood Curriculum Development	1
EDU101++	Tutor Training and Practicum (any suffixed course)	1-3
EDU236	Classroom Relationships	3
EDU270	Learning and the Brain	3
EDU272	Educational Psychology	3
EED282++	Service-Learning Experience in Early Childhood Education (any suffixed course)	1-3
EDU282++	Service-Learning Experience in Education (any suffixed course)	1-3
EDU/HUM/STO292	The Art of Storytelling	3
EDU298++	Special Projects (any suffixed course)	1-3
EED212	Guidance, Effective Interactions and the Environment	3
EED215	Early Learning: Health, Safety, Nutrition and Physical Fitness	3
EED245	Early Learning: Language Acquisition and Literacy Development	3
EED272	Early Childhood Educational Psychology	3
EED278	Early Learning Curriculum and Instruction - Birth to Age Eight	3
EED280	Standards, Observation & Assessment of Typical/Atypical Behaviors of Young Children Birth to Age Eight	3
ENG213	Introduction to the Study of Language	3
POS221	Arizona Constitution	1
PSY101	Introduction to Psychology	3
SLC201	Introduction to Linguistics	3
SOC101	Introduction to Sociology	3
SOC241	Racial and Ethnic Minorities	3
SWU171	Introduction to Social Work	3
THP211	Creative Drama	3
BPC110	Computer Usage and Applications (3) OR	
CIS105	Survey of Computer Information Systems (3)	3

Choose 6-8 credits from the following Foreign Language courses:

- ARB+++ Any ARB/Arabic course (6-8) OR
- FRE+++ Any FRE/French course (6-8) OR
- GER+++ Any GER/German course (6-8) OR
- ITA+++ Any ITA/Italian course (6-8) OR
- JPN+++ Any JPN/Japanese course (6-8) OR
- SPA+++ Any SPA/Spanish course (6-8) OR
- ASL+++ Any ASL American Sign Language course(s) (6-8)6-8

## General Education Requirements

General Education Requirement      Credits: 22-25

General Education Core      Credits: 12-15

First-Year Composition      Credits: 6

- ENG101      First-Year Composition (3) OR
- ENG107      First-Year Composition for ESL (3) AND
- ENG102      First-Year Composition (3) OR
- ENG108      First-Year Composition for ESL (3)    6

Oral Communication      Credits: 3

- COM100      Introduction to Human Communication (3) OR
- COM110      Interpersonal Communication (3) OR
- COM225      Public Speaking (3) OR
- COM230      Small Group Communication (3)      3

Critical Reading      Credits: 0-3

- CRE101      College Critical Reading and Critical Thinking (3) OR
- Equivalent as indicated by assessment      0-3

Mathematics      Credits: 3

- MAT112      Mathematical Concepts and Applications (3) OR
- Satisfactory completion of a higher-level mathematics course      3

General Education Distribution      Credits: 10

Humanities and Fine Arts      Credits: 3

- EDU/ENH291 Children's Literature    3

Social and Behavioral Sciences      Credits: 3

- HIS103      United States History to 1865 (3) OR
- POS110      American National Government (3) OR
- GCU/POS113 United States and Arizona Social Studies (3)      3

Natural Sciences      Credits: 4

- Any approved general education course from the Natural Sciences area.    4

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Starting Term: 2024 Fall  
Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN JOURNALISM AND NEW MEDIA STUDIES**

Total Credits: 61-67  
Major Code: 3120

### **Description**

The Associate in Applied Science (AAS) in Journalism and New Media Studies program is designed to provide students with general, practical and marketable skills that will enable them to seek entry-level employment in various media outlets, including: newspapers, magazines, community journals, online websites, radio and television. The program includes development of a portfolio that will exhibit students' abilities to write both news and feature stories. News judgment is also integrated as a critical component of the program. An awareness of global and cultural differences also forms a key element of this degree for the successful graduate. The curriculum combines coursework in journalism with a General Education component.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program. There are additional university transfer options within this pathway. Students should speak with the Program Director or an academic advisor to identify the best option to meet their academic and career goals.

### **Required Courses**

Credits: 37-39

BPC110	Computer Usage and Applications (3) OR	
CIS105	Survey of Computer Information Systems (3)	3
ENG235	Magazine Article Writing (3) OR	
JRN212	Writing for Broadcasts (3) OR	
JRN234	Feature Writing (3)	3
FYE101	Introduction to College, Career and Personal Success (1) OR	
FYE103	Exploration of College, Career and Personal Success (3)	1-3
JRN125	Photo Editing	3
JRN201	News Writing	3
JRN213	Writing for Online	3
JRN205	Copyediting	3
JRN210	News and Media Production	3
JRN225	Photojournalism	3
MCO120	Media and Society	3
MCO220	Cultural Diversity and the Media	3



Any combination of the following courses must be taken for a total of six (6) credits:

JRN101	Grammar and Style for Journalists	1
JRN240AC	Journalism Internship	3
JRN290	Publications Portfolio	1
JRN298AA	Special Projects	1
JRN298AB	Special Projects	2
JRN298AC	Special Projects	3

## Free Electives

Credits: 0-2

Select additional courses 100-level or higher to complete the minimum total program credits required for this degree. Consult with the Program Director or an Academic Advisor.

## General Education Requirements

General Education Requirement Credits: 22-28

General Education Core Credits: 12-18

First-Year Composition Credits: 6

ENG101	First-Year Composition (3) OR	
ENG107	First-Year Composition for ESL (3) AND	
ENG102	First-Year Composition (3) OR	
ENG108	First-Year Composition for ESL (3)	6

Oral Communication Credits: 3

COM100	Introduction to Human Communication (3) OR	
COM110	Interpersonal Communication (3) OR	
COM225	Public Speaking (3) OR	
COM230	Small Group Communication (3)	3

Critical Reading Credits: 0-3

CRE101	College Critical Reading and Critical Thinking (3) OR	
	Equivalent as indicated by assessment (0)	0-3

Mathematics Credits: 3-6

MAT140	College Mathematics (5) OR	
MAT141	College Mathematics (4) OR	
MAT142	College Mathematics (3) OR	
	Satisfactory completion of a higher level mathematics course	3-6

General Education Distribution Credits: 10

Humanities and Fine Arts Credits: 3

HIS103	United States History to 1865 (3) OR	
HIS108	United States History 1945 to the Present (3) OR	
AFR/HIS203	African-American History to 1865 (3) OR	
PHI101	Introduction to Philosophy (3) OR	
PHI103	Introduction to Logic (3) OR	
PHI105	Introduction to Ethics (3)	3

Social and Behavioral Sciences Credits: 3  
ECN211 Macroeconomic Principles (3) OR  
ECN212 Microeconomic Principles (3) OR  
POS110 American National Government (3) OR  
PSY101 Introduction to Psychology (3) OR  
SOC101 Introduction to Sociology (3) 3

Natural Sciences Credits: 4  
Any approved general education course from the Natural Sciences area.

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Starting Term: 2022 Fall  
Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN LANDSCAPE HORTICULTURE**

Total Credits: 64-72  
Major Code: 3030

### **Description**

The Associate in Applied Science (AAS) in Landscape Horticulture program helps prepare students for careers as gardeners, technicians, supervisors, managers, or business owners in wholesale or retail nurseries, florists, landscape design and construction operations, or landscape management companies. In addition, the program helps prepare students for careers with local, state, and federal government agencies involved with the technical phases of the Landscape Horticulture industry.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program. The course SSH111 cannot be used to satisfy both the Humanities, Arts and Design and Social-Behavioral Sciences areas. Must take three (3) credits from either Humanities, Arts and Design area or Social-Behavioral Sciences area.

### **Required Courses**

Credits: 38-43

AGB130	Establishing and Running an Agribusiness	3
AGB139	Agribusiness Computer Operations	3
AGL181	Landscape Construction Techniques	3
AGL189	Landscape Design I	3
AGS164	Plant Growth and Development	4
AGS182AA	Gardening Practices and Techniques	3
AGS183	Urban Plant Identification and Use	3

AGS192	Urban Plant Care	3	
AGS262	Irrigation Design, Installation, Operation, and Trouble Shooting		3
AGS268	Integrated Pest Management in the Cultivated Environment		4
AGS284	Lawn and Turf Care	3	
FYE101	Introduction to College, Career and Personal Success (1) OR		
FYE103	Exploration of College, Career and Personal Success (3)		1-3
SSH111	Sustainable Cities	3	
CHM130	Fundamental Chemistry (3) OR		
	Permission of Program Director (0)	0-3	

## Restricted Electives

Credits: 6

Students must select one (1) of the following two (2) specializations:

Specialization I: Residential Landscape Design  
 DFT105AA Computer Aided Drafting I: AutoCAD3  
 AGL/CAD269 Computer Aided Landscape Design 3

Specialization II: Nursery and Greenhouse Operations  
 AGS186 Greenhouse Management and Construction 3  
 AGS285 Propagation of Horticultural Plants 3

## General Education Requirements

General Education Requirement Credits: 19-22

General Education Core Credits: 12-15

First-Year Composition Credits: 6  
 ENG101 First-Year Composition (3) OR  
 ENG107 First-Year Composition for ESL (3) AND  
 ENG102 First-Year Composition (3) OR  
 ENG108 First-Year Composition for ESL (3) 6

Oral Communication Credits: 3  
 Any approved general education course in the Oral Communication area 3

Critical Reading Credits: 0-3  
 CRE101 College Critical Reading and Critical Thinking 3 OR  
 Equivalent as indicated by assessment 0-3

Mathematics Credits: 3  
 Any approved general education course in the Mathematics area 3

General Education Distribution Credits: 7

Humanities and Fine Arts Credits: 0-3

Met by SSH111 in Required Courses area or any approved general education course from the Humanities, Arts and Design area.

SH111 fulfills either Humanities, Arts and Design OR Social-Behavioral Sciences area.

Social and Behavioral Sciences Credits: 0-3

Met by SSH111 in Required Courses area or any approved general education course in the Social-Behavioral Sciences area.

SSH111 fulfills either Humanities, Arts and Design OR Social-Behavioral Sciences area.

Natural Sciences Credits: 4

AGS260 Soils 4

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Starting Term: 2023 Fall

Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN LICENSED RESIDENTIAL APPRAISER**

Total Credits: 61.5-73.5

Major Code: 3104

### **Description**

The Associate in Applied Science (AAS) in Licensed Residential Appraiser program prepares students for the appraisal of residential land and real property. Licensed Real Property Appraisal students will be prepared for the Appraisal Qualification Board (AQB)-approved Licensed Residential Real Property Appraiser examination or its equivalent. Upon completion students will have completed the necessary education requirements designated by the Appraisal Qualification Board (AQB) and Arizona Department of Real Estate (ADRE) for prelicensing education. The Licensed Residential Appraiser may appraise non-complex 1-4 residential units having a transaction value less than \$1,000,000 and complex 1-4 residential units having a transaction value less than \$250,000. This classification does not include the appraisal of subdivisions.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 39.5-45.5

CIS105 Survey of Computer Information Systems 3

FYE101 Introduction to College, Career and Personal Success (1) OR

FYE103 Exploration of College, Career and Personal Success (3) 1-3

MKT271	Principles of Marketing	3
OAS108	Business English	3
PSY101	Introduction to Psychology (3) OR Permission of Program Director (0)	0-3
PSY230	Introduction to Statistics (3) OR	
PSY230	Introduction to Statistics (3) AND	
PSY231	Laboratory for Statistics (1)	3-4
REA150	Supervisory Appraiser/Appraiser Trainee	1
REA179	Real Estate Principles I (3) AND	
REA180	Real Estate Principles II (3) OR	
REA201	Real Estate Principles I and II (6)	6
REA270	Basic Appraisal Principles	2
REA271	Basic Appraisal Procedures	2
REA272	Uniform Standards of Professional Appraisal Practice (USPAP)	1
REA273	Residential Market Analysis Highest and Best Use	1
REA274	Residential Appraiser Site Valuation and Cost Approach	1
REA275	Residential Sales Comparison and Income Approaches	2
REA276AA	Residential Report Writing and Case Studies I	1
REA281	Principles of Real Estate Law	3
REA282	Real Estate Finance	3
REA283	Property Management	3
REA290AH	Real Estate Seminar: Contract Writing	0.5

## General Education Requirements

General Education Requirement Credits: 22-28

General Education Core Credits: 12-18

First-Year Composition Credits: 6

Any approved general education course from First Year Composition area.

Oral Communication Credits: 3

Any approved general education course from the Oral Communication area.

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment. 0-3

Mathematics Credits: 3-6

Any approved general education course from the Mathematics area.

General Education Distribution Credits: 10

Humanities and Fine Arts Credits: 3

Any approved general education course from the Humanities, Arts and Design area.

Social and Behavioral Sciences Credits: 3

ECN211      Macroeconomic Principles (3) OR  
ECN212      Microeconomic Principles (3) 3

Natural Sciences      Credits: 4

Any approved general education course from the Natural Sciences area.

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm3?id=176685>

Starting Term: 2022 Fall

Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN MANUFACTURING PRODUCTION TECHNOLOGY**

Total Credits: 66-76

Major Code: 3192

### **Description**

The Associate in Applied Science (AAS) in Manufacturing Production Technology program prepares students for employment as operators, technicians, and managers in the manufacturing industry. The program provides applied skills in process design, quality control, Computer Numeric Control (CNC), and Computer-Aided Design/Computer-Aided Manufacturing (CAD/CAM) programming for current and future needs of the manufacturing industry. Embedded Certificates of Completion (CCLs) in CNC Machine Operator, CNC Machining I, and CNC Machining II are also available.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits:      38-40

FYE101      Introduction to College, Career and Personal Success (1) OR  
FYE103      Exploration of College, Career and Personal Success (3)    1-3

The following courses are required in CCL CNC Machining I

MPT101      Technical Documentation (3) OR  
MPT101MP    Technical Documentation (3) 3

MPT110      Inspection Techniques (3) OR  
MPT110MP    Inspection Techniques (3)    3

MPT111      Geometric Dimensioning and Tolerance (GDT) (3) OR

MPT111MP	Geometric Dimensioning and Tolerance (GDT) (3)	
MPT113	Coordinate Measuring Machines I (CMM) (3) OR	
MPT140	Manual CNC Programming (3)	3
MPT120	Introduction to Manual Machining (4) OR	
MPT120MP	Introduction to Manual Machining (4)	4
MPT130	CNC Machine Operator (6) OR	
MPT130MP	CNC Machine Operator (6) OR	
MPT131	CNC Machining Level I (6) OR	
MPT131MP	CNC Machining Level I (6)	6
MPT132	CNC Machining Level II (3) OR	
MPT132MP	CNC Machining Level II (3) OR	3

The following courses are required in CCL CNC Machining II

Students interested in taking MPT250 are advised to take MPT151

MPT150	Introduction to SolidWorks (3) OR	
MPT151	Solid Design I: SolidWorks (3)	3
MPT260	Computer Aided Manufacturing (CAM) I (3) OR	
MPT260MP	Computer Aided Manufacturing (CAM) I (3)	3
MPT262	Computer Aided Manufacturing (CAM) II (3) OR	
MPT262MP	Computer Aided Manufacturing (CAM) II (3)	3
MPT270	Tooling, Fixtures, and Gauges	3

## Restricted Electives

Credits: 6-7

Students should complete 6-7 credits from the category below that best aligns with their academic and professional goals.

Quality and Inspection:

MPT215	Workplace Quality Systems	3
MPT216	Applied Statistical Process Control Methods	3
MPT217	Lean and Six Sigma Applied Concepts	3

Industrial Design:

MPT152	Solid Design: Certified SolidWorks Associate/Certified SolidWorks Professional	
	Test Preparation	1
MPT250	Solid Design II: Advanced Part Modeling: SolidWorks	3
MPT255	Solid Design 3D Printing	4
MPT261	Mastercam Certified Programmer Mill Level I: Test Preparation: CPgM1	1

Manual Machining:

MPT220	Manual Machining: NIMS Level I Certification	3
MPT221	Manual Machining: NIMS Level II Certification	3

Related Experience:

AIT100	Industrial Safety	1
AIT105	Modern Maintenance Operations	3
MPT282++	Volunteerism for Manufacturing: A Service Learning Experience	1-3
MPT290++	Manufacturing Production Internship	1-3
MPT296++	Cooperative Education	1-4
WLD101	Welding I	3

## General Education Requirements

General Education Requirement Credits: 22-29

General Education Core Credits: 12-18

First-Year Composition Credits: 6

ENG101	First-Year Composition (3) OR	
ENG107	First-Year Composition for ESL (3)	3 AND
ENG102	First-Year Composition (3) OR	
ENG108	First-Year Composition for ESL (3) OR	
ENG111	Technical and Professional Writing (3)	3

Oral Communication Credits: 3

Any approved general education course from the Oral Communication area

Recommend COM230 Small Group Communication 3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment. 0-3

Mathematics Credits: 3-6

MAT146 College Mathematics with Review (6) OR  
MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR

Any higher approved general education course in the Mathematics area (3-6)

For students intending to transfer into a STEM related field, recommend MAT150 College Algebra/Functions or higher.

General Education Distribution Credits: 10-11

Humanities and Fine Arts Credits: 3

Any approved general education course from the Humanities, and Fine Arts area

Social and Behavioral Sciences Credits: 3

Any approved general education course from the Social-Behavioral Sciences area



Natural Sciences Credits: 4-5  
Any approved general education course from the Natural Sciences area

For students intending to transfer into a STEM related field, the following courses are recommended:

CHM150 General Chemistry I (4) AND  
CHM151LL General Chemistry I Laboratory (1) OR  
CHM150AA General Chemistry I (5) OR OR  
CHM151 General Chemistry I (3) AND  
CHM151LL General Chemistry I Laboratory (1) OR  
CHM151AA General Chemistry I (4) 4-5 OR  
PHY115 University Physics I (5) OR  
PHY121 University Physics I: Mechanics (4) 4-5

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Starting Term: 2023 Fall  
Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN MARKETING AND SALES**

Total Credits: 62-69  
Major Code: 3094

### **Description**

The Associate in Applied Science (AAS) in Marketing and Sales program is designed to develop competencies essential for success in marketing and personal selling. By completing this program, students will be better equipped for successful performance in a variety of marketing/management occupations, including wholesaling, retailing, professional sales, and entrepreneurship. Certificates of Completion (CCL) in Marketing and Social Media Marketing are available.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 25-27

ACC111 Accounting Principles I 3  
BPC110 Computer Usage and Applications (3) OR  
CIS105 Survey of Computer Information Systems (3) 3

FYE101	Introduction to College, Career and Personal Success (1) OR	
FYE103	Exploration of College, Career and Personal Success (3)	1-3
GBS151	Introduction to Business	3
GBS120	Workplace Communication Skills (3) OR	
GBS233	Business Communication (3)	3
MKT110	Marketing and Social Networking	3
MKT263	Advertising Principles	3
MKT267	Principles of Sales	3
MKT271	Principles of Marketing	3

### **Restricted Electives**

Credits: 15

Students should select 15 credits from the following courses in consultation with a Department Advisor.

CIS103	Introduction to Social Media	3
GBS205	Legal, Ethical, and Regulatory Issues in Business	3
IBS101	Introduction to International Business	3
MGT126	Customer Service Skills and Strategies	3
MGT251	Human Relations in Business	3
MKT+++	Any MKT Marketing courses except courses used to satisfy the Required Courses area.	3-15

### **Education Requirements**

General Education Requirement Credits: 22-27

General Education Core Credits: 12-17

First-Year Composition Credits: 6

Any approved general education courses from the First-Year Composition area.

Oral Communication Credits: 3

COM100	Introduction to Human Communication (3) OR	
COM110	Interpersonal Communication (3) OR	
COM225	Public Speaking (3) OR	
COM230	Small Group Communication (3)	3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

Mathematics Credits: 3-5

Any approved general education course from the Mathematics area.

General Education Distribution Credits: 10

Humanities and Fine Arts Credits: 3  
Any approved general education course from the Humanities, Arts and Design area.

Social and Behavioral Sciences Credits: 3  
SBU200 Society and Business 3

Natural Sciences Credits: 4  
Any approved general education course from the Natural Sciences area. 4

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=183949>

Starting Term: 2023 Fall  
Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN MUSIC INDUSTRIES: MUSIC BUSINESS**

Total Credits: 61-70  
Major Code: 3017

### **Description**

The Associate in Applied Science (AAS) in Music Industries: Music Business is designed to provide aspiring music industry professionals with a broad background in music management, production, and entrepreneurship activities. The program combines theoretical and applied learning experiences to help students gain a strategic understanding of commercial music as both an art and profession. Students will choose a focus area among business and marketing, commercial performance, and music production. They will employ analytical and communication skills and explore aesthetic, cultural, and historical perspectives relevant to the music industry.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 26-29

FYE101 Introduction to College, Career and Personal Success (1) OR  
FYE103 Exploration of College, Career and Personal Success (3) 1-3

MGT253 Owning and Operating a Small Business 3  
MKT110 Marketing and Social Networking 3  
MKT271 Principles of Marketing 3  
MUC109 Music Business: Content Creation and Copyright 3  
MUC110 Music Business: Marketing and Monetization 3

MTC180 Computer Literacy for Musicians (3) OR

MUC180      Computer Literacy for the Music Business (3)      3

Note: Students who have not already completed MTC180 must take MUC180

MUC209      Music Industry Entrepreneurship      3  
MUC293      Self Promotion for Music      1

Music Industry Capstone Experience

MUC290AA      Music Business Internship (1) OR

MUC296WA      Cooperative Education (1) OR

MUC298AA      Special Projects (1)      1

Overview of Music Genres

MHL155      Survey of American Music (3) OR

MUC242      Music Genres and Styles (2) 2-3

## Restricted Electives

Credits:      12-13

Students should work with their program advisor to select 12-13 credits from courses that align with the academic/career goals and further their development in the areas of music business and marketing, music production, and commercial performance. Courses from required courses area may not be used.

Business and Marketing

GBS+++ Any GBS General Business course(s)

MKT+++ Any MKT Marketing course(s)

MUC+++ Any MUC Music: Commercial/Business course(s)

Music Production

MTC+++ Any MTC Music: Theory/Composition course(s)

MUC+++ Any MUC Music: Commercial/Business course(s)

Commercial Performance

MTC+++ Any MTC Music: Theory/Composition course(s)

MUP+++ Any MUP Music: Performance course(s)

## Free Electives

Credits:      0-1

Select courses 100-level or higher to complete the minimum credits required for this degree. Consult with an Academic and/or Program Advisor.

## General Education Requirements

General Education Requirement      Credits: 22-28

General Education Core      Credits: 12-18

First-Year Composition Credits: 6  
ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) OR  
ENG111 Technical and Professional Writing (3) 6  
ENG101 or ENG107 and ENG102 or ENG108 is recommended for students who intend to transfer.

Oral Communication Credits: 3  
COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 3  
Consult with an academic advisor about specific COM requirements if intending to transfer.

Critical Reading Credits: 0-3  
CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment 0-3

Mathematics Credits: 3-6  
MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR  
MAT145 College Mathematics with Review (5) OR  
MAT146 College Mathematics with Review (6) 3-6

General Education Distribution Credits: 10

Humanities and Fine Arts Credits: 3  
Any approved general education course from the Humanities, Arts and Design [HU] area.

Social and Behavioral Sciences Credits: 3  
Any approved general education course from the Social-Behavioral Sciences [SB] area.

Natural Sciences Credits: 4  
Any approved general education course from the Natural Sciences area.

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=185430>

Starting Term: 2024 Fall  
Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN NETWORK AND SYSTEMS ADMINISTRATION**

Total Credits: 61-74  
Major Code: 3189

## Description

The Associate in Applied Science (AAS) in Network and Systems Administration program provides students with a solid, hands-on skill set of computer, networking, and internetworking systems technology principles and desktop support. Students gain an understanding of the interaction between microcomputer software and hardware, network and internetworking operating systems software and hardware, local area network administration and management, the use of troubleshooting techniques, troubleshooting hardware and software tools, as well as interpersonal/customer service skills. Students have the opportunity to specialize in specific information technology areas based on their interests and professional goals and leading to industry recognized certifications through an embedded Certificate of Completion (CCL) including, but not limited to, Desktop (Desktop Support, Computer System Configuration and Support, Computer System Configuration and Support, Network, Computer System Configuration and Support, Security, Computer System Configuration and Support, Linux), Cisco (Cisco Network CCNA, Cisco Network CCNP, Cisco Network CCNA Security), Linux (Red Hat Linux Engineer, Linux Associate, Red Hat Linux Administrator, Linux System Administration), Microsoft (Microsoft System Administration, Microsoft Desktop Associate), and VMware (VMware Network Administrator, VMware Foundations, VMware System Administrator). Graduates may pursue employment in a variety of information technology environments and/or transfer to a university.

## Program Notes

Students must earn a grade of C or better in all courses within the program. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: BPC, CIS, CLD, CNT, ITS, and MST. Students may receive credit for courses within the program based on current industry certifications. This program replaces: AAS/3013 Linux Networking Administration, AAS/3095 Information Technology: Cisco Networking, AAS/3096 Information Technology: Network Server, AAS/3208 Networking System Administration, AAS/3312 Computer and Networking Technology, AAS/3778 Microsoft Networking Technology, AAS/3794 Network Administration, AAS/3816 Networking Technology: Cisco

## Required Courses

Credits: 31-46

BPC170	A+ Exam Prep: Computer Hardware Configuration and Support	3
BPC270	A+ Exam Prep: Operating System Configuration and Support	3
CIS102DA	Customer User Support	3
CIS105	Survey of Computer Information Systems	3
CIS126DL	Linux Operating System (3) OR	
CIS126RH	Red Hat System Administration I (3)	3
CIS190	Introduction to Networking (3) OR	
CNT140AB	Introduction to Networks (4)	3-4
(CNT140AB	is required for students on the Cisco specialization)	
FYE101	Introduction to College, Career and Personal Success (1) OR	
FYE103	Exploration of College, Career and Personal Success (3)	1-3

Students must also select from one of the following specializations based on their career goals.

Specialization 1: Cisco System Administration (CCNA) and Security

CNT150AB Switching, Routing, and Wireless Essentials 4  
CNT160AB Enterprise Networking, Security, and Automation 4

CNT202 Cisco Secure Firewall Appliance Configuration (4) OR  
CNT205 Cisco Certified Network Associate Security (4) 4

Specialization 2: Cisco System Administration (CCNP)

CNT150AB Switching, Routing, and Wireless Essentials 4  
CNT160AB Enterprise Networking, Security, and Automation 4

CNT240 Cisco Certified Network Professional: Enterprise Core (8) OR  
CNT240AA Cisco Certified Network Professional: Enterprise Core I (4) AND  
CNT240AB Cisco Certified Network Professional: Enterprise Core II (4)8

CNT250 Cisco Certified Network Professional: Enterprise Advanced Routing and Services  
(8) OR  
CNT250AA Cisco Certified Network Professional: Enterprise Advanced Routing and Services  
I (4) AND  
CNT250AB Cisco Certified Network Professional: Enterprise Advanced Routing and Services  
II (4) 8

Specialization 3: Linux System Administration

CIS238DL Linux System Administration 3  
CIS239DL Linux Shell Scripting 3  
CIS240DL Linux Network Administration 3  
CIS271DL Linux Security 3  
CIS275DL Linux Capstone 3

Specialization 4: Red Hat Enterprise Linux Administration

CIS238RH Red Hat System Administration II 3  
CIS239DL Linux Shell Scripting 3  
CIS240RH Red Hat System Administration III 3  
CIS271RH Red Hat System Administration IV 3  
CIS275DL Linux Capstone 3

Specialization 5: Cloud System Administration

BPC274 Advanced Server Computer Maintenance: Server+ Prep 3  
CIS121AH Microsoft PowerShell/Command Line Operations 3  
CIS239DL Linux Shell Scripting 3

MST160 Azure Administrator (4) OR  
CLD110 Amazon Web Services Cloud Foundations (3) 3-4

MST260 Microsoft Azure Cloud Development and Operations (3) OR  
CLD120 Amazon Web Services Cloud Architect Associate (3) 3

Specialization 6: VMware Network Administrator

CIS293	VMware ESXI Server Enterprise	4	
CIS294	VMware vSphere Operate, Scale and Secure		4
CIS295	VMware NSX: Install, Configure, Manage	4	

## Restricted Electives

Credits: 0-8

Students must select enough Restricted Elective credits to meet the minimum total program credits. Students may not select the same courses used to satisfy Required Courses or specializations within the Required Courses. Consult with an Academic, Program, or Faculty Advisor to pick courses that align with your career goals.

### Cisco Electives

CNT140AB	Introduction to Networks	4	
CNT150AB	Switching, Routing, and Wireless Essentials	4	
CNT160AB	Enterprise Networking, Security, and Automation		4
CNT171	CCNA Exam Prep	1	
CNT202	Cisco Secure Firewall Appliance Configuration (4)	OR	
CNT205	Cisco Certified Network Associate Security (4)		4
CNT206	Cisco Certified Network Associate Wireless	4	

### Linux Electives

CIS238DL	Linux System Administration (3)	OR	
CIS238RH	Red Hat System Administration II (3)		3
CIS239DL	Linux Shell Scripting	3	
CIS240DL	Linux Network Administration (3)	OR	
CIS240RH	Red Hat System Administration III (3)		3
CIS275DL	Linux Capstone	3	

### Microsoft Electives

MST+++++	Any MST Microsoft Technology course		
CIS121AB	Microsoft Command Line Operations	1	
CIS121AH	Microsoft PowerShell/Command Line Operations		3

### Security Electives

CIS270	Essentials of Network and Information Security		3
ITS110	Information Security Fundamentals	3	

### VMware Electives

CIS293	VMware ESXI Server Enterprise	4	
CIS294	VMware vSphere Operate, Scale and Secure		4
CIS295	VMware NSX: Install, Configure, Manage	4	

### Other Information Technology Electives

BPC171	Recycling Used Computer Technology		1-3
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CIS111	Ethics in Information Technology	3
CIS124AA	Project Management Software: Level I	1
CIS124BA	Project Management Software: Level II	1
CIS156	Python Programming: Level I	3
CIS190	Introduction to Networking	3
CIS224	Project Management Microsoft Project for Windows	3
CIS240	Local Area Network Planning and Design	3
CIS250	Management of Information Systems	3
CIS266	Network Integration Capstone	4
CIS290++	Computer Information Systems Internship	1-3
CIS296++	Cooperative Education	2-3
CIS298++	Special Projects	1-3
ITS120	Legal, Ethical, and Regulatory Issues	3

## General Education Requirements

General Education Requirement Credits: 22-28

General Education Core Credits: 12-18

First-Year Composition Credits: 6

ENG101	First-Year Composition (3) OR
ENG107	First-Year Composition for ESL (3) AND
ENG102	First-Year Composition (3) OR
ENG108	First-Year Composition for ESL (3) OR
ENG111	Technical and Professional Writing (3) 6
(ENG111	does not count as an ENG Transfer option)

Oral Communication Credits: 3

COM100	Introduction to Human Communication (3) OR
COM110	Interpersonal Communication (3) OR
COM225	Public Speaking (3) OR
COM230	Small Group Communication (3) 3
COM225	is recommended for students transferring to Northern Arizona University.

Critical Reading Credits: 0-3

CRE101	College Critical Reading and Critical Thinking (3) OR
Equivalent as indicated by assessment	0-3

Mathematics Credits: 3-6

MAT140	College Mathematics (5) OR
MAT141	College Mathematics (4) OR
MAT142	College Mathematics (3) OR
MAT145	College Mathematics with Review (5) OR
MAT146	College Mathematics with Review (6) OR
Equivalent or higher level mathematics course in the Mathematical Applications area.	3-6

General Education Distribution Credits: 10

Humanities and Fine Arts Credits: 3

Any approved general education course from the Humanities, Arts and Design area. 3

Social and Behavioral Sciences Credits: 3  
Any approved general education course from the Social-Behavioral Sciences area. 3

Natural Sciences Credits: 4  
Any approved general education course from the Natural Sciences area. 4

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Starting Term: 2023 Fall  
Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN NURSING**

Total Credits: 62-75  
Major Code: 3812

### **Description**

The Associate in Applied Science (AAS) in Nursing Program is available at eight of the Maricopa Community Colleges. Clinical experiences are provided in a variety of healthcare settings. Nursing Program graduates are eligible to apply for the national exam for the registered nurse license. Licensing requirements are the exclusive responsibility of the State Board of Nursing.

The Associate in Applied Science (AAS) Nursing Program is approved by the Arizona State Board of Nursing and accredited by the Accreditation Commission for Education in Nursing (ACEN), 3390 Peachtree Road NE, Suite 1400, Atlanta, GA 30326; (404.975.5000); email: [info@acennursing.org](mailto:info@acennursing.org).

Program offerings:

This program is offered at the following sites:

Chandler-Gilbert Community College  
Estrella Mountain Community College  
GateWay Community College  
Glendale Community College  
Mesa Community College  
Paradise Valley Community College  
Phoenix College  
Scottsdale Community College

Waiver of Licensure/Certification Guarantee:

Admission or graduation from the Nursing Program does not guarantee obtaining a license to practice nursing. Licensure requirements and the subsequent procedures are the exclusive right and responsibility of the Arizona State Board of Nursing. Students must satisfy the requirements of the Nurse Practice Act: Statutes, Rules and Regulations, independently of any college or school requirements for graduation.

Pursuant to A.R.S. 32-1606(B)(17), an applicant for professional or practical nurse license by examination is not eligible for licensure if the applicant has any felony convictions and has not

received an absolute discharge from the sentences for all felony convictions. The absolute discharge must be received five or more years before submitting this application. If you cannot prove that the absolute discharge date is five or more years, the Board cannot process your application.

Level One Fingerprint Clearance is required for admission into the program. Applicants must present a Level One Fingerprint Clearance Card to be copied by the advisor or designee. For a Department of Public Safety Fingerprint Clearance Card application, contact MCCCCD Healthcare/Nursing Advisor. If there is any question about eligibility for licensure or certification, contact the nursing education consultant at the Arizona State Board of Nursing (602.771.7800).

#### Health Declaration:

It is essential that nursing students be able to perform a number of physical activities in the clinical portion of the program. At a minimum, students will be required to lift patients, stand for several hours at a time and perform bending activities. Students who have a chronic illness or condition must be maintained on current treatment and be able to implement direct patient care. The clinical nursing experience also places students under considerable mental and emotional stress as they undertake responsibilities and duties impacting patients' lives. Students must be able to demonstrate rational and appropriate behavior under stressful conditions. Individuals should give careful consideration to the mental and physical demands of the program prior to making application. All must provide documentation of compliance with all health and safety requirements required to protect patient safety. Only students in compliance are permitted to enroll in nursing courses. Students will meet these requirements by providing the required documentation for the Health/Safety Requirements Documentation Checklist and the signed Health Declaration Form.

#### Health and Safety Requirements for the Maricopa Nursing Program:

1. Students must submit a Health and Safety Documentation Checklist verifying completion of all requirements and maintain current status throughout the program.
2. Students must submit the Health Declaration Form signed by a licensed health care provider.
3. Students must test negative on a timed urine drug screen.
4. Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Supplemental Background Check policy. Program applications will not be accepted without a copy of an Arizona Department of Public Safety Level One Fingerprint Clearance Card. Upon conditional program admission, the student must comply with all requirements of the current MCCCCD background check policy.

#### University Transfer Students:

Students who are planning to earn the Bachelor of Science in Nursing may obtain their prerequisite courses at the Maricopa Community Colleges. For information on courses that meet requirements for admission into a baccalaureate program, please contact a program advisor.

#### REGISTERED NURSE PATHWAY

##### Associate in Applied Science Degree in Nursing Program

The Associate in Applied Science (AAS) degree in Nursing graduate is eligible to apply for licensure as a Registered Nurse (RN). The RN is educated as a generalist who delivers health care to clients and family groups and has competencies related to the art and science of nursing. The RN may be employed in a variety of acute, long term, and community-based healthcare settings. The AAS degree in Nursing provides the graduate with an educational foundation for articulation into the university setting.

This program is designed to meet education requirements for licensure or certification in the State of Arizona. Granting licensure and certification is the sole responsibility of the state board or approval agency. This program is only offered and available to students located in the State of Arizona. The Maricopa County Community College District and colleges define student location within Administrative Regulation 2.2.3(7).

## **Program Notes**

Students must earn a grade of C or better in all courses within the program. Students must complete the following general education and introductory courses with a 2.0 GPA to be added to the queue of those waiting for an available cohort space to begin the core curriculum. BIO156 or BIO181, BIO201, CHM130 and CHM130LL, CHM130AA, ENG101 or ENG107, MAT140 or MAT141 or MAT142. Course Fee Information: Please see class schedule for information regarding course fees. Maricopa Nursing is aligned with Nurse of the Future Competencies: Person-Centered Care, Professionalism, Leadership, Systems-Based Practice, Informatics and Technology, Communication, Teamwork and Collaboration, Safety, Quality Improvement, and Evidence-Based Practice. These competencies focus on key stakeholders of healthcare clients, colleagues and communities. Demonstration of the competencies will signify preparation for successful transition into nursing practice and further professional development.

## **Admission Criteria**

High school diploma or GED is required for the Associate in Applied Science degree in Nursing. Applicants must signify that they meet this requirement by providing high school diploma/transcripts or GED completion OR by signing the nursing application page containing the 'Declaration of High School Graduation or GED Completion.' In some instances, high school diploma/transcripts or proof of GED completion may be required. Formal application and admission to the program is required. There are limited spaces available in the Nursing program. Only students who have completed all of the general education and introductory courses noted above may have their name added to the queue of those waiting for an available space in a cohort. A passing score on a nursing program admission test is required to complete an application. Successful completion of a nurse assistant course (course must include an in-person clinical component) or certification or licensure as a Nurse Assistant is required to complete an application. The Nurse Assistant course does not have to be completed at a Maricopa college and certification or licensure is not required to apply. There is currently no time limit on when the Nurse Assistant course was taken. Applicants for Advanced Placement must receive a passing score on a practical nursing content exam for placement into Block 3. The final placement decision rests with the Nursing Program Chair at the college to which the student is accepted. Advanced placement applications are maintained for two years from the date of application. After two years, the applicant is required to review, update, and resubmit the application. The Nursing Program Chair reserves the right to deny acceptance of an admission application if the applicant was previously dismissed for issues relating to academic integrity, unsafe patient care, and/or two (2) or more failures from any nursing program. All applicants holding or receiving a certificate or license as a Nursing Assistant and/or license as a Practical Nurse must remain in good standing with the Regulatory Board. Once enrolled, students receiving any disciplinary actions against their certificate or license must notify the Nursing Program Chair within five (5) school days. The Nursing Program Chair reserves the right to restrict the student's participation in clinical experiences and involvement in patient care until the certificate and/or license is valid and unrestricted.

## **Required Courses**

Credits: 40-48

BIO156 Introductory Biology for Allied Health (4) OR  
BIO181 General Biology (Majors) I (4) OR  
One year of high school biology (0) 0-4

BIO201 Human Anatomy and Physiology I 4

CHM130 Fundamental Chemistry (3) AND  
CHM130LL Fundamental Chemistry Laboratory (1) OR  
CHM130AA Fundamental Chemistry with Lab (4) OR

Satisfactory completion of higher level college-level chemistry course and corresponding lab OR

One year of high school chemistry (0) 0-4

NUR152 Nursing Theory and Science I 9  
NUR172 Nursing Theory and Science II 9  
NUR252 Nursing Theory and Science III 9  
NUR283 Nursing Theory and Science IV 9

## **General Education Requirements**

General Education Requirement Credits: 22-27

General Education Core Credits: 9-14

First-Year Composition Credits: 6  
ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) 3  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 3

Oral Communication Credits: 0  
Waived

Critical Reading Credits: 0-3  
CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment

Mathematics Credits: 3-5  
MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR  
Satisfactory completion of higher level math course 3-5

General Education Distribution Credits: 13

Humanities and Fine Arts Credits: 2  
Any approved general education course in the Humanities, Arts and Design area.

Social and Behavioral Sciences      Credits: 3  
PSY101      Introduction to Psychology      3

Natural Sciences      Credits: 8  
BIO202      Human Anatomy and Physiology II (4) AND  
BIO205      Microbiology (4)      8

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Starting Term: 2023 Fall  
Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN ORGANIZATIONAL MANAGEMENT**

Total Credits: 61-68  
Major Code: 3727

### **Description**

The Associate in Applied Science (AAS) in Organizational Management program is designed with a customized curriculum specific to the student's individual needs in addition to the knowledge and skills needed in today's changing workplace. The program provides leadership and communication skills and techniques for planning, organizing, leading and controlling business situations. This program also emphasizes procedures for effective resource allocation. A Certificate of Completion (CCL) in Organizational Leadership is fully embedded in this AAS.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits:      19-22

FYE101      Introduction to College, Career and Personal Success (1) OR  
FYE103      Exploration of College, Career and Personal Success (3)    1-3

Certificate of Completion in Organizational Leadership (5731) - Requirements listed below

BPC110      Computer Usage and Applications (3) OR  
CIS105      Survey of Computer Information Systems (3)      3

GBS110      Human Relations in Business and Industry (3) OR  
MGT251      Human Relations in Business (3)      3

GBS120      Workplace Communication Skills      3

GBS151	Introduction to Business	3
MGT175 TQM240	Business Organization and Management (3) OR Project Management in Quality Organizations (3)	3
MGT101	Techniques of Supervision (3) OR	
MGT229	Management and Leadership I (3)	3

## Restricted Electives

Credits: 20

Students must choose 20 industry/job related course credits from any MCCCDC occupational program and/or Academic Certificate.

Industry/job related course credits must include a minimum of 9 credits with a common subject or theme. Program of study must be approved by the business department chair or designee.

## General Education Requirements

General Education Requirement Credits: 22-27

General Education Core Credits: 12-17

First-Year Composition Credits: 6

ENG101	First-Year Composition (3) OR	
ENG107	First-Year Composition for ESL (3) AND	
ENG102	First-Year Composition (3) OR	
ENG108	First-Year Composition for ESL (3)	6

Oral Communication Credits: 3

Any approved general education course from the Oral Communication area.

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR

Equivalent by assessment 0-3

Mathematics Credits: 3-5

Any approved general education course from the Mathematics area. 3-5

General Education Distribution Credits: 10

Humanities and Fine Arts Credits: 3

Any approved general education course from the Humanities, Arts and Design area. 3

Social and Behavioral Sciences Credits: 3

Any approved general education course from the Social-Behavioral Sciences [SB] area. 3

Natural Sciences Credits: 4

Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the Natural Sciences (General) [SG] area. 4

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Starting Term: 2024 Fall  
Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN PARAMEDICINE**

Total Credits: 63.5-75.5  
Major Code: 3889

### **Description**

The Associate in Applied Sciences (AAS) in Paramedicine is a nationally accredited program designed to prepare students to become Paramedics. This program is a formal education in such paramedicine topics as anatomy and physiology, pathophysiology, cardiology, pulmonary, pharmacology, pediatrics, geriatrics hematology, toxicology. Paramedicine builds upon EMT education and includes paramedic scope of practice. Paramedicine is integrated with fire service, law enforcement, ground transport services, flight transport services, search and rescue, hospitals, clinical setting, community paramedicine, and EMS education. There is a Certificate of Completion (CCL) in Paramedicine available.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Admission Criteria**

Students must be current and in good standing with the Arizona Department of Health Services Bureau of Emergency Medical Services-Certified as an Emergency Medical Technician. EMT certification preparatory courses are available at Maricopa County Community Colleges. Contact an academic advisor for details. Students must complete an application and selection process.

### **Required Courses**

Credits: 45.5-51.5

BIO160 Introduction to Human Anatomy and Physiology 4

EMT101 Basic Life Support/Cardiopulmonary Resuscitation (CPR) for Health Care  
Providers 0.5

PME190 Introduction to ECG Rhythm Analysis and Interpretation for EMS Professionals  
(3) OR  
Permission of Program Director (0) 0-3



PME191	Introduction to Pharmacology for EMS Professionals (3) OR Permission of Program Director (0)	0-3
PME201	Advanced Cardiac Life Support (ACLS) Initial Provider in Paramedicine	1
PME202	Pediatric Advanced Life Support (PALS) Initial Provider in Paramedicine	1
PME203	Pediatric Emergencies for Prehospital Professionals (PEPP) Initial Provider in Paramedicine	1
PME204	Neonatal Resuscitation Provider (NRP) in Paramedicine	0.5
PME205	Advanced Medical Life Support (AMLS) Initial Provider in Paramedicine	1
PME206	International Trauma Life Support (ITLS) Provider/Pre-Hospital Trauma Life Support (PHTLS)	1
PME240	Pharmacology in Paramedicine	3
PME245	Airway and Ventilatory Management in Paramedicine	3
PME250	Comprehensive Patient Assessment in Paramedicine	1
PME251	Medical Emergencies in Paramedicine I	4
PME252	Medical Emergencies in Paramedicine II	4
PME253	Medical Emergencies in Paramedicine III	4
PME254	Technical Operations in Paramedicine	2.5
PME260	Trauma Patient Management in Paramedicine	2
PME270	Immersive Total Patient Management Experience (ITPME)	2
PME280	Preparation for Paramedicine Practicum	1
PME281	Paramedicine Clinical Practicum: Comprehensive (2) OR	
PME281AA	Paramedicine Clinical Practicum: Phase I (1) AND	
PME281AB	Paramedicine Clinical Practicum: Phase II (1)	2
PME288	Paramedicine Comprehensive Field Internship Practicum	5
PME289	Preparation for Paramedic National Credentialing	2

## General Education Requirements

General Education Requirement Credits: 18-24

General Education Core Credits: 12-18

First-Year Composition Credits: 6

ENG101	First-Year Composition (3) OR	
ENG107	First-Year Composition for ESL (3) AND	
ENG102	First-Year Composition (3) OR	
ENG108	First-Year Composition for ESL (3)	6

Oral Communication Credits: 3

COM100	Introduction to Human Communication (3) OR	
COM110	Interpersonal Communication (3) OR	
COM225	Public Speaking (3) OR	
COM230	Small Group Communication (3)	3
COM225	recommended for students who intend to transfer to satisfy the AGEC-A literacy requirement	
COM110	or COM230 recommended for students who do not intend to transfer.	

Critical Reading Credits: 0-3  
CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment

Mathematics Credits: 3-6  
MAT126 Intermediate Algebra with Review (6) OR  
MAT120 Intermediate Algebra (5) OR  
MAT121 Intermediate Algebra (4) OR  
MAT122 Intermediate Algebra (3) 3-6  
MAT150, or MAT151, or MAT152 recommended for students who intend to transfer

General Education Distribution Credits: 6

Humanities and Fine Arts Credits: 3  
Any approved general education course from the Humanities, Arts and Design area.

Social and Behavioral Sciences Credits: 3  
Any approved general education course from the Social-Behavioral Sciences area.

Natural Sciences Credits: 0  
Met by BIO160 in the Required Courses area.

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Starting Term: 2024 Fall  
Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN PHOTOGRAPHY**

Total Credits: 61-67  
Major Code: 3195

### **Description**

The Associate in Applied Science (AAS) in Photography program is designed for the student who wishes to pursue a career in photography, either commercial or fine arts. Students will study digital and traditional film-based (darkroom) media, content and image selection, and the theory and practice of visual communication.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program. There will be costs for supplies and equipment in this program.

### **Required Courses**

Credits: 27-31

ARH101	Art from Prehistory Through Middle Ages (3) OR	
ARH102	Art from Renaissance to Modernism (3)	3
ARH115	History of Photography	3
ART112	Two-Dimensional Design	3
ART113	Color	3
ART131	Photography I	3
ART132	Photography II	3
ART255	Art Marketing (3) OR	
ART255AB	The Portfolio (1)	1-3
AVC100	Introduction to Digital Arts	1
AVC142	Introduction to Digital Photography	3
AVC143	Intermediate Digital Photography	3
FYE101	Introduction to College, Career and Personal Success (1) OR	
FYE103	Exploration of College, Career and Personal Success (3)	1-3

## Restricted Electives

Credits: 8-20

Complete all courses in the specialization below that best aligns with your academic and professional goals.

### Specialization 1: Commercial Photography

AVC138	Commercial Photography I	3
AVC139	Commercial Photography II	3
AVC140	Portrait Photography (3) OR	
AVC237	Fashion Photography (3)	3
MKT110	Marketing and Social Networking (3) OR	
MKT263	Advertising Principles (3) OR	
MKT271	Principles of Marketing (3) OR	
SBS204	Small Business Marketing and Advertising (2)	2-3
SBS200	Small Business Operations	2

In consultation with advisor or program coordinator, choose up to six (6) credits of coursework from the following list to best fulfill goals and complete the minimum total program credits required for this degree.

ART111	Drawing I	3
ART116	Life Drawing I	3
ART137	Alternative Photographic Processes	3
ART234	Color Photography	3
ART290AC	Studio Art	3
ART290EC	Studio Art: Photography	3

ART295DA	Art Workshop/Seminar: Photography1	
ART295DB	Art Workshop/Seminar: Photography2	
ART295DC	Art Workshop/Seminar: Photography3	
AVC169	2D Media Design	3
AVC177	Digital Photographic Imaging I	3
AVC178	Digital Arts Studies	3
AVC181	Graphic Design I	3
AVC232	Studio Lighting	3
AVC270	Digital Photographic Imaging II	3
AVC290DP	Art Studio: Digital Photography	3
AVC297AA	Commercial Art Internship (1) OR	
AVC297AB	Commercial Art Internship (2)1-2	
FMP108	Video Production	3

#### Specialization 2: Fine Art Photography

ART133	Photography III	3
ART137	Alternative Photographic Processes	3

Select 2-9 credits from the following:

ART111	Drawing I	3
ART116	Life Drawing I	3
ART134	Photography IV	3
ART234	Color Photography	3
ART250	Introduction to Printmaking	3
ART290AC	Studio Art	3
ART290EC	Studio Art: Photography	3
ART295DA	Art Workshop/Seminar: Photography1	
ART295DB	Art Workshop/Seminar: Photography2	
ART295DC	Art Workshop/Seminar: Photography3	
AVC169	2D Media Design	3
AVC177	Digital Photographic Imaging I	3
AVC178	Digital Arts Studies	3
AVC232	Studio Lighting	3
AVC270	Digital Photographic Imaging II	3
AVC274	Digital Photographic Imaging III	3
AVC290DP	Art Studio: Digital Photography	3
AVC297AA	Commercial Art Internship	1
SBS200	Small Business Operations	2
SBS204	Small Business Marketing and Advertising	2

### Free Electives

Credits: 0-7

Select courses 100-level or higher to complete the minimum total program credits required for this degree. Consult with the Program Director or an Academic Advisor.

Recommend that students interested in transferring to a four-year institution to earn a bachelor's degree take courses that fulfill any unmet Arizona General Education Curriculum (AGEC) requirements.

## General Education Requirements

General Education Requirement Credits: 19-25

General Education Core Credits: 12-18

First-Year Composition Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Oral Communication Credits: 3

COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment. 0-3

Mathematics Credits: 3-6

MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR  
MAT145 College Mathematics with Review (5) OR  
MAT146 College Mathematics with Review (6) OR  
Any higher approved general education course in the Mathematics area. (3-6) 3-6

General Education Distribution Credits: 7

Humanities and Fine Arts Credits: 0

Met by ARH101 OR ARH102 OR ARH115 OR ART131 in Required Courses.

Social and Behavioral Sciences Credits: 3

Any approved general education courses in the Social-Behavioral Sciences area. 3

Natural Sciences Credits: 4

Any approved general education course in the Natural Sciences area. 4

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=183970>

Starting Term: 2023 Fall

Final Term: 9999

## ASSOCIATE IN APPLIED SCIENCE (AAS) IN PROGRAMMING AND SYSTEMS ANALYSIS

Total Credits: 62-71  
Major Code: 3844

## Description

The Associate in Applied Science (AAS) in Programming and Systems Analysis program provides an in-depth exploration of different computer language and technical skills. The AAS includes, but is not limited to the following: operating systems, local area networks, business communication, team roles, and dynamics. Certificate of Completions (CCLs) in Programming and Systems Analysis Level I and Level II and iOS App Development are also available.

## Program Notes

Students must earn a grade of C or better in all courses within the program. Consultation with an Academic Advisor is recommended for course selection. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 34-37

CIS105 Survey of Computer Information Systems 3  
GBS151 Introduction to Business 3

CIS126DL Linux Operating System (3) OR  
CIS126RH Red Hat System Administration I (3) OR  
MST150++ Any Microsoft Windows course (3) 3

CIS133DA Internet/Web Development Level I 3

Students interested in pursuing an iOS Certificate of Completion (CCL) are recommended to take CIS150AB

CIS150 Programming Fundamentals (3) OR  
CIS150AB Object-Oriented Programming Fundamentals (3) 3

CIS166++ Any Web Scripting course(s) 3

CIS190 Introduction to Networking (3) OR  
CNT140AB Introduction to Networks (4) OR  
MST140 Microsoft Networking Essentials (3) 3-4

CIS225 Business Systems Analysis and Design (3) OR  
CIS225AB Object-Oriented Analysis and Design (3) OR  
CIS250 Management of Information Systems (3) 3

CIS119DO Introduction to Oracle: SQL (3) OR  
CIS276DA MySQL Database (3) OR  
CIS276DB SQL Server Database (3) 3

FYE101 Introduction to College, Career and Personal Success (1) OR  
 FYE103 Exploration of College, Career and Personal Success (3) 1-3

Select a programming language from below that best aligns with academic and professional goals (2 courses for a total of 6 credits) in one of the following areas:

CIS156 Python Programming: Level I (3) AND  
 CIS256 Python Programming: Level II (3) OR

CIS159 Visual Basic Programming I (3) AND  
 CIS259 Visual Basic Programming II (3) OR

CIS162++ Any C Programming: Level I course (3) AND  
 CIS262++ Any C Programming: Level II course (3) OR

CIS163AA Java Programming: Level I (3) AND  
 CIS263AA Java Programming: Level II (3) OR

CIS165++ Any Mobile Application Development course (3) AND  
 CIS265 Advanced iOS Application Development (3) 6

### Restricted Electives

Credits: 6

Students may not use courses from the Required Courses Area.

CIS224 Project Management Microsoft Project for Windows 3  
 CIS151 Computer Game Development-Level I 3  
 CIS156 Python Programming: Level I 3  
 CIS159 Visual Basic Programming I 3  
 CIS162++ Any C Programming: Level I course 3  
 CIS163AA Java Programming: Level I 3  
 CIS165++ Any Mobile Application Development course 3  
 CIS251 Computer Game Development-Level II 3  
 CIS256 Python Programming: Level II 3  
 CIS259 Visual Basic Programming II 3  
 CIS262++ Any C Programming: Level II course 3  
 CIS263AA Java Programming: Level II 3  
 CIS265 Advanced iOS Application Development 3  
 GBS211 Legal, Ethical and Regulatory Issues of the Internet Studies 3

### General Education Requirements

General Education Requirement Credits: 22-28

General Education Core Credits: 12-18

First-Year Composition Credits: 6

ENG101 First-Year Composition (3) OR  
 ENG107 First-Year Composition for ESL (3) AND  
 ENG102 First-Year Composition (3) OR  
 ENG108 First-Year Composition for ESL (3) 6

Oral Communication Credits: 3

Any approved general education course in the Oral Communication area.

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent by assessment 0-3

Mathematics Credits: 3-6

MAT150 College Algebra/Functions (5) OR  
MAT151 College Algebra/Functions (4) OR  
MAT152 College Algebra/Functions (3) OR  
MAT155 College Algebra/Functions with Review (5) OR  
MAT156 College Algebra/Functions with Review (6) 3-6

General Education Distribution Credits: 10

Humanities and Fine Arts Credits: 3

Any approved general education courses in the Humanities, Arts and Design [HU] area. 3

Social and Behavioral Sciences Credits: 3

ECN211 Macroeconomic Principles (3) OR  
ECN212 Microeconomic Principles (3) OR  
SBU200 Society and Business (3) 3

Natural Sciences Credits: 4

Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the Natural Sciences (General) [SG] area. 4

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm3?id=173367>

Starting Term: 2022 Fall

Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN PUBLIC RELATIONS**

Total Credits: 61-70

Major Code: 3674

### **Description**

The Associate in Applied Science (AAS) in Public Relations combines coursework in the related fields of journalism, mass communication, and business. Provides students with general, practical, and marketable skills that will enable them to seek entry-level employment in public relations, such as media relations, community or consumer relations, marketing research, in-house publications, political campaigns, fundraising and volunteer recruitment.

### **Program Notes**



Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 37-39

BPC110	Computer Usage and Applications (3) OR	
CIS103	Introduction to Social Media (3) OR	
CIS105	Survey of Computer Information Systems (3)	3
COM100	Introduction to Human Communication	3
FYE101	Introduction to College, Career and Personal Success (1) OR	
FYE103	Exploration of College, Career and Personal Success (3)	1-3
JRN105	Introduction to Journalism	3
JRN201	News Writing	3
JRN210	News and Media Production	3
JRN213	Writing for Online	3
JRN236++	Public Relations Internship	1-3
MCO120	Media and Society	3
MCO220	Cultural Diversity and the Media	3
MKT101	Introduction to Public Relations	3
MKT110	Marketing and Social Networking	3
MKT263	Advertising Principles	3

## Restricted Electives

Credits: 6

COM222	Argumentation	3
COM225	Public Speaking	3
JRN205	Copyediting	3
MKT111	Applied Marketing and Social Networking	3

## General Education Requirements

General Education Requirement Credits: 19-25

General Education Core Credits: 9-15

First-Year Composition Credits: 6

ENG101	First-Year Composition (3) OR	
ENG107	First-Year Composition for ESL (3) AND	
ENG102	First-Year Composition (3) OR	
ENG108	First-Year Composition for ESL (3)	6

Oral Communication Credits: 0

Met by COM100 in the Required Courses area.

Critical Reading Credits: 0-3

CRE101	College Critical Reading and Critical Thinking (3) OR	
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Equivalent as indicated by assessment (0) 0-3

Mathematics Credits: 3-6

Any approved course in the Mathematics [MA] Area. 3-6

General Education Distribution Credits: 10

Humanities and Fine Arts Credits: 3

Any approved general education course from the Humanities, Arts and Design area. 3

Social and Behavioral Sciences Credits: 3

Any approved general education course from the Social-Behavioral Sciences area. 3

Natural Sciences Credits: 4

Any approved general education course from the Natural Sciences area 4

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=188743>

Starting Term: 2024 Fall

Final Term: 9999

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=187337>

Starting Term: 2024 Fall

Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN RISK MANAGEMENT AND INSURANCE**

Total Credits: 62-70

Major Code: 3172

### **Description**

The Associate in Applied Science (AAS) in Risk Management and Insurance program is designed to provide students with foundational skills in insurance and risk management. This program encourages development of critical thinking, leadership, and communication skills as well as techniques for planning and organizing personal and business insurance strategies. Courses offer a framework of knowledge including an introduction to the insurance industry, risk management, principles of property and liability insurance, health, life, personal, and commercial insurance. A Certificate of Completion (CCL) in Risk Management and Insurance is also available and is fully embedded in this program.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 16-18

INS100	Insurance Industry Profession	3	
INS200	Principles of Property and Liability Insurance		3
INS205	Personal Insurance	3	
INS210	Commercial Insurance	3	
CIS105	Survey of Computer Information Systems (3) OR		
BPC110	Computer Usage and Applications (3)	3	
FYE101	Introduction to College, Career and Personal Success (1) OR		
FYE103	Exploration of College, Career and Personal Success (3)	1-3	

## Restricted Electives

Credits: 24

Students must choose twenty-four (24) industry/job related credits from the list of Restricted Electives below.

Students must choose 3-6 credits from:

Any INS Insurance Studies course except courses used to satisfy the Required Courses area.  
3-6 AND

Students must choose a total of 18-21 credits from other Business courses listed up to the maximum number of credits allowed for each prefix.

ACC+++++	Any ACC Accounting course(s)	0-9	
CIS113DE	Microsoft Word: Word Processing (3) OR		
CIS114DE	Excel Spreadsheet (3) OR		
CIS117DM	Microsoft Access: Database Management (3)		0-3
COM+++++	Any COM Communication course(s)	0-3	
EPS+++++	Any EPS Entrepreneurial Studies course(s)	0-6	
GBS+++++	Any additional GBS General Business course(s) 0-6 (Recommend GBS120 or GBS233 as one of the course options)		
IBS+++++	Any IBS International Business course(s)	0-3	
MGT+++++	Any MGT Management course(s)	0-6	
MKT+++++	Any MKT Marketing course(s)	0-6	
REA+++++	Any REA Real Estate course(s)	0-6	
SBS+++++	Any SBS Small Business Management course(s)		0-6
TQM+++++	Any TQM Total Quality Management course(s)		0-6

## General Education Requirements

General Education Requirement Credits: 22-28

General Education Core Credits: 12-18

First-Year Composition Credits: 6

ENG101 First-Year Composition (3) OR

ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3)

Oral Communication Credits: 3

COM100 Introduction to Human Communication (3) OR

COM110 Interpersonal Communication (3) OR

COM225 Public Speaking (3) OR

COM230 Small Group Communication (3) 3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR

Equivalent as indicated by assessment.

Mathematics Credits: 3-6

Any approved general education course from the Mathematics area.

MAT1++ recommended.

General Education Distribution Credits: 10

Humanities and Fine Arts Credits: 3

Any approved general education course in the Humanities, Arts and Design area.

Social and Behavioral Sciences Credits: 3

Any approved general education course in the Social-Behavioral Sciences area.

Natural Sciences Credits: 4

Any approved general education course in the Natural Sciences area.

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=181788>

Starting Term: 2023 Fall

Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN SUSTAINABLE AGRICULTURE**

Total Credits: 60-70

Major Code: 3014

### **Description**

The Associate in Applied Science (AAS) in Sustainable Agriculture program focuses on sustainable agriculture, agribusiness, and urban farming. This program is designed to prepare individuals for employment in Agribusiness.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 44-49

AGB130	Establishing and Running an Agribusiness	3
AGB139	Agribusiness Computer Operations	3
AGB231	Marketing of Agricultural Products	3
AGS182AA	Gardening Practices and Techniques	3
AGS186	Greenhouse Management and Construction	3
AGS164	Plant Growth and Development	4
AGS217	Introduction to Hydroponics and Controlled Environment Agriculture	4
AGS166	Aquaponics	3
AGS260	Soils	4
AGS262	Irrigation Design, Installation, Operation, and Trouble Shooting	3
AGS265	Crop Science and Production	3
AGS268	Integrated Pest Management in the Cultivated Environment	4
CHM130	Fundamental Chemistry (3) OR Permission of Program Director	0-3
FYE101	Introduction to College, Career and Personal Success (1) OR	
FYE103	Exploration of College, Career and Personal Success (3)	1-3
SSH111	Sustainable Cities	3

## Free Electives

Credits: 0-1

Select additional courses 100-level or higher to complete a minimum of 60 semester credits but no more than a total of 64 semester credits. Consult with a faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.

## General Education Requirements

General Education Requirement Credits: 15-21

General Education Core Credits: 12-18

First-Year Composition Credits: 6

ENG101	First-Year Composition (3) OR	
ENG107	First-Year Composition for ESL (3) AND	
ENG102	First-Year Composition (3) OR	
ENG108	First-Year Composition for ESL (3)	6

Oral Communication Credits: 3

Any approved general education course in the Oral Communication area

Critical Reading Credits: 0-3  
CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment 0-3

Mathematics Credits: 3-6  
MAT112 Mathematical Concepts and Applications (3) OR  
Higher level mathematics course 3-6

General Education Distribution Credits: 3

Humanities and Fine Arts Credits: 3  
Any approved general education course in the Humanities, Arts and Design area.3

Social and Behavioral Sciences Credits: 0  
Met by SSH111 in the Required Courses area.

Natural Sciences Credits: 0  
Met by AGS260 in the Required Courses area.

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=185207>

Starting Term: 2023 Fall  
Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN VETERINARY TECHNOLOGY**

Total Credits: 83-92.5  
Major Code: 3015

### **Description**

The Associate in Applied Science (AAS) in Veterinary Technology program prepares students for careers in veterinary technology which require knowledge and skills involving basic medical sciences, animal care and management, veterinary medical care, and client communications and service. Veterinary technicians function as the paraprofessional assistants to veterinarians, biomedical researchers, other scientists, and animal control and humane organizations. Instruction includes practical clinical internship experience in veterinary emergency, large animal, small animal, and specialty practices, as well as in zoos, laboratories, humane societies, and other facilities.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Admission Criteria**

High school graduation or G.E.D. equivalency. Formal application and admission to the Veterinary Technology program.

## Required Courses

Credits: 74-83.5

BIO181	General Biology (Majors) I	4	
BIO205	Microbiology	4	
BPC110	Computer Usage and Applications (3) OR		
CIS105	Survey of Computer Information Systems (3)	3	
CHM130	Fundamental Chemistry (3) AND		
CHM130LL	Fundamental Chemistry Laboratory (1)	4	
CRE101	College Critical Reading and Critical Thinking (3) OR Equivalent as indicated by assessment (0)	0-3	
ENG101	First-Year Composition (3) OR		
ENG107	First-Year Composition for ESL (3)	3	
ENG102	First-Year Composition (3) OR		
ENG108	First-Year Composition for ESL (3) OR		
ENG111	Technical and Professional Writing (3)	3	
EQS105	Principles of Equine Science	3	
EQS162VT	Equine Management for the Veterinary Technician (2) OR		
VET250AB	Veterinary Technician Internship (0.5)-2	0.5	
FYE101	Introduction to College, Career and Personal Success (1) OR		
FYE103	Exploration of College, Career and Personal Success (3)	1-3	
MAT120	Intermediate Algebra (5) OR		
MAT121	Intermediate Algebra (4) OR		
MAT122	Intermediate Algebra (3) OR		
MAT126	Intermediate Algebra with Review (6) OR		
MAT150	College Algebra/Functions (5) OR		
	Equivalent or higher course in the Mathematical Applications [MA] area (3-6)	3-6	
	Note: MAT14+ is not accepted.		
VET101	Introduction to Veterinary Technology	3	
VET101LL	Animal Care Skills I Laboratory	2	
VET112	Animal Nursing I	2	
VET132	Veterinary Office Management and Client Communication	3	
VET140	Animal Care Skills II (2)	4	
	Note: VET140 must be repeated for 4 credits		
VET150	Veterinary Anatomy and Physiology I	3	
VET150LL	Veterinary Anatomy and Physiology Laboratory I	1	
VET151	Veterinary Anatomy and Physiology II	3	

VET200	Veterinary Clinical Pathology Methods	2
VET201	Animal Care Skills III (2)	4
Note: VET201 must be repeated for 4 credits		
VET210	Animal Nursing II	3
VET220	Veterinary Pharmacology for the Veterinary Technician	3
VET223	Animal Diseases	3
VET230	Veterinary Radiology and Imaging for the Veterinary Technician	3
VET235	Veterinary Technician Proficiency	2
VET240	Veterinary Anesthesia, Surgery, and Emergency Nursing	3
VET250AA	Veterinary Technician Internship	0.5
VET250AC	Veterinary Technician Internship	0.5
VET250AD	Veterinary Technician Internship	0.5

## General Education Requirements

General Education Requirement Credits: 9

General Education Core Credits: 3

First-Year Composition Credits: 0

Met by any combination of ENG courses in Required Courses

Oral Communication Credits: 3

Any approved general education course in the Oral Communication area. 3

Critical Reading Credits: 0

Met by CRE101 or equivalent as indicated by assessment in Required Courses

Mathematics Credits: 0

Met by MAT12+ or MAT15+ in Required Courses area

General Education Distribution Credits: 6

Humanities and Fine Arts Credits: 3

Any approved general education course in the Humanities, Arts and Design area. 3

Social and Behavioral Sciences Credits: 3

ECN100 Economics in American Society (3) OR

ECN211 Macroeconomic Principles (3) OR

ECN212 Microeconomic Principles (3) 3

Natural Sciences Credits: 0

Met by BIO181 in Required Courses

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=187445>

Starting Term: 2024 Fall

Final Term: 9999



# ASSOCIATE IN APPLIED SCIENCE (AAS) IN VIDEO GAME PRODUCTION

Total Credits: 62-79  
Major Code: 3890

## Description

The Associate in Applied Science (AAS) in Video Game Production provides students with the essential skill sets needed to plan, design, and produce video games. The program features interdisciplinary coursework and related studies to build a strong foundation bridging the art and science of video game production. The Associate in Applied Science in Video Game Production's curriculum brings together business concepts, game technology, game narrative, music, sound design, and animation to prepare students for entry-level careers as a Level Designer, Environment Artist, Production Artist, Character Modeler, Character Animator, Game Designer, Game Developer, Mobile Game Developer, Commercial Artist, Game Writer, Composer and/or Sound Designer. Embedded Certificates of Completion (CCL) are available in Video Game Production: Game Art, Video Game Production: Audio and Sound and Video Game Production: Narrative and Video Game Production: Scripting and Coding.

## Program Notes

Students must earn a grade of C or better in all courses within the program. Students interested in transferring should meet with an Academic, Faculty, or Program Director. GST201 Game Studies is recommended for students who intend to transfer to Arizona State University. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 29-31

In addition to the required course work, students must consult with a program advisor to select one of the specializations within the Restricted Electives area.

AVC100 Introduction to Digital Arts 1

AVC177 Digital Photographic Imaging I (3) OR  
CIS120DF Introduction to Adobe Photoshop (3) 3

AVC/MMT185 3D Modeling for Animation I (3) OR  
CIS130DA 3D Studio Max: Modeling (3) 3

Note: AVC/MMT185 is recommended for students interested in the Game Art Emphasis and CIS130DA is recommended for students interested in the Coding and Scripting Emphasis

CIS105 Survey of Computer Information Systems 3  
CIS107 The Electronic Game Industry 3  
CIS151 Computer Game Development -Level I 3  
CIS251 Computer Game Development -Level II 3

CRW176	Writing Narrative for Video Games	3
FYE101	Introduction to College, Career and Personal Success (1) OR	
FYE103	Exploration of College, Career and Personal Success (3)	1-3
GST202	Games, Culture and Aesthetics	3
MUC122	Sound Design I	3

## Restricted Electives

Credits: 14-23

Students must select 1 of the following 4 specializations.

### Specialization I Game Art

ART116	Life Drawing I	3
AVC150	Multimedia Storytelling	3
AVC/MMT184	Digital Animation I	3
AVC200	Animation and Interactivity	3
AVC240	Cinematography and Directing for 2D/3D Animation (3) OR	
CIS230DB	3D Studio Max: Lighting and Rendering (3)	3
AVC/MMT285	3D Modeling and Animation II (3) OR	
CIS130DB	3D Studio Max: Animation (3)	3
AVC287	3D Character Animation	3
AVC298AB	Special Projects	2

### Specialization II Game Narrative

AVC150	Multimedia Storytelling	3
CRW160	Introduction to Writing Poetry	3
CRW170	Introduction to Writing Fiction	3
CRW190	Introduction to Screenwriting	3
CRW270	Intermediate Fiction Writing	3
CRW298AB	Special Projects	2

### Specialization III Coding and Scripting Emphasis

CIS120DC	Introduction to Adobe Animate	3
CIS150AB	Object-Oriented Programming Fundamentals	3
CIS156	Python Programming: Level I	3
CIS163AA	Java Programming: Level I	3
CIS298AB	Special Projects	2

### Specialization IV Audio and Music

MUC191	Electronic Music I (3) OR	
MUC194	Audio Mixing Techniques (3)	3
MUC111	Digital Audio Workstation I (DAW I)	3

MUC192 Electronic Music II (3) OR  
MUC196 Studio Music Recording II (3) 3

MUC195 Studio Music Recording I 3  
MUC222 Sound Design II 3

MUC292 Sound Design III (3) OR  
MUC298AB Special Projects (2) 2-3

## General Education Requirements

General Education Requirement Credits: 19-25

General Education Core Credits: 12-18

First-Year Composition Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Oral Communication Credits: 3

COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

Mathematics Credits: 3-6

Recommended for students who do not intend to transfer.

MAT120 Intermediate Algebra (5) OR  
MAT121 Intermediate Algebra (4) OR  
MAT122 Intermediate Algebra (3) OR  
MAT126 Intermediate Algebra with Review (6) OR  
satisfactory completion of a higher level mathematics course 3-6

Recommended for students who intend to transfer to Arizona State University in the Game Arts,  
Narrative for Games, or Audio and Music emphases.

MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR  
MAT145 College Mathematics with Review (5) OR  
MAT146 College Mathematics with Review (6) 3-6

Recommended for students who intend to transfer to Arizona State University in the Scripting  
and Coding emphasis.

MAT150 College Algebra/Functions (5) OR  
MAT151 College Algebra/Functions (4) OR

MAT152 College Algebra/Functions (3) OR  
MAT155 College Algebra/Functions with Review (5) OR  
MAT156 College Algebra/Functions with Review (6) 3-6

General Education Distribution Credits: 7

Humanities and Fine Arts Credits: 0  
Met by GST202 in Required Courses

Social and Behavioral Sciences Credits: 3  
Any approved Social and Behavioral Sciences.

Natural Sciences Credits: 4  
Any approved general education course from the Natural Sciences Area.

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=183963>

Starting Term: 2023 Fall  
Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN WEB DESIGN/DEVELOPMENT**

Total Credits: 61-74  
Major Code: 3185

### **Description**

The Associate in Applied Science (AAS) in Web Design/Development prepares students to design, create, and administer interactive and professional web sites. Courses focus on "hands-on" experience with web publishing, web graphics preparation, scripting, content management systems and e-commerce solutions. The program provides students a pathway to either develop advanced skills in Web Design or Web Development. Certificates of Completion (CCLs) in Foundational Web Technologies, Web Design and Web Development are also available. Some of these programs are available at select colleges. Please check with your local college for program availability

### **Program Notes**

Students must earn a grade of C or better in all courses within the program. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

### **Required Courses**

Credits: 22-24

In addition to the required course work students must consult with a program advisor to select one of the specializations within the Restricted Electives area.

CIS105	Survey of Computer Information Systems	3
CIS120DF	Introduction to Adobe Photoshop	3
CIS133DA	Internet/Web Development Level I	3
CIS136	Content Management Systems: WordPress	3
CIS166AA	Introduction to Javascript	3
CIS233DA	Internet/Web Development Level II	3
CIS235	e-Commerce	3
FYE101	Introduction to College, Career and Personal Success (1)	OR
FYE103	Exploration of College, Career and Personal Success (3)	1-3

## Restricted Electives

Restricted Electives  
Credits: 17-22

Complete all courses in the specialization below that best aligns with your academic and professional goals. Consult with an academic, faculty, or program advisor.

### Specialization I: Web Design

ART112	Two-Dimensional Design (3)	OR
AVC100	Introduction to Digital Arts (1)	AND
AVC181	Graphic Design I (3)	OR
AVC183	Digital Graphic Arts I (3)	3-4
CIS120DA	Introduction to Adobe Premiere (3)	OR
CIS120DK	Introduction to Digital Video Editing (3)	3
CIS120DB	Introduction to Adobe Illustrator	3
CIS120DC	Introduction to Adobe Animate (3)	OR
CIS220DF	Adobe Photoshop Level II: Advanced Digital Imaging (3)	3
CIS138DA	Desktop Design and Publishing Using Adobe InDesign	3

Students must select 2 to 6 credits in consultation with your program advisor to further develop skills in the areas of Adobe, Art, Social Media, Marketing, Business and/or Multimedia.

### Specialization II: Web Development

CIS119DO	Introduction to Oracle: SQL (3)	OR
CIS276++	Any Database Management Systems course (3)	3
CIS126DL	Linux Operating System (3)	OR
CIS126RH	Red Hat System Administration I (3)	3
CIS166AE	Web Scripting with PHP: Hypertext Preprocessor (PHP)	3

Programming Language: Select two courses for a total of 6 credits

CIS150AB	Object-Oriented Programming Fundamentals	3
CIS156	Python Programming: Level I	3
CIS159	Visual Basic Programming I	3
CIS162++	Any C Programming course	3
CIS163AA	Java Programming: Level I	3
CIS165++	Any Mobile Application Development course	3
CIS256	Python Programming: Level II	3
CIS262AD	C# Level II	3
CIS263AA	Java Programming: Level II	3
CIS265++	Any Advanced Application Development	3

Students must select 3 credits of any course with a CIS prefix in consultation with their program advisor to further develop skills in the areas of Databases, Information Systems, Programming, and/or Operating Systems.

## General Education Requirements

General Education Requirement Credits: 22-28

General Education Core Credits: 12-18

First-Year Composition Credits: 6

ENG101	First-Year Composition (3) OR
ENG107	First-Year Composition for ESL (3) AND
ENG102	First-Year Composition (3) OR
ENG108	First-Year Composition for ESL (3) 6

Oral Communication Credits: 3

Any approved general education course from the Oral Communication area.

Critical Reading Credits: 0-3

CRE101	College Critical Reading and Critical Thinking (3) OR
	Equivalent as indicated by assessment (0) 0-3

Mathematics Credits: 3-6

Any approved general education course in the Mathematics Area.

(MAT140, MAT141, MAT142, MAT145, MAT146 College Mathematics) OR (MAT150, MAT151, MAT152, MAT155, MAT156 College Algebra/Functions) OR higher math course with the Mathematical Applications [MA] general education designation recommended for students intending to transfer to a four-year institution.

MAT187 Precalculus is recommended for students intending to transfer to ASU (Tempe campus) to earn a BS in Graphic Information Technology.

General Education Distribution Credits: 10

Humanities and Fine Arts Credits: 3

Any approved general education course from the Humanities, Arts and Design area

Social and Behavioral Sciences Credits: 3

Any approved general education course from the Social-Behavioral Sciences area.

PSY101 Introduction to Psychology is recommended for students intending to transfer to ASU (Polytechnic campus) to earn a BS in Technical Communication (User Experience) or to ASU (Tempe campus) to earn a BS in Graphic Information Technology.

Natural Sciences Credits: 4  
Any approved general education course from the Natural Sciences area

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=171674>

Starting Term: 2022 Fall  
Final Term: 9999

## **ASSOCIATE IN APPLIED SCIENCE (AAS) IN WELDING**

Total Credits: 61-69  
Major Code: 3244

### **Description**

The Associate in Applied Science (AAS) in Welding prepares students to work in industry using Oxy-Fuel welding and cutting (OFW) (OFC) and Shielded Metal Arc welding (SMAW) processes. This degree emphasizes the knowledge and skills required to work with modern industrial welding equipment using advanced welding techniques including Gas Metal Arc Welding (GMAW), Flux Core Arc Welding (FCAW) and Gas Tungsten Arc Welding (GTAW). This degree also provides students with the opportunity to complete at least three of the following certificates: Welding: Gas Metal / Flux Cored Arc Welding (GMAW)/(FCAW), Welding: Gas Tungsten Arc Welding (GTAW) Ferrous, Welding: Gas Tungsten Arc Welding (GTAW) Non-Ferrous, Welding: Shielded Metal Arc welding (SMAW) Plate, and Welding: Shielded Metal Arc Welding (SMAW) Pipe.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 20-25

FYE101 Introduction to College, Career and Personal Success (1) OR  
FYE103 Exploration of College, Career and Personal Success (3) 1-3

WLD101 Introduction to Welding (3) OR  
Permission of Program Director 0-3

WLD106AA Introduction to SMAW5  
WLD106AB SMAW 6010 Plate (5) OR  
WLD106AC SMAW 7018 Plate (5) OR

WLD206AA Introduction to GMAW/FCAW and GTAW (5) 5

Select three (3) courses from the following list:

WLD103	Basic Blacksmithing and Metal Shaping	3
WLD150	Welding Blueprint Reading	3
WLD215	Welding Fabrication	3
WLD225	Welding Inspection and Quality Control	3

## Restricted Electives

Credits: 15-16

Select 15 to 16 credits in consultation with a Program and/or Academic Advisor to further develop skills in the focus areas shown below. WLD106AB, WLD106AC, WLD206AA may be selected as a Restricted Electives if it is not used to satisfy Required Courses.

Focus Area: Gas Metal / Flux Cored Arc Welding (GMAW)/(FCAW) and Gas Tungsten Arc Welding (GTAW)

WLD206AA	Introduction to GMAW/FCAW and GTAW	5
WLD206AB	Advanced GMAW and FCAW	5
WLD206AC	Advanced GTAW Non-Ferrous	5
WLD206AD	Advanced GTAW Ferrous	5
WLD208AB	GMAW Code Welding	5
WLD208AC	FCAW Code Welding	5
WLD296WA	Cooperative Education (1) OR	
WLD296WB	Cooperative Education (2) OR	
WLD296WC	Cooperative Education (3) OR	
WLD296WD	Cooperative Education (4) (1-4)	

Focus Area: Shielded Metal Arc Welding (SMAW) Plate

WLD106AC	SMAW 7018 Plate	5
WLD208AA	SMAW Code Welding	5
WLD296WA	Cooperative Education (1) OR	
WLD296WB	Cooperative Education (2) OR	
WLD296WC	Cooperative Education (3) OR	
WLD296WD	Cooperative Education (4) (1-4)	

Focus Area: Shielded Metal Arc Welding (SMAW) Pipe

WLD106AB	SMAW 6010 Plate	5
WLD106AD	SMAW Introduction to Pipe	5
WLD208AA	SMAW Code Welding	5
WLD208AD	SMAW Code Welding Pipe	5

WLD296WA	Cooperative Education (1) OR	
WLD296WB	Cooperative Education (2) OR	
WLD296WC	Cooperative Education (3) OR	
WLD296WD	Cooperative Education (4) (1-4)	

Focus Area: Computer Aided Design

MPT150	Introduction to SolidWorks	3
DFT105AA	Computer Aided Drafting I: AutoCAD3	



## Free Electives

Credits: 0-4

Select courses 100-level or higher to complete the minimum total program credits required for this degree. Consult with an Academic Advisor.

## General Education Requirements

General Education Requirement Credits: 22-28

General Education Core Credits: 12-18

First-Year Composition Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) OR  
ENG111 Technical and Professional Writing (3) 6

Oral Communication Credits: 3

COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM230 Small Group Communication (3) OR  
COM225 Public Speaking (3) 3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment.

Mathematics Credits: 3-6

GTC107 Technical Mathematics I (3) OR  
Satisfactory score on math placement test AND  
GTC108 Technical Mathematics II (3) OR

MAT146 College Mathematics with Review (6) OR  
MAT145 College Mathematics with Review (5) OR  
MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR  
Any higher level mathematics course 3-6

General Education Distribution Credits: 10

Humanities and Fine Arts Credits: 3

Any approved general education course from the Humanities, Arts and Design area.

Social and Behavioral Sciences Credits: 3

Any approved general education course from the Social-Behavioral Sciences area.

Natural Sciences Credits: 4

Any approved general education course from the Natural Sciences area.

Recommended:

CHM130      Fundamental Chemistry (3) AND  
CHM130LL    Fundamental Chemistry Laboratory (1)      4      OR  
CHM130AA    Fundamental Chemistry With Lab      4

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176522>

Starting Term: 2022 Fall

Final Term: 9999

## **ASSOCIATE IN ARTS (AA) IN ASSOCIATE IN ARTS**

Total Credits: 60

Major Code: 8400

### **Description**

The Associate in Arts (AA) degree is designed for students planning to transfer to four-year colleges and universities. In general, the components of the degree meet requirements for majors in the Liberal Arts or programs of study other than business or science. Generally, the degree will transfer as a block without loss of credit to Arizona's public universities and other institutions with district-wide articulation agreements.

In most cases, courses used to satisfy the MCCC CD Associate in Arts (AA) will apply to general university graduation requirements of the majors that align with the AA degree; however, students need to be aware of any specific requirements of their intended major at the university to be sure they select courses that will meet them. Information regarding the articulation of the AA with majors at the Arizona public universities can be accessed via the following website: [www.aztransfer.com](http://www.aztransfer.com)

The AA degree requires a minimum of 60 semester credits for the program of study; minimum total credits vary by specific emphasis (for example, Associate in Arts, Emphasis in Psychology). Refer to the Program (Degree) Search at <https://curriculum.maricopa.edu> for credit minimums for individual degree programs by emphasis.

### **Required Courses**

Students must complete FYE101 (1) or FYE103 (3) and select the required courses for the specific Associate in Arts degree emphasis. Refer to the Program (Degree) Search at <https://curriculum.maricopa.edu> for specific courses and credit minimums by emphasis.

### **Restricted Electives**

Restricted Electives for the Associate in Arts degree vary by specific emphasis and are not required without a specific emphasis selected. Refer to the Program (Degree) Search at <https://curriculum.maricopa.edu> for specific courses and credit minimums by emphasis.

### **General Education Requirements**

Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 35\*-44

\*The AGECA requires a minimum of 35 credits (32 if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full).

A single course with an [L], [HU], [SB], [SG], or [SQ] designation may also be used to satisfy the Oral Communication, Critical Reading, and/or Awareness Area ([C], [G] and/or [H]) requirement(s). See the AGECA matrix on aztransfer.com for course designations.

First-Year Composition [FYC] Credits: 6\*

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6\*

\*FYC may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

Literacy and Critical Inquiry [L] Credits: 3

Any approved general education course in the Literacy and Critical Inquiry [L] area.

Mathematics [MA] Credits: 3-6

MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR  
MAT145 College Mathematics with Review (5) OR  
MAT146 College Mathematics with Review (6) OR  
Higher approved general education course in the Mathematical Applications [MA] area (3-6)  
3-6

Computer/Statistics/Quantitative Applications [CS] Credits: 3

Any approved general education courses in the Computer/Statistics/Quantitative Applications [CS] area.

Humanities, Arts and Design [HU] Credits: 6

Any approved general education courses in the Humanities, Arts and Design [HU] area.

Social-Behavioral Sciences [SB] Credits: 6

Any approved general education courses in the Social-Behavioral Sciences [SB] area.

Natural Sciences [SG]/[SQ] Credits: 8

Any approved general education course in the Science Quantitative [SQ] area (4) AND

Any approved general education course in the Science Quantitative [SQ] area or the Science General [SG] area (4). 8

Awareness Areas Credits: 0-6

These requirements may be shared with other AGECA requirements. See the AGECA matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

Historical/Global Awareness [H]/[G] Credits: 0-3

Any approved general education course in the Historical [H] or Global [G] area.

MCCCD Additional Requirements

MCCCD Additional Requirements Credits: 0-6

Some courses in this area have [SB] and [L] designations and may also be applied to the corresponding AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Oral Communication Credits: 0-3

COM100 Introduction to Human Communication (3) OR

COM110 Interpersonal Communication (3) OR

COM225 Public Speaking (3) OR

COM230 Small Group Communication (3) 0-3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR

Equivalent as indicated by assessment (0) 0-3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=188755>

Starting Term: 2024 Fall

Final Term: 9999

## **ASSOCIATE IN ARTS - ELEMENTARY EDUCATION (AAEE) IN ASSOCIATE IN ARTS, ELEMENTARY EDUCATION**

Total Credits: 60-64

Major Code: 8101

### **Description**

The Associate in Arts, Elementary Education (AAEE) provides the first two years of a four year curriculum for the student who plans to transfer to an Elementary Education or Special Education program at an Arizona public higher education institution. Upon completion of the AAEE, a student may pursue employment as a classroom instructional aide. Upon completion of a bachelor's degree, a student may pursue a career as an elementary school teacher or as a special education teacher. With further education or certification, students may pursue employment in the field of education in a number of careers including but not limited to assistant principal, principal, educational administrator, instructional designer, instructional technologist, instructional coordinator, and educational counselor.

## Program Notes

Students must earn a grade of C or better in all courses within the program. As a prerequisite to MAT256, students may place into MAT150 or MAT151 or MAT152 and complete MAT140 or MAT141 or MAT142 with a C in lieu of taking both MAT14+ and MAT12+ or taking MAT15+. A student that tests into MAT15+ can take MAT15+ or MAT14+ prior to MAT256. A student that tests into MAT14+ or lower must take MAT12+ and MAT14+ prior to MAT256. Students must petition NAU to accept (GCU/POS113) OR (HIS103 and POS221) for POS220. State certification requirements include courses on the constitutions of US and Arizona. Taking GCU/POS113 for [SB] fulfills this requirement completely. Students who instead take HIS103 or POS110 for [SB] should consider taking POS221 as a Content Area Elective so they have completed study of both constitutions. POS220 meets state certification requirements for both constitutions but does not meet [SB].

## Required Courses

Credits: 14-20

EDU221	Introduction to Education	3	
EDU222	Introduction to the Exceptional Learner	3	
EDU230	Cultural Diversity in Education	3	
FYE101	Introduction to College, Career and Personal Success (1) OR		
FYE103	Exploration of College, Career and Personal Success (3)	1-3	
MAT256	Investigating Quantity: Number, Operations, and Numeration Systems	4	
MAT257	Investigating Geometry, Probability, and Statistics	0-4	

Note: MAT257 is required for Maricopa, NAU and UA bachelor's degree. MAT257 should only be bypassed if transferring to ASU

## Restricted Electives

Credits: 8

A total of eight (8) semester credits are required to satisfy the Electives for Arizona Professional Teacher Standards: three (3) credits in an additional Education course and five (5) credits in Content Area Electives.

Courses must transfer to all public Arizona universities as Elective Credit, Departmental Elective, or Equivalent to a university course as indicated in the Arizona Course Equivalency Guide in effect when the course is taken. Courses identified as Non-transferable in the Arizona Course Equivalency Guide cannot be used to satisfy this requirement.

Select one (1) additional EDU course (other than EDU221, EDU222, EDU230 or EDU250):

Recommended:

EDU110	Education in Film (3) OR	
EDU220	Introduction to Serving English Language Learners (ELL) (3) OR	
EDU236	Classroom Relationships (3) OR	
EDU/HUM/STO292	The Art of Storytelling (3)	3

Choose any combination from the following list of courses and prefixes to total five (5) credits of additional coursework. Course(s) selected must be different from those used to fulfill a requirement of the AGEC-A and/or those used to fulfill Required Courses.

Content Area Electives: Select five (5) credits from the following:

ARH+++ Any ARH Art Humanities course(s) 3

ART+++ Any ART Art course(s) 3

BPC+++ Any BPC Business-Personal Computers course(s) 3

CFS/ECH176 Child Development 3

CFS205 Human Development 3

CIS+++ Any CIS Computer Information Systems course(s) 3

ECN+++ Any ECN Economics course(s) 3

EDU+++ Any EDU Education course(s) 3 (except EDU221, EDU222, EDU230, and EDU250)

EED215 Early Learning: Health, Safety, Nutrition and Physical Fitness (3) OR

CFS123 Health and Nutrition in Early Childhood Settings (1) AND

CFS125 Safety in Early Childhood Settings (1) 2-3

ENG+++ Any ENG English course(s) 3

ENH+++ Any ENH English Humanities course(s) 3

GCU+++ Any GCU Cultural Geography course(s) 3

GPH+++ Any GPH Physical Geography course(s) 3

HIS+++ Any HIS History course(s) 3

MAT+++ Any MAT Mathematics course(s) higher than MAT142 (except MAT256 and MAT257)  
3-5

MHL+++ Any MHL Music: History/Literature course(s) 3

MTC+++ Any MTC Music: Theory/Composition course(s) 3

POS+++ Any POS Political Science course(s) 3

THE+++ Any THE Theatre course(s) 3

THF+++ Any THF Theatre and Film course(s) 3

THP+++ Any THP Theatre Performance/Production course(s) 3

Any Foreign Language course 4-5

Any Natural Science course 3-4

## General Education Requirements

Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 35-44

A single course with an [L], [HU], [SB], [SG], or [SQ] designation may also be used to satisfy the Oral Communication, Critical Reading, and/or Awareness Area ([C], [G] and/or [H]) requirement(s). See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

First-Year Composition [FYC] Credits: 6

ENG101 First-Year Composition (3) OR

ENG107 First-Year Composition for ESL (3) AND

ENG102 First-Year Composition (3) OR

ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 3  
COM225 Public Speaking 3

Mathematics [MA] Credits: 3-6

MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR  
MAT145 College Mathematics with Review (5) OR  
MAT146 College Mathematics with Review (6) OR  
MAT150 College Algebra/Functions (5) OR  
MAT151 College Algebra/Functions (4) OR  
MAT152 College Algebra/Functions (3) OR  
MAT155 College Algebra/Functions with Review (5) OR  
MAT156 College Algebra/Functions with Review (6) OR  
MAT187 Precalculus (5) OR

Higher approved general education course in the Mathematical Applications [MA] area for which MAT15+ is a prerequisite (3-5) 3-6

Note: MAT182, MAT206, MAT256, MAT257 do NOT meet this requirement.

Computer/Statistics/Quantitative Applications [CS] Credits: 3

BPC110 Computer Usage and Applications (3) OR CIS105 Survey of Computer  
Information Systems (3) OR  
EDU/EED115 Digital Literacy for Teaching and Learning in Education (3) 3

EDU/EED115 recommended.

Humanities, Arts and Design [HU] Credits: 6

EDU/ENH291 Children`s Literature (3) OR  
ENH110 Introduction to Literature (3) OR  
ENH241 American Literature Before 1860 (3) OR  
ENH242 American Literature After 1860 (3) OR  
HUM250 Ideas and Values in the Humanities: Early Civilizations to the Renaissance (3)  
OR  
HUM251 Ideas and Values in the Humanities: Renaissance to the Contemporary World (3)  
3  
AND  
ARH100 Introduction to Art (3) OR  
ARH101 Art from Prehistory Through Middle Ages (3) OR  
ARH102 Art from Renaissance to Modernism (3) OR  
DAH100 Introduction to Dance (3) OR  
DAH201 Dance, Culture, and Global Contexts (3) OR  
DAH250 Dance in Popular Culture (3) OR  
MHL140 Survey of Music History (3) OR  
MHL145 American Jazz and Popular Music (3) OR  
MHL146 Survey of Broadway Musicals (3) OR  
MHL153 Rock Music and Culture (3) OR  
THE111 Introduction to Theatre (3) OR  
THE220 Modern Drama (3) 3  
(EDU/ENH291 recommended)

Social-Behavioral Sciences [SB] Credits: 6

Select one of the following US History/Government courses. These courses satisfy the United States Constitution requirement for state teacher certification.

GCU/POS113 United States and Arizona Social Studies (3) OR  
HIS103 United States History to 1865 (3) OR  
POS110 American National Government (3) 3 AND  
CFS205 Human Development (3) OR  
CFS/ECH176 Child Development (3) OR  
ECN211 Macroeconomic Principles (3) OR  
ECN212 Microeconomic Principles (3) OR  
GCU121 World Geography I: Eastern Hemisphere (3) OR  
GCU122 World Geography II: Western Hemisphere (3) OR  
HIS104 United States History 1865 to Present (3) OR  
PSY101 Introduction to Psychology (3) 3  
(CFS/ECH176 recommended)

Natural Sciences [SG]/[SQ] Credits: 8

The lecture course(s) selected for Natural Sciences must include or be accompanied by the corresponding laboratory course for a total of four (4) credits each. At least four (4) credits must be designated as [SQ]. Eight (8) credits of [SG] will not satisfy this requirement.

Life Sciences: Select four (4) credits of [SQ] or [SG] in Biology (BIO) (4) AND

Physical Sciences or Earth/Space Sciences: Select four (4) credits of [SQ] or [SG] from one of the following prefixes:

AGS+++ Any AGS Agricultural Science course(s) (4)  
ASM+++ Any ASM Anthropology course(s) (4)  
AST+++ Any AST Astronomy course(s) (4)  
CHM+++ Any CHM Chemistry course(s) (4)  
GPH+++ Any GPH Physical Geography course(s) (4)  
GLG+++ Any GLG Geology course(s) (4)  
PHS+++ Any PHS Physical Science course(s) (4)  
PHY+++ Any PHY Physics course(s) (4) 8

Note: Students are advised to check with the university they plan to attend as specific requirements for lab sciences may vary.

Awareness Areas Credits: 0-3

These requirements may be shared with other AGECE requirements. See the AGECE matrix on [aztransfer.com](http://aztransfer.com) for course designations.

Cultural Diversity in the US [C] Credits: 0

Historical/Global Awareness [H]/[G] Credits: 0-3

Any approved general education course with the Historical [H] or Global [G] awareness area designation.



MCCCD Additional Requirements

MCCCD Additional Requirements Credits: 0-3

Some courses in this area have [SB] and [L] designations and may also be applied to the corresponding AGECE requirements. See the AGECE matrix on [aztransfer.com](http://aztransfer.com) for course designations.

Oral Communication Credits: 0

Met by COM225 in the Literacy and Critical Inquiry [L] area.

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR

Equivalent as indicated by assessment (0) 0-3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=188756>

Starting Term: 2024 Fall

Final Term: 9999

## **ASSOCIATE IN ARTS (AA) IN ASSOCIATE IN ARTS, EMPHASIS IN AMERICAN INDIAN STUDIES**

Total Credits: 60-64

Major Code: 8126

### **Description**

The Associate in Arts (AA), Emphasis in American Indian Studies provides a multi-disciplinary academic approach to studying Indigenous Peoples, their cultures, struggles, and maintaining sovereignty and self-determination. This degree empowers students to effectively work in urban and rural environments, and government agencies, and help Native Nations. Coursework focuses on historic relations with non-Indian societies, the development of federal Indian law, tribal governments, treaty rights, environmental issues, public policy, economic development, cultural preservation, and contemporary social issues. This degree provides students with the foundational coursework needed to transfer to a four-year institution to earn a Bachelor of Arts (BA) or Bachelor of Science (BS) degree in the field.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program. Federal Indian policy stipulates tribal preference in hiring, which should be considered in seeking employment with tribal nations and selected federal agencies. Seek advice of the tribal agency for available employment opportunities.

### **Required Courses**

Credits: 7-9

AIS/SOC105 Introduction to American Indian Studies 3  
AIS/SOC160 American Indian Law 3

FYE101 Introduction to College, Career and Personal Success (1) OR  
FYE103 Exploration of College, Career and Personal Success (3) 1-3

## General Education Requirements

Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 35-38

A single course with an [L], [HU], [SB], [SG], or [SQ] designation may also be used to satisfy the Oral Communication, Critical Reading, and/or Awareness Area ([C], [G] and/or [H]) requirement(s). See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

First-Year Composition [FYC] Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 3

Any approved general education course in the Literacy and Critical Inquiry [L] area. 3

Recommended for students intending to earn the Academic Certificate in American Indian Studies:

AIS213/REL203 American Indian Religions 3

Mathematics [MA] Credits: 3-6

MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR  
MAT145 College Mathematics with Review (5) OR  
MAT146 College Mathematics with Review (6) OR  
Higher approved general education course in the Mathematical Applications [MA] area (3-6)  
3-6

Computer/Statistics/Quantitative Applications [CS] Credits: 3

BPC110 Computer Usage and Applications (3) OR  
CIS105 Survey of Computer Information Systems (3) 3

Humanities, Arts and Design [HU] Credits: 6

Any approved general education courses in the Humanities, Arts and Design [HU] area. 6

Recommended for students intending to earn the Academic Certificate in American Indian Studies:

AIS213/REL203 American Indian Religions 3 or ENH259 American Indian Literature  
3

Social-Behavioral Sciences [SB] Credits: 6  
Any approved general education courses in the Social-Behavioral Sciences [SB] area. 6

Recommended for students intending to earn the Academic Certificate in American Indian Studies:

AIS101 Survey of American Indian Issues 3 or AIS/HIS140 American Indian History 3 or  
AIS/SOC141 Sovereign Indian Nations 3

Natural Sciences [SG]/[SQ] Credits: 8

Any approved general education course in the Natural Sciences (Quantitative) [SQ] area (4)  
AND  
Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the  
Natural Sciences (General) [SG] area (4) 8

Awareness Areas Credits: 0

These requirements may be shared with other AGECE requirements. See the AGECE matrix on  
aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0

Historical/Global Awareness [H]/[G] Credits: 0  
Met by AIS/SOC160 in the Required Courses area

MCCCD Additional Requirements  
MCCCD Additional Requirements Credits: 0-6

Some courses in this area have [SB] and [L] designations and may also be applied to the  
corresponding AGECE requirements. See the AGECE matrix on aztransfer.com for course  
designations.

Oral Communication Credits: 0-3  
COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 0-3

Critical Reading Credits: 0-3  
CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=188757>

Starting Term: 2024 Fall  
Final Term: 9999

## **ASSOCIATE IN ARTS (AA) IN ASSOCIATE IN ARTS, EMPHASIS IN ANTHROPOLOGY**

Total Credits: 60-64  
Major Code: 8109

### **Description**

The Associate in Arts (AA), Emphasis in Anthropology provides the first two years of a four-year curriculum for students who wish to receive an education in the broad field of anthropology - an examination of the human experience. Depending on their preferred focus, students can pursue either a Bachelor of Arts or a Bachelor of Science degree. Coursework in this program surveys both cultural and biological aspects of what it means to be human, and students will develop critical thinking skills through the analysis of real-world anthropological case studies. As such, students receive a holistic training in their worldview that is valued highly by employers in many fields, including health and human services, media, business, Non-Governmental Organizations (NGOs), and government agencies.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 14-17

ASB102	Introduction to Cultural Anthropology	3
ASB222	Buried Cities and Lost Tribes: Old World (3) OR	
ASB223	Buried Cities and Lost Tribes: New World (3)	3
ASM104	Bones, Stones, and Human Evolution	4
FYE101	Introduction to College, Career and Personal Success (1) OR	
FYE103	Exploration of College, Career and Personal Success (3)	1-3
MAT206	Elements of Statistics (3) OR	
PSY230	Introduction to Statistics (3) OR	
PSY230	Introduction to Statistics (3) AND	
PSY231	Laboratory for Statistics (1) OR	
PSY230WL	Introduction to Statistics with Lab (4) OR	
SWU225	Statistics for Social Research/Justice and Government (3)	3-4

Note: MAT206 is required for NAU, MAT206 OR PSY230 is required for U of A

### **Restricted Electives**

Credits: 0-17

Transfer Plan 1: Arizona State University (College of Liberal Arts and Sciences), Anthropology, Bachelor of Arts Credits: 0

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 2: Arizona State University (College of Liberal Arts and Sciences), Anthropology, Bachelor of Science Credits: 9-10

ASB100 Introduction to Global Health (3) OR

ASM/FOR275 Forensic Anthropology (4) OR

+ GPH210 Society and Environment (3) OR

+ GPH211 Landform Processes (4) 3-4

(partially fulfills the ASU CLAS Science and Society Elective requirement)

Complete six (6) credits that transfer to ASU as a direct equivalency or departmental elective in the ASB or ASM prefix.

Transfer Plan 3: Northern Arizona University, Anthropology, Bachelor of Arts

Credits: 0-9

Additional Anthropology Coursework Credits: 0-9

Complete zero to nine (0-9) credits of coursework that transfers to NAU as 200-level ANT courses.

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 4: University of Arizona, Anthropology, Bachelor of Arts

Credits: 0

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 5: University of Arizona, Anthropology (Archaeological Sciences Emphasis), Bachelor of Science

Credits: 15-16

ASB230 Principles of Archaeology 3

+ BIO181++ General Biology (Majors) | 4

- + BIO182++ General Biology (Majors) II 4
- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4) 4-5

Second Language Requirement:

Completion of second language courses at the elementary level (102 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 6: University of Arizona, Anthropology (Human Biology Emphasis), Bachelor of Science

Credits: 16-17

- + BIO181++ General Biology (Majors) I 4
- + BIO182++ General Biology (Majors) II 4
- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4) 4-5
- + CHM152 General Chemistry II (3) AND
- + CHM152LL General Chemistry II Laboratory (1) OR
- + CHM152AA General Chemistry II (4) 4

Second Language Requirement:

Completion of second language courses at the elementary level (102 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information. **General Education Requirements**

Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 15-28

A single course with an [L], [HU], [SB], [SG], or [SQ] designation may also be used to satisfy the Oral Communication, Critical Reading, and/or Awareness Area ([C], [G] and/or [H]) requirement(s). See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

First-Year Composition [FYC]Credits: 6

- ENG101 First-Year Composition (3) OR
- ENG107 First-Year Composition for ESL (3) AND

ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 3  
Any approved general education course in the Literacy and Critical Inquiry [L] area. 3

Mathematics [MA] Credits: 3-6

Arizona State University (College of Liberal Arts and Sciences), Anthropology, Bachelor of Arts;  
Northern Arizona University, Anthropology, Bachelor of Arts; and University of Arizona,  
Anthropology, Bachelor of Arts

MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR  
MAT145 College Mathematics with Review (5) OR  
MAT146 College Mathematics with Review (6) OR  
Higher approved general education course in the Mathematical Applications [MA] area (3-6)  
3-6

University of Arizona, Anthropology (Human Biology Emphasis), Bachelor of Science

MAT212 Brief Calculus (3) OR  
MAT213 Brief Calculus (4) OR  
MAT220 Calculus with Analytic Geometry I (5) OR  
MAT221 Calculus with Analytic Geometry I (4) OR

Higher approved general education course in the Mathematical Applications [MA] area for which  
MAT22+ is a prerequisite. (4-5) 3-5

Arizona State University (College of Liberal Arts and Sciences), Anthropology, Bachelor of  
Science and University of Arizona, Anthropology (Archaeological Sciences Emphasis), Bachelor  
of Science

MAT220 Calculus with Analytic Geometry I (5) OR  
MAT221 Calculus with Analytic Geometry I (4) OR  
Higher approved general education course in the Mathematical Applications [MA] area for which  
MAT22+ is a prerequisite. (4-5) 4-5

Computer/Statistics/Quantitative Applications [CS] Credits: 0  
Met by MAT206, PSY230, or SWU225 in the Required Courses area.

Humanities, Arts and Design [HU] Credits: 3  
Any approved general education course in the Humanities, Arts, and Design [HU] area. 3  
AND  
Met by ASB222 OR ASB223 in the Required Courses area.

Social-Behavioral Sciences [SB] Credits: 0-3

Any approved general education course in the Social-Behavioral Sciences [SB] area 3  
AND  
Met by ASB102 in the Required Courses area.

May be met by ASB100, ASB230, or ASM/FOR275 in the Restricted Electives area

Recommend selecting a course in the ASB prefix

Natural Sciences [SG]/[SQ] Credits: 0-4

Any approved general education course in the Natural Sciences (Quantitative) [SQ] area 4 AND Met by ASM104 in the Required Courses area

May be met by BIO181++, BIO182++, CHM150 and CHM151LL, CHM150AA, CHM151 and CHM151LL, CHM151AA, CHM152 and CHM152LL, CHM152AA, or GPH211 in the Restricted Electives area

Awareness Areas Credits: 0-3

These requirements may be shared with other AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

Historical/Global Awareness [H]/[G] Credits: 0

Met by ASB102, ASB222, or ASB223 in the Required Courses area

MCCCD Additional Requirements Credits: 0-6

Some courses in this area have [SB] and [L] designations and may also be applied to the corresponding AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Oral Communication Credits: 0-3

COM100 Introduction to Human Communication (3) OR

COM110 Interpersonal Communication (3) OR

COM225 Public Speaking (3) OR

COM230 Small Group Communication (3) 0-3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR

Equivalent as indicated by assessment (0) 0-3

## **General Electives**

Select additional courses 100-level or higher to complete a minimum of 60 semester credits but no more than a total of 64 semester credits. Consult with a faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.

Recommended:

AFR/ASB/CCS202 Ethnic Relations in the United States 3

ASB100 Introduction to Global Health 3

ASB211 Women in Other Cultures 3

ASB214 Magic, Witchcraft and Healing: An Introduction to Comparative Religion 3

ASB220 Anthropology Goes to the Movies 3

ASB226 Human Impacts on Ancient Environments 3



ASB230 Principles of Archaeology 3  
ASB231 Archaeological Field Methods 4  
ASB234 Art and Archaeology of Ancient Egypt 3  
ASB235 Southwest Archaeology 3  
ASB245 Indians of the Southwest 3  
ASB252 Sports and Culture 3  
ASB253 Death and Dying Across Cultures 3  
+ ASB282++ Service-Learning Experience in Anthropology 1-3  
+ ASB298++ Special Projects 1-3  
ASM/FOR275 Forensic Anthropology 4

Recommended for Transfer Plan 1: Arizona State University (College of Liberal Arts and Sciences), Anthropology, Bachelor of Arts OR  
Transfer Plan 3: Northern Arizona University, Anthropology, Bachelor of Arts OR  
Transfer Plan 4: University of Arizona, Anthropology, Bachelor of Arts  
Complete a language course at the intermediate level (202 or equivalent) with a C or better OR demonstrate proficiency through this level as indicated by assessment.

ARB+++ Any ARB Arabic course(s)  
ASL+++ Any ASL American Sign Language course(s)  
CHI+++ Any CHI Chinese course(s)  
FRE+++ Any FRE French course(s)  
GER+++ Any GER German course(s)  
ITA+++ Any ITA Italian course(s)  
JPN+++ Any JPN Japanese course(s)  
SPA+++ Any SPA Spanish course(s)

Recommended for Transfer Plan 5: University of Arizona, Anthropology (Archaeological Sciences Emphasis), Bachelor of Science OR  
Transfer Plan 6: University of Arizona, Anthropology (Human Biology Emphasis), Bachelor of Science  
Complete a language course at the elementary level (102 or equivalent) with a C or better OR demonstrate proficiency through this level as indicated by assessment.

ARB+++ Any ARB Arabic course(s)  
ASL+++ Any ASL American Sign Language course(s)  
CHI+++ Any CHI Chinese course(s)  
FRE+++ Any FRE French course(s)  
GER+++ Any GER German course(s)  
ITA+++ Any ITA Italian course(s)  
JPN+++ Any JPN Japanese course(s)  
SPA+++ Any SPA Spanish course(s)

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=183477>

Starting Term: 2023 Fall  
Final Term: 9999

## **ASSOCIATE IN ARTS (AA) IN ASSOCIATE IN ARTS, EMPHASIS IN COMMUNICATION**

Total Credits: 60-64  
Major Code: 8124

## Description

The Associate of Arts (AA), Emphasis in Communication includes a dynamic blend of theory and practical experience that provides students with a solid introduction to the wide-ranging field of Communication. With an associate degree in Communication, students will gain proficiency in a variety of communication contexts including interpersonal, small group, intercultural, organizational, public and professional speaking. This degree prepares students for their bachelor's degree transfer pathway and equips them with the communication skill set valued so highly by employers. Coursework provides the foundational conceptual knowledge and tools to understand, analyze, and respond to communication challenges and opportunities in a variety of contexts.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 19-21

COM100	Introduction to Human Communication	3
COM110	Interpersonal Communication	3
COM207	Introduction to Communication Inquiry	3
COM225	Public Speaking	3
COM230	Small Group Communication	3
COM263	Elements of Intercultural Communication	3
FYE101	Introduction to College, Career and Personal Success (1) OR	
FYE103	Exploration of College, Career and Personal Success (3)	1-3

## Restricted Electives

Restricted Electives

Course # Course Title Credits

Credits: 0-8

Complete requirements in the transfer option that best aligns with your academic and professional goals. If your intended transfer institution is not listed, then select a combination of courses from the transfer options listed in order to meet the minimum credits required in the Restricted Electives section. Consult with an academic, faculty, or program advisor to prevent exceeding your university transfer program's maximum transferable credits (typically 64).

Transfer Plan 1: Arizona State University (College of Liberal Arts and Sciences), Bachelor of Arts, Communication: Credits:

Second Language Requirement: Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by

assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 2: Arizona State University (College of Integrative Sciences and Arts), Bachelor of Arts, Communication: Credits: 0

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information

Transfer Plan 3: Arizona State University (New College of Interdisciplinary Arts and Sciences), Bachelor of Arts, Communication Studies: Credits: 0

No additional coursework needed.

Transfer Plan 4: Arizona State University (College of Liberal Arts and Sciences), Bachelor of Science, Communication: Credits: 0

No additional coursework needed.

Transfer Plan 5: Arizona State University (New College of Interdisciplinary Arts and Sciences), Bachelor of Science, Communication: Credits: 3-4

- + GBS221 Business Statistics (3) OR
- + MAT206 Elements of Statistics (3) OR
- + PSY230 Introduction to Statistics (3) OR
- + PSY230WL Introduction to Statistics with Lab (4) OR
- + SWU225 Statistics for Social Research/Justice and Government (3) 3-4

Transfer Plan 6: Northern Arizona University, Bachelor of Arts, Communication: Credits: 3

MKT101 Introduction to Public Relations 3

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 7: Northern Arizona University, Bachelor of Science, Communication: Credits: 3

MKT101 Introduction to Public Relations 3

Transfer Plan 8: University of Arizona, Bachelor of Arts, Communication: Credits: 7-8

- + MAT206 Elements of Statistics (3) OR
- + PSY230 Introduction to Statistics (3) OR
- + PSY230WL Introduction to Statistics with Lab (4) 3-4

- + PSY290AB Research Methods (4) OR
- + PSY290AC Research Methods (4) 4

**Second Language Requirement:**

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 9: Grand Canyon University, Bachelor of Arts, Communication: Credits: 6  
+ COM222 Argumentation 3  
MKT101 Introduction to Public Relations 3

## **General Education Requirements**

Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 19-29

A single course with an [L], [HU], [SB], [SG], or [SQ] designation may also be used to satisfy the Oral Communication, Critical Reading, and/or Awareness Area ([C], [G] and/or [H]) requirement(s). See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designation

First-Year Composition [FYC] Credits: 6

- ENG101 First-Year Composition (3) OR
- ENG107 First-Year Composition for ESL (3) AND
- ENG102 First-Year Composition (3) OR
- ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 0  
Met by COM225 in Required Courses area.

Mathematics [MA] Credits: 3-6

- MAT140 College Mathematics (5) OR
- MAT141 College Mathematics (4) OR
- MAT142 College Mathematics (3) OR
- MAT145 College Mathematics with Review (5) OR
- MAT146 College Mathematics with Review (6) OR
- Higher approved general education course in the Mathematical Applications [MA] area (3-6)  
3-6

Computer/Statistics/Quantitative Applications [CS] Credits: 0-3

Met by GBS221 or MAT206 or PSY230 or PSY230WL or SWU225 in Restricted Electives area  
OR

Any approved general education course in the Computer/Statistics/Quantitative Applications [CS] area. 0-3

Humanities, Arts and Design [HU] Credits: 6

Any approved general education courses in the Humanities, Arts and Design [HU] area. 6  
Recommended: COM/THP241 Oral Interpretation of Literature 3

Social-Behavioral Sciences [SB] Credits: 0  
Met by COM100, COM110, COM230, or COM263 in the Required Courses area.

Natural Sciences [SG]/[SQ] Credits: 4-8  
Any approved general education course in the Natural Sciences (Quantitative) [SQ] area (4)  
AND  
Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the  
Natural Sciences (General) [SG] area (4). 8

May be met by PSY290AB or PSY290AC in Restricted Electives.

Awareness Areas Credits: 0

These requirements may be shared with other AGECE requirements. See the AGECE matrix on  
aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0

Historical/Global Awareness [H]/[G] Credits: 0

Met by COM263 in Required Courses area.

MCCCD Additional Requirements

MCCCD Additional Requirements Credits: 0-3

Courses in this area may also be applied to other AGECE Requirements. To minimize total  
credits required for degree and maximize transferable credits, it is recommended that courses  
be selected that meet more than one requirement wherever possible.

Oral Communication Credits: 0

Met by COM100, COM110, COM225, or COM230 in the Required Courses area.

Critical Reading Credits: 0-3  
CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

### **General Electives:**

Select additional courses 100-level or higher to complete a minimum of 60 semester credits but  
no more than a total of 64 semester credits. Consult with a faculty advisor, program director,  
and/or academic advisor to identify coursework that best aligns with academic and professional  
goals.

Recommended for Transfer Plan 1: Arizona State University (College of Liberal Arts and  
Sciences), Bachelor of Arts, Communication OR  
Transfer Plan 2: Arizona State University (College of Integrative Sciences and Arts), Bachelor of  
Arts, Communication OR

Transfer Plan 6: Northern Arizona University, Bachelor of Arts, Communication OR  
Transfer Plan 8: University of Arizona, Bachelor of Arts, Communication  
Complete a language course at the intermediate level (202 or equivalent) with a C or better OR  
demonstrate proficiency through this level as indicated by assessment.

ARB+++ Any ARB Arabic course(s)

ASL+++ Any ASL American Sign Language course(s)

CHI+++ Any CHI Chinese course(s)

FRE+++ Any FRE French course(s)

GER+++ Any GER German course(s)

ITA+++ Any ITA Italian course(s)

JPN+++ Any JPN Japanese course(s)

SPA+++ Any SPA Spanish course(s)

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=183248>

Starting Term: 2023 Fall

Final Term: 9999

## **ASSOCIATE IN ARTS (AA) IN ASSOCIATE IN ARTS, EMPHASIS IN COUNSELING AND APPLIED PSYCHOLOGICAL SCIENCE**

Total Credits: 60-64

Major Code: 8137

### **Description**

The Associate in Arts (AA), Emphasis in Counseling and Applied Psychological Science provides the first two years of a four-year curriculum for students who wish to specialize in counseling and applied psychological science or are preparing for graduate programs in counseling or related fields. The program provides a foundation in counseling theories, counseling skills, career and lifespan development, ethics and research methods, and multicultural competence. Graduates will not be license-eligible as professional counselors, but will be prepared to enter an undergraduate degree program in counseling and applied psychological science. Graduates of the associate's program may qualify for entry-level employment such as social and human service assistants or psychiatric technicians in community agencies, hospitals, rehabilitation centers and other behavioral healthcare delivery settings to support counselors and other mental health professionals.

Students who complete a bachelor's degree within the field may be prepared to enter a graduate program in counseling or pursue careers including but not limited to: social and community service managers, social science research assistants, probation officers and correctional treatment specialists, and education administrators (postsecondary).

Upon completion of a graduate degree students may pursue a number of careers, including but not limited to: clinical, counseling, and school psychologists; educational, guidance, school, and vocational counselors; substance abuse and behavioral disorder counselors; marriage and

family therapists; mental health counselors; rehabilitation counselors; and college/university faculty.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

This program aligns with the requirements of the Counseling and Applied Psychological Science (BS) MyPath2ASU at Arizona State University (ASU), Polytechnic, College of Integrative Sciences and Arts and the Bachelor of Interdisciplinary Studies in Applied Human Behavior 90/30 at Northern Arizona University (NAU).

### Required Courses

Credits: 13-15

BHS165 Applied Therapeutic Communication Skills (3) OR  
+ CAP240 Introduction to Counseling Skills (3) 3

BHS185 Cultural Competence in Behavioral Health (3) OR  
CAP220 The Counselor in a Multicultural Society (3) 3  
CAP120 Introduction to Counseling 3  
+ CAP260 Career and Professional Preparation for the Helping Professions 3

FYE101 Introduction to College, Career and Personal Success (1) OR  
FYE103 Exploration of College, Career and Personal Success (3) 1-3

### General Education Requirements

Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 29-36

A single course with an [L], [HU], [SB], [SG], or [SQ] designation may also be used to satisfy the Oral Communication, Critical Reading, and/or Awareness Area ([C], [G] and/or [H]) requirement(s). See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

First-Year Composition [FYC] Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 0  
Met by CAP260 in the Required Courses area.

Mathematics [MA] Credits: 3-6

MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR  
MAT145 College Mathematics with Review (5) OR  
MAT146 College Mathematics with Review (6) OR

Higher approved general education course in the Mathematical Applications [MA] area (3-6)  
3-6

Note: Students planning to transfer to ASU for the BS in Counseling and Applied Psychological Science should take MAT187 Precalculus or equivalent or higher [MA] course for which MAT187 is a prerequisite.

Computer/Statistics/Quantitative Applications [CS] Credits: 3-4  
PSY230 Introduction to Statistics (3) OR  
PSY230 Introduction to Statistics (3) AND  
PSY231 Laboratory for Statistics (1) OR  
PSY230WL Introduction to Statistics with Lab (4) 3-4

Humanities, Arts and Design [HU] Credits: 6  
Any approved general education courses in the Humanities, Arts and Design [HU] area. 6

Social-Behavioral Sciences [SB] Credits: 3  
PSY101 Introduction to Psychology 3 AND  
Met by CAP120 in Required Courses area.

Natural Sciences [SG]/[SQ] Credits: 8  
PSY290AB Research Methods (4) OR  
PSY290AC Research Methods (4) 4

BIO100 Biology Concepts (4) OR  
BIO156++ Introductory Biology for Allied Health (4) OR

BIO181++ General Biology (Majors) I (4) OR  
Any approved general education course in the Natural Sciences (Quantitative) [SQ] area (4) 4

Note: Students planning to transfer to ASU for the BS in Counseling and Applied Psychology (Substance Abuse and Addictions) should take BIO181++.

Awareness Areas Credits: 0-3

These requirements may be shared with other AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0

Historical/Global Awareness [H]/[G] Credits: 0-3  
Any approved general education course with the Historical [H] or Global [G] awareness area designation. 0-3

MCCCD Additional Requirements  
MCCCD Additional Requirements Credits: 0-6

Some courses in this area have [SB] and [L] designations and may also be applied to the corresponding AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.



Oral Communication Credits: 0-3

COM100 Introduction to Human Communication (3) OR

COM110 Interpersonal Communication (3) OR

COM225 Public Speaking (3) OR

COM230 Small Group Communication (3) 0-3

Recommend COM225 for students transferring to Northern Arizona University.

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR

Equivalent as indicated by assessment (0) 0-3

### **General Electives**

Select additional courses 100-level or higher to complete a minimum of 60 semester credits but no more than a total of 64 semester credits. Consult with a faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=188759>

Starting Term: 2024 Fall

Final Term: 9999 Summer

## **ASSOCIATE IN ARTS (AA) IN ASSOCIATE IN ARTS, EMPHASIS IN CRIMINAL JUSTICE**

Total Credits: 60-64

Major Code: 8144

### **Description**

The Associate in Arts (AA), Emphasis in Criminal Justice provides students with the first two years of a four-year curriculum for students who intend to earn a bachelor's degree in Criminal Justice and pursue a graduate degree in a related field. With a bachelor's degree, students may pursue advancement in several fields including local and federal law enforcement, the courts, corrections, security, and investigations. With a graduate degree, students may pursue employment in several areas including criminal justice professors, lawyers, judges, and statisticians. An Associate in Applied Science (AAS) in Administration of Justice Studies as well as six related Certificates of Completion (CCLs) are available.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 7-9

AJS101	Introduction to Criminal Justice	3
AJS123	Ethics and the Administration of Justice	3
FYE101	Introduction to College, Career and Personal Success (1) OR	
FYE103	Exploration of College, Career and Personal Success (3)	1-3

## Restricted Electives

Credits: 3-28

Complete requirements in the transfer option that best aligns with your academic and professional goals. If your intended transfer institution is not listed, then select a combination of courses from the transfer options listed in order to meet the minimum credits required in the Restricted Electives section. Consult with an academic, faculty, or program advisor to prevent exceeding your university transfer program's maximum transferable credits (typically 64).

Transfer Plan 1: Arizona State University (College of Public Service and Community Solutions), Criminology and Criminal Justice, Bachelor of Science

AJS113	Criminal Justice Crime Control Policies and Practices	3
AJS230	The Police Function	3
AJS240	The Correction Function	3
REC120	Leisure and the Quality of Life	3
SWU171	Introduction to Social Work	3

Select two of the following courses:

AJS109	Substantive Criminal Law	3
AJS212	Juvenile Justice Procedures	3
AJS270	Community Relations	3

Criminal Justice Elective - 3 credits:

Select one (1) course for a total of three (3) credit hours that transfers to ASU as a 200-level course with a CRJ prefix. You may select specific courses from the Course Equivalency Guide that satisfy these criteria. Determination is made based on the semester and year the course is taken. Consult with an AJS faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.

Transfer Plan 2: Arizona State University (College of Liberal Arts and Sciences), Justice Studies, Bachelor of Arts

ENG215	Strategies of Academic Writing (3) OR	
ENG216	Persuasive Writing on Public Issues (3) OR	
ENG217	Personal and Exploratory Writing (3)	3

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 3: Arizona State University (College of Liberal Arts and Sciences), Justice Studies, Bachelor of Science

ENG215 Strategies of Academic Writing (3) OR  
ENG216 Persuasive Writing on Public Issues (3) OR  
ENG217 Personal and Exploratory Writing (3) 3

Lower Division Electives - Credits: 11-25

Consult with an AJS faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.

Transfer Plan 4: Arizona State University (College of Public Service and Community Solutions), Public Service and Public Policy (Criminology), Bachelor of Science

AJS113 Criminal Justice Crime Control Policies and Practices 3  
ENG216 Persuasive Writing on Public Issues 3  
PAD100 21st Century Public Policy and Service 3  
+ PAD200 Public Affairs Economics 3  
+ COM225 Public Speaking 3

Public Programs Elective Requirement - Credits: 3

Complete a course that transfers to ASU with the following prefix: CRJ, HST, PAF, POS, SOC, SOS, or SWU (according to the CEG for the term taken). Cannot be met with PAD100 (ASU: PAF 100), PAD200 (ASU: PAF 201), POS110 (ASU: POS 110), or SOC101 (ASU: SOC 101). Consult with an AJS faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.

COPP Interdisciplinary Requirement - Credits: 3

Complete a course from one (1) of the three (3) interdisciplinary area tracks below. Consult with an AJS faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.

Interdisciplinary Requirement Track One:  
HRM160 Tourism Principles and Practices 3  
REC120 Leisure and the Quality of Life 3

Interdisciplinary Requirement Track Two:  
SWU171 Introduction to Social Work 3

Transfer Plan 5: Northern Arizona University, Criminology and Criminal Justice, Bachelor of Science

AJS225 Criminology 3

Criminology and Criminal Justice Major Elective - Credits: 6

Select six credits of AJS course work that transfers as CCJ Departmental Elective. Consult with an AJS faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.

Transfer Plan 6: Arizona State University (Watts College of Public Service and Community Solutions), Criminology and Criminal Justice (Policing), Bachelor of Science – Credits 18

AJS109	Substantive Criminal Law (3) OR	
AJS200	Current Issues in Criminal Justice (3) OR	
AJS212	Juvenile Justice Procedures (3) OR	
AJS270	Community Relations (3) OR	
AJS275	Criminal Investigation I (3)	3
AJS113	Criminal Justice Crime Control Policies and Practices	3
AJS230	The Police Function	3
AJS240	The Correction Function	3

Interdisciplinary Requirement - Credits: 6

Students must choose two (2) classes from at least two of the three interdisciplinary area tracks below. Consult with an AJS faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.

Interdisciplinary Requirement Track One:  
HRM160 Tourism Principles and Practices 3  
REC120 Leisure and the Quality of Life 3

Interdisciplinary Requirement Track Two:  
SWU171 Introduction to Social Work 3

## General Education Requirements

Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 29-38

A single course with an [HU], [SB], [L], or [SG]/[SQ] designation may also be used to satisfy the Oral Communication, Critical Reading, or Awareness Area ([C], [G] and/or [H]) requirement(s).

First-Year Composition [FYC] Credits: 6  
ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 3  
Any approved general education course in the Literacy and Critical Inquiry [L] area.

May be met by specific Transfer Plan option selections

Mathematics [MA] Credits: 3-6  
MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR

MAT145 College Mathematics with Review (5) OR  
MAT146 College Mathematics with Review (6) OR  
Higher approved general education course in the Mathematical Applications [MA] area (3-6)  
3-6

Computer/Statistics/Quantitative Applications [CS] Credits: 3  
Any approved general education course in the Computer/Statistics/Quantitative Applications [CS] area.

May be met by specific Transfer Plan option selections

Humanities, Arts and Design [HU] Credits: 3  
Met by AJS123 Ethics and the Administration of Justice 3  
AND

Any approved general education courses in the Humanities, Arts and Design [HU] area.

Recommend selecting a course that satisfies the Global [G] or Historical [H] awareness area.  
Social-Behavioral Sciences [SB] Credits: 3

Met by AJS101 Introduction to Criminal Justice 3  
AND

Any approved general education courses in the Social-Behavioral Sciences [SB] area. May be met by specific Transfer Plan option selections.

Recommend AJS/EMT/FSC258 Victimology and Crisis Management in Public Safety

Natural Sciences [SG]/[SQ] Credits: 8  
Any approved general education course in the Natural Sciences (Quantitative) [SQ] area (4)  
AND  
Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the Natural Sciences (General) [SG] area (4). 8

Recommended:

FOR105 Forensic Science: Physical Evidence 4  
FOR106 Forensic Science: Biological Evidence 4

Awareness Areas Credits: 0-6

These requirements may be shared with Core Requirements.

Cultural Diversity in the US [C] Credits: 0-3

Historical/Global Awareness [H]/[G] Credits: 0-3  
Any approved general education course with the Historical [H] or Global [G] awareness area designation.

MCCCD Additional Requirements

MCCCD Additional Requirements Credits: 0-6

Courses in this area may also be applied to the AGEC Core Requirements. To minimize total credits required for degree and maximize transferable credits, it is recommended that courses be selected that meet more than one requirement wherever possible.

Oral Communication Credits: 0-3  
COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 3

May be met by specific Transfer Plan option selections

Critical Reading Credits: 0-3  
CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

### **General Electives**

Select additional courses 100-level or higher to complete a minimum of 60 semester credits but no more than a total of 64 semester credits. Consult with an AJS faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.

Recommended for Transfer Plan 2: Arizona State University (College of Liberal Arts and Sciences), Justice Studies, Bachelor of Arts  
Completion of a language course at the intermediate level (202 or equivalent) with a C or better OR demonstrating proficiency through this level as indicated by assessment.

ARB+++ Any ARB Arabic course(s)  
ASL+++ Any ASL American Sign Language course(s)  
CHI+++ Any CHI Chinese course(s)  
FRE+++ Any FRE French course(s)  
GER+++ Any GER German course(s)  
ITA+++ Any ITA Italian course(s)  
JPN+++ Any JPN Japanese course(s)  
SPA+++ Any SPA Spanish course(s)

Recommended for Transfer Plan 4: Arizona State University (College of Public Service and Community Solutions), Public Service and Public Policy (Criminology), Bachelor of Science  
SOC 101 Introduction to Sociology 3  
POS 110 American Government and Politics 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=188760>

Starting Term: 2024 Fall  
Final Term: 9999

## **ASSOCIATE IN ARTS (AA) IN ASSOCIATE IN ARTS, EMPHASIS IN EARLY CHILDHOOD EDUCATION**

Total Credits: 60-64  
Major Code: 8132

### **Description**

The Associate in Arts (AA), Emphasis in Early Childhood Education provides the first two years of a four-year curriculum in early childhood education. Students study child development, curriculum design and development, theory and practice in the education of young children, and the intersections of family, community, and childhood learning and development. Students who earn the AA, Early Childhood Education may work in early childhood settings and programs as early childhood educators and teacher assistants. Upon completion of the Bachelor of Arts in Education, students may work as teachers of children from birth to third grade. The AA, Early Childhood Education provides a pathway for students seeking Arizona Department of Education teacher certification.

## Program Notes

Students must earn a grade of C or better in all courses within the program. For some employment and field experiences (including internship courses), students will be required to have a current Identity Verified Print (IVP) Fingerprint Clearance Card and a current TB test.

## Required Courses

Credits: 23-27

CFS123	Health and Nutrition in Early Childhood Settings (1) AND	
CFS125	Safety in Early Childhood Settings (1) OR	
EED215	Early Learning: Health, Safety, Nutrition and Physical Fitness (3)	2-3
CFS/ECH176	Child Development (3) OR	
CFS205	Human Development (3)	3
EED200	Foundations of Early Childhood Education	3
EED225	Language and Literacy in the Context of Culture and Relationships	3
FYE101	Introduction to College, Career and Personal Success (1) OR	
FYE103	Exploration of College, Career and Personal Success (3)	1-3

Select one of the following US History/Government options. These courses satisfy the United States Constitution requirement for state teacher certification.

GCU/POS113	United States and Arizona Social Studies (3) OR	
HIS103	United States History to 1865 (3) AND	
POS221	Arizona Constitution (1)	3-4

MAT256	Investigating Quantity: Number, Operations, and Numerations Systems	4
MAT257	Investigating Geometry, Probability, and Statistics	4

## General Education Requirements

Arizona General Education Curriculum (AGEC)  
AGEC-A Credits: 29-33

A single course with an [L], [HU], [SB], [SG], or [SQ] designation may also be used to satisfy the Oral Communication, Critical Reading, and/or Awareness Area ([C], [G] and/or [H]) requirement(s). See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

First-Year Composition [FYC] Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 3  
COM225 Public Speaking 3

Mathematics [MA] Credits: 3-6

MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR  
MAT145 College Mathematics with Review (5) OR  
MAT146 College Mathematics with Review (6) OR  
MAT150 College Algebra/Functions (5) OR  
MAT151 College Algebra/Functions (4) OR  
MAT152 College Algebra/Functions (3) OR  
MAT155 College Algebra/Functions with Review (5) OR  
MAT156 College Algebra/Functions with Review (6) OR  
MAT187 Precalculus (5) OR

Higher approved general education course in the Mathematical Applications [MA] area for which  
MAT15+ is a prerequisite (3-5) 3-6

Note: Students must meet one of the following MCCCDC prerequisites to take MAT256: Grade of  
C or better in (MAT150, MAT151, MAT152, MAT155, or MAT156), OR [(MAT120, MAT121, or  
MAT122) AND (MAT141, MAT142, MAT145, or MAT146)], OR [(MAT141, MAT142, MAT145, or  
MAT146) with placement that permits enrollment in MAT150, MAT151, MAT152, MAT155,  
MAT156, or higher].

Computer/Statistics/Quantitative Applications [CS] Credits: 3-4

BPC110 Computer Usage and Applications (3) OR  
CIS105 Survey of Computer Information Systems (3) OR  
CSC180 Computer Literacy (3) OR  
CSC180AA Computer Literacy (3) OR  
CSC180AB Computer Literacy (4) OR  
EDU/EED115 Digital Literacy for Teaching and Learning in Education (3) 3-4  
EDU/EED115 recommended.

Humanities, Arts and Design [HU] Credits: 3

EDU/ENH291 Children`s Literature 3  
AND

Met by EED225 in Required Courses

Social-Behavioral Sciences [SB] Credits: 3

EED222 Introduction to the Exceptional Young Child: Birth to Age Eight 3  
AND

Met by HIS103 OR GCU/POS113 in Required Courses

Natural Sciences [SG]/[SQ] Credits: 8

Any approved general education course in the Natural Sciences (Quantitative) [SQ] area (4)  
AND



Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the Natural Sciences (General) [SG] area (4). 8

Awareness Areas Credits: 0

These requirements may be shared with other AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0

Historical/Global Awareness [H]/[G] Credits: 0  
Met by HIS103 OR GCU/POS113 in Required Courses.

MCCCD Additional Requirements  
MCCCD Additional Requirements Credits: 0-3

Some courses in this area have [SB] and [L] designations and may also be applied to the corresponding AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Oral Communication Credits: 0  
Met by COM225 in Literacy and Critical Inquiry area.

Critical Reading Credits: 0-3  
CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=183254>

Starting Term: 2023 Fall  
Final Term: 9999

## **ASSOCIATE IN ARTS (AA) IN ASSOCIATE IN ARTS, EMPHASIS IN ECONOMICS**

Total Credits: 60-64  
Major Code: 8111

### **Description**

The Associate in Arts (AA), Emphasis in Economics provides the first two years of a four-year curriculum for students who wish to pursue a liberal arts degree in Economics from a four-year institution. With a bachelor's degree, students may pursue a number of careers, including but not limited to, budget analysts, market research analysts, and marketing specialists. With a graduate degree, students may pursue a number of careers, including but not limited to economists, environmental economists, treasurers, controllers, urban and regional planners, economics teachers, and lawyers.

## Program Notes

Students must earn a grade of C or better in all courses within the program. Students who plan to major in economics at a college of business should consider following the Associate in Business-General Requirements (ABUS-GR) pathway instead of this award. Consult with a faculty advisor, program director, and/or academic advisor to identify the associate degree that best aligns with your academic and professional goals.

## Required Courses

Credits: 10-12

ECN211 Macroeconomic Principles 3

ECN212 Microeconomic Principles 3

FYE101 Introduction to College, Career and Personal Success (1) OR

FYE103 Exploration of College, Career and Personal Success (3) 1-3

GBS221 Business Statistics (3) OR

MAT206 Elements of Statistics (3) OR

SWU225 Statistics for Social Research/Justice and Government (3) 3

## Restricted Electives

Credits: 3-5

Complete requirements in the transfer plan that best aligns with academic and professional goals. If academic and professional goals do not align with any of the transfer plans below, select elective courses in consultation with an academic, faculty, or program advisor.

This transfer pathway is not designed for students planning to transfer to a business economics program at a university or four-year college. Students who plan to major in economics at a college of business should follow the Associate in Business-General Requirements (ABUS-GR) pathway.

Transfer Plan 1: Arizona State University (College of Liberal Arts and Sciences), Bachelor of Science, Economics

MAT217 Mathematical Analysis for Business (3) OR

MAT218 Mathematical Analysis for Business (4) OR

MAT230 Calculus with Analytic Geometry II (5) OR

MAT231 Calculus with Analytic Geometry II (4) 3-5

Transfer Plan 2: University of Arizona, Bachelor of Arts, Economics – Credits 3

CIS105 Survey of Computer Information Systems 3

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

## General Education Requirements

Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 26-34

A single course with an [L], [HU], [SB], [SG], or [SQ] designation may also be used to satisfy the Oral Communication, Critical Reading, and/or Awareness Area ([C], [G] and/or [H]) requirement(s). See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

First-Year Composition [FYC] Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 3  
Any approved general education course in the Literacy and Critical Inquiry [L] area. 3

Mathematics [MA] Credits: 3-5  
MAT212 Brief Calculus (3) OR  
MAT213 Brief Calculus (4) OR  
MAT220 Calculus with Analytic Geometry I (5) OR  
MAT221 Calculus with Analytic Geometry I (4) OR  
Higher approved general education course in the Mathematical Applications [MA] area for which MAT22+ is a prerequisite. (4-5) 3-5

Computer/Statistics/Quantitative Applications [CS] Credits: 0  
Met by GBS221, MAT206, or SWU225 in the Required Courses area.

Humanities, Arts and Design [HU] Credits: 6  
Any approved general education courses in the Humanities, Arts and Design [HU] area. 6

Social-Behavioral Sciences [SB] Credits: 0  
Met by ECN211 and ECN212 in the Required Courses area.

Natural Sciences [SG]/[SQ] Credits: 8  
Any approved general education course in the Natural Sciences (Quantitative) [SQ] area (4)  
AND  
Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the Natural Sciences (General) [SG] area (4). 8

Awareness Areas Credits: 0-6  
These requirements may be shared with other AGEC requirements. See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

Cultural Diversity in the US [C] Credits: 0-3

Historical/Global Awareness [H]/[G] Credits: 0-3

Any approved general education course in the Historical [H] and Global Awareness [G] area.

#### MCCCD Additional Requirements

MCCCD Additional Requirements Credits: 0-6

Some courses in this area have [SB] and [L] designations and may also be applied to the corresponding AGECE requirements. See the AGECE matrix on [aztransfer.com](http://aztransfer.com) for course designations.

Oral Communication Credits: 0-3

COM100 Introduction to Human Communication (3) OR

COM110 Interpersonal Communication (3) OR

COM225 Public Speaking (3) OR

COM230 Small Group Communication (3) 0-3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR

Equivalent as indicated by assessment (0) 0-3

### General Electives

Select additional courses 100-level or higher to complete a minimum of 60 semester credits but no more than a total of 64 semester credits. Consult with a faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.

Recommended for Transfer Plan 2: University of Arizona, Bachelor of Arts, Economics  
Complete a language course at the intermediate level (202 or equivalent) with a C or better OR demonstrate proficiency through this level as indicated by assessment.

ARB+++ Any ARB Arabic course(s)

ASL+++ Any ASL American Sign Language course(s)

CHI+++ Any CHI Chinese course(s)

FRE+++ Any FRE French course(s)

GER+++ Any GER German course(s)

ITA+++ Any ITA Italian course(s)

JPN+++ Any JPN Japanese course(s)

SPA+++ Any SPA Spanish course(s)

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=188761>

Starting Term: 2024 Fall

Final Term: 9999

## **ASSOCIATE IN ARTS (AA) IN ASSOCIATE IN ARTS, EMPHASIS IN EDUCATIONAL STUDIES EARLY CHILDHOOD**

Total Credits: 60-64

Major Code: 8134

## Description

The Associate in Arts (AA), Emphasis in Educational Studies Early Childhood provides the first two years of a four-year curriculum that emphasizes community, early childhood, and youth education. This program of study is designed to provide students with a foundation of knowledge in educational practices for use in the community setting. Upon completion of the Bachelor of Arts in Education, students may work with children and youth outside of traditional public school classroom settings. The AA, Educational Studies Early Childhood does not provide a pathway for students seeking Arizona Department of Education teacher certification.

## Program Notes

Students must earn a grade of C or better in all courses within the program. For some employment and field experiences (including internship courses), students will be required to have a current Identity Verified Print (IVP) Fingerprint Clearance Card and a current TB test.

## Required Courses

Credits: 9-12

CFS/ECH176 Child Development (3) OR  
CFS205 Human Development (3) 3

Recommend CFS/ECH176 for students selecting the Family and Human Development Educational Studies Track in Restricted Electives.

EED225 Language and Literacy in the Context of Culture and Relationships 3

EED215 Early Learning: Health, Safety, Nutrition and Physical Fitness (3) OR  
CFS123 Health and Nutrition in Early Childhood Settings (1) AND  
CFS125 Safety in Early Childhood Settings (1) 2-3

FYE101 Introduction to College, Career and Personal Success (1) OR  
FYE103 Exploration of College, Career and Personal Success (3) 1-3

## Restricted Electives

Credits: 3-9

Select one (1) of the Educational Studies Tracks below and complete all course requirements within that track for a total of three (3) to nine (9) credits:

Business Educational Studies:

ECN211 Macroeconomic Principles 3

Community Health Educational Studies:

HCR220 Introduction to Nursing and Health Care Systems 3

Family and Human Development Educational Studies:

CFS112 Personal Growth and Family Relations 3

Organizational Leadership Educational Studies:  
HON201 Leadership Development: Historical and Contemporary Perspectives (3) OR  
MGT229 Management and Leadership I (3) AND  
MGT230 Management and Leadership II (3) 3-6

Personal Health Educational Studies:  
FON100 Introductory Nutrition 3

Political Science Educational Studies:  
POS110 American National Government 3  
POS140 Comparative Government 3  
POS210 Political Ideologies 3

## General Education Requirements

Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 35-42

A single course with an [L], [HU], [SB], [SG], or [SQ] designation may also be used to satisfy the Oral Communication, Critical Reading, and/or Awareness Area ([C], [G] and/or [H]) requirement(s). See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

First-Year Composition [FYC] Credits: 6  
ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 3

Any approved general education courses in the Literacy and Critical Inquiry [L] area. 3

Recommend COM225 Public Speaking

Mathematics [MA] Credits: 3-6  
MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR  
MAT145 College Mathematics with Review (5) OR  
MAT146 College Mathematics with Review (6) OR  
Higher approved general education course in the Mathematical Applications [MA] area (3-6)  
3-6

Computer/Statistics/Quantitative Applications [CS] Credits: 3-4  
BPC110 Computer Usage and Applications (3) OR  
CIS105 Survey of Computer Information Systems (3) OR  
CSC180 Computer Literacy (3) OR  
CSC180AA Computer Literacy (3) OR  
CSC180AB Computer Literacy (4) OR  
EDU/EEE115 Digital Literacy for Teaching and Learning in Education (3) 3-4

EDU/EEE115 recommended.

Humanities, Arts and Design [HU] Credits: 6

EDU/ENH291 Children`s Literature 3

AND

Any approved general education courses in the Humanities, Arts and Design [HU] area 3

Social-Behavioral Sciences [SB] Credits: 6

EED200 Foundations of Early Childhood Education 3

AND

EED222 Introduction to the Exceptional Young Child: Birth to Age Eight 3

Natural Sciences [SG]/[SQ] Credits: 8

Any approved general education course in the Natural Sciences (Quantitative) [SQ] area (4)

AND

Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the Natural Sciences (General) [SG] area. (4) 8

Awareness Areas Credits: 0-3

These requirements may be shared with other AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0

Historical/Global Awareness [H]/[G] Credits: 0-3

Any approved general education course with the Historical [H] or Global [G] awareness area designation. 0-3

MCCCD Additional Requirements

MCCCD Additional Requirements Credits: 0-6

Some courses in this area have [SB] and [L] designations and may also be applied to the corresponding AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Oral Communication Credits: 0-3

COM100 Introduction to Human Communication (3) OR

COM110 Interpersonal Communication (3) OR

COM225 Public Speaking (3) OR

COM230 Small Group Communication (3) 0-3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR

Equivalent as indicated by assessment (0) 0-3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=188762>

Starting Term: 2024 Fall

Final Term: 9999

# **ASSOCIATE IN ARTS (AA) IN ASSOCIATE IN ARTS, EMPHASIS IN ENGLISH (CREATIVE WRITING)**

Total Credits: 60-64  
Major Code: 8118

## **Description**

The Associate in Arts (AA), Emphasis in English (Creative Writing) program is designed to prepare students for transfer to a university bachelor's degree program. It also provides them with access to a community of writers and creative writing activities, instruction and guidance from established authors, and ongoing support in improving their writing skills and marketing their work. The program offers classes, workshops, and other activities such as readings and contests, which are accessible to writers of all levels regardless of academic or professional standing. The program aims to serve a diverse community who may be underrepresented in traditional creative writing programs.

## **Program Notes**

Students must earn a grade of C or better in all courses within the program.

## **Required Courses**

Credits: 7-9

CRW160 Introduction to Writing Poetry 3

CRW170 Introduction to Writing Fiction 3

FYE101 Introduction to College, Career and Personal Success (1) OR

FYE103 Exploration of College, Career and Personal Success (3) 1-3

## **Restricted Electives**

Credits: 3-6

Complete requirements in the transfer option that best aligns with your academic and professional goals. If your intended transfer institution is not listed, then select a combination of courses from the transfer options listed in order to meet the minimum credits required in the Restricted Electives section. Consult with an academic, faculty, or program advisor to prevent exceeding your university transfer program's maximum transferable credits (typically 64).

Transfer Plan 1: Arizona State University (College of Liberal Arts and Sciences), English (Creative Writing), Bachelor of Arts – Credits 3+

English Elective Credits: 3

Complete three (3) credits that transfer to ASU as a direct equivalency or departmental elective in the ENG prefix. This course may be used to fulfill any outstanding AGEC requirements simultaneously.



### Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 2: Northern Arizona University, English (Creative Writing Emphasis), Bachelor of Arts – Credits 6

CRW270 Intermediate Fiction Writing (3) OR

CRW271 Topics in Writing: Fiction (3) OR

Any course that transfers to NAU as a 200-level ENG direct equivalency or departmental elective (3) 3

Select one (1) of the following literature courses for a total of three (3) credits:

CRW150 Introduction to Creative Writing 3

+ ENG200 Reading and Writing About Literature 3

+ ENG215 Strategies of Academic Writing 3

+ ENH190 Introduction to US Ethnic Literature 3

ENH202 World Literature After the Renaissance 3

+ ENH222 Survey of English Literature After 1800 3

+ ENH241 American Literature Before 1860 3

ENH242 American Literature After 1860 3

ENH285 Contemporary Women Writers 3

### Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

## General Education Requirements

Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 26-44

A single course with an [L], [HU], [SB], [SG], or [SQ] designation may also be used to satisfy the Oral Communication, Critical Reading, and/or Awareness Area ([C], [G] and/or [H]) requirement(s). See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

First-Year Composition [FYC]Credits: 6

ENG101 First-Year Composition (3) OR

ENG107 First-Year Composition for ESL (3) AND

ENG102 First-Year Composition (3) OR

ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 0-3

Any approved general education course in the Literacy and Critical Inquiry [L] area. 3  
May be met by ENG200 or ENG215 in the Restricted Electives area

Mathematics [MA] Credits: 3-6

MAT140 College Mathematics (5) OR

MAT141 College Mathematics (4) OR

MAT142 College Mathematics (3) OR

MAT145 College Mathematics with Review (5) OR

MAT146 College Mathematics with Review (6) OR

Higher approved general education course in the Mathematical Applications [MA] area (3-6)  
3-6

Computer/Statistics/Quantitative Applications [CS] Credits: 3

Any approved general education course in the Computer/Statistics/Quantitative Applications [CS] area. 3

Humanities, Arts and Design [HU] Credits: 0-6

Any approved general education courses in the Humanities, Arts and Design [HU] area. 6  
May be met by ENH190, ENH202, ENH222, ENH241, ENH242, and ENH285 in the Restricted Electives area or ENG200 in the Restricted Electives area if not used to meet [L].

Social-Behavioral Sciences [SB] Credits: 6

Any approved general education courses in the Social-Behavioral Sciences [SB] area. 6

Natural Sciences [SG]/[SQ] Credits: 8

Any approved general education course in the Natural Sciences (Quantitative) [SQ] area (4)  
AND

Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the Natural Sciences (General) [SG] area (4). 8

Awareness Areas Credits: 0-6

These requirements may be shared with other AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

Historical/Global Awareness [H]/[G] Credits: 0-3

Any approved general education course with the Historical [H] or Global [G] awareness area designation. 0-3

MCCCD Additional Requirements

MCCCD Additional Requirements Credits: 0-6

Some courses in this area have [SB] and [L] designations and may also be applied to the corresponding AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Oral Communication Credits: 0-3

COM100 Introduction to Human Communication (3) OR

COM110 Interpersonal Communication (3) OR

COM225 Public Speaking (3) OR

COM230 Small Group Communication (3) 3

COM100, COM110, or COM230 recommended.

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

### **General Electives**

Select additional courses 100-level or higher to complete a minimum of 60 semester credits but no more than a total of 64 semester credits. Consult with a faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.

Recommended for Transfer Plan 1: Arizona State University (College of Liberal Arts and Sciences), English (Creative Writing), Bachelor of Arts OR

Transfer Plan 2: Northern Arizona University, English (Creative Writing Emphasis), Bachelor of Arts

Complete a language course at the intermediate level (202 or equivalent) with a C or better OR demonstrate proficiency through this level as indicated by assessment.

ARB+++ Any ARB Arabic course(s)

ASL+++ Any ASL American Sign Language course(s)

CHI+++ Any CHI Chinese course(s)

FRE+++ Any FRE French course(s)

GER+++ Any GER German course(s)

ITA+++ Any ITA Italian course(s)

JPN+++ Any JPN Japanese course(s)

SPA+++ Any SPA Spanish course(s)

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=188763>

Starting Term: 2024 Fall

Final Term: 9999

## **ASSOCIATE IN ARTS (AA) IN ASSOCIATE IN ARTS, EMPHASIS IN ENGLISH (LITERATURE)**

Total Credits: 60-64

Major Code: 8110

### **Description**

The Associate in Arts (AA), Emphasis in English (Literature) provides the first two years of a four-year curriculum for students who wish to specialize in literary and cultural studies. With a bachelor's degree, students may pursue a career in education, publishing, writing, other professional fields, or prepare for application to professional graduate programs.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 10-12

ENG200	Reading and Writing about Literature	3	
ENH222	Survey of English Literature After 1800	3	3
ENH242	American Literature After 1860	3	
FYE101	Introduction to College, Career and Personal Success (1)	OR	
FYE103	Exploration of College, Career and Personal Success (3)		1-3

## Restricted Electives

Credits: 3-18

Complete requirements in the transfer option that best aligns with your academic and professional goals. If your intended transfer institution is not listed, then select a combination of courses from the transfer options listed in order to meet the minimum credits required in the Restricted Electives section. Consult with an academic, faculty, or program advisor to prevent exceeding your university transfer program's maximum transferable credits (typically 64).  
Transfer Plan 1: Arizona State University (College of Liberal Arts and Sciences), Bachelor of Arts, English (Literature)

ENH221	Survey of English Literature before 1800 (3)	OR	
ENH241	American Literature Before 1860 (3)		3

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 2: Arizona State University (New College of Interdisciplinary Arts and Sciences), Bachelor of Arts, English

ENG213	Introduction to the Study of Language	3	
ENH221	Survey of English Literature Before 1800	3	3
ENH241	American Literature Before 1860	3	

Complete three (3) ENG or ENH courses for a total of nine (9) credits that transfer to ASU as a direct equivalent or departmental elective in the ENG prefix (see the Course Equivalency Guide for options).

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 3: Arizona State University (College of Integrative Sciences and Arts), Bachelor of Arts, English

#### ENG Elective Course

Complete one (1) ENG or ENH course for a total of three (3) credits that transfers to ASU as a direct equivalent or departmental elective in the ENG prefix (see the Course Equivalency Guide for options).

#### Rhetoric Writing and Linguistics Course

Complete one (1) of the following courses for a total of three (3) credits:

CRW120	Introduction to Writing Children`s Literature	3
CRW160	Introduction to Writing Poetry	3
CRW170	Introduction to Writing Fiction	3
CRW180	Introduction to Writing Nonfiction	3
CRW242AH	Writing Studio Workshop I: Musical Elements of Poetry	3
ENG210	Creative Writing	3
ENG215	Strategies of Academic Writing	3
ENG216	Persuasive Writing on Public Issues	3
ENG217	Personal and Exploratory Writing	3
ENG218	Writing About Literature	3

#### Literature and Culture Before 1800 Course

Complete one (1) of the following courses for a total of three (3) credits:

ENH201	World Literature Through the Renaissance	3
ENH202	World Literature After the Renaissance	3
ENH221	Survey of English Literature Before 1800	3
ENH241	American Literature Before 1860	3

Transfer Plan 4: Northern Arizona University, Bachelor of Arts, English

#### Creative Writing Course

Complete one (1) of the following courses for a total of three (3) credits:

CRW160	Introduction to Writing Poetry	3
CRW242AF	Writing Studio Workshop I: Poetic Forms	3
ENG205	Nature of Poetry	3

#### Rhetoric, Writing and Digital Media Studies or Professional Writing Course

ENG215	Strategies of Academic Writing	3
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#### Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program`s maximum transferable credits (typically 64). Please see the General Electives for more information.

## General Education Requirements

Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 23-32

A single course with an [L], [HU], [SB], [SG], or [SQ] designation may also be used to satisfy the Oral Communication, Critical Reading, and/or Awareness Area ([C], [G] and/or [H]) requirement(s). See the AGECEC matrix on aztransfer.com for course designations.

First-Year Composition [FYC] Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 0  
Met by ENG200 in the Required Courses area.

Mathematics [MA] Credits: 3-6

MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR  
MAT145 College Mathematics with Review (5) OR  
MAT146 College Mathematics with Review (6) OR  
Higher approved general education course in the Mathematical Applications [MA] area (3-6)  
3-6

Computer/Statistics/Quantitative Applications [CS] Credits: 3  
Any approved general education course in the Computer/Statistics/Quantitative Applications [CS] area. 3

Humanities, Arts and Design [HU] Credits: 0  
Met by ENH222 and ENH242 in the Required Courses area.

Social-Behavioral Sciences [SB] Credits: 3-6  
Any approved general education course in the Social-Behavioral Sciences [SB] area. 6  
May be partially met by ENG213 in the Restricted Electives area.

Natural Sciences [SG]/[SQ] Credits: 8  
Any approved general education course in the Natural Sciences (Quantitative) [SQ] area (4)  
AND  
Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the  
Natural Sciences (General) [SG] area (4). 8

Awareness Areas Credits: 0-3  
These requirements may be shared with other AGECEC requirements. See the AGECEC matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3  
Historical/Global Awareness [H]/[G] Credits: 0-3

Historical [H] met by ENH222 in Required Courses.

MCCCD Additional Requirements  
MCCCD Additional Requirements Credits: 0-6

Some courses in this area have [SB] and [L] designations and may also be applied to the corresponding AGECE requirements. See the AGECE matrix on [aztransfer.com](http://aztransfer.com) for course designations.

Oral Communication Credits: 0-3

COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 0-3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=188764>

Starting Term: 2024 Fall

Final Term: 9999

## **ASSOCIATE IN ARTS (AA) IN ASSOCIATE IN ARTS, EMPHASIS IN EXERCISE SCIENCE**

Total Credits: 60-64

Major Code: 8121

### **Description**

The Associate in Arts (AA), Emphasis in Exercise Science provides the first two years of a four-year curriculum for students who wish to specialize in Exercise Science, Kinesiology, Clinical Exercise Physiology, Sport Science, Healthy Lifestyles Coaching, or Fitness and Wellness. With a bachelor's degree, students may pursue a career as a fitness specialist or director, strength and conditioning specialist, healthy lifestyles coach, or an exercise physiologist. With a graduate degree, students may pursue careers in a number of fields, including but not limited to physical therapy, occupational therapy, athletic training, exercise physiology, medicine, and physician assistant. Certificates of Completion (CCLs) in Personal Trainer and Personal Trainer Advanced as well as an Associate in Applied Science (AAS) in Exercise Science: Health, Fitness, and Sports Performance are also available.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 13-15

EXS101 Introduction to Exercise Science 3

+ EXS290 Introduction to Evidence-Based Practice (3) OR  
+ FON225 Research in Complementary and Alternative Nutrition Therapies (3) 3  
Students intending to transfer to ASU should choose FON225.

FYE101 Introduction to College, Career and Personal Success (1) OR  
FYE103 Exploration of College, Career and Personal Success (3) 1-3

+ GBS221 Business Statistics (3) OR  
+ MAT206 Elements of Statistics (3) OR  
+ PSY230 Introduction to Statistics (3) OR  
+ SWU225 Statistics for Social Research/Justice and Government (3) 3  
Students intending to transfer to NAU should choose MAT206 or PSY230.  
PSY230 recommended for all students.

PSY101 Introduction to Psychology 3

## **Restricted Electives**

Credits: 17-47

Complete requirements in the transfer option that best aligns with your academic and professional goals. If your intended transfer institution is not listed, then select a combination of courses from the transfer options listed in order to meet the minimum credits required in the Restricted Electives section. Consult with an academic, faculty, or program advisor to prevent exceeding your university transfer program's maximum transferable credits (typically 64).

Transfer Plan 1: Arizona State University (College of Health Solutions), Health Sciences (Healthy Lifestyles and Fitness Science), Bachelor of Science  
Credits: 14-25

BIO160 Introduction to Human Anatomy and Physiology (4) OR  
+ BIO201++ Human Anatomy and Physiology I (4) 4

Students selecting BIO201++ must complete the following requisite:

+ BIO156++ Introductory Biology for Allied Health (4) OR  
+ BIO181++ General Biology (Majors) I (4) OR

One year of high school biology (0) 0-4

+ CHM130 Fundamental Chemistry (3) AND  
+ CHM130LL Fundamental Chemistry Laboratory (1) OR  
+ CHM130AA Fundamental Chemistry with Lab (4) 4

FON241 Principles of Human Nutrition (3) OR  
FON241 Principles of Human Nutrition (3) AND  
+ FON241LL Principles of Human Nutrition Laboratory (1) 3-4

HES210 Cultural Aspects of Health and Illness 3

Complete up to two (2) courses for a total of zero to six (0-6) credits from one of the tracks



below. This requirement can be completed after transfer to ASU if your Track for that degree is not available or has not been selected.

ASU's Fitness Science Track

+ EXS215 Resistance Training and Recovery Techniques 3

+ EXS217 Cardiorespiratory and Flexibility Training 3

ASU's Health Education and Promotion Track

No lower division courses available.

ASU's Health and Wellness Coaching Track

No lower division courses available.

Transfer Plan 2: Arizona State University (College of Health Solutions), Sports Science and Performance Programming, Bachelor of Science

Credits: 21-26

+ BIO156++ Introductory Biology for Allied Health (4) OR

+ BIO181++ General Biology (Majors) I (4) OR

One year of high school biology (0) 0-4

+ BIO201++ Human Anatomy and Physiology I 4

+ BIO202 Human Anatomy and Physiology II 4

+ CHM130 Fundamental Chemistry (3) AND

+ CHM130LL Fundamental Chemistry Laboratory (1) OR

+ CHM130AA Fundamental Chemistry with Lab (4) OR

+ CHM150 General Chemistry I (4) AND

+ CHM151LL General Chemistry I Laboratory (1) OR

+ CHM150AA General Chemistry I (5) OR

+ CHM151 General Chemistry I (3) AND

+ CHM151LL General Chemistry I Laboratory (1) OR

+ CHM151AA General Chemistry I (4) 4-5

+ EXS215 Resistance Training and Recovery Techniques 3

+ EXS275 Sport Science Internship (3) OR

+ EXS275AA Sport Science Internship (1) AND

+ EXS275AB Sport Science Internship (2) 3

FON241 Principles of Human Nutrition 3

Transfer Plan 3: Arizona State University (College of Health Solutions), Clinical Exercise Science, Bachelor of Science

Credits: 21-27

+ BIO156++ Introductory Biology for Allied Health (4) OR

+ BIO181++ General Biology (Majors) I (4) OR

One year of high school biology(0) 0-4

+ BIO201++ Human Anatomy and Physiology I 4

+ BIO202 Human Anatomy and Physiology II 4

+ CHM130 Fundamental Chemistry (3) AND

- + CHM130LL Fundamental Chemistry Laboratory (1) OR
- + CHM130AA Fundamental Chemistry with Lab (4) OR
- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4) 4-5

- + EXS215 Resistance Training and Recovery Techniques 3
- + EXS217 Cardiorespiratory and Flexibility Training 3

- FON241 Principles of Human Nutrition (3) OR
- FON241 Principles of Human Nutrition (3) AND
- FON241LL Principles of Human Nutrition Laboratory (1) 3-4

Transfer Plan 4: Arizona State University (College of Health Solutions), Kinesiology, Bachelor of Science

Credits: 28-33

- + BIO181++ General Biology (Majors) I 4
- + BIO182++ General Biology (Majors) II 4
- + BIO201++ Human Anatomy and Physiology I 4
- + BIO202 Human Anatomy and Physiology II 4

- + CHM130 Fundamental Chemistry (3) AND
  - + CHM130LL Fundamental Chemistry Laboratory (1) OR
  - + CHM130AA Fundamental Chemistry with Lab (4) OR
- One year of high school chemistry taken within the last five years (0) 0-4

- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4) 4-5

- + CHM152 General Chemistry II (3) AND
- + CHM152LL General Chemistry II Laboratory (1) OR
- + CHM152AA General Chemistry II (4) 4

- + PHY111 General Physics I 4

Transfer Plan 5: Northern Arizona University, Exercise Physiology, Bachelor of Science

Credits: 38-43

- + BIO181++ General Biology (Majors) I 4
- + BIO182++ General Biology (Majors) II 4
- + BIO201++ Human Anatomy and Physiology I 4
- + BIO202 Human Anatomy and Physiology II 4

+ CHM130 Fundamental Chemistry (3) AND  
+ CHM130LL Fundamental Chemistry Laboratory (1) OR  
+ CHM130AA Fundamental Chemistry with Lab (4) OR  
One year of high school chemistry taken within the last five years (0) 0-4

+ CHM150 General Chemistry I (4) AND  
+ CHM151LL General Chemistry I Laboratory (1) OR  
+ CHM150AA General Chemistry I (5) OR  
+ CHM151 General Chemistry I (3) AND  
+ CHM151LL General Chemistry I Laboratory (1) OR  
+ CHM151AA General Chemistry I (4) 4-5

+ CHM152 General Chemistry II (3) AND  
+ CHM152LL General Chemistry II Laboratory (1) OR  
+ CHM152AA General Chemistry II (4) 4

+ CHM230 Fundamental Organic Chemistry (3) AND  
+ CHM230LL Fundamental Organic Chemistry Laboratory (1) OR  
+ CHM230AA Fundamental Organic Chemistry with Lab (4) OR  
+ CHM235 General Organic Chemistry I (3) AND  
+ CHM235LL General Organic Chemistry I Laboratory (1) OR  
+ CHM235AA General Organic Chemistry I with Lab (4) 4

FON241 Principles of Human Nutrition 3  
HES100 Healthful Living 3

+ PHY111 General Physics I (4) OR  
+ PHY121 University Physics I: Mechanics (4) 4

+ PHY112 General Physics II (4) OR  
+ PHY131 University Physics II: Electricity and Magnetism (4) 4

Transfer Plan 6: Northern Arizona University, Fitness and Wellness, Bachelor of Science  
Credits: 38-47

+ BIO156++ Introductory Biology for Allied Health (4) OR  
+ BIO181++ General Biology (Majors) I (4) OR  
One year of high school biology (0) 0-4

+ BIO201++ Human Anatomy and Physiology I 4  
+ BIO202 Human Anatomy and Physiology II 4

+ CHM130 Fundamental Chemistry (3) AND  
+ CHM130LL Fundamental Chemistry Laboratory (1) OR  
+ CHM130AA Fundamental Chemistry with Lab (4) OR  
One year of high school chemistry taken within the last five years (0) 0-4

+ CHM150 General Chemistry I (4) AND  
+ CHM151LL General Chemistry I Laboratory (1) OR  
+ CHM150AA General Chemistry I (5)  
OR

- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4) 4-5
  
- + EXS125 Introduction to Exercise Physiology 3
- + EXS146 Introduction to Exercise Testing 1
- + EXS215 Resistance Training and Recovery Techniques 3
- + EXS217 Cardiorespiratory and Flexibility Training 3
- + EXS246 Advanced Exercise Testing 2
- + EXS255 Program Design: Muscular Fitness and Performance 3
- + EXS257 Program Design: Cardiorespiratory Fitness 3
- FON241 Principles of Human Nutrition 3
- HES100 Healthful Living 3

- PED101GF Group Fitness/Aerobics (1) OR
- PED101KB Kickboxing (1) OR
- PED101LD Latin Dance (1) OR
- PED101PS Pilates (1) OR
- PED101TC Tai Chi (1) OR
- PED101YH Hatha Yoga (1) OR
- PED101YO Yoga (1) OR
- PED101YP Power Yoga (1) OR
- PED101YR Restorative Yoga (1) OR
- PED101BS Body Sculpting (1) OR
- PED101PC Physical Conditioning (1) OR
- PED101BC Boot Camp (1) OR
- PED101ZU Zumba Fitness (1) OR
- PED101SR Stretch and Relaxation (1) OR
- PED101CY Cycling - Indoor (1) OR
- PED101YG Gentle Yoga (1) OR
- PED101TX Suspension Training (1) 1

- PED101RT Resistance Training for Improved Sports Performance (1) OR
- PED101ST Strength Training (1) 1

#### Transfer Pathway 7: General Transfer Pathway

This pathway is a default transfer pathway for students who are interested in Exercise Science but have not selected a university transfer pathway yet OR may be transferring out of state.

Credits: 23-29

- + BIO181++ General Biology (Majors) I (4) OR
- One year of high school biology (0) 0-4
  
- + BIO201++ Human Anatomy and Physiology I 4
- + BIO202 Human Anatomy and Physiology II 4
  
- + CHM130 Fundamental Chemistry (3) AND
- + CHM130LL Fundamental Chemistry Laboratory (1) OR
- + CHM130AA Fundamental Chemistry with Lab (4) OR
- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR

- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry (4) 4-5

- + EXS215 Resistance Training and Recovery Techniques 3
- + EXS217 Cardiorespiratory and Flexibility Training 3

- FON241 Principles of Human Nutrition (3) OR
- FON241 Principles of Human Nutrition (3) AND
- + FON241LL Principles of Human Nutrition Laboratory (1) 3-4

HES100 Healthful Living 3

## General Education Requirements

Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 15-38

A single course with an [L], [HU], [SB], [SG], or [SQ] designation may also be used to satisfy the Oral Communication, Critical Reading, and/or Awareness Area ([C], [G] and/or [H]) requirement(s). See the Course Equivalency on [aztransfer.com](http://aztransfer.com) for course designations.

First-Year Composition [FYC] Credits: 6

- ENG101 First-Year Composition (3) OR
- ENG107 First-Year Composition for ESL (3) AND
- ENG102 First-Year Composition (3) OR
- ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 0  
Met by EXS290 in the Required Courses Area.

Mathematics [MA] Credits: 3-9

Arizona State University Bachelor of Science in Health Sciences (Healthy Lifestyles and Fitness Science), Northern Arizona University Bachelor of Science in Fitness and Wellness, and General Transfer Pathway

- + MAT140 College Mathematics (5) OR
- + MAT141 College Mathematics (4) OR
- + MAT142 College Mathematics (3) OR
- MAT145 College Mathematics with Review (5) OR
- MAT146 College Mathematics with Review (6) OR
- Higher approved general education course in the Mathematical Applications [MA] area (3-6) 3-6

Arizona State University Bachelor of Science in Sports Science and Performance Programming and Arizona State University Bachelor of Science in Clinical Exercise Science

- + MAT150 College Algebra/Functions (5) OR
- + MAT151 College Algebra/Functions (4) OR
- + MAT152 College Algebra/Functions (3) OR
- + MAT155 College Algebra/Functions with Review (5) OR
- + MAT156 College Algebra/Functions with Review (6) OR
- Higher approved general education course in the Mathematical Applications [MA] area (3-5) 3-6

Arizona State University Bachelor of Science in Kinesiology and Northern Arizona University Bachelor of Science in Exercise Physiology

+ MAT150 College Algebra/Functions (5) OR  
+ MAT151 College Algebra/Functions (4) OR  
+ MAT152 College Algebra/Functions (3) OR  
+ MAT155 College Algebra/Functions with Review (5) OR  
+ MAT156 College Algebra/Functions with Review (6)

AND

+ MAT182 Plane Trigonometry (3)

OR

+ MAT187 Precalculus (5)

OR

Higher approved general education course in the Mathematical Applications [MA] area (3-5) 3-9

Computer/Statistics/Quantitative Applications [CS] Credits: 0

Met by GBS221 or MAT206 or PSY230 or SWU225 in the Required Courses area.

Humanities, Arts and Design [HU] Credits: 6

Any approved general education courses in the Humanities, Arts and Design [HU] area. 6

Social-Behavioral Sciences [SB] Credits: 0-3

Met by PSY101 in Restricted Electives

AND

Any approved general education course in the Social-Behavioral Sciences [SB] area 3

May be met by HES100 in Restricted Electives. HES100 recommended.

Natural Sciences [SG]/[SQ] Credits: 0-8

Any approved general education course in the Natural Sciences (Quantitative) [SQ] area (4)

AND

Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the Natural Sciences (General) [SG] area (4) 8

May be met by (BIO160++ or BIO201++) and (CHM130, CHM130LL, CHM130AA, CHM150, CHM150AA, CHM151, CHM151AA, and/or CHM151LL) in the Restricted Electives area.

Awareness Areas Credits: 0-6

These requirements may be shared with other AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

Historical/Global Awareness [H]/[G] Credits: 0-3

Any approved general education course with the Historical [H] or Global [G] awareness area designation.

MCCCD Additional Requirements

MCCCD Additional Requirements Credits: 0-6

Some courses in this area have [SB] and [L] designations and may also be applied to the corresponding AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Oral Communication Credits: 0-3

COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

### **General Electives**

Select additional courses 100-level or higher to complete a minimum of 60 semester credits but no more than a total of 64 semester credits. Consult with a faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.

For students intending to transfer to ASU to pursue a Bachelor of Science in Kinesiology, the following courses are recommended:

- + BIO205 Microbiology (4) OR
- + CHM235 General Organic Chemistry I (3) AND
- + CHM235LL General Organic Chemistry I Laboratory (1) OR
- + PHY112 General Physics (4) 4

For students intending to transfer to NAU to pursue a Bachelor of Science in Fitness and Wellness, the following courses are recommended:

- + BIO181 General Biology (Majors) I (4) OR
- + BIO181XT General Biology (Majors) I (4) 4
  
- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry (4) 4-5

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=188765>

Starting Term: 2024 Fall

Final Term: 9999

## **ASSOCIATE IN ARTS (AA) IN ASSOCIATE IN ARTS, EMPHASIS IN FAMILY LIFE EDUCATION**

Total Credits: 60-64

Major Code: 8139

### **Description**

The Associate in Arts (AA), Emphasis in Family Life Education provides the first two years of a four-year curriculum for students who wish to study in fields related to family life education, human development, or child and family studies. The program includes study of child and adult development, marriage and family relationships, and the intersections of school, community, and family. Students can pursue careers in public, private, and human service agencies working with children, youth, and families. A Certificate of Completion (CCL) in Child and Family Organizations, Management and Administration is available and can be fully embedded in this AA.

## Program Notes

Students must earn a grade of C or better in all courses within the program. For some occupations within this field, students may be required to have a current Identity Verified Print (IVP) Fingerprint Clearance Card and a current TB vaccination. Please consult with your faculty mentor to discuss these and other occupational requirements.

## Required Courses

Credits: 10-12

CFS112	Personal Growth and Family Relations	3
CFS205	Human Development	3
CFS210	Family Life Education	3
FYE101	Introduction to College, Career and Personal Success (1) OR	
FYE103	Exploration of College, Career and Personal Success (3)	1-3

## Restricted Electives

Credits: 9-20

Complete requirements in the transfer option that best aligns with your academic and professional goals. If your intended transfer institution is not listed, then select a combination of courses from the transfer options listed in order to meet the minimum credits required in the Restricted Electives section. Consult with an academic, faculty, or program advisor to prevent exceeding your university transfer program's maximum transferable credits (typically 64).

Transfer Plan 1: Arizona State University (College of Liberal Arts and Sciences), Bachelor of Science in Family and Human Development – Credits 12

GBS221	Business Statistics (3) OR	
MAT206	Elements of Statistics (3) OR	
SWU225	Statistics for Social Research/Justice and Government (3)	3

Complete nine (9) credits of courses that transfer to ASU as direct equivalencies or departmental electives in the following ASU course prefixes: CAP, COM, ECS, PRM, PSY, SHS, SOC, SPE, SWU.

Transfer Plan 2: University of Arizona, Bachelor of Science in Family Studies and Human Development  
Credits: 20



+ BIO156++ Introductory Biology for Allied Health (4) OR  
BIO160 Introduction to Human Anatomy and Physiology (4) OR  
+ BIO181++ General Biology (Majors) I (4) OR  
+ BIO201++ Human Anatomy and Physiology I (4) 4

CFS157 Marriage and Family Life 3  
FON241 Principles of Human Nutrition 3  
+ FON241LL Principles of Human Nutrition Laboratory 1

+ MAT206 Elements of Statistics (3) OR  
+ PSY230 Introduction to Statistics (3) 3

PSY101 Introduction to Psychology 3  
SOC101 Introduction to Sociology 3

Second Language Requirement:

Completion of second language courses at the elementary level (102 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 3: Northern Arizona University, Bachelor of Interdisciplinary Studies in Applied Human Behavior - Language Track (90/30 Program)

Credits: 9-10

COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM230 Small Group Communication (3) 3

+ COM225 Public Speaking 3

BPC110 Computer Usage and Applications (3) OR  
CIS105 Survey of Computer Information Systems (3) OR  
CSC180 Computer Literacy (3) OR  
CSC180AA Computer Literacy (3) OR  
CSC180AB Computer Literacy (4) 3-4

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

NOTE: This pathway represents the 60 credits required to complete the Associate of Arts at MCCC. Students in the NAU 90/30 program should consult with their NAU advisor to determine the additional 30 credits they should complete.

Transfer Plan 4: Northern Arizona University, Bachelor of Interdisciplinary Studies in Applied Human Behavior - Science Track (90/30 Program)

Credits: 12-13

COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM230 Small Group Communication (3) 3

+ COM225 Public Speaking 3

BPC110 Computer Usage and Applications (3) OR  
CIS105 Survey of Computer Information Systems (3) OR  
CSC180 Computer Literacy (3) OR  
CSC180AA Computer Literacy (3) OR  
CSC180AB Computer Literacy (4) 3-4

CIS103 Introduction to Social Media (3) OR  
CIS113DE Microsoft Word: Word Processing (3) OR  
CIS114DE Excel Spreadsheet (3) OR  
CIS118DB Desktop Presentation: PowerPoint (3) 3

NOTE: This pathway represents the 60 credits required to complete the Associate of Arts at MCCC. Students in the NAU 90/30 program should consult with their NAU advisor to determine the additional 30 credits they should complete.

Transfer Plan 5: Arizona Christian University, Bachelor of Arts in Family Studies - Emphasis in Early Childhood

Credits: 18

CFS177 Parent-Child Interaction 3  
CFS243 Cross-Cultural Parenting 3  
CFS250 Social Policy and Families 3  
+ COM225 Public Speaking 3  
PSY101 Introduction to Psychology 3  
+ PSY230 Introduction to Statistics 3

Second Language Requirement:

Completion of second language courses at the elementary level (102 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 6: Arizona Christian University, Bachelor of Arts in Family Studies - Emphasis in Marriage and Family

Credits: 18

CFS177 Parent-Child Interaction 3  
CFS243 Cross-Cultural Parenting 3  
CFS250 Social Policy and Families 3  
CFS259 Sexuality over the Life Span 3  
+ COM225 Public Speaking 3  
PSY101 Introduction to Psychology 3

Second Language Requirement:

Completion of second language courses at the elementary level (102 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this

university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

## General Education Requirements

Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 15-38

A single course with an [L], [HU], [SB], [SG], or [SQ] designation may also be used to satisfy the Oral Communication, Critical Reading, and/or Awareness Area ([C], [G] and/or [H]) requirement(s). See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

First-Year Composition [FYC] Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 0-3

Any approved general education course in the Literacy and Critical Inquiry [L] area. 3  
May be met by COM225 in the Restricted Electives area.

Recommend PSY290AB Research Methods OR PSY290AC Research Methods for students intending to transfer to University of Arizona.

Mathematics [MA] Credits: 3-6

MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR  
MAT145 College Mathematics with Review (5) OR  
MAT146 College Mathematics with Review (6) OR  
MAT150 College Algebra/Functions (5) OR  
MAT151 College Algebra/Functions (4) OR  
MAT152 College Algebra/Functions (3) OR  
MAT155 College Algebra/Functions with Review (5) OR  
MAT156 College Algebra/Functions with Review (6) OR

Higher approved general education course in the Mathematical Applications [MA] area (3-5)  
3-6

Recommend MAT150, MAT151, MAT152, MAT155, or MAT156 for students transferring to University of Arizona.

Recommend a four (4) credit or higher course be completed for students transferring to NAU's BIS in Applied Human Behavior science track to complete at least twelve (12) credits of natural science and mathematics.

Computer/Statistics/Quantitative Applications [CS] Credits: 0-3

Any approved general education courses in the Computers, Statistics, and Quantitative Applications [CS] area. 3

May be met by CIS105, CSC180++, GBS221, MAT206, PSY230, or SWU225 in the Restricted Electives area.

Humanities, Arts and Design [HU] Credits: 6

Any approved general education courses in the Humanities, Arts and Design [HU] area. 6

Social-Behavioral Sciences [SB] Credits: 0  
Met by CFS112 and CFS205 in Required Courses area.

Natural Sciences [SG]/[SQ] Credits: 0-8  
Any approved general education course in the Natural Sciences (Quantitative) [SQ] area (4)  
AND  
Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the Natural Sciences (General) [SG] area (4) 8  
May be met by Natural Sciences listed among Transfer Plan options in the Restricted Electives area.

At least (4) credits must be from the Natural Sciences (Quantitative) [SQ] area.

Awareness Areas Credits: 0-6  
These requirements may be shared with other AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3  
Historical/Global Awareness [H]/[G] Credits: 0-3

Any approved general education course with the Historical [H] or Global [G] awareness area designation. 0-3

MCCCD Additional Requirements  
MCCCD Additional Requirements Credits: 0-6  
Some courses in this area have [SB] and [L] designations and may also be applied to the corresponding AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Oral Communication Credits: 0-3  
COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 0-3

Critical Reading Credits: 0-3  
CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

## **General Electives**

Select additional courses 100-level or higher to complete a minimum of 60 semester credits but no more than a total of 64 semester credits. Consult with a faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.

Recommend that students choose general electives from the CFS prefix, specifically the following (if not already required by a student's chosen transfer plan):

CFS240 Human Behavior in Context 3  
CFS243 Cross-Cultural Parenting 3  
CFS250 Social Policy and Families 3  
CFS258 Families in Society 3  
CFS259 Sexuality Over the Life Span 3

Students who complete the following courses will satisfy the requirements for the Certificate of Completion (CCL/5401) in Child and Family Organizations Management and Administration:

CFS206 Child and Family Organizations: Management and Administration 3  
CFS207 Organization and Community Leadership in Child and Family Organizations 3  
CFS208 Child and Family Organizations: Fiscal Management and Grant Writing 3  
CFS209 Child and Family Organizations: Project Management 3  
+ FCS250 Portfolio Development and Professional Writing 3  
+ FCS260 Family and Consumer Science Internship 1

Recommended for Transfer Plan 3: Northern Arizona University, Bachelor of Interdisciplinary Studies in Applied Human Behavior - Language Track (90/30 Program)

Complete a language course at the intermediate level (202 or equivalent) with a C or better OR demonstrate proficiency through this level as indicated by assessment.

ARB+++ Any ARB Arabic course(s)  
ASL+++ Any ASL American Sign Language course(s)  
CHI+++ Any CHI Chinese course(s)  
FRE+++ Any FRE French course(s)  
GER+++ Any GER German course(s)  
ITA+++ Any ITA Italian course(s)  
JPN+++ Any JPN Japanese course(s)  
SPA+++ Any SPA Spanish course(s)

Recommended for Transfer Plan 2: University of Arizona, Bachelor of Science in Family Studies and Human Development OR

Transfer Plan 5: Arizona Christian University, Bachelor of Arts in Family Studies - Emphasis in Early Childhood OR

Transfer Plan 6: University of Arizona, Anthropology (Human Biology Emphasis), Bachelor of Science

Complete a language course at the elementary level (102 or equivalent) with a C or better OR demonstrate proficiency through this level as indicated by assessment.

ARB+++ Any ARB Arabic course(s)  
ASL+++ Any ASL American Sign Language course(s)  
CHI+++ Any CHI Chinese course(s)  
FRE+++ Any FRE French course(s)  
GER+++ Any GER German course(s)  
ITA+++ Any ITA Italian course(s)  
JPN+++ Any JPN Japanese course(s)  
SPA+++ Any SPA Spanish course(s)

Starting Term: 2024 Fall  
Final Term: 9999

## **ASSOCIATE IN ARTS (AA) IN ASSOCIATE IN ARTS, EMPHASIS IN GEOGRAPHY**

Total Credits: 60-64  
Major Code: 8113

### **Description**

The Associate in Arts (AA), Emphasis in Geography provides the first two years of a four-year curriculum for students who wish to specialize in human and/or physical geography. Graduates of this associate degree program can work as cartographers, land surveyors, GIS analysts, and forest and conservation workers. With a bachelor's degree, students can pursue a number of careers, including geographers, hydrologists, GIS technicians and technologists, and forest fire inspectors and prevention specialists. Upon completion of a graduate degree, students can pursue careers as atmospheric and space scientists, environmental scientists, geoscientists, climate change analysts, urban planners, and geography professors.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 21-23

FYE101 Introduction to College, Career and Personal Success (1) OR  
FYE103 Exploration of College, Career and Personal Success (3) 1-3

GCU102 Introduction to Human Geography 3  
GCU121 World Geography I: Eastern Hemisphere 3  
GCU122 World Geography II: Western Hemisphere 3  
GIS205 Geographic Information Technologies 3  
GPH111 Introduction to Physical Geography Lecture (3) AND  
GPH112 Introduction to Physical Geography Lab (1) OR  
GPH113 Introduction to Physical Geography (4) 4  
GPH211 Landform Processes (4) OR  
GPH212 Introduction to Meteorology I (3) AND  
GPH214 Introduction to Meteorology Laboratory I (1) OR  
GPH213 Climate and Weather (3) AND  
GPH215 Climate and Weather Laboratory (1) 4

### **Restricted Electives**

Credits: 0-7

Complete requirements in the transfer plan that best aligns with academic and professional goals. If academic and professional goals do not align with any of the transfer plans below, select elective courses in consultation with an academic, faculty, or program advisor.

Transfer Plan 1: Arizona State University (College of Liberal Arts and Sciences), Bachelor of Science, Geography (no emphasis)

Credits: 0-6

Select zero to six (0-6) credits of courses that transfer to ASU as direct equivalencies or departmental electives in the following ASU course prefixes: ASM, GCU, GIS, GPH, POS, PUP, SGS, SOC, SOS.

Transfer Plan 2: Arizona State University (College of Liberal Arts and Sciences), Bachelor of Arts, Geography

Credits: 0

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 3: Northern Arizona University, Bachelor of Science, Geography, Environment, and Society

Credits: 7

+ GIS211 Geographic Information Science I 4

+ MAT206 Elements of Statistics 3

Transfer Plan 4: University of Arizona, Bachelor of Science, Geography (all emphases) and Bachelor of Science, Urban and Regional Development

Credits: 0

Second Language Requirement:

Completion of second language courses at the elementary level (102 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 5: University of Arizona, Bachelor of Arts, Geography

Credits: 0

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

## **General Education Requirements**

Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 18-30

A single course with an [L], [HU], [SB], [SG], or [SQ] designation may also be used to satisfy the Oral Communication, Critical Reading, and/or Awareness Area ([C], [G] and/or [H]) requirement(s). See the AGECEC matrix on aztransfer.com for course designations.

First-Year Composition [FYC] Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 3

Any approved general education course in the Literacy and Critical Inquiry [L] area. 3

Mathematics [MA] Credits: 3-6

MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR  
MAT145 College Mathematics with Review (5) OR  
MAT146 College Mathematics with Review (6) OR  
Higher approved general education course in the Mathematical Applications [MA] area (3-6)  
3-6

Computer/Statistics/Quantitative Applications [CS] Credits: 0

Met by GIS205 in the Required Courses area.

Humanities, Arts and Design [HU] Credits: 6

Any approved general education courses in Humanities, Arts and Design [HU] area. 6

Social-Behavioral Sciences [SB] Credits: 0

Met by GCU121 and GCU122 in the Required Courses area.

Natural Sciences [SG]/[SQ] Credits: 0

Met by [GPH113 or (GPH111 and GPH112)] AND [GPH211 or (GPH212 and GPH214) or (GPH213 and GPH215)] in the Required Courses area.

Awareness Areas Credits: 0-3

These requirements may be shared with other AGECEC requirements. See the AGECEC matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

Historical/Global Awareness [H]/[G] Credits: 0

Met by GCU121 and GCU122 in the Required Courses area.

MCCCD Additional Requirements

MCCCD Additional Requirements Credits: 0-6

Some courses in this area have [SB] and [L] designations and may also be applied to the corresponding AGECEC requirements. See the AGECEC matrix on aztransfer.com for course designations.



Oral Communication Credits: 0-3

COM100 Introduction to Human Communication (3) OR

COM110 Interpersonal Communication (3) OR

COM225 Public Speaking (3) OR

COM230 Small Group Communication (3) 0-3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR

Equivalent as indicated by assessment (0) 0-3

Select additional courses 100-level or higher to complete a minimum of 60 semester credits but no more than a total of 64 semester credits. Consult with a faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.

Recommended for Transfer Plan 2: Arizona State University (College of Liberal Arts and Sciences), Bachelor of Arts, Geography OR

Transfer Plan 5: University of Arizona, Bachelor of Arts, Geography

Complete a language course at the intermediate level (202 or equivalent) with a C or better OR demonstrate proficiency through this level as indicated by assessment.

ARB+++ Any ARB Arabic course(s)

ASL+++ Any ASL American Sign Language course(s)

CHI+++ Any CHI Chinese course(s)

FRE+++ Any FRE French course(s)

GER+++ Any GER German course(s)

ITA+++ Any ITA Italian course(s)

JPN+++ Any JPN Japanese course(s)

SPA+++ Any SPA Spanish course(s)

Recommended for Transfer Plan 4: University of Arizona, Bachelor of Science, Geography (all emphases) and Bachelor of Science, Urban and Regional Development

Complete a language course at the elementary level (102 or equivalent) with a C or better OR demonstrate proficiency through this level as indicated by assessment.

ARB+++ Any ARB Arabic course(s)

ASL+++ Any ASL American Sign Language course(s)

CHI+++ Any CHI Chinese course(s)

FRE+++ Any FRE French course(s)

GER+++ Any GER German course(s)

ITA+++ Any ITA Italian course(s)

JPN+++ Any JPN Japanese course(s)

SPA+++ Any SPA Spanish course(s)

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=188767>

Starting Term: 2024 Fall

Final Term: 9999

# ASSOCIATE IN ARTS (AA) IN ASSOCIATE IN ARTS, EMPHASIS IN HISTORY

Total Credits: 60-64  
Major Code: 8114

## Description

The Associate in Arts (AA), Emphasis in History provides the first two years of a four-year curriculum for students who wish to specialize in History. With a bachelor's degree, students may pursue a career in a wide range of fields including education, governmental and nongovernmental organizations; intelligence analysis; international trade; community development; foreign services; and many others. A bachelor's degree in History prepares students for application to professional graduate and post-baccalaureate programs in a variety of disciplines including post-secondary teaching, law, library and archival studies, and museum studies.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 7-9

FYE101	Introduction to College, Career and Personal Success (1) OR	
FYE103	Exploration of College, Career and Personal Success (3)	1-3
HIS103	United States History to 1865 (3) AND	
HIS104	United States History 1865 to Present (3)	OR
HIS110	World History to 1500 (3) AND	
HIS111	World History 1500 to the Present (3)	6

## Restricted Electives

Credits: 3-12

Complete requirements in the transfer plan that best aligns with academic and professional goals. If academic and professional goals do not align with any of the transfer plans below, select elective courses in consultation with an Academic, Faculty, or Program Director.

Transfer Plan 1: Arizona State University (College of Liberal Arts and Sciences), History, Bachelor of Arts

Credits: 3-9

HIS107 Selected Issues in History (3) OR  
+ HIS/STO279 Creating and Telling Fact-Based Historical Stories (3) 3

Related Area Course Credits: 0-6

Complete zero to six (0-6) credits of coursework that transfer to ASU as either direct equivalencies or departmental electives in the following ASU course prefixes: AFR, AIS, APA,

APH, ARS, ASB, ASM, ECN, ENG, GCU, HON, HPS, HUM, JUS, PHI, POS, REL, SGS, SOC, TCL, and WST. These courses may be used to fulfill any outstanding Humanities [HU] and Social-Behavioral Sciences [SB] requirements simultaneously.

**Second Language Requirement:**

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

**Transfer Plan 2: Arizona State University (College of Integrative Sciences and Arts), History, Bachelor of Arts**

Credits: 12

Related Area Course Credits: 3

Complete one (1) course for a total of three (3) credits (except courses used to satisfy Required Courses area) that transfers to ASU as direct equivalency or departmental elective in the following ASU prefixes: ENG, ISS, PHI, POS, REL, SOC, STS.

History Elective Credits: 9

Complete three (3) courses for a total of nine (9) credits that transfer to ASU as direct equivalents or departmental elective credit in the ASU HST prefix. A minimum GPA of 2.25 is required in these courses.

**Transfer Plan 3: Arizona State University (New College of Interdisciplinary Arts and Sciences), History, Bachelor of Arts**

Credits: 12

History Elective Credits: 3

Complete one (1) course for a total of three (3) credits that transfer to ASU as direct equivalents or departmental elective credit in the ASU HST prefix.

Related Area Course Credits: 9

Complete three (3) courses for a total of nine (9) credits (except courses used to satisfy Required Courses area) that transfer to ASU as direct equivalency or departmental elective in the following ASU prefixes: ENG, HST, PHI, REL, SPA, WST

**Second Language Requirement:**

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

**Transfer Plan 4: Grand Canyon University: History, Bachelor of Arts**

Credits: 6

Complete two (2) courses from the following except courses used to satisfy Required Courses area:

HIS103 United States History to 1865 3

HIS104 United States History 1865 to Present 3

HIS110 World History to 1500 3

HIS111 World History 1500 to the Present 3

PSY101 Introduction to Psychology 3  
REL100 World Religions 3  
SOC101 Introduction to Sociology 3

Transfer Plan 5: Northern Arizona University: History, Bachelor of Arts

Transfer Plan 5: Northern Arizona University: History, Bachelor of Arts  
Credits: 6

Complete one (1) course from the following except courses used to satisfy Required Courses area:

AIS/HIS140 American Indian History 3  
HIS101 History of Western Civilization Middle Ages to 1789 3  
HIS102 History of Western Civilization 1789 to Present 3  
HIS103 United States History to 1865 3  
HIS104 United States History 1865 to Present 3  
HIS110 World History to 1500 3  
HIS111 World History 1500 to the Present 3

Complete one (1) course from the following except courses used to satisfy Required Courses area:

HIS110 World History to 1500 3  
HIS111 World History 1500 to the Present 3  
HIS240 History of Islamic Civilization from the 6th Century to 1800 3  
HIS241 Latin American Civilization in the Colonial Period 3  
HIS242 Latin American Civilization in the Post-Colonial Period 3

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 6: Northern Arizona University: History, Bachelor of Science

Credits: 6

Complete one (1) course from the following except courses used to satisfy Required Courses area:

AIS/HIS140 American Indian History 3  
HIS101 History of Western Civilization Middle Ages to 1789 3  
HIS102 History of Western Civilization 1789 to Present 3  
HIS103 United States History to 1865 3  
HIS104 United States History 1865 to Present 3  
HIS110 World History to 1500 3  
HIS111 World History 1500 to the Present 3

Complete one (1) course from the following except courses used to satisfy Required Courses area:

HIS110 World History to 1500 3  
HIS111 World History 1500 to the Present 3  
HIS240 History of Islamic Civilization from the 6th Century to 1800 3

HIS241 Latin American Civilization in the Colonial Period 3  
HIS242 Latin American Civilization in the Post-Colonial Period 3

Transfer Plan 7: University of Arizona: History, Bachelor of Arts  
Credits: 12

HIS101 History of Western Civilization Middle Ages to 1789 (3) OR  
HIS102 History of Western Civilization 1789 to Present (3) 3

AFR/HIS203 African-American History to 1865 (3) 3 OR  
HIS109 Mexican American History and Culture (3) OR  
HIS113 History of Eastern Civilizations to 1850 (3) OR  
HIS114 History of Eastern Civilizations 1850 to Present (3) 3

HIS201 History of Women in America 3  
HIS251 History of England to 1700 3

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

## General Education Requirements

Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 23-41

A single course with an [L], [HU], [SB], [SG], or [SQ] designation may also be used to satisfy the Oral Communication, Critical Reading, and/or Awareness Area ([C], [G] and/or [H]) requirement(s). See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

First-Year Composition [FYC] Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 3

Any approved general education course in the Literacy and Critical Inquiry [L] area. 3

Mathematics [MA] Credits: 3-6

MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR  
MAT145 College Mathematics with Review (5) OR  
MAT146 College Mathematics with Review (6) OR

Higher approved general education course in the Mathematical Applications [MA] area (3-6)  
3-6

Computer/Statistics/Quantitative Applications [CS] Credits: 3  
Any approved general education course in the Computer/Statistics/Quantitative Applications [CS] area. 3

Humanities, Arts and Design [HU] Credits: 0-6  
Any approved general education courses from the Humanities, Arts and Design [HU] area.  
6

May be met by HIS110 and HIS111 in the Required Courses area OR by course selections in the Restricted Electives area.

Social-Behavioral Sciences [SB] Credits: 0-6  
Any approved general education courses from the Social-Behavioral Sciences [SB] area.6  
May be met by HIS103 and HIS104 in the Required Courses area OR by course selections in the Restricted Electives area.

Natural Sciences [SG]/[SQ] Credits: 8  
Any approved general education course in the Natural Sciences (Quantitative) [SQ] area (4)  
AND  
Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the Natural Sciences (General) [SG] area (4). 8

Awareness Areas Credits: 0-3  
These requirements may be shared with other AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3  
Historical/Global Awareness [H]/[G] Credits: 0  
Met by HIS103 or HIS104 or HIS110 or HIS111 in the Required Courses area.

MCCCD Additional Requirements  
MCCCD Additional Requirements Credits: 0-6  
Some courses in this area have [SB] and [L] designations and may also be applied to the corresponding AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Oral Communication Credits: 0-3  
COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 0-3  
COM110 required for students intending to transfer to Grand Canyon University to pursue a Bachelor in Arts in History.

Critical Reading Credits: 0-3  
CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

## **General Electives**

Select additional courses 100-level or higher to complete a minimum of 60 semester credits but no more than a total of 64 semester credits. Consult with a faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional

goals.

Recommended for Transfer Plan 1: Arizona State University (College of Liberal Arts and Sciences), History, Bachelor of Arts OR

Transfer Plan 3: Arizona State University (New College of Interdisciplinary Arts and Sciences), History, Bachelor of Arts OR

Transfer Plan 5: Northern Arizona University: History, Bachelor of Arts OR

Transfer Plan 7: University of Arizona: History, Bachelor of Arts

Complete a language course at the intermediate level (202 or equivalent) with a C or better OR demonstrate proficiency through this level as indicated by assessment.

ARB+++ Any ARB Arabic course(s)

ASL+++ Any ASL American Sign Language course(s)

CHI+++ Any CHI Chinese course(s)

FRE+++ Any FRE French course(s)

GER+++ Any GER German course(s)

ITA+++ Any ITA Italian course(s)

JPN+++ Any JPN Japanese course(s)

SPA+++ Any SPA Spanish course(s)

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176492>

Starting Term: 2022 Fall

Final Term: 9999

## **ASSOCIATE IN ARTS (AA) IN ASSOCIATE IN ARTS, EMPHASIS IN HUMANITIES**

Total Credits: 60-64

Major Code: 8143

### **Description**

The Associate in Arts (AA), Emphasis in Humanities degree provides the first two years of a four-year curriculum for students who wish to receive an education in the diverse field of humanities, including language, philosophy, religion, art, music, performance, and literature. Coursework in this program supports students in their development of a rigorous and interdisciplinary lens to investigate the artifacts of human experience including intellectual and creative expressions, as well as cultural ideas and values of the ancient and modern worlds. As such, students develop habits of mind, such as creative and critical thinking skills and intellectual curiosity, that position them well for careers in a diverse array of fields and support lifelong learning. Graduates from humanities programs may pursue careers in education, law, creative and professional writing, marketing and international business, social media production and management, government, the nonprofit sector, arts administration, and the helping professions.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 1-40

Complete FYE101 or FYE103 along with the requirements in the transfer option that best aligns with your academic and professional goals. If your intended transfer institution is not listed, then select a combination of courses from the transfer options listed in order to meet the minimum credits required in the Restricted Electives section. Consult with an academic, faculty, or program advisor to prevent exceeding your university transfer program's maximum transferable credits (typically 64).

FYE101 Introduction to College, Career and Personal Success (1) OR  
FYE103 Exploration of College, Career and Personal Success (3) 1-3

Transfer Plan 1: Arizona State University (College of Integrative Sciences and Arts),  
Interdisciplinary Studies, Bachelor of Arts

Credits: 0-37

Lower Division Concentration Courses

0-12 Credits

Students should refer to the BIS Concentration Checksheet

(<https://cisa.asu.edu/ids/concentrations/all>) for their two subject areas to determine what if any courses fulfill their subject area requirements and Associate's degree requirements.

See the Restricted Elective section for course selections.

0-25 Credits

Lower Division Electives should be completed once all other requirements have been met and only if needed to complete community college's associate degree requirements.

See the Restricted Elective section for course selections.

Transfer Plan 2: Arizona State University (College of Liberal Arts and Sciences), International  
Letters and Cultures (Classics) - Latin, Bachelor of Arts

Credits: 11-19

LAT101 Elementary Latin I 4

+ LAT102 Elementary Latin II 4

+ ENG213 Introduction to the Study of Language (3) OR

SLC201 Introduction to Linguistics (3) 3

Students may optionally select to complete Latin at the intermediate level (202 or equivalent) or requirement may be fulfilled after transfer to prevent exceeding the transfer program's maximum transferable credits.

+ LAT201 Intermediate Latin I 0-4

+ LAT202 Intermediate Latin II 0-4

Transfer Plan 3: Arizona State University (College of Liberal Arts and Sciences), International  
Letters and Cultures (Classical Civilization), Bachelor of Arts

Credits: 3

+ ENG213 Introduction to the Study of Language (3) OR



### SLC201 Introduction to Linguistics (3) 3

#### Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 4: Arizona State University (College of Liberal Arts and Sciences), International Letters and Cultures (Arabic Studies), Bachelor of Arts

Credits: 23

ARB101 Elementary Arabic I 5

+ ARB102 Elementary Arabic II 5

+ ARB201 Intermediate Arabic I 5

+ ARB202 Intermediate Arabic II 5

+ ENG213 Introduction to the Study of Language (3) OR

SLC201 Introduction to Linguistics (3) 3

Transfer Plan 5: Arizona State University (College of Integrative Sciences and Arts), Liberal Studies, Bachelor of Arts

Credits: 0-40

Lower division electives may be taken to complete associate degree requirements. Up to a maximum total number of 75 credits may be transferred to ASU for students on this pathway. Only a minimum of 60 is required to complete the AA.

See the Restricted Electives area for specific course selections to fulfill this requirement.

### **Restricted Electives**

Credits: 0-9

Complete requirements in the transfer option that best aligns with your academic and professional goals. If your intended transfer institution is not listed, then select a combination of courses from the transfer options listed in order to meet the minimum credits required in the Restricted Electives section. Consult with an academic, faculty, or program advisor to prevent exceeding your university transfer program's maximum transferable credits (typically 64).

Transfer Plan 1: Arizona State University (College of Integrative Sciences and Arts), Interdisciplinary Studies, Bachelor of Arts

Students must select 0-9 credits across the Humanities areas as identified below (from at least two different prefixes) not already taken in the Required Courses or AGEC area. Students are encouraged to talk to faculty and/or academic advisors for specific course selections within each area.

Transfer Plan 2: Arizona State University (College of Liberal Arts and Sciences), International Letters and Cultures (Classics) - Latin, Bachelor of Arts

Students must select 0-9 credits across the Humanities areas as identified below (from at least two different prefixes) not already taken in the Required Courses or AGEC area. Students are encouraged to talk to faculty and/or academic advisors for specific course selections within each

area.

Transfer Plan 3: Arizona State University (College of Liberal Arts and Sciences), International Letters and Cultures (Classical Civilization), Bachelor of Arts

Students must select 0-9 credits across the Humanities areas as identified below (from at least two different prefixes) not already taken in the Required Courses or AGECE area. Students are encouraged to talk to faculty and/or academic advisors for specific course selections within each area.

Transfer Plan 4: Arizona State University (College of Liberal Arts and Sciences), International Letters and Cultures (Arabic Studies), Bachelor of Arts

Students must select 0-3 credits across the Humanities areas as identified below (from at least two different prefixes) not already taken in the Required Courses or AGECE area. Students are encouraged to talk to faculty and/or academic advisors for specific course selections within each area.

Transfer Plan 5: Arizona State University (College of Integrative Sciences and Arts), Liberal Studies, Bachelor of Arts

Students must select 0-9 credits across the Humanities areas as identified below (from at least two different prefixes) not already taken in the Required Courses or AGECE area. Students are encouraged to talk to faculty and/or academic advisors for specific course selections within each area.

Restricted Elective Course Selections

Anthropology:

Any ASB course with a [HU] designation.

Cultural Studies:

+ HUM225 Introduction to Popular Culture 3

HUM235 Disability Studies 3

HUM261 Asian Ideas and Values 3

Or any AHU, AIS, CCS, SPH, or WST course with a [HU] designation.

Dance:

Any DAH course with a [HU] designation.

Theatre and Film Studies:

ENH113 Writers/Directors and Current Issues 3

ENH140++ Any topic Literature and Film course 3

ENH253 Contemporary Global Literature and Film 3

ENH254 Literature and Film 3

ENH255 Contemporary U.S. Literature and Film 3

ENH256 Shakespeare on Film 3

HUM/THF205 Introduction to Cinema 3

HUM/THF206 Introduction to Television Arts 3

HUM/WST209 Women and Films 3

HUM/THF210 Contemporary Cinema 3  
HUM211AA Foreign Films: Classics 3  
HUM216 The Films and Career of Alfred Hitchcock 3  
HUM213 Hispanic Film 3  
HUM214 African-Americans in Film 3  
HUM215 Film Comedy 3  
HUM220 Film and History 3  
SOC266 Sociology Through Film 3

Or any COM, THE, THF, THP with a [HU] designation.

History:

Any HIS course with a [HU] designation.

Language:

SLC201 Introduction to Linguistics 3  
+ SLC202 Introduction to Literary and Cultural Theory 3

Or any ARB, ASL, CHI, FRE, GER, GRK, HBR, HEB, ITA, JPN, LAT, NAV, PIM, POR, RUS, SPA with a [HU] designation.

Literature:

+ ENG200 Reading and Writing About Literature 3  
+ ENG213 Introduction to the Study of Language 3

Or any ENH with a [HU] designation.

Music:

Any MHL with a [HU] designation.

Philosophy:

Any PHI course with a [HU] designation.

Religious Studies:

Or any REL course with a [HU] designation.

Visual Arts and Design:

HUM107 Humanities Through the Arts 3

Any ARH, ART, INT, or TEC course with a [HU] designation.

Interdisciplinary and Special Topics within the Humanities:

AFR/ASB/CCS202 Ethnic Relations in the United States 3  
AJS123 Ethics and the Administration of Justice 3

EDU/ENH291 Children's Literature 3  
EDU/HUM/STO292 The Art of Storytelling 3  
EDU/ENH/STO294 Multicultural Folktales 3  
FON143 Food and Culture 3  
+ GST202 Games, Culture, and Aesthetics 3  
+ HCR210 Clinical Health Care Ethics 3  
HUM101 General Humanities 3  
HUM108 Contemporary Humanities 3  
+ HUM190++ Honors Forum 1  
HUM201 Humanities: Universal Themes 3  
HUM202 Humanities: Universal Themes 3  
HUM245 Introduction to Holocaust Studies 3  
HUM260 Intercultural Perspectives 3  
SSH111 Sustainable Cities 3  
STO295 Traditional Storytelling Around the World 3  
SWU183 Introductory Ethics: A Social Service Perspective 3

## **General Education Requirements**

Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 29-41

A single course with an [HU], [SB], [L], or [SG/SQ] designation may also be used to satisfy the Oral Communication, Critical Reading, or Awareness Area ([C], [G] and/or [H]) requirement(s). See the AGEC Matrix for course designations.

First-Year Composition [FYC] Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 3

+ HUM250 Ideas and Values in the Humanities: Early Civilizations to the Renaissance  
3

Mathematics [MA] Credits: 3-6

+ MAT140 College Mathematics (5) OR  
+ MAT141 College Mathematics (4) OR  
+ MAT142 College Mathematics (3) OR  
MAT145 College Mathematics with Review (5) OR  
MAT146 College Mathematics with Review (6) OR  
Higher level course in the Mathematical Applications [MA] area (3-6) 3-6

Computer/Statistics/Quantitative Applications [CS] Credits: 0-3

Any approved general education course in the Computer/Statistics/Quantitative Applications [CS] area. (3) OR

Humanities, Arts and Design [HU] Credits: 6  
HUM101 General Humanities (3) OR  
HUM107 Humanities Through the Arts (3) OR  
HUM108 Contemporary Humanities (3) OR  
HUM201 Humanities: Universal Themes (3) OR  
HUM260 Intercultural Perspectives (3) 3  
HUM251 Ideas and Values in the Humanities: Renaissance to the Contemporary World  
3

Social-Behavioral Sciences [SB] Credits: 0-6  
Any approved general education courses in the Social-Behavioral Sciences [SB] area. (6) OR  
May be met by ENG213, or SLC201 in Required Courses. (0) 0-6

Natural Sciences [SG]/[SQ] Credits: 0-8  
Any approved general education course in the Natural Sciences (Quantitative) [SQ] area (4)  
AND  
Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the  
Natural Sciences (General) [SG] area (4) 8

Awareness Areas Credits: 0-3

These requirements may be shared with other AGEC requirements. See the AGEC matrix on  
aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3  
Historical/Global Awareness [H]/[G] Credits: 0  
Met by HUM250 and HUM251.

MCCCD Additional Requirements  
MCCCD Additional Requirements Credits: 0-6  
Some courses in this area have [SB] and [L] designations and may also be applied to the  
corresponding AGEC requirements. See the AGEC matrix on aztransfer.com for course  
designations.

Oral Communication Credits: 0-3  
COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 3

Critical Reading Credits: 0-3  
CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

Select additional courses 100-level or higher to complete a minimum of 60 semester credits but  
no more than a total of 64 semester credits. Students pursuing Transfer Plan 5: Arizona State  
University (College of Integrative Sciences and Arts), Liberal Studies, Bachelor of Arts may take  
up to 75 credits in total for transfer. Consult with the Program Director or an Academic Advisor.

Recommended for Transfer Plan 3: Arizona State University (College of Liberal Arts and  
Sciences), International Letters and Cultures (Classical Civilization), Bachelor of Arts

Completion of a language course at the intermediate level (202 or equivalent) with a C or better OR demonstrating proficiency through this level as indicated by assessment.

ARB+++ Any ARB Arabic course(s)

ASL+++ Any ASL American Sign Language course(s)

CHI+++ Any CHI Chinese course(s)

FRE+++ Any FRE French course(s)

GER+++ Any GER German course(s)

ITA+++ Any ITA Italian course(s)

JPN+++ Any JPN Japanese course(s)

SPA+++ Any SPA Spanish course(s)

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=189049>

Starting Term: 2024 Fall

Final Term: 9999

## **ASSOCIATE IN ARTS (AA) IN ASSOCIATE IN ARTS, EMPHASIS IN INFORMATION STUDIES AND ESOCIETY**

Total Credits: 60-64

Major Code: 8131

### **Description**

The Associate in Arts (AA), Emphasis in Information Studies and eSociety is an interdisciplinary program designed to prepare students for work in: marketing, social media, libraries, editing, copywriting, public relations, online content creation, and communication. Students will examine their roles as content creators and consumers in a global society, critically engage with information, and communicate and collaborate across diverse populations and platforms. This program also provides university transfer options in addition to workforce preparedness.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits – 13-15

FYE101 Introduction to College, Career and Personal Success (1) OR

FYE103 Exploration of College, Career and Personal Success (3) 1-3

IFS150 Social Media, Society, and Ourselves 3

+ IFS201 Information in a Post-Truth World 3

IFS210 Information Without Borders: Research in a Global Society 3

IFS213 Hacking and Open Source Culture 3

## Restricted Electives

Credits 0-3

Complete requirements in the transfer plan that best aligns with academic and professional goals. If academic and professional goals do not align with any of the transfer plans below, select elective courses in consultation with an Academic, Faculty, or Program Director. Restricted electives can be shared with AGEC requirements.

Transfer Plan 1: University of Arizona, Information Sciences and eSociety, Bachelor of Arts  
Credits: 0

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 2: University of Arizona Global, Liberal Arts, Bachelor of Arts

Credits: 6

EDU292 The Art of Storytelling 3

HIS102 History of Western Civilization 1789 to Present (3) OR

HIS103 United States History to 1865 (3) OR

HIS111 World History 1500 to the Present (3) 3

These courses may be used to fulfill any outstanding AGEC requirements simultaneously.

Transfer Plan 3: University of Arizona Global, Organizational Management, Bachelor of Arts

Credits: 6

EDU292 The Art of Storytelling 3

HIS102 History of Western Civilization 1789 to Present (3) OR

HIS103 United States History to 1865 (3) OR

HIS111 World History 1500 to the Present (3) 3

These courses may be used to fulfill any outstanding AGEC requirements simultaneously.

Transfer Plan 4: University of Arizona Global, Information Technology, Bachelor of Science

Credits: 6

EDU292 The Art of Storytelling 3

HIS102 History of Western Civilization 1789 to Present (3) OR

HIS103 United States History to 1865 (3) OR

HIS111 World History 1500 to the Present (3) 3

These courses may be used to fulfill any outstanding AGEC requirements simultaneously.

## General Education Requirements

Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 20-32

A single course with an [L], [HU], [SB], [SG], or [SQ] designation may also be used to satisfy the Oral Communication, Critical Reading, and/or Awareness Area ([C], [G] and/or [H]) requirement(s). See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

First-Year Composition [FYC] Credits: 6  
ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 0  
Met by IFS201 in the Required Courses area

Mathematics [MA] Credits: 3-6  
MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR  
MAT145 College Mathematics with Review (5) OR  
MAT146 College Mathematics with Review (6) OR  
Higher approved general education course in the Mathematical Applications [MA] area (3-6)  
3-6  
Computer/Statistics/Quantitative Applications [CS] Credits: 3

Any approved general education course from the Computer/Statistics/Quantitative Applications [CS] area. 3  
Recommended PSY230 Introduction to Statistics for the University of Arizona, Information Studies and eSociety Bachelor of Arts

Humanities, Arts and Design [HU] Credits: 0-6  
Any approved general education courses from the Humanities, Arts and Design [HU] area. 6

May be met by courses in the Restricted Electives area.  
Recommend EDU/HUM/STO292 The Art of Storytelling and ENH295 Banned Books and Censorship.

Social-Behavioral Sciences [SB] Credits: 0  
Met by IFS210 and IFS213 in the Required Courses area.

Natural Sciences [SG]/[SQ] Credits: 8  
Any approved general education course in the Natural Sciences (Quantitative) [SQ] area (4)  
AND  
Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the Natural Sciences (General) [SG] area (4). 8

Awareness Areas Credits: 0-3  
These requirements may be shared with other AGEC requirements. See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

Cultural Diversity in the US [C] Credits: 0-3



Historical/Global Awareness [H]/[G] Credits: 0  
Met by IFS210 in the Required Courses area

MCCCD Additional Requirements

MCCCD Additional Requirements Credits: 0-6

Some courses in this area have [SB] and [L] designations and may also be applied to the corresponding AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Oral Communication Credits: 0-3

COM100 Introduction to Human Communication (3) OR

COM110 Interpersonal Communication (3) OR

COM225 Public Speaking (3) OR

COM230 Small Group Communication (3) 0-3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR

Equivalent as indicated by assessment (0) 0-3

## General Electives

Select additional courses 100-level or higher to complete a minimum of 60 semester credits but no more than a total of 64 semester credits. Consult with a faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.

Recommended:

COM263 Elements of Intercultural Communication 3

IFS215 Cultural Context of Health Information 3

MKT110 Marketing and Social Networking 3

+ MCO120 Media and Society 3

POS210 Political Ideologies 3

PSY132 Psychology and Culture 3

SOC241 Race and Ethnic Relations 3

Recommended for Transfer Plan 1: University of Arizona, Information Sciences and eSociety, Bachelor of Arts

Complete a language course at the intermediate level (202 or equivalent) with a C or better OR demonstrate proficiency through this level as indicated by assessment.

ARB+++ Any ARB Arabic course(s)

ASL+++ Any ASL American Sign Language course(s)

CHI+++ Any CHI Chinese course(s)

FRE+++ Any FRE French course(s)

GER+++ Any GER German course(s)

ITA+++ Any ITA Italian course(s)

JPN+++ Any JPN Japanese course(s)

SPA+++ Any SPA Spanish course(s)

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=188768>

Starting Term: 2024 Fall  
Final Term: 9999

## **ASSOCIATE IN ARTS (AA) IN ASSOCIATE IN ARTS, EMPHASIS IN JAPANESE**

Total Credits: 60-64  
Major Code: 8130

### **Description**

The Associate in Arts (AA), Emphasis in Japanese provides the first two years of a four year curriculum for the student who plans to transfer to earn a Bachelor of Arts in Japanese. An Academic Certificate (AC) in Language Studies is also available.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program. Students intending to complete the Academic Certificate in Language Studies (Major Code 6237N) should consider the recommendation notes listed below. Students may qualify to enter higher level Japanese courses by placement or may qualify to exempt out of taking any Japanese courses by assessment.

### **Required Courses**

Credits: 7-29

+ ENG213 Introduction to the Study of Language (3) OR  
SLC201 Introduction to Linguistics (3) 3

FYE101 Introduction to College, Career and Personal Success (1) OR  
FYE103 Exploration of College, Career and Personal Success (3) 1-3

JPH245 Traditional and Modern Japanese 3

JPN101 Elementary Japanese I (5) OR  
Equivalent as indicated by assessment (0) 0-5

+ JPN102 Elementary Japanese II (5) OR  
Equivalent as indicated by assessment (0) 0-5

+ JPN201 Intermediate Japanese I (5) OR  
Equivalent as indicated by assessment (0) 0-5

+ JPN202 Intermediate Japanese II (5) OR  
Equivalent as indicated by assessment (0) 0-5

### **General Education Requirements**

## Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 29-35

A single course with an [L], [HU], [SB], [SG], or [SQ] designation may also be used to satisfy the Oral Communication, Critical Reading, and/or Awareness Area ([C], [G] and/or [H]) requirement(s). See the AGECEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

First-Year Composition [FYC] Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 3  
Any approved general education course in the Literacy and Critical Inquiry [L] area. 3

Mathematics [MA] Credits: 3-6  
MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR  
MAT145 College Mathematics with Review (5) OR  
MAT146 College Mathematics with Review (6) OR  
Higher approved general education course in the Mathematical Applications [MA] area (3-6)  
3-6

Computer/Statistics/Quantitative Applications [CS] Credits: 3  
Any approved general education course in the Computer/Statistics/Quantitative Applications [CS] area 3

Humanities, Arts and Design [HU] Credits: 0-3  
Met by JPH245 in Required Courses AND  
Any approved general education courses in the Humanities, Arts and Design [HU] area

Social-Behavioral Sciences [SB] Credits: 3-6  
Any approved general education courses in the Social-Behavioral Sciences [SB] area 6

PSY132 recommended.

May be met by ENG213 OR SLC201 in Required Courses unless used to meet Humanities, Arts and Design [HU]

Natural Sciences [SG]/[SQ] Credits: 8  
Any approved general education course in the Natural Sciences (Quantitative) [SQ] area (4)  
AND  
Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the Natural Sciences (General) [SG] area (4) 8

Awareness Areas Credits: 0-3  
These requirements may be shared with other AGECEC requirements. See the AGECEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

Cultural Diversity in the US [C] Credits: 0-3  
PSY132 recommended.

Historical/Global Awareness [H]/[G] Credits: 0-3  
Any approved general education course with the Historical [H] or Global [G] awareness area designation

May be met by JPN101, JPN102, JPN201, or JPN202 in Required Courses

MCCCD Additional Requirements

MCCCD Additional Requirements Credits: 0-6

Some courses in this area have [SB] and [L] designations and may also be applied to the corresponding AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Oral Communication Credits: 0-3

COM100 Introduction to Human Communication (3) OR

COM110 Interpersonal Communication (3) OR

COM225 Public Speaking (3) OR

COM230 Small Group Communication (3) 0-3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR

Equivalent as indicated by assessment (0) 0-3

Select additional courses 100-level or higher to complete a minimum of 60 semester credits but no more than a total of 64 semester credits. Consult with a faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.

The following courses are recommended:

JPN115 Beginning Japanese Conversation I 3

+ JPN116 Beginning Japanese Conversation II 3

Note: JPN115 and JPN116 satisfies the restricted elective requirement for the Academic Certificate in Language Studies.

Students earning an Academic Certificate in Language Studies, select two (2) courses from the lists below.

AFR/ASB/CCS202 Ethnic Relations in the United States (3) OR

SOC241 Race and Ethnic Relations (3) 3

+ COM163 Intercultural Communication in Everyday Life 3

COM263 Elements of Intercultural Communication 3

AHU+++ Any AHU Arabic Humanities course(s)

ARB+++ Any ARB Arabic course(s)

ASL+++ Any ASL American Sign Language course(s)

CHI+++ Any CHI Chinese course(s)

FLA+++ Any FLA Foreign Language Acquisition course(s)

FRE+++ Any FRE French course(s)

GER+++ Any GER German course(s)

GRK+++ Any GRK Greek course(s)

HBR+++ Any HBR Hebrew course(s)

HEB+++ Any HEB Hebrew course(s)  
IPP+++ Any IPP Interpreter Preparation Program course(s)  
ITA+++ Any ITA Italian course(s)  
ITH+++ Any ITA Italian Humanities course(s)  
JPN+++ Any JPN Japanese course(s)  
LAT+++ Any LAT Latin course(s)  
NAV+++ Any NAV Navajo course(s)  
NVH+++ Any NVH Navajo Humanities course(s)  
PIM+++ Any PIM Pima course(s)  
POR+++ Any POR Portuguese course(s)  
RUS+++ Any RUS Russian course(s)  
SLC+++ Any SLC Studies in Language and Culture course(s)  
SPA+++ Any SPA Spanish course(s)  
SPH+++ Any SPH Spanish Humanities course(s)  
TRS+++ Any TRS Translation and Interpretation course(s)

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=188769>

Starting Term: 2024 Fall  
Final Term: 9999

## **ASSOCIATE IN ARTS (AA) IN ASSOCIATE IN ARTS, EMPHASIS IN JOURNALISM AND NEW MEDIA STUDIES**

Total Credits: 61-67  
Major Code: 8146

### **Description**

The Associate in Arts (AA), Emphasis in Journalism and New Media Studies provides the first two years of a four-year curriculum for students interested in broadcast, print, and new media journalism transfer and is also designed to provide students with general, practical and marketable skills that will enable them to seek entry-level employment in various media outlets, including: newspapers, magazines, community journals, online websites, radio and television. News judgment is integrated as a critical component of the coursework along with an awareness of global and cultural differences. Students will develop a portfolio of work that will exhibit students` abilities to write both news and feature stories.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 4-6

FYE101 Introduction to College, Career and Personal Success (1) OR  
FYE103 Exploration of College, Career and Personal Success (3) 1-3

JRN201 News Writing 3

## **Restricted Electives**

Credits: 9-26

Complete all courses in the transfer option that best aligns with your academic and professional goals. If your intended transfer institution is not listed, then select a combination of courses from the transfer options listed in order to meet the minimum credits required in the Restricted Electives section. Consult with an academic, faculty, or program advisor to prevent exceeding your university transfer program's maximum transferable credits.

Transfer Plan 1: Arizona State University: Journalism and Mass Communication, Bachelor of Arts

Credits: 10

+ JRN101 Grammar and Style for Journalists 1

POS110 American National Government 3

SOC101 Introduction to Sociology (3) OR

PSY101 Introduction to Psychology (3) 3

Select a course for three (3) credits that transfers to ASU with one of the following prefixes: ASB, ASM, ACC, COM, ECN, ENG, FAS, FIN, GCU, GPH, HST, JUS, LES, MGT, MKT, REA, REL, POS, SOC, THE, THP, WST.

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 2: Northern Arizona University: Journalism, Bachelor of Science

Credits: 24-26

+ JRN101 Grammar and Style for Journalists 1

JRN105 Introduction to Journalism 3

+ JRN205 Copyediting 3

+ JRN210 News and Media Production 3

+ JRN212 Writing for Broadcasts (3) OR

+ JRN213 Writing for Online (3) 3

+ JRN216 Current Topics in Media Practice 1

JRN226 Introduction to Multimedia Journalism 3

+ JRN232 Community Reporting 3

+ JRN240AC Journalism Internship (3) OR

JRN290 Publications Portfolio (1) OR

- + JRN298AA Special Projects (1) OR
- + JRN298AB Special Projects (2) OR
- + JRN298AC Special Projects (3) 1-3

+ MCO220 Cultural Diversity and the Media 3

Transfer Plan 3: University of Arizona: Journalism, Bachelor of Arts

Credits: 9-12

JRN105 Introduction to Journalism 3

JRN208 Media Law 3

JRN125 Photo Editing (3) OR

JRN225 Photojournalism (3) 3

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Students interested in pursuing UA's Broadcast Journalism Specialization may also elect to take:

- + JRN212 Writing for Broadcasts 0-3

## General Education Requirements

Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 26-41

A single course with an [HU], [SB], [L], or [SG/SQ] designation may also be used to satisfy the Oral Communication, Critical Reading, or Awareness Area ([C], [G] and/or [H]) requirement(s). See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

First-Year Composition [FYC] Credits: 6

ENG101 First-Year Composition (3) OR

ENG107 First-Year Composition for ESL (3) AND

ENG102 First-Year Composition (3) OR

ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 0

Met by JRN201 in the Required Courses Area.

Mathematics [MA] Credits: 3-6

MAT140 College Mathematics (5) OR

MAT141 College Mathematics (4) OR

MAT142 College Mathematics (3) OR

MAT145 College Mathematics with Review (5) OR

MAT146 College Mathematics with Review (6) OR

Any approved general education course in the Mathematical Applications [MA] area 3-6

Computer/Statistics/Quantitative Applications [CS] Credits: 3

Required by ASU, Journalism and Mass Communication, BA:

GBS221 Business Statistics (3) OR

MAT206 Elements of Statistics (3) OR

PSY230 Introduction to Statistics (3) OR

SWU225 Statistics for Social Research/Justice and Government (3) 3

Required by NAU, Journalism, BS; University of Arizona: Journalism, BA:

Any approved general education course in the Computer/Statistics/Quantitative Applications [CS] area. 3

Humanities, Arts and Design [HU] Credits: 6

Required by ASU, Journalism and Mass Communication, BA:

PHI101 Introduction to Philosophy (3) OR

PHI103 Introduction to Logic (3) OR

PHI105 Introduction to Ethics (3) 3

Any approved general education courses in the Humanities, Arts and Design [HU] area. 3

Required by NAU, Journalism, Bachelor of Science; UofA, Journalism, Bachelor of Arts:

Any approved general education courses in the Humanities, Arts and Design [HU] area. 6

Social-Behavioral Sciences [SB] Credits: 0-6

Required by ASU, Journalism and Mass Communication, BA:

MCO120 Media and Society 3

NAU, Journalism, BS:

MCO120 Media and Society 3

University of Arizona: Journalism, Bachelor of Arts

MCO120 Media and Society 3

Any approved general education courses in the Social-Behavioral Sciences [SB] area. 3

Natural Sciences [SG]/[SQ] Credits: 8

Any approved general education course in the Natural Sciences (Quantitative) [SQ] area (4)

AND

Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the Natural Sciences (General) [SG] area (4). 8

Awareness Areas Credits: 0-6

Any approved general education course with the Cultural Diversity in the U.S. [C] designation.

0-3

Recommend MCO220.

Cultural Diversity in the US [C] Credits: 0-3

Historical/Global Awareness [H]/[G] Credits: 0-3

Any approved general education course with the Historical [H] or Global [G] awareness area designation. 0-3



## MCCCD Additional Requirements

MCCCD Additional Requirements Credits: 1-7

Courses in this area may also be applied to the AGECE Core Requirements. To minimize total credits required for degree and maximize transferable credits, it is recommended that courses be selected that meet more than one requirement wherever possible.

Oral Communication Credits: 0-3

Required by ASU, Journalism and Mass Communication, Bachelor of Science; UofA, Journalism, Bachelor of Arts:

COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 3

Required by NAU Journalism BS:

COM225 Public Speaking 3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

## General Electives

Select courses 100-level or higher to complete the minimum total program credits required for this degree. Students intending to transfer to Northern Arizona University may transfer up to 75 credits from Transfer Plan 2 and AGECE requirements.

Recommended for Transfer Plan 1: Arizona State University: Journalism and Mass Communication, Bachelor of Arts OR

Transfer Plan 3: University of Arizona: Journalism, Bachelor of Arts

Complete a language course at the intermediate level (202 or equivalent) with a C or better OR demonstrate proficiency through this level as indicated by assessment.

ARB+++ Any ARB Arabic course(s)

ASL+++ Any ASL American Sign Language course(s)

CHI+++ Any CHI Chinese course(s)

FRE+++ Any FRE French course(s)

GER+++ Any GER German course(s)

ITA+++ Any ITA Italian course(s)

JPN+++ Any JPN Japanese course(s)

SPA+++ Any SPA Spanish course(s)

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=188770>

Starting Term: 2024 Fall

Final Term: 9999

# ASSOCIATE IN ARTS (AA) IN ASSOCIATE IN ARTS, EMPHASIS IN LAW AND POLICY

Total Credits: 60-64  
Major Code: 8141

## Description

The Associate in Arts (AA), Emphasis in Law and Policy degree provides the first two years of a four-year curriculum for students who wish to specialize in law and policy or are preparing for graduate programs in law or other related fields. With a bachelor's degree, students may work in areas where a license to practice law is not required. These areas include, but are not limited to compliance, contracts, risk management, human resources, public policy, probation, insurance, finance, real estate, city planning and administration.

## Program Notes

Students must earn a grade of C or better in all courses within the program. The Associate in Arts, Emphasis in Law and Policy aligns with the University of Arizona Bachelor of Arts in Law.

## Required Courses

Credits: 13-35

FYE101 Introduction to College, Career and Personal Success (1) OR  
FYE103 Exploration of College, Career and Personal Success (3) 1-3

POS110 American National Government 3  
Policy Focus Course Credits: 6

Select two courses from the following:

POS120 World Politics 3  
POS140 Comparative Government 3  
POS210 Political Ideologies 3  
PAD100 21st Century Public Policy and Service (3) OR  
POS285 Political Issues and Public Policy (3) 3

Law Focus Course Credits: 3

Select one course from the following.

Note: LAS109 is available at Phoenix College as part of their Paralegal Studies program. Students accepted into this program may use this course to satisfy this requirement.

AJS101 Introduction to Criminal Justice 3  
AJS109 Substantive Criminal Law 3  
AJS201 Rules of Evidence 3  
AJS210 Constitutional Law 3  
AJS212 Juvenile Justice Procedures 3  
AJS230 The Police Function 3

AJS260	Procedural Criminal Law	3
LAS109	Civil Procedures I	3
PAR101	Introduction to the Paralegal Profession	3
PAR102	Paralegal Research, Analysis, and Writing I	3
PAR112	Civil Litigation I	3
POS223	Civil Rights and Liberties	3

Foreign Language Credits: 0-20

Complete a language course at the intermediate level (202 or equivalent), including American Sign Language IV with a C or better OR demonstrate proficiency through this level as indicated by assessment.

ARB+++++	Any ARB Arabic course(s)
ASL+++++	Any ASL American Sign Language course(s)
CHI+++++	Any CHI Chinese course(s)
FRE+++++	Any FRE French course(s)
GER+++++	Any GER German course(s)
ITA+++++	Any ITA Italian course(s)
JPN+++++	Any JPN Japanese course(s)
SPA+++++	Any SPA Spanish course(s)

## Restricted Electives

Credits: 3-6

Students should complete 3-6 credits from one or more of the categories below that best align with their academic and professional goals.

### Constitutional Foundations:

AJS210	Constitutional Law	3
LAS101	Introduction to Law	3
PAR101	Introduction to the Paralegal Profession	3
PAR106	Legal Foundations for Paralegals	3
POS223	Civil Rights and Liberties	3

### Criminal Law:

AJS101	Introduction to Criminal Justice	3
AJS109	Substantive Criminal Law	3
AJS201	Rules of Evidence	3
AJS212	Juvenile Justice Procedures	3
AJS260	Procedural Criminal Law	3

### Civil Law:

Note: LAS109 is available at Phoenix College as part of their Paralegal Studies program. Students accepted into this program may use this course to satisfy this requirement.

LAS109	Civil Procedures I	3
LAS110	Civil Procedures II	3
LAS204	Contract Law	3
LAS211	Legal Research	3

LAS212	Tort Law	3	
LAS214	Business Organizations		3
PAR112	Civil Litigation I	3	
PAR114	Civil Litigation II	3	

Applications of Law:

AJS225	Criminology	3	
AJS230	The Police Function	3	
AJS240	The Correction Function	3	
AJS/EMT/FSC/SWU258	Victimology and Crisis Management	3	
GBS205	Legal, Ethical, and Regulatory Issues in Business	3	
PAR102	Paralegal Research, Analysis, and Writing I	3	
PAR103	Paralegal Research, Analysis, and Writing II	3	

## General Education Requirements

### Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 29-32

A single course with an [L], [HU], [SB], [SG], or [SQ] designation may also be used to satisfy the Oral Communication, Critical Reading, and/or Awareness Area ([C], [G] and/or [H]) requirement(s). See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

### First-Year Composition [FYC] Credits: 6

ENG101	First-Year Composition (3) OR	
ENG107	First-Year Composition for ESL (3) AND	
ENG102	First-Year Composition (3) OR	
ENG108	First-Year Composition for ESL (3)	6

### Literacy and Critical Inquiry [L] Credits: 3

Any approved general education course in the Literacy and Critical Inquiry [L] area 3

### Mathematics [MA] Credits: 3-6

MAT150	College Algebra/Functions (5) OR	
MAT151	College Algebra/Functions (4) OR	
MAT152	College Algebra/Functions (3) OR	
MAT155	College Algebra/Functions with Review (5) OR	
MAT156	College Algebra/Functions with Review (6) OR	
Higher course in the Mathematical Applications [MA] area		3-6

### Computer/Statistics/Quantitative Applications [CS] Credits: 3

Any approved general education course in the Computer/Statistics/Quantitative Applications [CS] area 3

BPC110 Computer Usage and Applications or CIS105 Survey of Computer Information Systems required for students taking certain LAS and PAR course options.

### Humanities, Arts and Design [HU] Credits: 6

Any approved general education courses in the Humanities, Arts and Design [HU] area 6  
Recommend AJS123 Ethics and the Administration of Justice.

### Social-Behavioral Sciences [SB] Credits: 0

Met by POS110 in Required Courses AND  
POS120, POS140, POS210, OR POS285 in Required Courses.

Natural Sciences [SG]/[SQ] Credits: 8

Any approved general education course in the Natural Sciences (Quantitative) [SQ] area (4)  
AND

Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the  
Natural Sciences (General) [SG] area (4) 8

Recommend FOR105 Forensic Science: Physical Evidence and FOR106 Forensic Science:  
Biological Evidence.

Awareness Areas Credits: 0-6

These requirements may be shared with other AGECE requirements. See the AGECE matrix on  
aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

Historical/Global Awareness [H]/[G] Credits: 0-3

Any approved general education course with the Historical [H] or Global [G] awareness area  
designation 0-3

May be met by POS120 OR POS140 in Required Courses.

MCCCD Additional Requirements

MCCCD Additional Requirements Credits: 0-6

Some courses in this area have [SB] and [L] designations and may also be applied to the  
corresponding AGECE requirements. See the AGECE matrix on aztransfer.com for course  
designations.

Oral Communication Credits: 0-3

COM100 Introduction to Human Communication (3) OR

COM110 Interpersonal Communication (3) OR

COM225 Public Speaking (3) OR

COM230 Small Group Communication (3) 3

Recommend COM225.

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR

Equivalent as indicated by assessment (0) 0-3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=183283>

Starting Term: 2023 Fall

Final Term: 9999

## **ASSOCIATE IN ARTS (AA) IN ASSOCIATE IN ARTS, EMPHASIS IN MATHEMATICS**

Total Credits: 60-64  
Major Code: 8125

## Description

The Associate in Arts (AA), Emphasis in Mathematics provides the first two years of a four-year curriculum for students who intend to transfer to a four-year institution and earn a bachelor's degree in mathematics, actuarial science, statistics, computational mathematical science, or related fields. With a bachelor's degree, students may pursue a number of careers including actuary, statistical assistant, and business intelligence analyst. With a graduate degree, students may pursue employment as a mathematician or statistician, which may include teaching at institutions of higher education, or as an analyst in a number of fields including finance, data science, cryptography, and scientific computing.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 12-17

CSC110 Introduction to Computer Science (Java) (3) OR

CSC110AA Introduction to Computer Science (Java) (3) OR

CSC110AB Introduction to Computer Science (Java) (4) 3-4

FYE101 Introduction to College, Career and Personal Success (1) OR

FYE103 Exploration of College, Career and Personal Success (3) 1-3

MAT230 Calculus with Analytic Geometry II (5) OR

MAT231 Calculus with Analytic Geometry II (4) 4-5

MAT240 Calculus with Analytic Geometry III (5) OR

MAT241 Calculus with Analytic Geometry III (4) 4-5

## Restricted Electives

Credits: 0-22

Complete requirements in the transfer option that best aligns with your academic and professional goals. If your intended transfer institution is not listed, then select a combination of courses from the transfer options listed in order to meet the minimum credits required in the Restricted Electives section. Consult with an academic, faculty, or program advisor to prevent exceeding your university transfer program's maximum transferable credits (typically 64).

Courses in the Restricted Electives area may be used to fulfill AGEC requirements simultaneously.

Transfer Plan 1: Arizona State University (College of Liberal Arts and Sciences), Bachelor of Science, Mathematics

Credits: 9-11

+ CSC205 Object Oriented Programming and Data Structures (3) OR

+ CSC205++ Object Oriented Programming and Data Structures (3-4) 3-4

- + MAT276 Modern Differential Equations (4) OR
- + MAT277 Modern Differential Equations (3) 3-4

Transfer Plan 2: Arizona State University (College of Liberal Arts and Sciences), Bachelor of Science, Mathematics (Statistics)

Credits: 6-8

- + CSC205 Object Oriented Programming and Data Structures (3) OR
- + CSC205++ Object Oriented Programming and Data Structures (3-4) 3-4

Transfer Plan 3: Arizona State University (College of Liberal Arts and Sciences), Bachelor of Science, Computational Mathematical Sciences

Credits: 17-22

- + CSC205 Object Oriented Programming and Data Structures (3) OR
- + CSC205++ Object Oriented Programming and Data Structures (3-4) 3-4

- + CSC240 Introduction to Different Programming Languages (3) OR
- + CSC240AA Introduction to Different Programming Languages (4) 3-4

- + MAT276 Modern Differential Equations (4) OR
- + MAT277 Modern Differential Equations (3) 3-4

Lecture/Lab Science Credits: 8-10

Complete a two-semester sequence lecture/lab combination from the options below. The same prefix must be selected for both Natural Science requirements.

Option 1: Astronomy

- + AST111 Introduction to Solar System Astronomy 4
- + AST112 Introduction to Stars, Galaxies, and Cosmology 4

Option 2: Chemistry

- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151AA General Chemistry I (4) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) 4-5
  
- + CHM152 General Chemistry II (3) AND
- + CHM152LL General Chemistry II Laboratory (1) OR
- + CHM152AA General Chemistry II (4) 4

Option 3: Geology

- GLG101 Introduction to Geology I - Physical Lecture (3) AND
- GLG103 Introduction to Geology I - Physical Lab (1) OR
- GLG101IN Introduction to Geology I - Physical (4) 4

- GLG102 Introduction to Geology II - Historical Lecture (3) AND
- GLG104 Introduction to Geology II - Historical Lab (1) OR
- GLG102IN Introduction to Geology II - Historical (4) 4

Option 4: Physics

- + PHY115 University Physics I (5) OR
- + PHY121 University Physics I: Mechanics (4) 4-5

- + PHY116 University Physics II (5) OR
- + PHY131 University Physics II: Electricity and Magnetism (4) 4-5

Transfer Plan 4: Arizona State University (College of Liberal Arts and Sciences), Bachelor of Arts, Mathematics

Credits: 3-4

- + MAT276 Modern Differential Equations (4) OR
- + MAT277 Modern Differential Equations (3) 3-4

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 5: Arizona State University (College of Integrative Sciences and Arts), Bachelor of Science, Applied Mathematics

Credits: 14-17

- + MAT227 Discrete Mathematical Structures 3
- + MAT276 Modern Differential Equations (4) OR
- + MAT277 Modern Differential Equations (3) 3-4

Natural Sciences Credits: 8-10

Complete eight to ten (8-10) credits of General Biology (Majors), General Chemistry, or University Physics from the options below. The same prefix must be selected for both Natural Science requirements.

Option 1: General Biology

- + BIO181++ General Biology (Majors) I 4
- + BIO182++ General Biology (Majors) II 4

Option 2: General Chemistry

- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151AA General Chemistry I (4) 4-5
- + CHM152 General Chemistry II (3) AND
- + CHM152LL General Chemistry II Laboratory (1) OR
- + CHM152AA General Chemistry II (4) 4

Option 3: University Physics

- + PHY115 University Physics I (5) OR
- + PHY121 University Physics I: Mechanics (4) 4-5



- + PHY116 University Physics II (5) OR
- + PHY131 University Physics II: Electricity and Magnetism (4) 4-5

Transfer Plan 6: Arizona State University (New College of Interdisciplinary Arts and Sciences), Bachelor of Science, Applied Mathematics

Credits: 6-8

- + CSC200 Principles of Computer Science (Java) (3) OR
- + CSC200AA Principles of Computer Science (Java) (3) OR
- + CSC200AB Principles of Computer Science (Java) (4) OR
- + CSC205 Object Oriented Programming and Data Structures (3) OR
- + CSC205++ Object Oriented Programming and Data Structures (3-4) 3-4

- + MAT276 Modern Differential Equations (4) OR
- + MAT277 Modern Differential Equations (3) 3-4

Transfer Plan 7: Northern Arizona University, Bachelor of Science, Mathematics

Credits: 19-21

- + CSC/EEE120 Digital Design Fundamentals 4
- + CSC205 Object Oriented Programming and Data Structures (3) OR
- + CSC205++ Object Oriented Programming and Data Structures (3-4) 3-4
- + CSC/EEE220 Programming for Computer Engineering 3
- + MAT206 Elements of Statistics 3
- + MAT227 Discrete Mathematical Structures 3
- + MAT276 Modern Differential Equations (4) OR
- + MAT277 Modern Differential Equations (3) 3-4

Transfer Plan 8: University of Arizona, Bachelor of Arts, Mathematics (Any Emphasis)

Credits: 0

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 9: University of Arizona, Bachelor of Science, Mathematics (Any Emphasis)

Credits: 8-10

Mathematics Supporting Laboratory Science Credits: 8-10

Complete two (2) courses from the options below for a total of eight to ten (8-10) credits

- + BIO181++ General Biology (Majors) I 4
- + BIO182++ General Biology (Majors) II 4
- BIO201++ Human Anatomy and Physiology I 4
- BIO202 Human Anatomy and Physiology II 4

- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151AA General Chemistry I (4) OR

+ CHM151 General Chemistry I (3) AND  
+ CHM151LL General Chemistry I Laboratory (1) 4-5

+ CHM152 General Chemistry II (3) AND  
+ CHM152LL General Chemistry II Laboratory (1) OR  
+ CHM152AA General Chemistry II (4) 4

GLG101 Introduction to Geology I - Physical Lecture (3) AND  
GLG103 Introduction to Geology I - Physical Lab (1) OR  
GLG101IN Introduction to Geology I - Physical (4) 4

GLG102 Introduction to Geology II - Historical Lecture (3) AND  
GLG104 Introduction to Geology II - Historical Lab (1) OR  
GLG102IN Introduction to Geology II - Historical (4) 4

+ PHY115 University Physics I (5) OR  
+ PHY121 University Physics I: Mechanics (4) 4-5

+ PHY116 University Physics II (5) OR  
+ PHY131 University Physics II: Electricity and Magnetism (4) 4-5

Second Language Requirement:

Completion of second language courses at the elementary level (102 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

## General Education Requirements

Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 25-40

A single course with an [L], [HU], [SB], [SG], or [SQ] designation may also be used to satisfy the Oral Communication, Critical Reading, and/or Awareness Area ([C], [G] and/or [H]) requirement(s). See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

First-Year Composition [FYC] Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 3

Any approved general education course in the Literacy and Critical Inquiry [L] area. 3

Mathematics [MA] Credits: 4-5

MAT220 Calculus with Analytic Geometry I (5) OR  
MAT221 Calculus with Analytic Geometry I (4) OR  
Higher approved general education course in the Mathematical Applications [MA] area for which MAT22+ is a prerequisite. (4-5) 4-5

Computer/Statistics/Quantitative Applications [CS] Credits: 0  
Met by CSC110, CSC110AA, or CSC110AB in the Required Courses area.

Humanities, Arts and Design [HU] Credits: 6  
Any approved general education courses in the Humanities, Arts and Design [HU] area. 6

Social-Behavioral Sciences [SB] Credits: 6  
Any approved general education courses in the Social-Behavioral Sciences [SB] area. 6

Natural Sciences [SG]/[SQ] Credits: 0-8  
Any approved general education course in the Natural Sciences (Quantitative) [SQ] area (4)  
AND  
Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the  
Natural Sciences (General) [SG] area (4). 8

May be met by courses in the Restricted Electives area.

Awareness Areas Credits: 0-6  
These requirements may be shared with other AGECE requirements. See the AGECE matrix on  
aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3  
Historical/Global Awareness [H]/[G] Credits: 0-3  
Any approved general education course with the Historical [H] or Global [G] awareness area  
designation.

MCCCD Additional Requirements  
MCCCD Additional Requirements Credits: 0-6  
Some courses in this area have [SB] and [L] designations and may also be applied to the  
corresponding AGECE requirements. See the AGECE matrix on aztransfer.com for course  
designations.

Oral Communication Credits: 0-3  
COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 0-3

Critical Reading Credits: 0-3  
CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

### **General Elective**

Select additional courses 100-level or higher to complete a minimum of 60 semester credits but  
no more than a total of 64 semester credits. Consult with a faculty advisor, program director,  
and/or academic advisor to identify coursework that best aligns with academic and professional  
goals.

Recommended for Transfer Plan 4: Arizona State University (College of Liberal Arts and  
Sciences), Bachelor of Arts, Mathematics OR  
Transfer Plan 8: University of Arizona, Bachelor of Arts, Mathematics (Any Emphasis)

Complete a language course at the intermediate level (202 or equivalent) with a C or better OR demonstrate proficiency through this level as indicated by assessment.

ARB+++ Any ARB Arabic course(s)  
ASL+++ Any ASL American Sign Language course(s)  
CHI+++ Any CHI Chinese course(s)  
FRE+++ Any FRE French course(s)  
GER+++ Any GER German course(s)  
ITA+++ Any ITA Italian course(s)  
JPN+++ Any JPN Japanese course(s)  
SPA+++ Any SPA Spanish course(s)

Recommended for Transfer Plan 9: University of Arizona, Bachelor of Science, Mathematics (Any Emphasis)

Complete a language course at the elementary level (102 or equivalent) with a C or better OR demonstrate proficiency through this level as indicated by assessment.

ARB+++ Any ARB Arabic course(s)  
ASL+++ Any ASL American Sign Language course(s)  
CHI+++ Any CHI Chinese course(s)  
FRE+++ Any FRE French course(s)  
GER+++ Any GER German course(s)  
ITA+++ Any ITA Italian course(s)  
JPN+++ Any JPN Japanese course(s)  
SPA+++ Any SPA Spanish course(s)

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=188771>

Starting Term: 2024 Fall

Final Term: 9999

## **ASSOCIATE IN ARTS (AA) IN ASSOCIATE IN ARTS, EMPHASIS IN NUTRITIONAL SCIENCE**

Total Credits: 60-64

Major Code: 8115

### **Description**

The Associate in Arts (AA), Emphasis in Nutritional Science provides the first two years of a four-year curriculum for students who wish to specialize in Nutrition. Students desiring a career in nutrition as a Registered Dietitian Nutritionist (RDN) should pursue the Dietetics transfer plan. Following the completion of an accredited Bachelor of Science program at a university and an accredited internship, students may pursue a career in nutrition related healthcare, wellness and prevention, sports nutrition, food and nutrition management, etc. Application for the accredited internship is a highly competitive process.

The Nutritional Sciences transfer plan provides foundational nutrition principles that can be applied to other careers in healthcare. Students may choose to major in Nutritional Sciences,

earn a bachelor degree, and then seek graduate educational programs in Physician Assistant, Medical Doctor or Physical Therapist.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 32-40

BIO156++ Introductory Biology for Allied Health (4) OR

BIO181++ General Biology (Majors) I (4) OR

One year of high school biology (0) 0-4

(needed as prerequisite for BIO201++, BIO202, BIO205)

BIO201++ Human Anatomy and Physiology I 4

BIO202 Human Anatomy and Physiology II 4

BIO205 Microbiology 4

CHM130 Fundamental Chemistry (3) AND

CHM130LL Fundamental Chemistry Laboratory (1) OR

CHM130AA Fundamental Chemistry with Lab (4) OR

CHM150 General Chemistry I (4) OR

CHM151 General Chemistry I (3) AND

CHM151LL General Chemistry I Laboratory (1) OR

CHM150AA General Chemistry I (5) OR

CHM151AA General Chemistry I (4) 4-5

Note: (CHM15+ and CHM151LL) or CHM15+AA must be selected for students in the Nutritional Sciences transfer plans.

EXS290 Introduction to Evidence Based Practice (3) OR

FON225 Research in Complementary and Alternative Nutrition Therapies (3) 3

FON100 Introductory Nutrition 3

FON142AB Science of Food 3

FON241 Principles of Human Nutrition 3

FYE101 Introduction to College, Career and Personal Success (1) OR

FYE103 Exploration of College, Career and Personal Success (3) 1-3

MAT206 Elements of Statistics (3) OR

PSY230 Introduction to Statistics (3) OR

PSY230 Introduction to Statistics(3) AND

PSY231 Laboratory for Statistics (1) OR

PSY230WL Introduction to Statistics with Lab (4) 3-4

## Restricted Electives

Credits: 4-11

Complete requirements in the transfer option that best aligns with your academic and professional goals. If your intended transfer institution is not listed, then select a combination of courses from the transfer options listed in order to meet the minimum credits required in the Restricted Electives section. Consult with an academic, faculty, or program advisor to prevent exceeding your university transfer program's maximum transferable credits (typically 64).

#### Transfer Plan 1: Dietetics

CHM230 Fundamental Organic Chemistry 3  
CHM230LL Fundamental Organic Chemistry Laboratory 1  
FON125 Introduction to Professions in Food, Nutrition, and Dietetics 1  
PSY101 Introduction to Psychology 3

#### Transfer Plan 2: Nutritional Sciences

CHM152 General Chemistry II 3  
CHM152LL General Chemistry II Laboratory 1

#### Transfer Plan 3: Arizona State University (ASU), College of Health Solutions, Dietetics, Bachelor of Science (BS)

CHM230 Fundamental Organic Chemistry 3  
CHM230LL Fundamental Organic Chemistry Laboratory 1  
FON125 Introduction to Professions in Food, Nutrition, and Dietetics 1  
HCC145 Medical Terminology for Health Care Professionals 3  
PSY101 Introduction to Psychology 3

#### Transfer Plan 4: Arizona State University (ASU), College of Health Solutions, Nutritional Science, Bachelor of Science (BS)

CHM230 Fundamental Organic Chemistry 3  
CHM230LL Fundamental Organic Chemistry Laboratory 1  
HCC145 Medical Terminology for Health Care Professionals 3  
PSY101 Introduction to Psychology 3

## General Education Requirements

### Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 18-30

A single course with an [L], [HU], [SB], [SG], or [SQ] designation may also be used to satisfy the Oral Communication, Critical Reading, and/or Awareness Area ([C], [G] and/or [H]) requirement(s). See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

### First-Year Composition [FYC] Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

### Literacy and Critical Inquiry [L] Credits: 0

Met by EXS290 OR FON225 in the Required Courses area.

### Mathematics [MA] Credits: 3-6

MAT150 College Algebra/Functions (5) OR

MAT151 College Algebra/Functions (4) OR  
MAT152 College Algebra/Functions (3) OR  
MAT155 College Algebra/Functions with Review (5) OR  
MAT156 College Algebra/Functions with Review (6) OR  
Higher approved general education course in the Mathematical Applications [MA] area (3-5)  
3-6

Computer/Statistics/Quantitative Applications [CS] Credits: 0  
Met by MAT206, PSY230, or PSY230WL in the Required Courses area.

Humanities, Arts and Design [HU] Credits: 6  
Any approved general education course in the Humanities, Arts and Design [HU] area. 6  
Recommend PHI216 Environmental Ethics OR PHI213 Medical and Bio-Ethics

Social-Behavioral Sciences [SB] Credits: 3-6  
Any approved general education course in the Social-Behavioral Sciences [SB] area. 6  
May be partially met by PSY101 in Restricted Electives.

Natural Sciences [SG]/[SQ] Credits: 0  
Met by (CHM130 AND CHM130LL) OR CHM130AA OR [(CHM150 or CHM151) AND  
CHM151LL] OR CHM150AA OR CHM151AA AND  
BIO201++ in the Required Courses area.

Awareness Areas Credits: 0-6  
These requirements may be shared with other AGECE requirements. See the AGECE matrix on  
aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3  
Historical/Global Awareness [H]/[G] Credits: 0-3  
Any approved general education course with the Historical [H] or Global [G] awareness area  
designation.

MCCCD Additional Requirements  
MCCCD Additional Requirements Credits: 0-6  
Some courses in this area have [SB] and [L] designations and may also be applied to the  
corresponding AGECE requirements. See the AGECE matrix on aztransfer.com for course  
designations.

Oral Communication Credits: 0-3  
COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 0-3

Critical Reading Credits: 0-3  
CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176516>

Starting Term: 2022 Fall  
Final Term: 9999

## **ASSOCIATE IN ARTS (AA) IN ASSOCIATE IN ARTS, EMPHASIS IN PHILOSOPHY**

Total Credits: 60-64  
Major Code: 8135

### **Description**

The Associate in Arts (AA), Emphasis in Philosophy provides focused training in critical thinking, critical reading, writing, reasoning, communication, and civic dialogue, all while developing an understanding of diverse world views. Students gain proficiency in foundational skills for future studies and work in Law, Social Sciences, the Humanities, and Public Policy. This degree prepares students for their bachelor degree transfer pathway and equips them with analytical skills highly valued by employers.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 4-6

FYE101 Introduction to College, Career and Personal Success (1) OR  
FYE103 Exploration of College, Career and Personal Success (3) 1-3  
PHI101 Introduction to Philosophy 3

### **Restricted Electives**

Credits: 0-21

Complete requirements in the transfer option that best aligns with your academic and professional goals. If your intended transfer institution is not listed, then select a combination of courses from the transfer options listed in order to meet the minimum credits required in the Restricted Electives section. Consult with an academic, faculty, or program advisor to prevent exceeding your university transfer program's maximum transferable credits (typically 64).

Transfer Plan 1: Arizona State University (College of Liberal Arts and Sciences), Bachelor of Arts, Philosophy (no emphasis)

Credits: 3  
+ PHI103 Introduction to Logic 3

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid



exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 2: Arizona State University (College of Liberal Arts and Sciences), Bachelor of Arts, Philosophy (Morality, Politics and Law)

Credits: 0

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 3: Arizona State University (New College of Interdisciplinary Arts and Sciences), Bachelor of Arts, Philosophy, Religion and Society

Credits: 12

+ PHI103 Introduction to Logic (3) OR

PHI105 Introduction to Ethics (3) 3

REL100 World Religions 3

Complete two (2) courses for a total of six (6) credits that transfer to ASU as direct equivalent or departmental elective credit (DEC) in the following ASU prefixes: ENG, ETH, HST, IAP, IAS, PHI, REL, SPA, or WST.

Transfer Plan 4: Northern Arizona University, Bachelor of Arts, Philosophy (no emphasis)

Credits: 3

PHI201 History of Ancient Philosophy 3

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 5: Northern Arizona University, Bachelor of Arts, Philosophy, Politics and Law

Credits: 21

HIS100 History of Western Civilization to Middle Ages (3) OR

HIS101 History of Western Civilization Middle Ages to 1789 (3) OR

HIS103 United States History to 1865 (3) OR

HIS110 World History to 1500 (3) 3

Recommend HIS103.

HIS102 History of Western Civilization 1789 to Present (3) OR

HIS104 United States History 1865 to Present (3) OR

HIS111 World History 1500 to the Present (3) 3

Recommend HIS104.

PHI105 Introduction to Ethics 3

ECN211 Macroeconomic Principles 3

ECN212 Microeconomic Principles 3  
+ MAT206 Elements of Statistics 3  
POS285 Political Issues and Public Policy 3

**Second Language Requirement:**

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 6: University of Arizona, Bachelor of Arts, Philosophy (General Emphasis and Ethics Emphasis)

Credits: 12

+ PHI103 Introduction to Logic 3  
PHI105 Introduction to Ethics 3  
PHI201 History of Ancient Philosophy 3  
PHI/REL244 Philosophy of Religion 3

**Second Language Requirement:**

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 7: Grand Canyon University, Bachelor of Arts, Christian Studies (Philosophy emphasis)

Credits: 9

COM110 Interpersonal Communication 3  
REL211 Introduction to the Old Testament (Hebrew Bible) 3  
REL271 Introduction to the New Testament 3

## **General Education Requirements**

Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 17-41

A single course with an [L], [HU], [SB], [SG], or [SQ] designation may also be used to satisfy the Oral Communication, Critical Reading, and/or Awareness Area ([C], [G] and/or [H]) requirement(s). See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

First-Year Composition [FYC] Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 0-3

Any approved general education course in the Literacy and Critical Inquiry [L] area 3

May be met by PHI103 in the Restricted Electives area  
PHI103 recommended

Mathematics [MA] Credits: 3-6

MAT140 College Mathematics (5) OR

MAT141 College Mathematics (4) OR

MAT142 College Mathematics (3) OR

MAT145 College Mathematics with Review (5) OR

MAT146 College Mathematics with Review (6) OR

Higher approved general education course in the Mathematical Applications [MA] area (3-6)  
3-6

Computer/Statistics/Quantitative Applications [CS] Credits: 0-3

Any approved general education course in the Computer/Statistics/Quantitative Applications [CS] area 3

May be met by MAT206 in the Restricted Electives area

Humanities, Arts and Design [HU] Credits: 0-3

Met by PHI101 in the Required Courses area

AND

Any approved general education courses in the Humanities, Arts and Design [HU] area 3

May be met by HIS101, HIS102, HIS103, HIS110, HIS111, PHI103, PHI105, PHI201, REL100, or REL271 in the Restricted Electives area

PHI105 recommended. PHI103 recommended if not used to meet Literacy and Critical Inquiry [L]

Social-Behavioral Sciences [SB] Credits: 0-6

Any approved general education courses in the Social-Behavioral Sciences [SB] area 6

May be met by ECN211, ECN212, HIS100, HIS101, HIS102, HIS103, or HIS104 in the Restricted Electives area

Natural Sciences [SG]/[SQ] Credits: 8

Any approved general education course in the Natural Sciences (Quantitative) [SQ] area (4)

AND

Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the Natural Sciences (General) [SG] area (4). 8

Awareness Areas Credits: 0-6

These requirements may be shared with other AGECE requirements. See the AGECE matrix on [aztransfer.com](http://aztransfer.com) for course designations.

Cultural Diversity in the US [C] Credits: 0-3

Historical/Global Awareness [H]/[G] Credits: 0-3

Any approved general education course with the Historical [H] or Global [G] awareness area designation.

MCCCD Additional Requirements

MCCCD Additional Requirements Credits: 0-6

Some courses in this area have [SB] and [L] designations and may also be applied to the corresponding AGEC requirements. See the AGEC matrix on aztransfer.com for course designations.

Oral Communication Credits: 0-3

COM100 Introduction to Human Communication (3) OR

COM110 Interpersonal Communication (3) OR

COM225 Public Speaking (3) OR

COM230 Small Group Communication (3) 0-3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR

Equivalent as indicated by assessment (0) 0-3

### General Electives

Select additional courses 100-level or higher to complete a minimum of 60 semester credits but no more than a total of 64 semester credits. Consult with a faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.

Recommended for Transfer Plan 1: Arizona State University (College of Liberal Arts and Sciences), Bachelor of Arts, Philosophy (no emphasis) OR

Transfer Plan 4: Northern Arizona University, Bachelor of Arts, Philosophy (no emphasis) OR

Transfer Plan 5: Northern Arizona University, Bachelor of Arts, Philosophy, Politics and Law OR

Transfer Plan 6: University of Arizona, Bachelor of Arts, Philosophy (General Emphasis and Ethics Emphasis)

Complete a language course at the intermediate level (202 or equivalent) with a C or better OR demonstrate proficiency through this level as indicated by assessment.

ARB+++ Any ARB Arabic course(s)

ASL+++ Any ASL American Sign Language course(s)

CHI+++ Any CHI Chinese course(s)

FRE+++ Any FRE French course(s)

GER+++ Any GER German course(s)

ITA+++ Any ITA Italian course(s)

JPN+++ Any JPN Japanese course(s)

SPA+++ Any SPA Spanish course(s)

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=188772>

Starting Term: 2024 Fall

Final Term: 9999

## ASSOCIATE IN ARTS (AA) IN ASSOCIATE IN ARTS, EMPHASIS IN POLITICAL SCIENCE

Total Credits: 60-64

Major Code: 8120

## Description

The Associate in Arts (AA), Emphasis in Political Science degree provides the first two years of a four-year curriculum for students who wish to specialize in political science. With a bachelor's degree, students may pursue a career as social science research assistants, city and regional planning aides, public relations specialists and managers, reporters, and social and community service managers. With a graduate degree, students may pursue employment opportunities in several careers, including political scientists, political science professors, and lawyers.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 13-15

FYE101 Introduction to College, Career and Personal Success (1) OR  
FYE103 Exploration of College, Career and Personal Success (3) 1-3

POS110 American National Government 3

POS120 World Politics (3) OR

POS140 Comparative Government (3)3

(Recommend POS140 for students intending to transfer to Grand Canyon University)

POS210 Political Ideologies 3

COM225 Public Speaking 3

## Restricted Electives

Credits: 0-18

Complete requirements in the transfer option that best aligns with your academic and professional goals. If your intended transfer institution is not listed, then select a combination of courses from the transfer options listed in order to meet the minimum credits required in the Restricted Electives section. Consult with an academic, faculty, or program advisor to prevent exceeding your university transfer program's maximum transferable credits (typically 64). Courses selected in the Required Courses area cannot be used to satisfy Restricted Electives.

Transfer Plan 1: Arizona State University (College of Liberal Arts and Sciences), Political Science, Bachelor of Science and Arizona State University (College of Integrative Sciences and Arts), Political Science, Bachelor of Science

Credits: 6-18

Political Science Elective Course Credits: 6

Complete six (6) credits of coursework that transfer to ASU as direct equivalencies or departmental electives in the POS prefix. Recommended that students take POS130 State and Local Government AND (POS120 World Politics OR POS140 Comparative Government - whichever course is not already applied in Required Courses area)

Related Area Course Credits: 0-12

Complete zero to twelve (0-12) credits of coursework that transfer to ASU as direct equivalencies or departmental electives in the following ASU course prefixes: AES, AFR, AIS, APA, ASB, ASM, COM, ECN, FAS, GCU, GPH, HST, JUS, MIS, PHI, PSY, REL, SGS, SOC,

TCL, or WST. These courses may be used to fulfill any outstanding AGEC requirements simultaneously.

Transfer Plan 2: Arizona State University (College of Liberal Arts and Sciences), Political Science, Bachelor of Arts

Credits: 6-12

Political Science Elective Course Credits: 6

Complete six (6) credits of coursework that transfer to ASU as direct equivalencies or departmental electives in the POS prefix. Recommended that students select from POS130 State and Local Government AND (POS120 World Politics OR POS140 Comparative Government - whichever course is not already applied in Required Courses area)

Related Area Course Credits: 0-6

Complete zero to six (0-6) credits of coursework that transfer to ASU as direct equivalencies or departmental electives in the following ASU course prefixes: AES, AFR, AIS, APA, ASB, ASM, COM, ECN, FAS, GCU, GPH, HST, JUS, MIS, PHI, PSY, REL, SGS, SOC, TCL, or WST. These courses may be used to fulfill any outstanding AGEC requirements simultaneously.

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 3: Arizona State University (New College of Interdisciplinary Arts and Sciences), Political Science, Bachelor of Arts

Credits: 6

Social Justice Interdisciplinary Track Credits: 3

SOC241 Race and Ethnic Relations 3

Identity and Place Interdisciplinary Track Credits: 3

Select three (3) credits from the below list (POS140 Comparative Government cannot be applied to both the Required Courses area and the Identity and Place Interdisciplinary Track area).

ASB211 Women in Other Cultures 3

POS140 Comparative Government 3

SOC212 Gender and Society 3

SOC270 The Sociology of Health and Illness 3

Transfer Plan 4: Arizona State University (New College of Interdisciplinary Arts and Sciences), Political Science, Bachelor of Science

Credits: 6

Social Justice Interdisciplinary Track Credits: 3

SOC241 Race and Ethnic Relations 3

Identity and Place Interdisciplinary Track Credits: 3

Select three (3) credits from the below list (POS140 Comparative Government cannot be applied to both the Required Courses area and the Identity and Place Interdisciplinary Track area but POS140 is recommended to fulfill the Identity and Place to partially fulfill the POS Interdisciplinary ASU requirement).

ASB211 Women in Other Cultures 3  
POS140 Comparative Government 3  
SOC212 Gender and Society 3  
SOC270 The Sociology of Health and Illness 3

Transfer Plan 5: Northern Arizona University: Political Science, Bachelor of Science  
Credits: 0-15  
Complete zero to fifteen (0-15) credits of coursework that transfer to NAU as POS electives.

Transfer Plan 6: Northern Arizona University: Political Science, Bachelor of Arts  
Credits: 0-15  
Complete zero to fifteen (0-15) credits of coursework that transfer to NAU as POS electives.

Second Language Requirement:  
Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 7: University of Arizona: Political Science (any emphasis), Bachelor of Arts  
Credits: 0

Second Language Requirement:  
Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 8: Grand Canyon University: Government (State and Local Public Policy Emphasis), Bachelor of Arts

Credits: 6  
POS130 State and Local Government 3  
POS285 Political Issues and Public Policy 3

Transfer Plan 9: Grand Canyon University: Government (Legal Studies Emphasis), Bachelor of Arts

Credits: 3  
POS285 Political Issues and Public Policy 3

## **General Education Requirements**

Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 26-32

A single course with an [L], [HU], [SB], [SG], or [SQ] designation may also be used to satisfy the Oral Communication, Critical Reading, and/or Awareness Area ([C], [G] and/or [H]) requirement(s). See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

First-Year Composition [FYC]Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND

ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 0  
Met by COM225 in Required Courses Area.

Mathematics [MA] Credits: 3-6  
MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR  
MAT145 College Mathematics with Review (5) OR  
MAT146 College Mathematics with Review (6) OR  
Higher approved general education course in the Mathematical Applications [MA] area (3-6)  
3-6

Computer/Statistics/Quantitative Applications [CS] Credits: 3  
Any approved general education courses in the Computer/Statistics/Quantitative Applications [CS] area. 3

Humanities, Arts and Design [HU] Credits: 6  
Any approved general education courses in the Humanities, Arts and Design [HU] area. 6

Social-Behavioral Sciences [SB] Credits: 0  
Met by POS110 and POS210 in the Required Courses area.

Natural Sciences [SG]/[SQ] Credits: 8  
Any approved general education course in the Natural Sciences (Quantitative) [SQ] area (4)  
AND  
Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the  
Natural Sciences (General) [SG] area (4). 8

Awareness Areas Credits: 0-3  
These requirements may be shared with other AGECE requirements. See the AGECE matrix on  
aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3  
Historical/Global Awareness [H]/[G] Credits: 0-3  
Met by POS120 or POS140 in the Required Courses area.

MCCCD Additional Requirements  
MCCCD Additional Requirements Credits: 0-3  
Some courses in this area have [SB] and [L] designations and may also be applied to the  
corresponding AGECE requirements. See the AGECE matrix on aztransfer.com for course  
designations.

Oral Communication Credits: 0  
Met by COM225 in the Required Courses area.

Critical Reading Credits: 0-3  
CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3



## General Electives

Select additional courses 100-level or higher to complete a minimum of 60 semester credits but no more than a total of 64 semester credits. Consult with a faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.

Recommend POS281AB Public Policy/Service Internship 3

Recommended for Transfer Plan 2: Arizona State University (College of Liberal Arts and Sciences), Political Science, Bachelor of Arts OR

Transfer Plan 6: Northern Arizona University: Politics and Government, Bachelor of Arts OR

Transfer Plan 7: University of Arizona: Political Science (any emphasis), Bachelor of Arts

Completion of a language course at the intermediate level (202 or equivalent), with a C or better OR demonstrating proficiency through this level as indicated by assessment.

ARB+++ Any ARB Arabic course(s)

ASL+++ Any ASL American Sign Language course(s)

CHI+++ Any CHI Chinese course(s)

FRE+++ Any FRE French course(s)

GER+++ Any GER German course(s)

ITA+++ Any ITA Italian course(s)

JPN+++ Any JPN Japanese course(s)

SPA+++ Any SPA Spanish course(s)

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=183298>

Starting Term: 2023 Fall

Final Term: 9999

## ASSOCIATE IN ARTS (AA) IN ASSOCIATE IN ARTS, EMPHASIS IN PSYCHOLOGY

Total Credits: 60-64

Major Code: 8122

### Description

The Associate in Arts (AA), Emphasis in Psychology provides the first two years of a four-year curriculum for students who wish to specialize in psychological sciences or are preparing for graduate programs in psychology or related fields. With a bachelor's degree, students may pursue numerous careers such as mid and top-level managers, market research analysts/specialists, human resources specialists/managers, social and human service assistants, psychiatric technicians, survey researchers, and probation officers/correctional treatment specialists. Most careers in psychology require graduate work. With a graduate degree, students may pursue a number of careers, including but not limited to: psychologists (industrial-organizational, clinical, counseling, and school), research scientists, psychiatrists, neuropsychologists, statisticians, teachers, and human factors engineers.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 11-14

FYE101 Introduction to College, Career and Personal Success (1) OR  
FYE103 Exploration of College, Career and Personal Success (3) 1-3

PSY101 Introduction to Psychology 3

PSY230 Introduction to Statistics (3) OR  
PSY230 Introduction to Statistics (3) AND  
PSY231 Laboratory for Statistics (1) OR  
PSY230WL Introduction to Statistics with Lab (4) 3-4

PSY290AB Research Methods (4) OR  
PSY290AC Research Methods (4) 4

## Restricted Electives

Credits: 0-16

Complete requirements in the transfer option that best aligns with your academic and professional goals. If your intended transfer institution is not listed, then select a combination of courses from the transfer options listed in order to meet the minimum credits required in the Restricted Electives section. Consult with an academic, faculty, or program advisor to prevent exceeding your university transfer program's maximum transferable credits (typically 64). If academic and professional goals do not align with any of the transfer plans below, select elective courses in consultation with an academic, faculty, or program advisor.

Transfer Plan 1: Arizona State University (College of Integrative Sciences and Arts),  
Psychology, Bachelor of Arts

Credits: 9-10

CIS105 Survey of Computer Information Systems (3) OR  
CSC180 Computer Literacy (3) OR  
CSC180AA Computer Literacy (3) OR  
CSC180AB Computer Literacy (4) OR  
EDU/EED115 Digital Literacy for Teaching and Learning in Education (3) 3-4

Related Area Course Credits: 6

Students must complete two (2) courses for six (6) credits that transfer to ASU as direct equivalencies or departmental electives in the following ASU course prefixes: ASB, COM, HSE, ISS, POS, SOC. These courses may be used to fulfill any outstanding AGECE requirements simultaneously.

Transfer Plan 2: Arizona State University (College of Integrative Sciences and Arts),  
Psychology, Bachelor of Science

Credits: 17-18

CIS105 Survey of Computer Information Systems (3) OR

CSC180 Computer Literacy (3) OR  
CSC180AA Computer Literacy (3) OR  
CSC180AB Computer Literacy (4) OR  
EDU/EED115 Digital Literacy for Teaching and Learning in Education (3) 3-4

Life Science Lab Course Credits: 4

Complete a Life Science lecture/lab course that transfers to ASU in one of the following prefixes: BIO or MIC. This is required in addition to PSY290++ [SG] and the Natural Science [SQ] General Studies requirement.

Physical Science Lab Course Credits: 4

Complete a Physical Science lecture/lab course that transfers to ASU in one of the following prefixes: AST, CHM, GLG, PHY. This is required in addition to PSY290++ [SG] and the Natural Science [SQ] General Studies requirement.

Related Area Course Credits: 6

Complete courses that transfer as a direct equivalent or departmental elective credit (DEC) in the following ASU prefixes: ASB, COM, HSE, ISS, POS, SOC.

Transfer Plan 3: Arizona State University (College of Liberal Arts and Sciences), Psychology, Bachelor of Arts

Credits: 3-16

PSY132 Psychology and Culture (3) OR  
PSY157 African/Black Psychology (3) OR  
+ PSY215 Sports Psychology (3) OR  
+ PSY218 Health Psychology (3) OR  
+ PSY225 Psychology of Religion (3) OR  
+ PSY235 Psychology of Gender (3) OR  
+ PSY240 Developmental Psychology (3) OR  
+ PSY241 Understanding and Changing Behavior (3) OR  
+ PSY248 Psychology of Adolescent Development (3) OR  
+ PSY250 Social Psychology (3) OR  
+ PSY260 Psychology of Personality (3) OR  
+ PSY262 Positive Psychology: The Science of Well-Being (3) OR  
+ PSY266 Psychological Disorders (3) OR  
+ PSY275 Biopsychology (4) OR  
+ PSY277 Psychology of Human Sexuality (3) OR  
+ PSY280 Industrial/Organizational Psychology (3) 3-4

Foundations of Behavior Credits: 0-12

Complete up to four (4) additional courses for a total of zero to twelve (0-12) credits that transfer as either direct equivalency or departmental electives to courses in the following ASU prefixes: ASB, ASM, BIO, GCU, HPS, PHI, SOC. At least 2 of these courses must be from the same course prefix (subject).

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 4: Arizona State University (College of Liberal Arts and Sciences), Psychology, Bachelor of Science

Credits: 3-15

PSY132 Psychology and Culture (3) OR  
PSY157 African/Black Psychology (3) OR  
+ PSY215 Sports Psychology (3) OR  
+ PSY218 Health Psychology (3) OR  
+ PSY225 Psychology of Religion (3) OR  
+ PSY235 Psychology of Gender (3) OR  
+ PSY240 Developmental Psychology (3) OR  
+ PSY241 Understanding and Changing Behavior (3) OR  
+ PSY248 Psychology of Adolescent Development (3) OR  
+ PSY250 Social Psychology (3) OR  
+ PSY260 Psychology of Personality (3) OR  
+ PSY262 Positive Psychology: The Science of Well-Being (3) OR  
+ PSY266 Psychological Disorders (3) OR  
+ PSY275 Biopsychology (4) OR  
+ PSY277 Psychology of Human Sexuality (3) OR  
+ PSY280 Industrial/Organizational Psychology (3) 3-4

Foundations of Behavior Credits: 0-12

Complete up to four (4) additional courses for a total of zero to twelve (0-12) credits that transfer as either direct equivalency or departmental electives to courses in the following ASU prefixes: ASB, ASM, BIO, GCU, HPS, PHI, SOC. These courses can be shared with AGEC requirements.

Transfer Plan 5: Arizona State University (New College of Interdisciplinary Arts and Sciences), Psychology, Bachelor of Arts

Credits: 3-16

CIS105 Survey of Computer Information Systems (3) OR  
CSC180 Computer Literacy (3) OR  
CSC180AA Computer Literacy (3) OR  
CSC180AB Computer Literacy (4) OR  
EDU/EED115 Digital Literacy for Teaching and Learning in Education (3) 3-4

Related Area Course Credits 0-12

Complete up to four (4) courses (0-12 credits) that transfer as either Direct Equivalency or Departmental Elective (DEC) to courses in the following ASU prefixes: ASB, COM, JHR, POS, PSY, SBS, SOC.

Transfer Plan 6: Arizona State University (New College of Interdisciplinary Arts and Sciences), Psychology, Bachelor of Science

Credits: 10-11

CIS105 Survey of Computer Information Systems (3) OR  
CSC180 Computer Literacy (3) OR  
CSC180AA Computer Literacy (3) OR  
CSC180AB Computer Literacy (4) 3-4

Related Area Credits: 3

Students must complete one (1) course for three (3) credits that transfers as a direct equivalent

or departmental elective in the following ASU prefixes: ASB, COM, JHR, POS, PSY, SBS, SOC.

Life Science Lab Course Credits: 4

Complete a Life Science lecture/lab course that transfers to ASU in one of the following prefixes: BIO, FOR, LSC, MIC. This is required in addition to PSY290++ [SG] and the Natural Science [SQ] General Studies requirement.

Transfer Plan 7: Arizona State University (New College of Interdisciplinary Arts and Sciences), Psychology (Forensic Psychology), Bachelor of Arts

Credits: 6-10

AJS109 Substantive Criminal Law 3

CIS105 Survey of Computer Information Systems (3) OR

CSC180 Computer Literacy (3) OR

CSC180AA Computer Literacy (3) OR

CSC180AB Computer Literacy (4) OR

EDU/EED115 Digital Literacy for Teaching and Learning in Education (3) 3-4

Related Area Course Credits: 0-3

Complete up to one (1) course for zero to three (0-3) credits that transfer as a direct equivalent or departmental elective credit in the following ASU prefixes: ASB, ASM, COM, JHR, POS, PSY, SBS, SOC. These courses may be used to fulfill any outstanding AGEC requirements simultaneously.

Transfer Plan 8: Arizona State University (New College of Interdisciplinary Arts and Sciences), Psychology (Forensic Psychology), Bachelor of Science

Credits: 10-11

AJS109 Substantive Criminal Law 3

CIS105 Survey of Computer Information Systems (3) OR

CSC180 Computer Literacy (3) OR

CSC180AA Computer Literacy (3) OR

CSC180AB Computer Literacy (4) OR

EDU/EED115 Digital Literacy for Teaching and Learning in Education (3) 3-4

Life Science Lab Course Credits: 4

Complete a Life Science lecture/lab course that transfers to ASU in one of the following prefixes: BCH, BIO, FOR, LSC, MIC. This is required in addition to PSY290++ [SG] and the Natural Science [SQ] General Studies requirement. May be completed after transfer to ASU.

Transfer Plan 9: Northern Arizona University, Psychological Sciences, Bachelor of Science

Credits: 9

Complete three (3) courses for a total of nine (9) credits from the following:

PSY132 Psychology and Culture 3

PSY240 Developmental Psychology 3

PSY250 Social Psychology 3

PSY260 Psychology of Personality 3

PSY266 Psychological Disorders 3

PSY275 Biopsychology 4

PSY277 Psychology of Human Sexuality 3

Transfer Plan 10: University of Arizona, Psychological Sciences, Bachelor of Science

Credits: 16

+ BIO181++ General Biology (Majors) I (4) OR  
+ BIO201++ Human Anatomy and Physiology I (4) 4

+ BIO182++ General Biology (Majors) II (4) OR  
+ BIO202 Human Anatomy and Physiology II (4) 4

Complete one of the following science options:

+ CHM150 General Chemistry I (4) AND  
+ CHM151LL General Chemistry I Laboratory (1) OR  
+ CHM150AA General Chemistry I (5) OR  
+ CHM151 General Chemistry I (3) AND  
+ CHM151LL General Chemistry I Laboratory (1) OR  
+ CHM151AA General Chemistry I (4)

AND

+ CHM152 General Chemistry II (3) AND  
+ CHM152LL General Chemistry II Laboratory (1) OR  
+ CHM152AA General Chemistry II (4)

OR

+ PHY111 General Physics I (4) AND  
+ PHY112 General Physics II (4) 8-10

Second Language Requirement:

Completion of second language courses at the elementary level (102 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 11: University of Arizona, Psychology, Bachelor of Arts

Credits: 0

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 12: Arizona State University (College of Liberal Arts and Sciences), Psychology (Psychological Science), Bachelor of Science

Credits: 3-15

ASB100 Introduction to Global Health (3) OR  
+ GPH210 Society and Environment (3) OR  
GPH213 Climate and Weather (3) 3

Foundations of Behavior Credits: 0-12

Complete up to four (4) additional courses for a total of zero to twelve (0-12) credits that transfer as either direct equivalency or departmental electives to courses in the following ASU prefixes: ASB, ASM, BIO, GCU, HPS, PHI, SOC. At least 2 of these courses must be from the same course prefix (subject).

## General Education Requirements

Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 9-41

A single course with an [L], [HU], [SB], [SG], or [SQ] designation may also be used to satisfy the Oral Communication, Critical Reading, and/or Awareness Area ([C], [G] and/or [H]) requirement(s). See the AGECEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

First-Year Composition [FYC] Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 0-3

Any approved general education course in the Literacy and Critical Inquiry [L] area 3

May be met by PSY290AB or PSY290AC in Required Courses area

Note: PSY290AB or PSY290AC may be applied as Natural Science [SG] or Literacy and Critical Inquiry [L], but not both.

Mathematics [MA] Credits: 3-9

Before enrolling into a math course, speak to your Academic Advisor to ensure you are selecting the correct math for your transfer goals as MAT14+ is not applicable to all transfer plans

For Arizona State University (College of Integrative Sciences and Arts), Psychology, Bachelor of Arts; Arizona State University (College of Integrative Sciences and Arts), Psychology, Bachelor of Science; Arizona State University (College of Liberal Arts and Sciences), Psychology, Bachelor of Arts; Arizona State University (College of Liberal Arts and Sciences), Psychology, Bachelor of Science; Arizona State University (New College of Interdisciplinary Arts and Sciences), Psychology, Bachelor of Arts; and Arizona State University (New College of Interdisciplinary Arts and Sciences), Psychology (Forensic Psychology), Bachelor of Arts; Arizona State University (College of Liberal Arts and Sciences), Psychology (Psychological Science), Bachelor of Science:

MAT150 College Algebra/Functions (5) OR  
MAT151 College Algebra/Functions (4) OR  
MAT152 College Algebra/Functions (3) OR  
MAT155 College Algebra/Functions with Review (5) OR  
MAT156 College Algebra/Functions with Review (6) AND  
MAT182 Plane Trigonometry (3)  
OR  
MAT172 Finite Mathematics (3) OR  
MAT187 Precalculus (5) OR

Higher approved general education course in the Mathematical Applications [MA] area (3-5)  
3-9

For Arizona State University (New College of Interdisciplinary Arts and Sciences), Psychology, Bachelor of Science and Arizona State University (New College of Interdisciplinary Arts and Sciences), Psychology (Forensic Psychology), Bachelor of Science:

MAT150 College Algebra/Functions (5) OR  
 MAT151 College Algebra/Functions (4) OR  
 MAT152 College Algebra/Functions (3) OR  
 MAT155 College Algebra/Functions with Review (5) OR  
 MAT156 College Algebra/Functions with Review (6) AND  
 MAT182 Plane Trigonometry (3) OR  
 MAT187 Precalculus (5)

OR

Higher approved general education course in the Mathematical Applications [MA] area (3-5)  
5-9

For Northern Arizona University, Psychological Sciences, Bachelor of Science and University of Arizona, Psychology, Bachelor of Arts:

MAT140 College Mathematics (5) OR  
 MAT141 College Mathematics (4) OR  
 MAT142 College Mathematics (3) OR  
 MAT145 College Mathematics with Review (5) OR  
 MAT146 College Mathematics with Review (6) OR

Higher approved general education course in the Mathematical Applications [MA] area (3-6)  
3-6

For University of Arizona, Psychological Sciences, Bachelor of Science:

MAT212 Brief Calculus (3) OR  
 MAT213 Brief Calculus (4) OR  
 MAT220 Calculus with Analytic Geometry I (5) OR  
 MAT221 Calculus with Analytic Geometry I (4) 3-5

Computer/Statistics/Quantitative Applications [CS] Credits: 0  
Met by PSY230 in Required Course area.

Humanities, Arts and Design [HU] Credits: 0-6

Any approved general education courses in the Humanities, Arts and Design [HU] area. 6  
May be met by Transfer Plan selections

Social-Behavioral Sciences [SB] Credits: 0-3

Met by PSY101 AND

Any approved general education courses in the Social-Behavioral Sciences [SB] area. 3  
May be met by Transfer Plan selections

Natural Sciences [SG]/[SQ] Credits: 0-8

Any approved general education course in the Natural Sciences (Quantitative) [SQ] area (4)  
AND

Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the  
Natural Sciences (General) [SG] area (4) 8

May be met by Transfer Plan selections. Note: PSY290AB or PSY290AC may be applied as  
Natural Science [SG] or Literacy and Critical Inquiry [L], but not both.

Awareness Areas Credits: 0-6



These requirements may be shared with other AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3  
Historical/Global Awareness [H]/[G] Credits: 0-3

Any approved general education course in the Historical [H] or Global [G] area.  
MCCCD Additional Requirements  
MCCCD Additional Requirements Credits: 0-6

Some courses in this area have [SB] and [L] designations and may also be applied to the corresponding AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Oral Communication Credits: 0-3  
COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 0-3

Critical Reading Credits: 0-3  
CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

### **General Electives**

Select additional courses 100-level or higher to complete a minimum of 60 semester credits but no more than a total of 64 semester credits. Consult with a faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.

Recommended for Transfer Plan 10: University of Arizona, Psychological Sciences, Bachelor of Science

Complete a language course at the elementary level (102 or equivalent) with a C or better OR demonstrate proficiency through this level as indicated by assessment.

ARB+++ Any ARB Arabic course(s)  
ASL+++ Any ASL American Sign Language course(s)  
CHI+++ Any CHI Chinese course(s)  
FRE+++ Any FRE French course(s)  
GER+++ Any GER German course(s)  
ITA+++ Any ITA Italian course(s)  
JPN+++ Any JPN Japanese course(s)  
SPA+++ Any SPA Spanish course(s)

Recommended for Transfer Plan 3: Arizona State University (College of Liberal Arts and Sciences), Psychology, Bachelor of Arts OR

Transfer Plan 11: University of Arizona, Psychology, Bachelor of Arts

Complete a language course at the intermediate level (202 or equivalent) with a C or better OR demonstrate proficiency through this level as indicated by assessment.

ARB+++ Any ARB Arabic course(s)  
ASL+++ Any ASL American Sign Language course(s)  
CHI+++ Any CHI Chinese course(s)

FRE+++ Any FRE French course(s)  
GER+++ Any GER German course(s)  
ITA+++ Any ITA Italian course(s)  
JPN+++ Any JPN Japanese course(s)  
SPA+++ Any SPA Spanish course(s)

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=188773>

Starting Term: 2024 Fall  
Final Term: 9999

## **ASSOCIATE IN ARTS (AA) IN ASSOCIATE IN ARTS, EMPHASIS IN RELIGIOUS STUDIES**

Total Credits: 60-64  
Major Code: 8138

### **Description**

The Associate in Arts (AA), Emphasis in Religious Studies contains the first two years of a four-year curriculum for students who wish to specialize in religious studies. Students will learn about theology and world religions, as well as the historical significance and sociocultural contexts of people's faiths. With a bachelor's degree, students may pursue positions including human and social services assistant, director of religious or educational programs, museum technician, funeral attendant, tour guide, or clergy. With a graduate degree, students may pursue positions such as reporter, correspondent, social and community service manager, teacher, or college professors in areas such as religious studies or cultural studies.

### **Program Notes**

Program Notes wording correction to: Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 4-26

FYE101 Introduction to College, Career and Personal Success (1) OR  
FYE103 Exploration of College, Career and Personal Success (3) 1-3

REL100 World Religions 3  
Foreign Language Credits: 0-20

Completion of a language course at the intermediate level (202 or equivalent) with a C or better OR demonstrating proficiency through this level as indicated by assessment.

ARB+++ Any ARB Arabic course(s)

ASL+++ Any ASL American Sign Language course(s)  
 CHI+++ Any CHI Chinese course(s)  
 FRE+++ Any FRE French course(s)  
 GER+++ Any GER German course(s)  
 ITA+++ Any ITA Italian course(s)  
 JPN+++ Any JPN Japanese course(s)  
 SPA+++ Any SPA Spanish course(s)            0-20

## Restricted Electives

Restricted Electives  
 Credits:            6-18

Complete requirements in the transfer option that best aligns with your academic and professional goals. If your intended transfer institution is not listed, then select a combination of courses from the transfer options listed in order to meet the minimum credits required in the Restricted Electives section. Consult with an academic, faculty, or program advisor to prevent exceeding your university transfer program's maximum transferable credits (generally 64).

Information regarding the articulation of MCCCDC courses at the Arizona public universities can be accessed on [aztransfer.com](http://aztransfer.com)

Transfer Plan 1: Arizona State University (College of Liberal Arts and Sciences), Religious Studies (Religion, Culture, and Public Life), Bachelor of Arts (BA)

REL207	Ritual, Symbol, and Myth	3
REL270	Introduction to Christianity	3

Complete zero to six (0-6) credits of coursework (except courses used to satisfy other requirements) that transfer to ASU as direct equivalencies or departmental electives in the following ASU course prefixes: AFR, AIS, AMS, APA, ARS, ASB, GCU, HST, JUS, PHI, SGS, SOC, WST.

Transfer Plan 2: Arizona State University (College of Liberal Arts and Sciences), Religious Studies (Religion, Politics, and Global Affairs), Bachelor of Arts (BA)

REL205	Religion and the Modern World	3
REL225	African-American Religions	3

Complete zero to six (0-6) credits of coursework (except courses used to satisfy other requirements) that transfer to ASU as direct equivalencies or departmental electives in the following ASU course prefixes: AFR, AIS, AMS, APA, ARS, ASB, GCU, HST, JUS, PHI, SGS, SOC, WST.

Transfer Plan 3: Northern Arizona University (NAU), Comparative Cultural Studies, Bachelor of Arts (BA)

HUM245	Introduction to Holocaust Studies	3
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Complete zero to nine (0-9) credits of coursework that transfers to NAU as direct equivalencies or departmental electives in the REL course prefix.

Complete six (6) credits of coursework (except courses used to satisfy other requirements) from two different course prefixes that transfer to NAU as direct equivalencies or departmental electives in the following NAU course prefixes: ACM, ARH, CINE, HUM, LAS.

Transfer Plan 4: University of Arizona (UA), Religious Studies, Bachelor of Arts (BA)  
PHI/REL244 Philosophy of Religion 3

Complete two (2) of the following courses for a total of six (6) credits

AIS213/REL203 American Indian Religions 3  
REL151 Religion in the Hispanic World 3  
REL206 Religion in America 3

## General Education Requirements

Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 26-35

A single course with an [L], [HU], [SB], [SG], or [SQ] designation may also be used to satisfy the Oral Communication, Critical Reading, and/or Awareness Area ([C], [G] and/or [H]) requirement(s). See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

First-Year Composition [FYC] Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 0-3

Any approved general education course in the Literacy and Critical Inquiry [L] area 3  
May be met by course selections in the Restricted Electives area

Mathematics [MA] Credits: 3-6

MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR  
MAT145 College Mathematics with Review (5) OR  
MAT146 College Mathematics with Review (6) OR  
Higher approved general education course in the Mathematical Applications [MA] area (3-6)  
3-6

Computer/Statistics/Quantitative Applications [CS] Credits: 3

Any approved general education course in the Computer/Statistics/Quantitative Applications [CS] area 3

Humanities, Arts and Design [HU] Credits: 0

Met by REL100 in the Required Courses area  
AND

Met by AIS213/REL203, HUM245, PHI/REL244, REL151, REL205, REL206, REL207, REL225, or REL270 in the Restricted Electives area

Social-Behavioral Sciences [SB] Credits: 6

Any approved general education course in the Social-Behavioral Sciences [SB] area 6

Natural Sciences [SG]/[SQ] Credits: 8

Any approved general education course in the Natural Sciences (Quantitative) [SQ] area (4)  
AND

Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the  
Natural Sciences (General) [SG] area (4) 8

Awareness Areas Credits: 0-3

These requirements may be shared with other AGECE requirements. See the AGECE matrix on  
aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

Historical/Global Awareness [H]/[G] Credits: 0

Met by REL100 in the Required Courses area

MCCCD Additional Requirements

MCCCD Additional Requirements Credits: 0-6

Some courses in this area have [SB] and [L] designations and may also be applied to the  
corresponding AGECE requirements. See the AGECE matrix on aztransfer.com for course  
designations.

Oral Communication Credits: 0-3

COM100 Introduction to Human Communication (3) OR

COM110 Interpersonal Communication (3) OR

COM225 Public Speaking (3) OR

COM230 Small Group Communication (3) 0-3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR

Equivalent as indicated by assessment (0) 0-3

## General Electives

Select additional courses 100-level or higher to complete a minimum of 60 semester credits but  
no more than a total of 64 semester credits. Consult with a faculty advisor, program director,  
and/or academic advisor to identify coursework that best aligns with academic and professional  
goals.

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=188774>

Starting Term: 2024 Fall

Final Term: 9999

## ASSOCIATE IN ARTS (AA) IN ASSOCIATE IN ARTS, EMPHASIS IN SECONDARY EDUCATION

Total Credits: 60-64

Major Code: 8140

## Description

The Associate in Arts (AA), Emphasis in Secondary Education provides the first two years of a four-year curriculum for students who wish to transfer to a four-year institution and earn a bachelor's degree in secondary education leading to teacher certification for grades 6-12 in Earth and Space Science, English, History/Social Studies, Mathematics, Physical Education, Political Science, or Spanish. Education and discipline specific courses provide future teachers with the knowledge and skills related to educational philosophies, policies, attitudes, behaviors, and instruction in order to effectively perform the duties associated with the position of a classroom teacher. Students will participate in classroom field experiences to connect theory with practice.

## Program Notes

Students must earn a grade of C or better in each course to transfer. Special GPA requirements may apply to concentration area courses within a specific emphasis as noted: English ASU Emphases - 2.5 GPA in English concentration area courses beyond First Year Composition. State certification requirements include demonstration of proficiency in the constitutions of the United States and Arizona. Proficiency can be demonstrated via the Arizona Educator Proficiency Assessments (AEPA) Constitutions of the United States and Arizona test or by taking appropriate coursework: GCU/POS113, HIS103 and POS221, POS221 and POS222, or POS220. Identity Verified Prints (IVP) Fingerprint Clearance Card is required for participation in field experiences and for admission to a university teacher education program. Applicants must present an IVP Fingerprint Clearance Card to be copied by the advisor or designee. Please contact your advisor for information about obtaining the IVP Fingerprint Clearance Card.

## Required Courses

Credits: 1-3

FYE101 Introduction to College, Career and Personal Success (1) OR  
FYE103 Exploration of College, Career and Personal Success (3) 1-3

## Restricted Electives

Credits: 6-41

Complete requirements in the transfer option that best aligns with your academic and professional goals. Students should work with an advisor to determine the appropriate coursework and transfer institution for their intended area of study. If your intended transfer institution is not listed, then select a combination of courses from the transfer options listed in order to meet the minimum credits required in the Restricted Electives section. Consult with an academic, faculty, or program advisor to prevent exceeding your university transfer program's maximum transferable credits (typically 64).

Transfer Plan 1: Northern Arizona University, Bachelor of Science in Education, Secondary Education - Earth Science

Credits: 27-30

+ BIO181 General Biology (Majors) I (4) OR  
+ BIO181XT General Biology (Majors) I (4) 4

+ BIO182 General Biology (Majors) II (4) OR  
+ BIO182XT General Biology (Majors) II (4) 4

+ CHM130 Fundamental Chemistry (3) AND  
+ CHM130LL Fundamental Chemistry Laboratory (1)  
OR  
+ CHM130AA Fundamental Chemistry with Lab (4)  
OR  
+ CHM150 General Chemistry I (4) AND  
+ CHM151LL General Chemistry I Laboratory (1)  
OR  
+ CHM150AA General Chemistry I (5)  
OR  
+ CHM151 General Chemistry I (3) AND  
+ CHM151LL General Chemistry I Laboratory (1)  
OR  
+ CHM151AA General Chemistry I (4) 4-5

GCU/POS113 United States and Arizona Social Studies (3) OR  
HIS103 United States History to 1865 (3) AND  
POS221 Arizona Constitution (1) OR  
POS220 U.S. and Arizona Constitution (3) 3-4  
Note that GCU/POS113 or HIS103 may be used to satisfy outstanding AGECE requirements.  
Students must petition NAU to accept GCU/POS113 OR (HIS103 and POS221) for POS220.

GLG101 Introduction to Geology I - Physical Lecture (3) AND  
GLG103 Introduction to Geology I - Physical Lab (1) OR  
GLG101IN Introduction to Geology I - Physical (4) 4  
Note that these courses may be used to satisfy the [SQ] requirement.

GLG102 Introduction to Geology II - Historical Lecture (3) AND  
GLG104 Introduction to Geology II - Historical Lab (1) OR  
GLG102IN Introduction to Geology II - Historical (4) 4  
Note that these courses may be used to satisfy the [SG] requirement.

+ PHY111 General Physics I (4) OR  
+ PHY111AA General Physics I (5) 4-5

Transfer Plan 2: Arizona State University (Mary Lou Fulton Teachers College), Bachelor of Arts  
in Education, Secondary Education (English)  
Credits: 30-32  
CSC180 Computer Literacy (3) OR  
CSC180AA Computer Literacy (3) OR  
CSC180AB Computer Literacy (4) OR  
EDU/EED115 Digital Literacy for Teaching and Learning in Education (3) 3-4  
EDU/EED115 recommended. Note that this course may be used to satisfy the [CS] requirement.

CFS/ECH176 Child Development 3  
Note that this course may be used to satisfy the [SB] requirement.

EDU220 Introduction to Serving English Language Learners (ELL) 3

EDU221 Introduction to Education 3

Note that this course may be used to satisfy the [SB] requirement.

EDU222 Introduction to the Exceptional Learner 3

Note that this course may be used to satisfy the [C] and [SB] requirements.

EDU230 Cultural Diversity in Education 3

Note that this course may be used to satisfy the [C] requirement.

+ ENG200 Reading and Writing about Literature (3) OR

+ SLC202 Introduction to Literary and Cultural Theory (3) 3

Note that this course may be used to satisfy the [L] requirement.

Select two (2) courses from the following list for a total of six (6) credits:

+ ENH221 Survey of English Literature Before 1800 3

+ ENH222 Survey of English Literature After 1800 3

+ ENH241 American Literature Before 1860 3

ENH242 American Literature After 1860 3

Note that these courses may be used to satisfy outstanding AGEC requirements.

GCU/POS113 United States and Arizona Social Studies (3) OR

HIS103 United States History to 1865 (3) AND

POS221 Arizona Constitution (1) 3-4

Note that GCU/POS113 or HIS103 may be used to satisfy outstanding AGEC requirements.

Transfer Plan 3: Arizona State University (College of Liberal Arts and Sciences), Bachelor of Arts, English (Secondary Education)

Credits: 24-26

CSC180 Computer Literacy (3) OR

CSC180AA Computer Literacy (3) OR

CSC180AB Computer Literacy (4) OR

EDU/EED115 Digital Literacy for Teaching and Learning in Education (3) 3-4

EDU/EED115 recommended. Note that this course may be used to satisfy the [CS] requirement.

EDU220 Introduction to Serving English Language Learners (ELL) 3

Note that this course may be used to satisfy the [L] requirement.

EDU222 Introduction to the Exceptional Learner 3

Note that this course may be used to satisfy the [C] and [SB] requirements.

+ ENG213 Introduction to the Study of Language (3) OR

SLC201 Introduction to Linguistics (3) 3

Note that this course may be used to satisfy the [SB] requirement.

Select three (3) courses from the following list for a total of (9) credits:

+ ENH221 Survey of English Literature Before 1800 3

+ ENH222 Survey of English Literature After 1800 3

+ ENH241 American Literature Before 1860 3

ENH242 American Literature After 1860 3



Note that these courses may be used to satisfy outstanding AGEC requirements.

GCU/POS113 United States and Arizona Social Studies (3)

OR

HIS103 United States History to 1865 (3) AND

POS221 Arizona Constitution (1)

OR

POS110 American National Government (3) AND

POS221 Arizona Constitution (1)

OR

POS220 U.S. and Arizona Constitution (3)

OR

POS221 Arizona Constitution (1) AND

POS222 U.S. Constitution (2) 3-4

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 4: Arizona State University (New College of Interdisciplinary Arts and Sciences), Bachelor of Arts, English (Secondary Education)

Credits: 18-19

BPC110 Computer Usage and Applications (3) OR

CIS105 Survey of Computer Information Systems (3) OR

CSC180 Computer Literacy (3) OR

CSC180AA Computer Literacy (3) OR

CSC180AB Computer Literacy (4) OR

EDU/EED115 Digital Literacy for Teaching and Learning in Education (3) 3-4

EDU/EED115 recommended. Note that this course may be used to satisfy the [CS] requirement.

EDU222 Introduction to the Exceptional Learner 3

Note that this course may be used to satisfy the [C] and [SB] requirements.

+ ENG200 Reading and Writing about Literature (3) OR

+ SLC202 Introduction to Literary and Cultural Theory (3) 3

Note that this course may be used to satisfy the [L] requirement.

GCU/POS113 United States and Arizona Social Studies (3) OR

HIS103 United States History to 1865 (3) AND

POS221 Arizona Constitution (1) 3-4

GCU113 recommended, GCU/POS113 or HIS103 may be used to satisfy outstanding AGEC requirements.

English Electives Credits: 6

Complete six (6) credits of coursework that transfer to ASU as direct equivalents or departmental electives with the ENG prefix. Courses may be used to simultaneously fulfill any outstanding AGEC requirements.

Transfer Plan 5: Northern Arizona University, Bachelor of Science in Education, Secondary Education - English

Credits: 18-19

EDU221 Introduction to Education 3

Note that this course may be used to satisfy the [SB] requirement.

ENG205 Nature of Poetry 3

+ ENH190 Introduction to US Ethnic Literature 3

+ ENH221 Survey of English Literature Before 1800 (3) OR

+ ENH222 Survey of English Literature After 1800 (3) 3

Note that this course may be used to satisfy the [HU] requirement.

+ ENH241 American Literature Before 1860 (3) OR

ENH242 American Literature After 1860 (3) 3

Note that this course may be used to satisfy the [HU] requirement.

GCU/POS113 United States and Arizona Social Studies (3) OR

HIS103 United States History to 1865 (3) AND

POS221 Arizona Constitution (1) OR

POS220 U.S. and Arizona Constitution (3) 3-4

Note that GCU/POS113 or HIS103 may be used to satisfy outstanding AGEC requirements.

Students must petition NAU to accept GCU/POS113 OR (HIS103 and POS221) for POS220.

Second Language Requirement:

Completion of second language courses at the elementary level (102 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 6: Arizona State University (Mary Lou Fulton Teachers College), Bachelor of Arts in Education, Secondary Education (History)

Credits: 34-38

CSC180 Computer Literacy (3) OR

CSC180AA Computer Literacy (3) OR

CSC180AB Computer Literacy (4) OR

EDU/EED115 Digital Literacy for Teaching and Learning in Education (3) 3-4

EDU/EED115 recommended. Note that this course may be used to satisfy the [CS] requirement.

CFS/ECH176 Child Development 3

EDU220 Introduction to Serving English Language Learners (ELL) 3

EDU221 Introduction to Education 3

Note that this course may be used to satisfy the [SB] requirement.

EDU222 Introduction to the Exceptional Learner 3

Note that this course may be used to satisfy the [C] and [SB] requirements.

EDU230 Cultural Diversity in Education 3

Note that this course may be used to satisfy the [C] requirement.

EDU/HUM/STO292 The Art of Storytelling (3) AND  
+ HIS/STO279 Creating and Telling Fact-Based Historical Stories (3)  
OR  
HIS107 Selected Issues in History (3) 3-6

HIS103 United States History to 1865 3  
Note that this course may be used to satisfy the [SB] and [H] requirement.

HIS104 United States History 1865 to Present 3  
Note that this course may be used to satisfy the [SB] and [H] requirement.

HIS110 World History to 1500 3  
Note that this course may be used to satisfy the [HU], [G], and [H] requirements.

HIS111 World History 1500 to the Present 3  
Note that this course may be used to satisfy the [HU], [G], and [H] requirements.

POS221 Arizona Constitution 1

Transfer Plan 7: Arizona State University (College of Liberal Arts and Sciences), Bachelor of  
Arts, History (Secondary Education)

Credits: 28-32

CSC180 Computer Literacy (3) OR  
CSC180AA Computer Literacy (3) OR  
CSC180AB Computer Literacy (4) OR  
EDU/EED115 Digital Literacy for Teaching and Learning in Education (3) 3-4  
EDU/EED115 recommended. Note that this course may be used to satisfy the [CS] requirement.

EDU220 Introduction to Serving English Language Learners (ELL) 3

EDU221 Introduction to Education 3  
Note that this course may be used to satisfy the [SB] requirement.

EDU222 Introduction to the Exceptional Learner 3  
Note that this course may be used to satisfy the [SB] requirement.

EDU/HUM/STO292 The Art of Storytelling (3) AND  
+ HIS/STO279 Creating and Telling Fact-Based Historical Stories (3)  
OR  
HIS107 Selected Issues in History (3) 3-6

HIS103 United States History to 1865 3  
Note that this course may be used to satisfy the [SB] and [H] requirements.

HIS104 United States History 1865 to Present 3  
Note that this course may be used to satisfy the [SB] requirement.

HIS110 World History to 1500 3  
Note that this course may be used to satisfy the [HU], [G], and [H] requirements.

HIS111 World History 1500 to the Present 3

Note that this course may be used to satisfy the [HU], [G], and [H] requirements.

POS221 Arizona Constitution 1

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 8: Arizona State University (New College of Interdisciplinary Arts and Sciences), Bachelor of Arts, History (Secondary Education)

Credits: 22-29

BPC110 Computer Usage and Applications (3) OR

CIS105 Survey of Computer Information Systems (3) OR

CSC180 Computer Literacy (3) OR

CSC180AA Computer Literacy (3) OR

CSC180AB Computer Literacy (4) OR

EDU/EED115 Digital Literacy for Teaching and Learning in Education (3) 3-4

CIS105 or EDU/EED115 recommended. Note that this course may be used to satisfy the [CS] requirement.

EDU222 Introduction to the Exceptional Learner 3

Note that this course may be used to satisfy the [C] and [SB] requirements.

HIS103 United States History to 1865 3

Note that this course may be used to satisfy the [HU] or [SB] requirements.

HIS104 United States History 1865 to Present 3

Note that this course may be used to satisfy the [SB] requirement.

HIS110 World History to 1500 3

Note that this course may be used to satisfy the [HU], [G], and [H] requirements.

HIS111 World History 1500 to the Present 3

Note that this course may be used to satisfy the [HU], [G], and [H] requirements.

History Elective Credits: 3

Complete three (3) credits of coursework that transfer to ASU as direct equivalents or departmental electives with the HST prefix. Courses may be used to simultaneously fulfill any outstanding AGEC requirements.

POS221 Arizona Constitution 1

Related Area Course Credits: 0-6

Complete up to six (6) credits of coursework that transfer to ASU as direct equivalencies or departmental electives in the following ASU course prefixes: AMS, ENG, ETH, HRC, HST, JHR, LAS, PAX, PHI, REL, SPA. These courses may be used to fulfill any outstanding AGEC requirements simultaneously.

Transfer Plan 9: Northern Arizona University, Bachelor of Science in Education, Secondary Education - History and Social Studies

Credits: 32

EDU221 Introduction to Education 3

Note that this course may be used to satisfy the [SB] requirement.

GCU121 World Geography I: Eastern Hemisphere (3) OR

GCU122 World Geography II: Western Hemisphere (3) 3

HIS103 United States History to 1865 3

Note that this course may be used to satisfy the [SB] and [H] requirement.

HIS104 United States History 1865 to Present 3

Note that this course may be used to satisfy the [SB] requirement.

HIS110 World History to 1500 3

Note that this course may be used to satisfy the [HU], [G], and [H] requirements.

HIS111 World History 1500 to the Present 3

Note that this course may be used to satisfy the [HU] requirement.

GPH111 Introduction to Physical Geography Lecture (3) AND

GPH112 Introduction to Physical Geography Lab (1) OR

GPH113 Introduction to Physical Geography (4) 4

POS110 American National Government 3

POS120 World Politics 3

POS210 Political Ideologies 3

POS221 Arizona Constitution 1

Note that students must petition NAU to accept (HIS103 AND POS221) for POS220.

Transfer Plan 10: Arizona State University (Mary Lou Fulton Teachers College), Bachelor of Arts in Education, Secondary Education (Mathematics)

Credits: 36-41

CSC180 Computer Literacy (3) OR

CSC180AA Computer Literacy (3) OR

CSC180AB Computer Literacy (4) OR

EDU/EED115 Digital Literacy for Teaching and Learning in Education (3) 3-4

EDU/EED115 recommended. Note that this course may be used to satisfy the [CS] requirement.

CFS/ECH176 Child Development 3

EDU220 Introduction to Serving English Language Learners (ELL) 3

EDU221 Introduction to Education 3

Note that this course may be used to satisfy the [SB] requirement.

EDU222 Introduction to the Exceptional Learner 3

Note that this course may be used to satisfy the [SB] requirement.

EDU225 Professionalism and Ethics in Education 1

EDU230 Cultural Diversity in Education 3

Note that this course may be used to satisfy the [C] requirement.

GCU/POS113 United States and Arizona Social Studies (3) OR

HIS103 United States History to 1865 (3) AND

POS221 Arizona Constitution (1) 3-4

Note that GCU/POS113 or HIS103 may be used to satisfy outstanding AGEC requirements.

+ MAT227 Discrete Mathematical Structures 3

+ MAT230 Calculus with Analytic Geometry II (5) OR

+ MAT231 Calculus with Analytic Geometry II (4) 4-5

+ MAT240 Calculus with Analytic Geometry III (5) OR

+ MAT241 Calculus with Analytic Geometry III (4) 4-5

+ MAT276 Modern Differential Equations (4) OR

+ MAT277 Modern Differential Equations (3) 3-4

Transfer Plan 11: Arizona State University (Mary Lou Fulton Teachers College), Bachelor of Arts in Education, Physical Education

Credits: 25-31

BIO201 Human Anatomy and Physiology I 4

Note that BIO 201 may be used to satisfy outstanding AGEC requirements.

CFS/ECH176 Child Development 3

CSC180 Computer Literacy (3) OR

CSC180AA Computer Literacy (3) OR

CSC180AB Computer Literacy (4) OR

EDU/EED115 Digital Literacy for Teaching and Learning in Education (3) 3-4

EDU/EED115 recommended. Note that this course may be used to satisfy the [CS] requirement.

EDU221 Introduction to Education 3

Note that this course may be used to satisfy the [SB] requirement.

EDU222 Introduction to the Exceptional Learner 3

Note that this course may be used to satisfy the [SB] requirement.

EDU225 Professionalism and Ethics in Education 1

EDU230 Cultural Diversity in Education 3

Note that this course may be used to satisfy the [C] requirement.

GCU/POS113 United States and Arizona Social Studies (3) OR

HIS103 United States History to 1865 (3) AND

POS221 Arizona Constitution (1) 3-4

Note that GCU/POS113 or HIS103 may be used to satisfy outstanding AGEC requirements.

EXS101 Introduction to Exercise Science 3

- + EXS215 Resistance Training and Recovery Techniques (3) OR
- + EXS217 Cardiorespiratory and Flexibility Training (3) 3

Transfer Plan 12: Northern Arizona University, Bachelor of Science in Education, Secondary Education - Mathematics

Credits: 30-36

- + CSC100 Introduction to Computer Science (C++) (3) OR
  - + CSC100AA Introduction to Computer Science (C++) (4) OR
  - + CSC110 Introduction to Computer Science (Java) (3) OR
  - + CSC110AA Introduction to Computer Science (Java) (3) OR
  - + CSC110AB Introduction to Computer Science (Java) (4) 3-4
- Note that this course may be used to satisfy the [CS] requirement.

+ CSC/EEE120 Digital Design Fundamentals 4

- + CSC205 Object Oriented Programming and Data Structures (3) OR
- + CSC205++ Object Oriented Programming and Data Structures (3-4) 3-4

+ CSC/EEE220 Programming for Computer Engineering 3

GCU/POS113 United States and Arizona Social Studies (3) OR

HIS103 United States History to 1865 (3) AND

POS221 Arizona Constitution (1) OR

POS220 U.S. and Arizona Constitution (3) 3-4

Note that GCU/POS113 or HIS103 may be used to satisfy outstanding AGEC requirements. Students must petition NAU to accept GCU/POS113 OR (HIS103 and POS221) for POS220.

+ MAT227 Discrete Mathematical Structures 3

- + MAT230 Calculus with Analytic Geometry II (5) OR
- + MAT231 Calculus with Analytic Geometry II (4) 4-5

- + MAT240 Calculus with Analytic Geometry III (5) OR
- + MAT241 Calculus with Analytic Geometry III (4) 4-5

- + MAT276 Modern Differential Equations (4) OR
- + MAT277 Modern Differential Equations (3) 3-4

Transfer Plan 13: Northern Arizona University, Bachelor of Science in Education, Health Sciences - Physical Education

Credits: 23-24

- + BIO181 General Biology (Majors) I (4) OR
- + BIO181XT General Biology (Majors) I (4) 4

Note that this course may be used to satisfy the [SQ] requirement.

- + BIO201 Human Anatomy and Physiology I (4) OR
  - + BIO201XT Human Anatomy and Physiology I (4) 4
- Note that this course may be used to satisfy the [SG] requirement.

EDU221 Introduction to Education 3  
Note that this course may be used to satisfy the [SB] requirement.

EXS101 Introduction to Exercise Science 3  
FON241 Principles of Human Nutrition 3

GCU/POS113 United States and Arizona Social Studies (3) OR  
HIS103 United States History to 1865 (3) AND  
POS221 Arizona Constitution (1) OR  
POS220 U.S. and Arizona Constitution (3) 3-4  
Note that GCU/POS113 or HIS103 may be used to satisfy outstanding AGECE requirements.  
Students must petition NAU to accept GCU/POS113 OR (HIS103 and POS221) for POS220.

HES100 Healthful Living 3  
Note that this course may be used to satisfy the [SB] requirement.

Transfer Plan 14: Northern Arizona University, Bachelor of Science in Education, Secondary  
Education - Spanish  
Credits: 6-23  
EDU221 Introduction to Education 3  
Note that this course may be used to satisfy the [SB] requirement.

GCU/POS113 United States and Arizona Social Studies (3) OR  
HIS103 United States History to 1865 (3) AND  
POS221 Arizona Constitution (1) OR  
POS220 U.S. and Arizona Constitution (3) 3-4  
Note that GCU/POS113 or HIS103 may be used to satisfy outstanding AGECE requirements.  
Students must petition NAU to accept GCU/POS113 OR (HIS103 and POS221) for POS220.

Complete Spanish (SPA) at the intermediate level (202 or equivalent) OR demonstrate  
proficiency through this level as indicated by assessment. 0-16

## General Education Requirements

Arizona General Education Curriculum (AGECE)

AGECE-A Credits: 9-47

A single course with an [L], [HU], [SB], [SG], or [SQ] designation may also be used to satisfy the  
Oral Communication, Critical Reading, and/or Awareness Area ([C], [G] and/or [H])  
requirement(s). See the AGECE matrix on aztransfer.com for course designations.

First-Year Composition [FYC] Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 0-3

Any approved general education course in the Literacy and Critical Inquiry [L] area. 3  
May be met by specific Transfer Plan option selections.

Mathematics [MA] Credits: 3-9



Northern Arizona University, Bachelor of Science in Education, Secondary Education - Earth Science

- + MAT150 College Algebra/Functions (5) OR
- + MAT151 College Algebra/Functions (4) OR
- + MAT152 College Algebra/Functions (3) OR
- + MAT155 College Algebra/Functions with Review (5) OR
- + MAT156 College Algebra/Functions with Review (6)

AND

- + MAT182 Plane Trigonometry (3)

OR

- + MAT187 Precalculus (5) OR

Higher approved general education course in the Mathematical Applications [MA] area for which MAT187 is a prerequisite. (4-5) 4-9

Arizona State University (Mary Lou Fulton Teachers College), Bachelor of Arts in Education, Secondary Education (Earth and Space Sciences)

- + MAT212 Brief Calculus (3) OR
- + MAT213 Brief Calculus (4) OR
- + MAT220 Calculus with Analytic Geometry I (5) OR
- + MAT221 Calculus with Analytic Geometry I (4) OR

Higher approved general education course in the Mathematical Applications [MA] area for which MAT22+ is a prerequisite. (4-5) 3-5

Arizona State University (Mary Lou Fulton Teachers College), Bachelor of Arts in Education, Secondary Education (Mathematics); and Northern Arizona University, Bachelor of Science in Education, Secondary Education - Mathematics

- + MAT220 Calculus with Analytic Geometry I (5) OR
- + MAT221 Calculus with Analytic Geometry I (4) OR

Higher approved general education course in the Mathematical Applications [MA] area for which MAT22+ is a prerequisite. (4-5) 4-5

All remaining Transfer Plans (with emphasis in English, History, Social Studies, Physical Education, Political Science, or Spanish)

- + MAT140 College Mathematics (5) OR
- + MAT141 College Mathematics (4) OR
- + MAT142 College Mathematics (3) OR
- MAT145 College Mathematics with Review (5) OR
- MAT146 College Mathematics with Review (6) OR

Higher approved general education course in the Mathematical Applications [MA] area (3-6) 3-6

Computer/Statistics/Quantitative Applications [CS] Credits: 0-3

Any approved general education course in the Computer/Statistics/Quantitative Applications [CS] area. 3

May be met by specific Transfer Plan option selections.

Humanities, Arts and Design [HU] Credits: 0-6

Any approved general education courses in the Humanities, Arts and Design [HU] area. 6  
May be met by specific Transfer Plan option selections.

Social-Behavioral Sciences [SB] Credits: 0-6

Any approved general education courses in the Social-Behavioral Sciences [SB] area. 6  
May be met by specific Transfer Plan option selections.

Natural Sciences [SG]/[SQ] Credits: 0-8

Any approved general education course in the Natural Sciences (Quantitative) [SQ] area (4)  
AND

Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the  
Natural Sciences (General) [SG] area (4). 8

May be met by specific Transfer Plan option selections.

Awareness Areas Credits: 0-6

These requirements may be shared with other AGECE requirements. See the AGECE matrix on  
aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

Historical/Global Awareness [H]/[G] Credits: 0-3

Any approved general education course with the Historical [H] or Global [G] awareness area  
designation. 0-3

MCCCD Additional Requirements

MCCCD Additional Requirements Credits: 0-6

Some courses in this area have [SB] and [L] designations and may also be applied to the  
corresponding AGECE requirements. See the AGECE matrix on aztransfer.com for course  
designations.

Oral Communication Credits: 0-3

COM100 Introduction to Human Communication (3) OR

COM110 Interpersonal Communication (3) OR

COM225 Public Speaking (3) OR

COM230 Small Group Communication (3) 0-3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR

Equivalent as indicated by assessment (0) 0-3

## **General Electives**

Select additional courses 100-level or higher to complete a minimum of 60 semester credits but  
no more than a total of 64 semester credits. Consult with a faculty advisor, program director,  
and/or academic advisor to identify coursework that best aligns with academic and professional  
goals.

Recommended for Transfer Plan 5: Northern Arizona University, Bachelor of Science in  
Education, Secondary Education - English

Completion of a language course at the elementary level (102 or equivalent) with a C or better  
OR demonstrating proficiency through this level as indicated by assessment.

ARB+++ Any ARB Arabic course(s)

ASL+++ Any ASL American Sign Language course(s)  
CHI+++ Any CHI Chinese course(s)  
FRE+++ Any FRE French course(s)  
GER+++ Any GER German course(s)  
ITA+++ Any ITA Italian course(s)  
JPN+++ Any JPN Japanese course(s)  
SPA+++ Any SPA Spanish course(s)

Recommended for Transfer Plan 3: Arizona State University (College of Liberal Arts and Sciences), Bachelor of Arts, English (Secondary Education) OR  
Transfer Plan 7: Arizona State University (College of Liberal Arts and Sciences), Bachelor of Arts, History (Secondary Education)  
Completion of a language course at the intermediate level (202 or equivalent) with a C or better OR demonstrating proficiency through this level as indicated by assessment.

ARB+++ Any ARB Arabic course(s)  
ASL+++ Any ASL American Sign Language course(s)  
CHI+++ Any CHI Chinese course(s)  
FRE+++ Any FRE French course(s)  
GER+++ Any GER German course(s)  
ITA+++ Any ITA Italian course(s)  
JPN+++ Any JPN Japanese course(s)  
SPA+++ Any SPA Spanish course(s)

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=188775>

Starting Term: 2024 Fall  
Final Term: 9999

## **ASSOCIATE IN ARTS (AA) IN ASSOCIATE IN ARTS, EMPHASIS IN SOCIAL WORK**

Total Credits: 60-64  
Major Code: 8117

### **Description**

The Associate in Arts (AA), Emphasis in Social Work provides the first two years of a four year curriculum for students intending to transfer into a baccalaureate program to earn a Bachelor of Social Work. With a Bachelor of Social Work, students can receive their Master Social Work in one year (advanced standing) which is the required minimum education for the following career fields: Clinical/Psychotherapy and Policy Administration and Community Practice.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits:	22-24
ECN211 SWU181	Macroeconomic Principles (3) OR Economics: A Social Issues Perspective (3) 3
FYE101 FYE103	Introduction to College, Career and Personal Success (1) OR Exploration of College, Career and Personal Success (3) 1-3
PHI101 PHI105 SWU183	Introduction to Philosophy (3) OR Introduction to Ethics (3) OR Introductory Ethics: A Social Service Perspective (3) 3
POS110 SWU182	American National Government (3) OR A Social Services Perspective of Government (3) 3
PSY101 SOC101	Introduction to Psychology (3) OR Introduction to Sociology (3) 3
SWU171 SWU291 SWU295	Introduction to Social Work 3 Social Service Delivery Systems 3 Effective Helping in a Diverse World 3

### **Restricted Electives**

Credits: 6

Arizona State University Interdisciplinary Requirement

Credits: 6

Complete two (2) classes from at least two (2) of the three (3) interdisciplinary tracks:

Interdisciplinary Requirement Track One (1):

AJS101 Introduction to Criminal Justice (3) OR

AJS109 Substantive Criminal Law (3) OR

AJS212 Juvenile Justice Procedures (3) OR

AJS270 Community Relations (3) 3

Interdisciplinary Requirement Track Two (2):

PAD100 21st Century Public Policy and Service (3) OR

PAD200 Public Affairs Economics (3) 3

Interdisciplinary Requirement Track Three (3):

REC120 Leisure and the Quality of Life 3

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

### **General Education Requirements**

Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 26-29

A single course with an [L], [HU], [SB], [SG], or [SQ] designation may also be used to satisfy the Oral Communication, Critical Reading, and/or Awareness Area ([C], [G] and/or [H]) requirement(s). See the AGECEC matrix on aztransfer.com for course designations.

First-Year Composition [FYC] Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 3

Any approved general education course in the Literacy and Critical Inquiry [L] area. 3

Mathematics [MA] Credits: 3-6

MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR  
MAT145 College Mathematics with Review (5) OR  
MAT146 College Mathematics with Review (6) OR  
Higher approved general education course in the Mathematical Applications [MA] area (3-6)  
3-6

Computer/Statistics/Quantitative Applications [CS] Credits: 3

Any approved general education course in the Computer, Statistics, and Quantitative Applications [CS] area. 3

Recommend SWU225 Statistics for Social Research/Justice and Government 3

Humanities, Arts and Design [HU] Credits: 3

Met by PHI101, PHI105, or SWU183 in the Required Courses area AND  
Any approved general education course in the Humanities, Arts, and Design [HU] area. 3

Social-Behavioral Sciences [SB] Credits: 0

Met by (POS110 OR SWU182) AND (PSY101 OR SOC101) in the Required Courses area.

Natural Sciences [SG]/[SQ] Credits: 8

Any approved general education course in the Natural Sciences (Quantitative) [SQ] area (4)  
AND  
Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the  
Natural Sciences (General) [SG] area (4). 8

Awareness Areas Credits: 0

These requirements may be shared with other AGECEC requirements. See the AGECEC matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0

Historical/Global Awareness [H]/[G] Credits: 0  
Met by SWU171 in the Required Courses area.

MCCCD Additional Requirements

MCCCD Additional Requirements Credits: 0-6  
Some courses in this area have [SB] and [L] designations and may also be applied to the corresponding AGEC requirements. See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

Oral Communication Credits: 0-3

COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 0-3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

Select additional courses 100-level or higher to complete a minimum of 60 semester credits but no more than a total of 64 semester credits. Consult with a faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.

Recommended:

SWU130 Addictions and Substance Use Disorders 3  
SWU250 Mindfulness for Stress Management 3  
AJS/EMT/FSC258 Victimology and Crisis Management in Public Safety 3

Recommended for Arizona State University Interdisciplinary Requirement

Complete six (6) approved general education credits in the Governance and Civic Engagement (CIVI) area (consult with ASU for approved course options)

OR

Complete a language course at the intermediate level (202 or equivalent) with a C or better OR demonstrate proficiency through this level as indicated by assessment.

ARB+++ Any ARB Arabic course(s)  
ASL+++ Any ASL American Sign Language course(s)  
CHI+++ Any CHI Chinese course(s)  
FRE+++ Any FRE French course(s)  
GER+++ Any GER German course(s)  
ITA+++ Any ITA Italian course(s)  
JPN+++ Any JPN Japanese course(s)  
SPA+++ Any SPA Spanish course(s)

Note that this requirement can be satisfied with fewer than nine (9) credits ONLY if 202 level language proficiency is met (prior to transfer) through coursework, College Level Examination Program (CLEP), or ASU proficiency exams.

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=188778>

Starting Term: 2024 Fall

Final Term: 9999

# ASSOCIATE IN ARTS (AA) IN ASSOCIATE IN ARTS, EMPHASIS IN SOCIOLOGY

Total Credits: 60-64

Major Code: 8119

## Description

The Associate in Arts (AA), Emphasis in Sociology provides students with the first two years of a four-year curriculum for students who intend to earn a bachelor's degree in Sociology and/or to pursue a graduate degree in Sociology or a related field. With a bachelor's degree, students may pursue a career in several areas including social, human, and community services, public relations, marketing, sustainability, human resources, education, community health, public relations, and social science research. With a graduate degree, students can pursue employment in several careers including sociologists, social scientists, sociology professors, lawyers, and statisticians.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 10-12

FYE101 Introduction to College, Career and Personal Success (1) OR  
FYE103 Exploration of College, Career and Personal Success (3) 1-3

SOC101 Introduction to Sociology 3

Complete two (2) courses from the following for a total of six (6) credits:

SOC212 Gender and Society 3  
SOC241 Race and Ethnic Relations 3  
SOC251 Social Problems 3

## Restricted Electives

Complete requirements in the transfer option that best aligns with your academic and professional goals. If your intended transfer institution is not listed, then select a combination of courses from the transfer options listed in order to meet the minimum credits required in the Restricted Electives section. Consult with an academic, faculty, or program advisor to prevent exceeding your university transfer program's maximum transferable credits (typically 64).

Transfer Plan 1: Arizona State University (College of Liberal Arts and Sciences), Sociology, Bachelor of Science

GBS221 Business Statistics (3) OR  
MAT206 Elements of Statistics (3) OR  
SWU225 Statistics for Social Research/Justice and Government (3) 3

**Related Area Courses:**

Complete three (3) courses for a total of nine (9) credits that transfer to ASU as direct equivalents or departmental electives in the following ASU prefixes: AFR, ASB, CDE, ECN, FAS, GCU, HST, POS, PSY, TCL, and WST. At least two (2) of these courses must have the Social-Behavioral Sciences [SB] general education designation according to the Course Equivalency Guide on [www.aztransfer.com](http://www.aztransfer.com) for the semester(s) in which they are taken.

Transfer Plan 2: Arizona State University (New College of Interdisciplinary Arts and Sciences), Sociology, Bachelor of Science

**Related Area Courses:**

Complete four (4) courses for a total of twelve (12) credits that transfer to ASU as direct equivalents or departmental electives in the following ASU prefixes: ASB, JHR, POS, PSY or additional SOC course(s) not already applied to meet other requirements.

Transfer Plan 3: Arizona State University (New College of Interdisciplinary Arts and Sciences), Sociology, Bachelor of Arts

Complete four (4) courses for a total of twelve (12) credits that transfer to ASU as direct equivalents or departmental electives in the following ASU prefixes: ASB, JHR, POS, or PSY or additional SOC course(s) not already applied to meet other requirements.

Transfer Plan 4: Northern Arizona University, Sociology, Bachelor of Science  
MAT206 Elements of Statistics 3

Complete one (1) course for a total of three (3) credits that transfers to NAU as a direct equivalent or Departmental Elective in the NAU SOC prefix

## **General Education Requirements**

Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 26-35

A single course with an [L], [HU], [SB], [SG], or [SQ] designation may also be used to satisfy the Oral Communication, Critical Reading, and/or Awareness Area ([C], [G] and/or [H]) requirement(s). See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

First-Year Composition [FYC] Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 3

Any approved general education course in the Literacy and Critical Inquiry [L] area. 3

Mathematics [MA] Credits: 3-6

MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR  
MAT145 College Mathematics with Review (5) OR  
MAT146 College Mathematics with Review (6) OR



Higher approved general education course in the Mathematical Applications [MA] area (3-6)  
3-6

Computer/Statistics/Quantitative Applications [CS] Credits: 0-3  
Any approved general education course in the Computer/Statistics/Quantitative Applications [CS] area. 3  
May be met by GBS221, MAT206, or SWU225 in Restricted Electives area.

Humanities, Arts and Design [HU] Credits: 6  
Any approved general education courses in the Humanities, Arts and Design [HU] area. 6

Social-Behavioral Sciences [SB] Credits: 0  
Met by SOC101 AND (SOC212 or SOC241 or SOC251) in Required Courses area.

Natural Sciences [SG]/[SQ] Credits: 8  
Any approved general education course in the Natural Sciences (Quantitative) [SQ] area (4)  
AND  
Any approved general education course in the Natural Sciences (Quantitative) [SQ] or Natural Sciences (General) [SG] area. (4) 8

Awareness Areas Credits: 0-3  
These requirements may be shared with other AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0  
Historical/Global Awareness [H]/[G] Credits: 0-3  
Any approved general education course in the Historical [H] or Global [G] area. 0-3

MCCCD Additional Requirements  
MCCCD Additional Requirements Credits: 0-6  
Some courses in this area have [SB] and [L] designations and may also be applied to the corresponding AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Oral Communication Credits: 0-3  
COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 0-3

Critical Reading Credits: 0-3  
CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176514>

Starting Term: 2022 Fall  
Final Term: 9999

# ASSOCIATE IN ARTS (AA) IN ASSOCIATE IN ARTS, EMPHASIS IN SPANISH

Total Credits: 60-64  
Major Code: 8129

## Description

The Associate in Arts (AA), Emphasis in Spanish provides the first two years of a four year curriculum for the student who plans to transfer to earn a Bachelor of Arts in Spanish. Academic Certificates (AC) in Language Studies and in Spanish Language and Culture are also available.

## Program Notes

Students must earn a grade of C or better in all courses within the program. Students may qualify to enter higher level Spanish courses by placement or may qualify to exempt out of taking any Spanish courses by assessment. Students wishing to earn credit for any course of which they are exempt by assessment should take the CLEP examination.

## Required Courses

Credits: 4-22

ENG213 Introduction to the Study of Language (3) OR  
SLC201 Introduction to Linguistics (3) 3

FYE101 Introduction to College, Career and Personal Success (1) OR  
FYE103 Exploration of College, Career and Personal Success (3) 1-3

SPA101 Elementary Spanish I (4) OR  
SPA103 Elementary Spanish for Spanish Speakers I (4)  
AND  
SPA102 Elementary Spanish II (4) OR  
SPA104 Elementary Spanish for Spanish Speakers II (4) OR

SPA111 Fundamentals of Spanish (4) OR  
Proficiency through SPA102 level as indicated by assessment (0) 0-8

SPA201 Intermediate Spanish I (4) OR  
Proficiency as indicated by assessment (0) 0-4

SPA202 Intermediate Spanish II (4) OR  
Proficiency as indicated by assessment (0) 0-4

## Restricted Electives

Credits: 6-10

Complete requirements in the subplan that best aligns with academic and professional goals. If academic and professional goals do not align with any of the subplans below, select elective

courses in consultation with an Academic, Faculty, or Program Director.

Subplan 1: Academic Certificate in Spanish Language and Culture (6243N) \*Note: This certificate may/may not be offered at each college.

Credits: 9

Select a minimum of three (3) credits taught in English

FLA240 Foreign Language Teaching Methods 3

GCU223 Geography of Latin America 3

HIS145 History of Mexico 3

MHL156 Music in Latin America and the Caribbean 3

SLC201 Introduction to Linguistics 3

SPH245 Hispanic Heritage in the Southwest 3

Select a minimum of six (6) credits taught in Spanish

SPA115 Beginning Spanish Conversation I 3

+ SPA116 Beginning Spanish Conversation II 3

SPA117 Health Care Spanish I 3

+ SPA118 Health Care Spanish II 3

SPA119 Spanish for Educational Settings I 3

+ SPA120 Spanish for Educational Settings II 3

+ SPA205 Spanish for Medical Interpretation I 3

+ SPA206 Spanish for Medical Interpretation II 3

+ SPA217 Spanish for Business Communication 4

+ SPA225 Intermediate Spanish Conversation I 3

+ SPA226 Intermediate Spanish Conversation II 3

+ SPA235 Advanced Spanish Conversation I 3

+ SPA236 Advanced Spanish Conversation II 3

+ SPA241 Spanish and Spanish-American Film I 3

+ SPA242 Spanish and Spanish-American Film II 3

+ SPA251 Spanish Civilization 3

+ SPA265 Advanced Spanish I 3

+ SPA266 Advanced Spanish II 3

+ SPA282++ Volunteerism for Spanish: A Service Learning Experience (any suffixed course) 1-3

+ SPA298++ Special Projects (any suffixed course) 1-3

+ SPH298++ Special Projects (any suffixed course) 1-3

Subplan 2: Academic Certificate in Language Studies (6237N) \*Note: This certificate may/may not be offered at each college.

Credits: 6-10

Select six to ten (6-10) additional credits from the lists below

AFR/ASB/CCS202 Ethnic Relations in the United States (3) OR

SOC241 Race and Ethnic Relations (3) 3

COM163 Intercultural Communication in Everyday Life 3

COM263 Elements of Intercultural Communication 3

JPH245 Traditional and Modern Japanese 3

PSY132 Psychology and Culture 3

AHU+++ Any AHU Arabic Humanities course(s)

ARB+++ Any ARB Arabic course(s)

ASL+++ Any ASL American Sign Language course(s)  
 CHI+++ Any CHI Chinese course(s)  
 FLA+++ Any FLA Foreign Language Acquisition course(s)  
 FRE+++ Any FRE French course(s)  
 GER+++ Any GER German course(s)  
 GRK+++ Any GRK Greek course(s)  
 HBR+++ Any HBR Hebrew course(s)  
 HEB+++ Any HEB Hebrew course(s)  
 IPP+++ Any IPP Interpreter Preparation Program course(s)  
 ITA+++ Any ITA Italian course(s)  
 ITH+++ Any ITA Italian Humanities course(s)  
 JPN+++ Any JPN Japanese course(s)  
 LAT+++ Any LAT Latin course(s)  
 NAV+++ Any NAV Navajo course(s)  
 NVH+++ Any NVH Navajo Humanities course(s)  
 PIM+++ Any PIM Pima course(s)  
 POR+++ Any POR Portuguese course(s)  
 RUS+++ Any RUS Russian course(s)  
 SLC+++ Any SLC Studies in Language and Culture course(s)  
 SPA+++ Any SPA Spanish course(s)  
 SPH+++ Any SPH Spanish Humanities course(s)  
 TRS+++ Any TRS Translation and Interpretation course(s)

## General Education Requirements

Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 32-41

A single course with an [L], [HU], [SB], [SG], or [SQ] designation may also be used to satisfy the Oral Communication, Critical Reading, and/or Awareness Area ([C], [G] and/or [H]) requirement(s). See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

First-Year Composition [FYC] Credits: 6

ENG101 First-Year Composition (3) OR  
 ENG107 First-Year Composition for ESL (3) AND  
 ENG102 First-Year Composition (3) OR  
 ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 3

Any approved general education course in the Literacy and Critical Inquiry [L] area 3  
 COM225 recommended for students who are CRE101 exempt

Mathematics [MA] Credits: 3-6

MAT140 College Mathematics (5) OR  
 MAT141 College Mathematics (4) OR  
 MAT142 College Mathematics (3) OR  
 MAT145 College Mathematics with Review (5) OR  
 MAT146 College Mathematics with Review (6) OR  
 Higher approved general education course in the Mathematical Applications [MA] area (3-6)  
 3-6

Computer/Statistics/Quantitative Applications [CS] Credits: 3  
Any approved general education course in the Computer/Statistics/Quantitative Applications [CS] area 3

Humanities, Arts and Design [HU] Credits: 3-6  
Any approved general education courses in the Humanities, Arts and Design [HU] area 6  
May be met by ENG213 OR SLC201 in Required Courses if not used to meet [SB]

Recommend SPH241 and SPH245 for students intending to earn the Academic Certificate in Language Studies

Social-Behavioral Sciences [SB] Credits: 3-6  
Any approved general education course in the Social-Behavioral Sciences [SB] area 6

May be met by ENG213 OR SLC201 in Required Courses area if not used to meet [HU]

Recommend AFR/ASB/CCS202, COM163, COM263 or SOC241 for students intending to earn the Academic Certificate in Language Studies

Natural Sciences [SG]/[SQ] Credits: 8  
Any approved general education course in the Natural Sciences (Quantitative) [SQ] area (4)  
AND  
Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the Natural Sciences (General) [SG] area (4) 8

Subject Options Credits: 0

Awareness Areas Credits: 0-6  
These requirements may be shared with other AGECE requirements. See the AGECE matrix on [aztransfer.com](http://aztransfer.com) for course designations.

Cultural Diversity in the US [C] Credits: 0-3  
Historical/Global Awareness [H]/[G] Credits: 0-3  
Any approved general education course with the Historical [H] or Global [G] awareness area designation

May be met by SPA201 or SPA202 in Required Courses area

MCCCD Additional Requirements  
MCCCD Additional Requirements Credits: 0-6  
Some courses in this area have [SB] and [L] designations and may also be applied to the corresponding AGECE requirements. See the AGECE matrix on [aztransfer.com](http://aztransfer.com) for course designations.

Oral Communication Credits: 0-3  
COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 0-3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=188780>

Starting Term: 2024 Fall  
Final Term: 9999

## **ASSOCIATE IN ARTS (AA) IN ASSOCIATE IN ARTS, EMPHASIS IN SUSTAINABILITY AND ENVIRONMENTAL STUDIES**

Total Credits: 60-64  
Major Code: 8123

### **Description**

The Associate in Arts (AA), Emphasis in Sustainability and Environmental Studies provides the first two years of a four-year curriculum for students who intend to transfer to a four-year institution and specialize in areas of sustainability, environmental science, conservation, or resource management. Upon completion of a bachelor's degree, students may pursue a number of careers including sustainability specialists, chief sustainability officers, compliance managers, environmental scientists, conservation scientists, soil and water conservationists, range managers, and city and regional planning aides. With a graduate degree, students may pursue a career in several areas including hydrology, urban and regional planning, and post-secondary teaching.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program. Courses that can be used to fulfill a requirement of the Academic Certificate in Sustainability (Major Code 6240N), Environmental Science (Major Code 6227N), and CCL in Environmental and Natural Resource Conservation (Major Code 5824) while simultaneously fulfilling a requirement of the Associate in Arts, Emphasis in Sustainability and Environmental Studies are noted.

### **Required Courses**

Credits: 4-6

FYE101 Introduction to College, Career and Personal Success (1) OR  
FYE103 Exploration of College, Career and Personal Success (3) 1-3  
SSH111 Sustainable Cities 3

### **Restricted Electives**

Credits: 6-43

Complete requirements in the transfer option that best aligns with your academic and professional goals. If your intended transfer institution is not listed, then select a combination of courses from the transfer options listed in order to meet the minimum credits required in the Restricted Electives section. Consult with an academic, faculty, or program advisor to prevent exceeding your university transfer program's maximum transferable credits (typically 64).

Transfer Plan 1: Arizona State University (College of Global Futures), Sustainability, Bachelor of Science

Credits: 6

SUS110 Sustainable World 3

+ SUS232 Professional Skills in Sustainability Practice 3

Second Language Requirement:

Completion of second language courses at the elementary level (102 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 2: Arizona State University (College of Global Futures), Sustainability, Bachelor of Arts

Credits: 9

+ GBS221 Business Statistics (3) OR

+ MAT206 Elements of Statistics (3) OR

+ SWU225 Statistics for Social Research/Justice and Government (3) 3

This course may be used to fulfill any outstanding AGEC requirements simultaneously.

SUS110 Sustainable World 3

+ SUS232 Professional Skills in Sustainability Practice 3

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 3: Arizona State University (College of Liberal Arts and Sciences), Earth and Environmental Sciences, Bachelor of Arts

Credits: 29-31

+ BIO181++ General Biology (Majors) I 4

+ BIO182++ General Biology (Majors) II 4

CHM107 Chemistry and Society (3) AND

+ CHM107LL Chemistry and Society Laboratory (1) OR

+ CHM130 Fundamental Chemistry (3) AND

+ CHM130LL Fundamental Chemistry Laboratory (1) OR

+ CHM130AA Fundamental Chemistry with Lab (4) OR

+ CHM140AA General Chemistry for Engineers with Lab (6) OR

+ CHM150 General Chemistry I (4) AND

+ CHM151LL General Chemistry I Laboratory (1) OR

- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4) 4-6

ENV225 Our Changing Planet 3

GIS205 Geographic Information Technologies 3

GLG110 Geological Disasters and the Environment (3) AND  
 GLG111 Geological Disasters and the Environment Lab (1) OR  
 GLG110IN Geological Disasters and the Environment (4) 4

- + GBS221 Business Statistics (3) OR
- + MAT206 Elements of Statistics (3) OR
- + SWU225 Statistics for Social Research/Justice and Government (3) 3

GPH113 Introduction to Physical Geography (4) OR

ENV101 Introduction to Environmental Science (4) 4

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 4: Arizona State University (College of Liberal Arts and Sciences), Earth and Environmental Sciences, Bachelor of Science

Credits: 37-40

- + BIO181++ General Biology (Majors) I 4
- + BIO182++ General Biology (Majors) II 4

- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4) 4-5

- + CHM152 General Chemistry II (3) AND
- + CHM152LL General Chemistry II Laboratory (1) OR
- + CHM152AA General Chemistry II (4) 4

- + CHM230 Fundamental Organic Chemistry (3) OR
- + CHM230AA Fundamental Organic Chemistry with Lab (4) OR
- + CHM235 General Organic Chemistry I (3) OR
- + CHM235AA General Organic Chemistry I with Lab (4) 3-4

ENV225 Our Changing Planet 3

+ MAT206 Elements of Statistics 3



GLG110 Geological Disasters and the Environment (3) AND  
GLG111 Geological Disasters and the Environment Lab (1) OR  
GLG110IN Geological Disasters and the Environment (4) 4

GPH113 Introduction to Physical Geography (4) OR  
ENV101 Introduction to Environmental Science (4) 4

PHY101 Introduction to Physics (4) OR  
PHY101AA Introduction to Physics (5) OR  
PHY111 General Physics I (4) OR  
PHY111AA General Physics I (5) 4-5

Transfer Plan 5: Arizona State University (New College of Interdisciplinary Arts and Sciences),  
Environmental Science, Bachelor of Arts

Credits: 41-43

+ BIO181++ General Biology (Majors) I 4  
+ BIO182++ General Biology (Majors) II 4

+ CHM150 General Chemistry I (4) AND  
+ CHM151LL General Chemistry I Laboratory (1) OR  
+ CHM150AA General Chemistry I (5) OR  
+ CHM151 General Chemistry I (3) AND  
+ CHM151LL General Chemistry I Laboratory (1) OR  
+ CHM151AA General Chemistry I (4) 4-5

+ CHM152 General Chemistry II (3) AND  
+ CHM152LL General Chemistry II Laboratory (1) OR  
+ CHM152AA General Chemistry II (4) 4

+ CHM230 Fundamental Organic Chemistry (3) AND  
+ CHM230LL Fundamental Organic Chemistry Laboratory (1) OR  
+ CHM230AA Fundamental Organic Chemistry with Lab (4) OR  
+ CHM235 General Organic Chemistry I (3) AND  
+ CHM235LL General Organic Chemistry I Laboratory (1) OR  
+ CHM235AA General Organic Chemistry I with Lab (4) 4

ECN212 Microeconomic Principles 3

This course may be used to fulfill any outstanding AGEC requirements simultaneously.

+ GBS221 Business Statistics (3) OR  
+ MAT206 Elements of Statistics (3) OR  
+ SWU225 Statistics for Social Research/Justice and Government (3) 3

GLG101 Introduction to Geology I - Physical Lecture (3) AND  
GLG103 Introduction to Geology I - Physical Lab (1) OR  
GLG101IN Introduction to Geology I - Physical (4) 4

GPH113 Introduction to Physical Geography (4) OR  
ENV101 Introduction to Environmental Science (4) 4

GPH210 Society and Environment 3

- + PHY101 Introduction to Physics (4) OR
- + PHY101AA Introduction to Physics (5) OR
- PHY111 General Physics I (4) OR
- PHY111AA General Physics I (5) 4-5

Transfer Plan 6: Arizona State University (New College of Interdisciplinary Arts and Sciences),  
Environmental Science, Bachelor of Science  
Credits: 35-37

- + BIO181++ General Biology (Majors) I 4
- + BIO182++ General Biology (Majors) II 4
  
- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4) 4-5
  
- + CHM152 General Chemistry II (3) AND
- + CHM152LL General Chemistry II Laboratory (1) OR
- + CHM152AA General Chemistry II (4) 4
  
- + CHM230 Fundamental Organic Chemistry (3) AND
- + CHM230LL Fundamental Organic Chemistry Laboratory (1) OR
- + CHM230AA Fundamental Organic Chemistry with Lab (4) OR
- + CHM235 General Organic Chemistry I (3) AND
- + CHM235LL General Organic Chemistry I Laboratory (1) OR
- + CHM235AA General Organic Chemistry I with Lab (4) 4
  
- + GBS221 Business Statistics (3) OR
- + MAT206 Elements of Statistics (3) OR
- + SWU225 Statistics for Social Research/Justice and Government (3) 3

GLG101 Introduction to Geology I - Physical Lecture (3) AND  
GLG103 Introduction to Geology I - Physical Lab (1) OR  
GLG101IN Introduction to Geology I - Physical (4) 4

GPH113 Introduction to Physical Geography (4) OR  
ENV101 Introduction to Environmental Science (4) 4

- + PHY101 Introduction to Physics (4) OR
- + PHY101AA Introduction to Physics (5) OR
- + PHY111 General Physics I (4) OR
- + PHY111AA General Physics I (5) 4-5

Transfer Plan 7: Northern Arizona University, Environmental Sciences (Environmental Geology),  
Bachelor of Science  
Credits: 27-32

- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR

- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4) 4-5

GLG101 Introduction to Geology I - Physical Lecture (3) AND  
 GLG103 Introduction to Geology I - Physical Lab (1) OR  
 GLG101IN Introduction to Geology I - Physical (4) 4

GLG102 Introduction to Geology II - Historical Lecture (3) AND  
 GLG104 Introduction to Geology II - Historical Lab (1) OR  
 GLG102IN Introduction to Geology II - Historical (4) 4

- + MAT206 Elements of Statistics (3) OR
- + ECE/MAT280 Foundational Statistics for Engineers (3) 3

- + PHY115 University Physics I (5) OR
- + PHY121 University Physics I: Mechanics (4) 4-5

Select two of the following options for a total of 8 to 12 credits  
 ENV119 Introduction to Geospatial Technology for Environmental Science (4) AND  
 + ENV219 Geospatial Technology for Environmental Sciences I (4)  
 OR

GIS205 Geographic Information Technologies (3) AND  
 + GIS211 Geographic Information Science I (4) 7-8

GLG140IN Introduction to Oceanography 4

GPH111 Introduction to Physical Geography Lecture (3) AND  
 GPH112 Introduction to Physical Geography Lab (1) 4  
 OR  
 GPH113 Introduction to Physical Geography Lab (4) 4

Transfer Plan 8: Northern Arizona University, Environmental Sciences (Applied Statistics),  
 Bachelor of Science  
 Credits: 30-33

- + BIO181++ General Biology (Majors) I 4
- + BIO182++ General Biology (Majors) II 4

- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4) 4-5

+ CSC110AB Introduction to Computer Science (Java) 4

+ ENV219 Geospatial Technology for Environmental Sciences I (4) AND  
 ENV119 Introduction to Geospatial Technology for Environmental Science (4)  
 OR

GIS205 Geographic Information Technologies (3)  
+ GIS211 Geographic Information Science I (4) 7-8

+ MAT206 Elements of Statistics (3) OR  
+ ECE/MAT280 Foundational Statistics for Engineers (3) 3

+ MAT230 Calculus with Analytic Geometry II (5) OR  
+ MAT231 Calculus with Analytic Geometry II (4) 4-5

Transfer Plan 9: Northern Arizona University, Environmental Sciences (Biology), Bachelor of Science

Credits: 27-28

+ BIO181++ General Biology (Majors) I 4  
+ BIO182++ General Biology (Majors) II 4  
+ BIO205 Microbiology 4

+ CHM150 General Chemistry I (4) AND  
+ CHM151LL General Chemistry I Laboratory (1) OR  
+ CHM150AA General Chemistry I (5) OR  
+ CHM151 General Chemistry I (3) AND  
+ CHM151LL General Chemistry I Laboratory (1) OR  
+ CHM151AA General Chemistry I (4) 4-5

+ CHM152 General Chemistry II (3) AND  
+ CHM152LL General Chemistry II Laboratory (1) OR  
+ CHM152AA General Chemistry II (4) 4

+ CHM230 Fundamental Organic Chemistry (3) AND  
+ CHM230LL Fundamental Organic Chemistry Laboratory (1) OR  
+ CHM235 General Organic Chemistry I (3) AND  
+ CHM235LL General Organic Chemistry I Laboratory (1) 4

+ MAT206 Elements of Statistics (3) OR  
+ ECE/MAT280 Foundational Statistics for Engineers (3) 3

Transfer Plan 10: Northern Arizona University, Environmental Sciences (Chemistry), Bachelor of Science

Credits: 27-31

+ CHM150 General Chemistry I (4) AND  
+ CHM151LL General Chemistry I Laboratory (1) OR  
+ CHM150AA General Chemistry I (5) OR  
+ CHM151 General Chemistry I (3) AND  
+ CHM151LL General Chemistry I Laboratory (1) OR  
+ CHM151AA General Chemistry I (4) 4-5

+ CHM152 General Chemistry II (3) AND  
+ CHM152LL General Chemistry II Laboratory (1) OR  
+ CHM152AA General Chemistry II (4) 4

+ CHM230 Fundamental Organic Chemistry (3) AND  
+ CHM230LL Fundamental Organic Chemistry Laboratory (1) OR

+ CHM235 General Organic Chemistry I (3) AND  
+ CHM235LL General Organic Chemistry I Laboratory (1) 4

+ MAT206 Elements of Statistics (3) OR  
+ ECE/MAT280 Foundational Statistics for Engineers (3) 3

+ MAT230 Calculus with Analytic Geometry II (5) OR  
+ MAT231 Calculus with Analytic Geometry II (4) 4-5

+ PHY115 University Physics I (5) OR  
+ PHY121 University Physics I: Mechanics (4) 4-5

+ PHY116 University Physics II (5) OR  
+ PHY131 University Physics II: Electricity and Magnetism (4) 4-5

Transfer Plan 11: Northern Arizona University, Environmental Sciences (Environmental Administration and Policy), Bachelor of Science

Credits: 22-23

+ BIO181++ General Biology (Majors) I 4  
+ BIO182++ General Biology (Majors) II 4

+ CHM150 General Chemistry I (4) AND  
+ CHM151LL General Chemistry I Laboratory (1) OR  
+ CHM150AA General Chemistry I (5) OR  
+ CHM151 General Chemistry I (3) AND  
+ CHM151LL General Chemistry I Laboratory (1) OR  
+ CHM151AA General Chemistry I (4) 4-5

GLG101 Introduction to Geology I - Physical Lecture (3) AND  
GLG103 Introduction to Geology I - Physical Lab (1) OR  
GLG101IN Introduction to Geology I - Physical (4) 4

+ MAT206 Elements of Statistics (3) OR  
+ ECE/MAT280 Foundational Statistics for Engineers (3) 3

POS285 Political Issues and Public Policy 3

Transfer Plan 12: Northern Arizona University, Environmental Sciences (Environmental Communication), Bachelor of Science

Credits: 22-23

+ BIO181++ General Biology (Majors) I 4  
+ BIO182++ General Biology (Majors) II 4

+ CHM150 General Chemistry I (4) AND  
+ CHM151LL General Chemistry I Laboratory (1) OR  
+ CHM150AA General Chemistry I (5) OR  
+ CHM151 General Chemistry I (3) AND  
+ CHM151LL General Chemistry I Laboratory (1) OR  
+ CHM151AA General Chemistry I (4) 4-5

+ COM225 Public Speaking 3

GLG101 Introduction to Geology I - Physical Lecture (3) AND  
GLG103 Introduction to Geology I - Physical Lab (1) OR  
GLG101IN Introduction to Geology I - Physical (4) 4

+ JRN201 News Writing 3  
+ JRN232 Community Reporting 3

+ MAT206 Elements of Statistics (3) OR  
+ ECE/MAT280 Foundational Statistics for Engineers (3) 3

Transfer Plan 13: Northern Arizona University, Environmental Sciences (Environmental  
Management), Bachelor of Science

Credits: 32-33

+ BIO181++ General Biology (Majors) I 4  
+ BIO182++ General Biology (Majors) II 4

+ CHM150 General Chemistry I (4) AND  
+ CHM151LL General Chemistry I Laboratory (1) OR  
+ CHM150AA General Chemistry I (5) OR  
+ CHM151 General Chemistry I (3) AND  
+ CHM151LL General Chemistry I Laboratory (1) OR  
+ CHM151AA General Chemistry I (4) 4-5

+ CHM152 General Chemistry II (3) AND  
+ CHM152LL General Chemistry II Laboratory (1) OR  
+ CHM152AA General Chemistry II (4) 4

CIS105 Survey of Computer Information Systems (3) OR  
CSC180 Computer Literacy (3) 3

ECN212 Microeconomic Principles 3  
GIS205 Geographic Information Technologies 3  
+ GIS211 Geographic Information Science I 4

+ MAT206 Elements of Statistics (3) OR  
+ ECE/MAT280 Foundational Statistics for Engineers (3) 3

Transfer Plan 14: University of Arizona, Natural Resources, Bachelor of Science: Ecology,  
Management, and Restoration of Rangelands Emphasis

Credits: 29-30

+ AGS260 Soils 4  
+ BIO181++ General Biology (Majors) I 4  
+ BIO182++ General Biology (Majors) II 4

+ CHM150 General Chemistry I (4) AND  
+ CHM151LL General Chemistry I Laboratory (1) OR  
+ CHM150AA General Chemistry I (5) OR  
+ CHM151 General Chemistry I (3) AND  
+ CHM151LL General Chemistry I Laboratory (1) OR  
+ CHM151AA General Chemistry I (4) 4-5

- + CHM152 General Chemistry II (3) AND
- + CHM152LL General Chemistry II Laboratory (1) OR
- + CHM152AA General Chemistry II (4) 4

ECN211 Macroeconomic Principles 3

ECN212 Microeconomic Principles 3

- + MAT206 Elements of Statistics (3) OR
- + PSY230 Introduction to Statistics (3) 3

Second Language Requirement:

Completion of second language courses at the elementary level (102 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 15: University of Arizona, Natural Resources, Bachelor of Science: Fisheries Conservation and Management Emphasis or Wildlife Conservation and Management Emphasis  
Credits: 29-30

- + BIO181++ General Biology (Majors) I 4
- + BIO182++ General Biology (Majors) II 4

- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4) 4-5

- + CHM152 General Chemistry II (3) AND
- + CHM152LL General Chemistry II Laboratory (1) OR
- + CHM152AA General Chemistry II (4) 4

- + AGS260 Soils (4)

OR

- + CHM235 General Organic Chemistry I (3) AND
- + CHM235LL General Organic Chemistry I Laboratory (1)

OR

GLG101 Introduction to Geology I - Physical Lecture (3) AND

GLG103 Introduction to Geology I - Physical Lab (1)

OR

GLG101IN Introduction to Geology I - Physical (4)

OR

- + PHY111 General Physics I (4) 4

ECN211 Macroeconomic Principles 3

ECN212 Microeconomic Principles 3

- + MAT206 Elements of Statistics (3) OR

+ PSY230 Introduction to Statistics (3) 3

Second Language Requirement:

Completion of second language courses at the elementary level (102 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 16: University of Arizona, Natural Resources, Bachelor of Science: Global Change Ecology and Management Emphasis

Credits: 25-26

+ BIO181++ General Biology (Majors) I 4

+ BIO182++ General Biology (Majors) II 4

+ CHM150 General Chemistry I (4) AND

+ CHM151LL General Chemistry I Laboratory (1) OR

+ CHM150AA General Chemistry I (5) OR

+ CHM151 General Chemistry I (3) AND

+ CHM151LL General Chemistry I Laboratory (1) OR

+ CHM151AA General Chemistry I (4) 4-5

+ CHM152 General Chemistry II (3) AND

+ CHM152LL General Chemistry II Laboratory (1) OR

+ CHM152AA General Chemistry II (4) 4

ECN211 Macroeconomic Principles 3

ECN212 Microeconomic Principles 3

+ MAT206 Elements of Statistics (3) OR

+ PSY230 Introduction to Statistics (3) 3

Second Language Requirement:

Completion of second language courses at the elementary level (102 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 17: University of Arizona, Natural Resources, Bachelor of Science: Watershed Hydrology and Management Emphasis

Credits: 39-42

+ AGS260 Soils 4

+ BIO181++ General Biology (Majors) I 4

+ BIO182++ General Biology (Majors) II 4

+ CHM150 General Chemistry I (4) AND

+ CHM151LL General Chemistry I Laboratory (1) OR

+ CHM150AA General Chemistry I (5) OR

+ CHM151 General Chemistry I (3) AND

+ CHM151LL General Chemistry I Laboratory (1) OR



- + CHM151AA General Chemistry I (4) 4-5
- + CHM152 General Chemistry II (3) AND
- + CHM152LL General Chemistry II Laboratory (1) OR
- + CHM152AA General Chemistry II (4) 4

ECN211 Macroeconomic Principles 3  
 ECN212 Microeconomic Principles 3

GLG101 Introduction to Geology I - Physical Lecture (3) AND  
 GLG103 Introduction to Geology I - Physical Lab (1)  
 OR  
 GLG101IN Introduction to Geology I - Physical (4) 4

- + MAT206 Elements of Statistics (3) OR
- + PSY230 Introduction to Statistics (3) 3

- + MAT230 Calculus with Analytic Geometry II (5) OR
- + MAT231 Calculus with Analytic Geometry II (4) 4-5

- + PHY111 General Physics I (4) OR
- + PHY115 University Physics I (5) OR
- + PHY121 University Physics I: Mechanics (4) 4-5

- + PHY112 General Physics II 4

Second Language Requirement:

Completion of second language courses at the elementary level (102 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 18: University of Arizona, Natural Resources, Bachelor of Science: Conservation Biology Emphasis

Credits: 32-36

- + AGS260 Soils (4) OR
- GLG140IN Introduction to Oceanography (4) OR
- GLG101 Introduction to Geology I - Physical Lecture (3) AND
- GLG103 Introduction to Geology I - Physical Lab (1)  
 OR
- GLG101IN Introduction to Geology I - Physical (4) 4

- + BIO181++ General Biology (Majors) I 4
- + BIO182++ General Biology (Majors) II 4

- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR

- + CHM151AA General Chemistry I (4) 4-5
- + CHM152 General Chemistry II (3) AND
- + CHM152LL General Chemistry II Laboratory (1) OR
- + CHM152AA General Chemistry II (4) 4

ECN211 Macroeconomic Principles 3  
 ECN212 Microeconomic Principles 3

- + MAT206 Elements of Statistics (3) OR
- + PSY230 Introduction to Statistics (3) 3

Second Language Requirement:

Completion of second language courses at the elementary level (102 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 19: University of Arizona, Environmental Science (Any Emphasis), Bachelor of Science

Credits: 31-32

- + AGS260 Soils 4
- + BIO181++ General Biology (Majors) I 4
- + BIO182++ General Biology (Majors) II 4
- + BIO205 Microbiology 4
- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4) 4-5
- + CHM152 General Chemistry II (3) AND
- + CHM152LL General Chemistry II Laboratory (1) OR
- + CHM152AA General Chemistry II (4) 4

ENV225 Our Changing Planet 3

- + PHY111 General Physics I (4) OR
- + PHY115 University Physics I (5) OR
- + PHY121 University Physics I: Mechanics (4) 4-5

Second Language Requirement:

Completion of second language courses at the elementary level (102 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

## General Education Requirements

Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 12-41

A single course with an [L], [HU], [SB], [SG], or [SQ] designation may also be used to satisfy the Oral Communication, Critical Reading, and/or Awareness Area ([C], [G] and/or [H]) requirement(s). See the AGECEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

First-Year Composition [FYC] Credits: 6

ENG101 First-Year Composition (3) OR

ENG107 First-Year Composition for ESL (3) AND

ENG102 First-Year Composition (3) OR

ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 3

Any approved general education course in the Literacy and Critical Inquiry [L] area. 3

Required for ASU, BS Sustainability; ASU, BA Sustainability; NAU, BS Environmental Sciences (Environmental Administration and Policy) and (Environmental Communication) emphases:

+ MAT140 College Mathematics (5) OR

+ MAT141 College Mathematics (4) OR

+ MAT142 College Mathematics (3) OR

MAT145 College Mathematics with Review (5) OR

MAT146 College Mathematics with Review (6) OR

Higher approved general education course in the Mathematical Applications [MA] area (3-6) 3-6

OR

Required for U of A, BS Natural Resources (Conservation Biology), (Ecology, Management, and Restoration of Rangelands), (Fisheries Conservation and Management), (Global Change Ecology and Management), and (Wildlife Conservation and Management) emphases; U of A, BS Environmental Science (any emphasis):

+ MAT150 College Algebra/Functions (5) OR

+ MAT151 College Algebra/Functions (4) OR

+ MAT152 College Algebra/Functions (3) OR

+ MAT155 College Algebra/Functions with Review (5) OR

+ MAT156 College Algebra/Functions with Review (6) OR

Higher approved general education course in the Mathematical Applications [MA] area for which MAT15+ is a prerequisite (3-5) 3-6

OR

Required for ASU, BA Environmental Science; NAU, BS Environmental Sciences (Environmental Management) emphasis:

+ MAT150 College Algebra/Functions (5) AND

+ MAT182 Plane Trigonometry (3) OR

+ MAT151 College Algebra/Functions (4) AND

+ MAT182 Plane Trigonometry (3) OR

+ MAT152 College Algebra/Functions (3) AND

+ MAT182 Plane Trigonometry (3) OR

+ MAT155 College Algebra/Functions with Review (5) AND

- + MAT182 Plane Trigonometry (3) OR
- + MAT156 College Algebra/Functions with Review (6) AND
- + MAT182 Plane Trigonometry (3) OR
- + MAT187 Precalculus (5) OR

Higher approved general education course in the Mathematical Applications [MA] area for which MAT187 is a prerequisite. (4-5) 4-9

OR

Required for ASU, BS Environmental Science emphasis:

- + MAT212 Brief Calculus (3) OR
- + MAT213 Brief Calculus (4) OR
- + MAT220 Calculus with Analytic Geometry I (5) OR
- + MAT221 Calculus with Analytic Geometry I (4) OR

Higher approved general education course in the Mathematical Applications [MA] area for which MAT22+ is a prerequisite. (4-5) 3-5

OR

Required for ASU, BS Earth and Environmental Sciences; NAU, BS Environmental Sciences (Environmental Geology), (Applied Statistics), (Biology), and (Chemistry) emphases; U of A, BS Natural Resources (Watershed Hydrology and Management) emphasis:

- + MAT220 Calculus with Analytic Geometry I (5) OR
- + MAT221 Calculus with Analytic Geometry I (4) OR

Higher approved general education course in the Mathematical Applications [MA] area for which MAT22+ is a prerequisite. (4-5) 4-5

Computer/Statistics/Quantitative Applications [CS] Credits: 0-3

Any approved general education course in the Computer/Statistics/Quantitative Applications [CS] area. 3

May be met by CIS105, CSC110AB, CSC180, GBS221, GIS211, MAT206, PSY230, or SWU225 if taken in the Restricted Electives area

Humanities, Arts and Design [HU] Credits: 0-3

Met by SSH111 in the Required Courses area

AND

Any approved general education course in the Humanities, Arts, and Design [HU] area. 3

May be met by PHI105 in the Restricted Electives area

Recommend PHI216 Environmental Ethics for students intending to complete the Academic Certificate in Sustainability

Social-Behavioral Sciences [SB] Credits: 0-6

Any approved general education courses in the Social-Behavioral Sciences [SB] area. 6

May be met by COM230, ECN211, ECN212, or SUS110 in the Restricted Electives area

Recommended for students intending to complete the Academic Certificate in Sustainability:

COM263 Elements of Intercultural Communication (3) OR

ECN212 Microeconomic Principles (3) OR

PSY132 Psychology and Culture (3) OR  
SBU200 Society and Business (3) 3

Natural Sciences [SG]/[SQ] Credits: 0-8

Any approved general education course in the Natural Sciences (Quantitative) [SQ] area (4)  
AND

Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the  
Natural Sciences (General) [SG] area (4). 8

May be met by course selections in the Restricted Electives area.

Recommended for students intending to complete the Academic Certificate in Sustainability:

BIO105 Environmental Biology (4) OR  
CHM107 Chemistry and Society (3) AND  
CHM107LL Chemistry and Society Laboratory (1) OR  
GPH113 Introduction to Physical Geography (4) 4

ASM104 Bones, Stones, and Human Evolution (4) OR  
ENV101 Introduction to Environmental Science (4) OR  
GLG110 Geological Disasters and the Environment (3) AND  
GLG111 Geological Disasters and the Environment Lab (1) 4

Awareness Areas Credits: 0-3

These requirements may be shared with other AGECE requirements. See the AGECE matrix on  
aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

Historical/Global Awareness [H]/[G] Credits: 0

Met by SSH111 in the Required Courses area.

MCCCD Additional Requirements

MCCCD Additional Requirements Credits: 0-6

Some courses in this area have [SB] and [L] designations and may also be applied to the  
corresponding AGECE requirements. See the AGECE matrix on aztransfer.com for course  
designations.

Oral Communication Credits: 0-3

COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 0-3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

### **General Electives**

Select additional courses 100-level or higher to complete a minimum of 60 semester credits but  
no more than a total of 64 semester credits. Consult with a faculty advisor, program director,  
and/or academic advisor to identify coursework that best aligns with academic and professional  
goals.

Recommend selection of the following courses:

- + MAT212 Brief Calculus (3) OR
- + MAT213 Brief Calculus (4) OR
- + MAT220 Calculus with Analytic Geometry I (5) OR
- + MAT221 Calculus with Analytic Geometry I (4) 3-5

Recommended for Transfer Plan 1: Arizona State University (College of Global Futures), Bachelor of Science, Sustainability OR

Transfer Plan 14: University of Arizona, Natural Resources, Bachelor of Science: Ecology, Management, and Restoration of Rangelands OR

Transfer Plan 15: University of Arizona, Natural Resources, Bachelor of Science: Fisheries Conservation and Management Emphasis or Wildlife Conservation and Management OR

Transfer Plan 16: University of Arizona, Natural Resources, Bachelor of Science: Global Change Ecology and Management OR

Transfer Plan 17: University of Arizona, Natural Resources, Bachelor of Science: Watershed Hydrology and Management OR

Transfer Plan 18: University of Arizona, Natural Resources, Bachelor of Science: Conservation Biology OR

Transfer Plan 19: University of Arizona, Environmental Science (Any Emphasis), Bachelor of Science:

Complete a language course at the elementary level (102 or equivalent) with a C or better OR demonstrate proficiency through this level as indicated by assessment.

ARB+++ Any ARB Arabic course(s)

ASL+++ Any ASL American Sign Language course(s)

CHI+++ Any CHI Chinese course(s)

FRE+++ Any FRE French course(s)

GER+++ Any GER German course(s)

ITA+++ Any ITA Italian course(s)

JPN+++ Any JPN Japanese course(s)

SPA+++ Any SPA Spanish course(s)

Recommended for Transfer Plan 2: Arizona State University (College of Global Futures), Bachelor of Arts, Sustainability OR

Transfer Plan 3: Arizona State University (College of Liberal Arts and Sciences), Bachelor of Arts, Earth and Environmental Sciences:

Complete a language course at the intermediate level (202 or equivalent) with a C or better OR demonstrate proficiency through this level as indicated by assessment.

ARB+++ Any ARB Arabic course(s)

ASL+++ Any ASL American Sign Language course(s)

CHI+++ Any CHI Chinese course(s)

FRE+++ Any FRE French course(s)

GER+++ Any GER German course(s)

ITA+++ Any ITA Italian course(s)

JPN+++ Any JPN Japanese course(s)

SPA+++ Any SPA Spanish course(s)

Recommended for Transfer Plan 9: Northern Arizona University, Environmental Sciences (Biology), Bachelor of Science

Any course except BIO100, BIO101, BIO102, BIO108, BIO156++, CHM130, or ENV101 that transfers to NAU as a direct equivalent or departmental elective in the following NAU prefixes: BIO, CHM, ENV, FOR, GLG.

Recommended for Transfer Plan 12: Northern Arizona University, Environmental Sciences (Environmental Communication), Bachelor of Science

- + BIO201++ Human Anatomy and Physiology I 4
- + BIO205 Microbiology 4
- + BIO220 Biology of Microorganisms 4
- + BIO240 General Genetics 4
- + CHM230 Fundamental Organic Chemistry 3
- + CHM235 General Organic Chemistry I 3

Recommended for Transfer Plan 13: Northern Arizona University, Environmental Sciences (Environmental Management), Bachelor of Science

- COM230 Small Group Communication 3
- ECN211 Macroeconomic Principles 3
- PHI105 Introduction to Ethics 3
- POS285 Political Issues and Public Policy 3

Recommend for students intending to complete the Academic Certificate in Sustainability to select 9 to 12 (9-12) credits of coursework from the following:

- ASM104 Bones, Stones, and Human Evolution 4
- BIO105 Environmental Biology 4

- CHM107 Chemistry and Society (3) AND
- + CHM107LL Chemistry and Society Laboratory (1) 4

- COM263 Elements of Intercultural Communication 3
- ECN212 Microeconomic Principles 3
- ENV101 Introduction to Environmental Science 4
- EPS150 Introduction to Entrepreneurship 3
- FON135 Sustainable Cooking 3

- GLG110 Geological Disasters and the Environment (3) AND
- GLG111 Geological Disasters and the Environment Lab (1) 4

- GPH113 Introduction to Physical Geography 4
- PHI216 Environmental Ethics 3
- PSY132 Psychology and Culture 3
- SBU200 Society and Business 3
- SCT100 Introduction to Sustainable Built Environments 3
- SUS100 Introduction to Sustainability 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=188781>

Starting Term: 2024 Fall  
Final Term: 9999

## **ASSOCIATE IN ARTS (AA) IN ASSOCIATE IN ARTS, EMPHASIS IN WOMEN AND GENDER STUDIES**

Total Credits: 60-64  
Major Code: 8128

## Description

The Associate in Arts (AA), Emphasis in Women and Gender Studies is an intensive interdisciplinary liberal arts program, which provides students with tools and opportunities to discuss and critique historical and contemporary theories and practices of feminism(s) and gender identities. The curriculum enables students to think critically, analyze problems, and communicate effectively. Using women`s experiences and perspectives, students explore cultural and global issues by completing a variety of courses focusing on gender, history, culture, class, race, ethnicity, and sexuality to foster equality and understanding. Students completing this associate of arts degree will be prepared to transfer to a four-year program.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 4-6

FYE101 Introduction to College, Career and Personal Success (1) OR  
FYE103 Exploration of College, Career and Personal Success (3) 1-3

WST100 Introduction to Women`s and Gender Studies 3

## Restricted Electives

Credits: 0-18

Complete requirements in the transfer option that best aligns with your academic and professional goals. If your intended transfer institution is not listed, then select a combination of courses from the transfer options listed in order to meet the minimum credits required in the Restricted Electives section. Consult with an academic, faculty, or program advisor to prevent exceeding your university transfer program's maximum transferable credits (typically 64).

Transfer Plan 1: Arizona State University (The College of Liberal Arts and Sciences), Bachelor of Arts, Gender, Women and Sexuality Studies

Credits: 6

Complete one (1) course for a total of three (3) credits that transfers to ASU as a direct equivalency or a departmental elective (DEC) in the AFR, AMS, APA, JUS, SST, or WST prefix to complete the Gender, Women and Sexuality Studies Related Area. Check the Course Equivalency Guide on [aztransfer.com](http://aztransfer.com) to ensure course transfers as WST prefix at ASU the semester it is taken.

Complete one (1) related Women Studies course for a total of three (3) credits from the following:

ENH/WST284 19th Century Women Writers 3  
ENH/WST285 Contemporary Women Writers 3  
HUM/WST209 Women and Films 3  
REL/WST290 Women and World Religions 3



WST+++ Any WST Women's studies course 3

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 2: Arizona State University (New College of Interdisciplinary Arts & Sciences), Bachelor of Arts, Social and Cultural Analysis (Women and Gender Studies)

Credits: 0

No additional transfer requirements.

Transfer Plan 3: Arizona State University (New College of Interdisciplinary Arts & Sciences), Bachelor of Science, Women and Gender Studies

Credits: 16-17

PSY101 Introduction to Psychology 3

- + PSY230 Introduction to Statistics (3) OR
- + PSY230 Introduction to Statistics (3) AND
- + PSY231 Laboratory for Statistics (1) OR
- + PSY230WL Introduction to Statistics with Lab (4) 3-4

+ PSY290AB Research Methods (4) OR

+ PSY290AC Research Methods (4) 4

Complete two (2) courses for a total of six (6) credits that transfer to ASU as a direct equivalency or a departmental elective (DEC) in the WST prefix. Check the Course Equivalency Guide on [aztransfer.com](http://aztransfer.com) to ensure course transfers as WST prefix at ASU the semester it is taken.

Additional courses recommended as lower division electives (if needed to reach minimum total for degree) include ENH285, HIS201, PSY235, REL/WST290, SOC212, WST161, WST200, HUM/WST209, ENH/WST284, and/or WST286.

Transfer Plan 4: Northern Arizona University, Bachelor of Science, Women's and Gender Studies

Credits: 6-18

Complete six (6) credits that transfer to NAU as a direct equivalencies or departmental electives in the WST prefix.

Complete zero to twelve (0-12) credits from the following:

- + ENH190 Introduction to US Ethnic Literature 3
- ENH202 World Literature After the Renaissance 3
- ENH/WST285 Contemporary Women Writers 3

HIS201 History of Women in America (3) OR

WST160 Women and the Early American Experience (3) OR

WST161 American Women Since 1920 (3) 3

+ PSY277 Psychology of Human Sexuality 3  
SOC212 Gender and Society 3

Recommended for students intending to earn an Academic Certificate (AC) in Women and Gender Studies: ENH/WST285, (HIS201 OR WST160 OR WST161), or SOC212.

Transfer Plan 5: University of Arizona, Bachelor of Arts, Gender and Women's Studies  
Credits: 9  
HIS201 History of Women in America 3

REL/WST292 Goddess Religions (3) OR  
WST244 Women in Muslim Societies (3) 3

AFR/WST207 Black Women (3) OR  
WST160 Women and the Early American Experience (3) OR  
WST161 American Women Since 1920 (3) OR  
WST206 La Mujer (3) OR  
WST286 Women and Health: Body/Mind/Spirit/Connection (3) 3

Recommended for students intending to earn an Academic Certificate (AC) in Women and Gender Studies: HIS201, WST160, WST161, or WST286.

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

## General Education Requirements

Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 17-38

A single course with an [L], [HU], [SB], [SG], or [SQ] designation may also be used to satisfy the Oral Communication, Critical Reading, and/or Awareness Area ([C], [G] and/or [H]) requirement(s). See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

First-Year Composition [FYC] Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 0-3

Any approved general education course in the Literacy and Critical Inquiry [L] area. 3  
May be met by PSY290AB or PSY290AC in the Restricted Electives area

Mathematics [MA] Credits: 3-6

MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR

MAT145 College Mathematics with Review (5) OR  
MAT146 College Mathematics with Review (6) OR  
Higher approved general education course in the Mathematical Applications [MA] area (3-6)  
3-6

Computer/Statistics/Quantitative Applications [CS] Credits: 0-3  
Any approved general education course in the Computer/Statistics/Quantitative Applications [CS] area 3  
May be met by PSY230 or PSY230WL in the Restricted Electives area

Humanities, Arts and Design [HU] Credits: 0-6  
Any approved general education courses in the Humanities, Arts and Design [HU] area 6  
May be met by ENH190, ENH202, ENH/WST284, ENH/WST285, HUM/WST209, or REL/WST290 in the Restricted Electives area

ASB211 recommended for the ASU BA in Women and Gender Studies

Social-Behavioral Sciences [SB] Credits: 0-3  
Met by WST100 in the Required Courses area  
AND  
Any approved general education courses in the Social-Behavioral Sciences [SB] area 3

May be met by HIS201, PSY101, PSY235, PSY277, SOC212, or WST161 in the Restricted Electives area

Natural Sciences [SG]/[SQ] Credits: 8  
Any approved general education course in the Natural Sciences (Quantitative) [SQ] area (4)  
AND  
Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the Natural Sciences (General) [SG] area (4). 8

Awareness Areas Credits: 0-3  
These requirements may be shared with other AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0  
Historical/Global Awareness [H]/[G] Credits: 0-3  
Any approved general education course with the Historical [H] or Global [G] awareness area designation

May be met by ENH190, ENH202, HIS201, REL/WST290, WST160, or WST161 in the Restricted Electives area

MCCCD Additional Requirements  
MCCCD Additional Requirements Credits: 0-6  
Some courses in this area have [SB] and [L] designations and may also be applied to the corresponding AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Oral Communication Credits: 0-3

COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 0-3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

## General Electives

Select additional courses 100-level or higher to complete a minimum of 60 semester credits but no more than a total of 64 semester credits. Consult with a faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.

The following courses are recommended for students intending to earn an Academic Certificate (AC) in Women and Gender Studies:

ASB211 Women Across Cultures 3  
ENH/WST284 19th Century Women Writers 3  
ENH/WST285 Contemporary Women Writers 3  
HIS201 History of Women in America 3  
HUM/WST209 Women and Films 3  
+ PSY235 Psychology of Gender 3  
REL/WST290 Women and World Religions 3  
SOC212 Gender and Society 3  
WST120 Gender, Class, and Race 3  
WST128 Law and Violence Against Women 3  
WST160 Women and the Early American Experience 3  
WST161 American Women Since 1920 3  
WST200 Essential Feminist Writing 3  
WST286 Women and Health: Body/Mind/Spirit/Connection 3

Recommended for Transfer Plan 1: Arizona State University (The College of Liberal Arts and Sciences), Bachelor of Arts, Gender, Women and Sexuality Studies OR

Transfer Plan 5: University of Arizona, Bachelor of Arts, Gender and Women's Studies

Completion of a language course at the intermediate level (202 or equivalent) with a C or better OR demonstrating proficiency through this level as indicated by assessment.

ARB+++ Any ARB Arabic course(s)  
ASL+++ Any ASL American Sign Language course(s)  
CHI+++ Any CHI Chinese course(s)  
FRE+++ Any FRE French course(s)  
GER+++ Any GER German course(s)  
ITA+++ Any ITA Italian course(s)  
JPN+++ Any JPN Japanese course(s)  
SPA+++ Any SPA Spanish course(s)

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176476>

Starting Term: 2022 Fall  
Final Term: 9999

## **ASSOCIATE IN ARTS, FINE ARTS (AAFA) IN ASSOCIATE IN ARTS, FINE ARTS, EMPHASIS IN ART**

Total Credits: 61-71  
Major Code: 8311

### **Description**

The Associate in Arts, Fine Arts (AAFA), Emphasis in Art degree provides the first two years of a four-year curriculum for students who wish to specialize in fine arts, including painting, ceramics, textiles, jewelry, sculpture, metals, photography, and drawing. This degree offers an emphasis in creative problem-solving that is required in most career fields. With an associate degree, students may pursue a career as a practicing artist. With a bachelor or graduate degree in fine arts, students may also pursue a career in museums, galleries, community-based art organizations, or art instruction.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program. Students who wish to transfer to an art school should contact an art faculty member at their institution for more information.

### **Required Courses**

Credits: 14-18

ART111	Drawing I	3
ART112	Two-Dimensional Design	3
ART113	Color	3
ART115	Three-Dimensional Design	3

ART255AB	The Portfolio (1) OR	
ART255	Art Marketing (3)	1-3

(ART255AB is a direct transfer, ART255 is an elective transfer recommended for marketing and professional development)

FYE101	Introduction to College, Career and Personal Success (1) OR	
FYE103	Exploration of College, Career and Personal Success (3)	1-3

### **Restricted Electives**

Credits: 12

Complete requirements in the transfer option that best aligns with your academic and professional goals. If your intended transfer institution is not listed, then select a combination of courses from the transfer options listed in order to meet the minimum credits required in the

Restricted Electives section. Consult with an academic, faculty, or program advisor to prevent exceeding your university transfer program's maximum transferable credits (typically 64).

Choose an applicable combination from the following list of courses based on your desired transfer plan totaling twelve to eighteen (12-18) credits of additional coursework. Courses that are required for a particular transfer pathway are noted in the transfer plans that follow. Courses cannot be shared with Required or other Restricted electives.

ART116 Life Drawing I 3  
+ ART122 Drawing and Composition II 3  
ART131 Photography I 3  
+ ART132 Photography II 3  
ART136 Documentary Photography 3  
ART137 Alternative Photographic Process 3  
ART151 Sculpture I 3  
ART153 Woodworking I 3  
ART161 Ceramics I 3  
ART162 Ceramics II 3  
+ ART165 Watercolor Painting I 3  
+ ART167 Painting I 3  
+ ART250 Introduction to Printmaking 3  
+ ART277 Textiles I 3  
+ ART290GC Studio Art: Ceramics 3  
AVC100 Introduction to Digital Arts 1  
+ AVC178 Digital Arts Studies 3

Transfer Plan 1: Arizona State University (Herberger Institute for Design and the Arts), Bachelor of Fine Arts, Art (Ceramics)

Credits: 18

ART161 Ceramics I 3  
+ ART162 Ceramics II 3  
+ ART290GC Studio Art: Ceramics 3

Choose one of the following 2D Art courses:

ART116 Life Drawing I 3  
+ ART122 Drawing and Composition II 3  
ART131 Photography I 3  
+ ART132 Photography II 3  
+ ART165 Watercolor Painting I 3  
+ ART167 Painting I 3  
+ ART250 Introduction to Printmaking 3

Choose one of the following 3D Art courses:

ART151 Sculpture I 3  
+ ART277 Textiles I 3

Choose one of the following 2D or 3D Art courses:

ART116 Life Drawing I 3  
+ ART122 Drawing and Composition II 3  
+ ART165 Watercolor Painting I 3  
+ ART167 Painting I 3

+ ART250 Introduction to Printmaking 3

Transfer Plan 2: Arizona State University (Herberger Institute for Design and the Arts), Bachelor of Fine Arts, Art (Painting and Drawing)

Credits: 12

ART116 Life Drawing I (3) OR

+ ART165 Watercolor Painting I (3) 3

+ ART122 Drawing and Composition II 3

+ ART167 Painting I 3

Choose one of the following 3D Art courses:

ART151 Sculpture I 3

+ ART277 Textiles I 3

Transfer Plan 3: Arizona State University (Herberger Institute for Design and the Arts), Bachelor of Fine Arts, Art (Photography)

Credits: 16

ART131 Photography I 3

+ ART136 Documentary Photography 3

ART137 Alternative Photographic Processes 3

AVC100 Introduction to Digital Arts 1

+ AVC178 Digital Arts Studies 3

Choose one of the following 3D Art courses:

ART151 Sculpture I 3

ART161 Ceramics I 3

+ ART277 Textiles I 3

Transfer Plan 4: Arizona State University (Herberger Institute for Design and the Arts), Bachelor of Fine Arts, Art (Printmaking)

Credits: 12

+ ART250 Introduction to Printmaking 3

Choose one of the following 2D Art courses:

ART116 Life Drawing I 3

+ ART122 Drawing and Composition II 3

ART131 Photography I 3

+ ART132 Photography II 3

+ ART165 Watercolor Painting I 3

+ ART167 Painting I 3

Choose one of the following 3D Art courses:

ART151 Sculpture I 3

ART161 Ceramics I 3

+ ART277 Textiles I 3

Choose one of the following 2D or 3D Art courses:

ART116 Life Drawing I 3

+ ART122 Drawing and Composition II 3

ART131 Photography I 3

- + ART132 Photography II 3
- ART161 Ceramics I 3
- + ART165 Watercolor Painting I 3
- + ART167 Painting I 3
- + ART277 Textiles I 3

Transfer Plan 5: Arizona State University (Herberger Institute for Design and the Arts), Bachelor of Fine Arts, Art (Sculpture)

Credits: 16

- ART151 Sculpture I 3
- ART153 Woodworking I 3
- + ART277 Textiles I 3
- AVC100 Introduction to Digital Arts 1
- + AVC178 Digital Arts Studies 3

Choose one of the following 2D or 3D Art courses:

- ART116 Life Drawing I 3
- + ART122 Drawing and Composition II 3
- + ART165 Watercolor Painting I 3
- + ART167 Painting I 3
- + ART250 Introduction to Printmaking 3

Transfer Plan 6: Northern Arizona University, Bachelor of Fine Arts, Studio Art

Credits: 12

- + ART122 Drawing and Composition II 3

Choose one of the following courses to partially fulfill the lower division Emphasis course requirements at NAU:

- ART151 Sculpture I 3  
(required for Sculpture emphasis at NAU)
- ART161 Ceramics I 3  
(required for Ceramics emphasis at NAU)
- + ART167 Painting I 3  
(required for Painting emphasis at NAU)
- + ART250 Introduction to Printmaking 3  
(required for Printmaking emphasis at NAU)

Choose two of the following courses to partially fulfill the lower division elective track requirements at NAU. Select two tracks that are different than the track selected above:

- ART151 Sculpture I 3  
(required for Sculpture elective track at NAU)
- ART161 Ceramics I 3  
(required for Ceramics elective track at NAU)
- + ART167 Painting I 3  
(required for Painting elective track at NAU)
- + ART250 Introduction to Printmaking 3  
(required for Printmaking elective track at NAU)

Transfer Plan 7: University of Arizona, Bachelor of Fine Arts, Studio Art (All Emphases)

Credits: 12

- ART151 Sculpture I 3



ART161 Ceramics I 3  
+ ART165 Watercolor Painting I 3  
+ ART167 Painting I 3

## General Education Requirements

Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 35-41

A single course with an [HU], [SB], or [L] designation(s) may also be used to satisfy the Oral Communication, Critical Reading, or Awareness Area ([C], [G] and/or [H]) requirement(s).

First-Year Composition [FYC] Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 3

Any approved general education course in the Literacy and Critical Inquiry [L] area. 3

Mathematics [MA] Credits: 3-6

MAT140 College Mathematics (5) OR  
MAT141 College Mathematics (4) OR  
MAT142 College Mathematics (3) OR  
MAT145 College Mathematics with Review (5) OR  
MAT146 College Mathematics with Review (6) OR  
Higher level course in the Mathematical Applications [MA] area (3-6) 3-6

Computer/Statistics/Quantitative Applications [CS] Credits: 3

Any approved general education course in the Computer/Statistics/Quantitative Applications [CS] area. 3

Humanities, Arts and Design [HU] Credits: 6

For ASU BFA Art (Ceramics), ASU BFA Art (Painting and Drawing), ASU BFA Art (Photography), ASU BFA Art (Printmaking), ASU BFA Art (Sculpture), and ASU BFA Art (Textiles):

ARH101 Prehistoric through Gothic Art (3) OR  
ARH102 Renaissance through Contemporary Art (3) 3  
AND  
ARH145 History of American Indian Art (3) OR  
ARH201 Art of Asia (3) OR  
ARH217 Mexican Art History (3) 3

For NAU BFA Studio Art:

ARH101 Prehistoric through Gothic Art (3) OR  
ARH102 Renaissance through Contemporary Art (3) 3  
AND

Any approved general education course in the Humanities, Arts and Design [HU] area. 3

For U of A BFA Studio Art:

ARH101 Prehistoric through Gothic Art 3  
ARH102 Renaissance through Contemporary Art 3

Social-Behavioral Sciences [SB] Credits: 6  
Any approved general education courses in the Social-Behavioral Sciences [SB] area. 6

(Recommend selecting a course that fulfills both the Social-Behavioral Sciences [SB] area and Cultural Diversity in the U.S. [C] designation)

Natural Sciences [SG]/[SQ] Credits: 8  
Any approved general education course in the Natural Sciences (Quantitative) [SQ] area (4)  
AND  
Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the Natural Sciences (General) [SG] area (4). 8

Awareness Areas Credits: 0-3  
These requirements may be shared with other AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3  
Historical/Global Awareness [H]/[G] Credits: 0

Met by ARH101 and ARH102 in AGECE [HU] requirements.

MCCCD Additional Requirements  
MCCCD Additional Requirements Credits: 0-6  
Courses in this area may also be applied to AGECE Requirements. To minimize total credits required for degree and maximize transferable credits, it is recommended that courses be selected that meet more than one requirement wherever possible.

Oral Communication Credits: 0-3  
COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 0-3

Critical Reading Credits: 0-3  
CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=188782>

Starting Term: 2024 Fall  
Final Term: 9999

## **ASSOCIATE IN ARTS, FINE ARTS (AAFA) IN ASSOCIATE IN ARTS, FINE ARTS, EMPHASIS IN DANCE**

Total Credits: 63-95  
Major Code: 8312

## Description

The Associate in Arts, Fine Arts (AAFA), Emphasis in Dance provides the first two years of a four-year curriculum for students who intend to specialize in dance. With an associate degree, students may pursue a number of careers, including but not limited to, dance performance, choreography, and dance instruction. Upon completion of a bachelor's degree, students may pursue additional careers including dance education at the secondary level, arts administration, artistic direction, and dance science specialties. Upon completion of a graduate degree, students may pursue additional careers including dance education at the post-secondary level and dance therapy.

## Program Notes

Students must earn a grade of C or better in all courses within the program. Students are expected to meet with a residential dance faculty member for advising each semester prior to enrollment for the following semester. Consult with your faculty advisor to determine which specializations are available at your college. Students should enroll in two DAN technique courses each semester. Enrollment in some courses may require an audition and/or permission of instructor. All applicable DAN technique courses may be repeated for credit. Pass/No Credit courses cannot be used to fulfill degree requirements.

## Required Courses

Credits: 7-9

+ DAN150 Dance Performance I 1  
DAN264 Choreography I 3  
+ DAN280 Dance Practicum 2

FYE101 Introduction to College, Career and Personal Success (1) OR  
FYE103 Exploration of College, Career and Personal Success (3) 1-3

## Restricted Electives

Credits: 7-9

Complete requirements in the transfer plan that best aligns with your academic and professional goals. If your intended transfer plan is not listed, then select a combination of courses from the transfer options listed in order to meet the minimum credits required in the Restricted Electives section. Consult with an academic, faculty, or program advisor to prevent exceeding your university transfer program's maximum transferable credits (typically 64).

Transfer Plan 1: Contemporary Concert Dance (CGCC)  
Credits: 22-24

Dance Theory courses:

DAH100 Introduction to Dance in the United States 3

DAH201 Dance, Culture, and Global Contexts (3) OR

DAH250 Dance in Popular Culture (3) OR  
+ DAH255 Hip Hop: Arts, Aesthetic and Culture (3) OR  
DAN221 Rhythmic Awareness I (3) 3  
DAN221 recommended

+ DAN265 Choreography II 3

Dance Performance courses:

Select one to three courses from the following for a total of one (1) to three (3) credits:

+ DAN150 Dance Performance I 1  
+ DAN155 Dance Performance II 1  
+ DAN250 Dance Performance III 1  
+ DAN255 Dance Performance IV 1

Dance Technique (Core):

Students may come in at any level based on assessment by the lead dance residential faculty.

Select three courses from the following for a total of three (3) credits. Courses may be repeated for credit.

DAN131 Ballet I 1  
+ DAN134 Ballet II 1  
+ DAN231 Ballet III 1  
+ DAN234 Ballet IV 1  
+ DAN237 Ballet Pointe I 1

Select three courses from the following for a total of three (3) credits. Courses may be repeated for credit.

DAN132 Modern Dance I 1  
+ DAN135 Modern Dance II 1  
+ DAN232 Modern Dance III 1  
+ DAN235 Modern Dance IV 1

Select one course to attain a minimum of Level III competency in Ballet.

+ DAN231 Ballet III (1) OR  
+ DAN234 Ballet IV (1) OR  
+ DAN237 Ballet Pointe I (1) 1

Select one course to attain a minimum of Level III competency in Modern.

+ DAN232 Modern Dance III (1) OR  
+ DAN235 Modern Dance IV (1) 1

Dance Technique (Additional):

Students may come in at any level based on assessment by the lead dance residential faculty.

Select four courses from the following for a total of four (4) credits.

DAN102 Hip Hop I 1  
+ DAN103 Hip Hop II 1  
DAN129 Musical Theatre Dance I 1  
+ DAN130 Musical Theatre Dance II 1  
DAN131 Ballet I 1  
DAN132 Modern Dance I 1

DAN133 Jazz Dance I 1  
+ DAN134 Ballet II 1  
+ DAN135 Modern Dance II 1  
+ DAN136 Jazz Dance II 1  
DAN140 Tap Dance I 1  
+ DAN145 Tap Dance II 1  
+ DAN202 Hip Hop III 1  
+ DAN203 Hip Hop IV 1  
+ DAN229 Musical Theatre Dance III 1  
+ DAN230 Musical Theatre Dance IV 1  
+ DAN231 Ballet III 1  
+ DAN232 Modern Dance III 1  
+ DAN233 Jazz Dance III 1  
+ DAN234 Ballet IV 1  
+ DAN235 Modern Dance IV 1  
+ DAN236 Jazz Dance IV 1  
+ DAN237 Ballet Pointe I 1  
+ DAN240 Tap Dance III 1  
+ DAN245 Tap Dance IV 1

Transfer Plan 2: Contemporary Concert Dance (GCC)

Credits: 25-35

Dance Theory:

DAH100 Introduction to Dance in the United States 3

Select two of the following courses for a total of six (6) credits.

DAH201 Dance, Culture, and Global Contexts 3

DAH250 Dance in Popular Culture 3

+ DAH255 Hip Hop: Arts, Aesthetic and Culture 3

DAN170 Dance Kinesiology 3

Dance Performance:

Select one to three courses from the following for a total of one (1) to three (3) credits:

+ DAN155 Dance Performance II 1

+ DAN250 Dance Performance III 1

+ DAN255 Dance Performance IV 1

Dance Technique (Core):

Students may come in at any level based on assessment by the lead dance residential faculty.

Select three courses from the following for a total of three (3) to six (6) credits. Courses may be repeated for credit.

DAN131 Ballet I 1

+ DAN134 Ballet II 1

+ DAN231 Ballet III 1

+ DAN231AA Ballet III: Intensive 2

+ DAN234 Ballet IV 1

+ DAN234AA Ballet IV: Intensive 2

Select three courses from the following for a total of three (3) to six (6) credits. Courses may be

repeated for credit.

- DAN132 Modern Dance I 1
- + DAN135 Modern Dance II 1
- + DAN232 Modern Dance III 1
- + DAN232AA Modern Dance III: Intensive 2
- + DAN235 Modern Dance IV 1
- + DAN235AA Modern Dance IV: Intensive 2

Select one course to attain a minimum of Level III competency in Ballet.

- + DAN231 Ballet III (1) OR
- + DAN231AA Ballet III: Intensive (2) OR
- + DAN234 Ballet IV (1) OR
- + DAN234AA Ballet IV: Intensive (2) 1-2

Select one course to attain a minimum of Level III competency in Modern.

- + DAN232 Modern Dance III (1) OR
- + DAN232AA Modern Dance III: Intensive (2)
- + DAN235 Modern Dance IV (1) OR
- + DAN235AA Modern Dance IV: Intensive (2) 1-2

Dance Technique (Additional):

Students may come in at any level based on assessment by the lead dance residential faculty.

Select four courses from the following for a total of four (4) credits.

- DAN102 Hip Hop I 1
- + DAN103 Hip Hop II 1
- DAN129 Musical Theatre Dance I 1
- + DAN130 Musical Theatre Dance II 1
- DAN133 Jazz Dance I 1
- + DAN136 Jazz Dance II 1
- DAN140 Tap Dance I 1
- + DAN145 Tap Dance II 1
- + DAN202 Hip Hop III 1
- + DAN203 Hip Hop IV 1
- + DAN229 Musical Theatre Dance III 1
- + DAN230 Musical Theatre Dance IV 1
- + DAN233 Jazz Dance III 1
- + DAN236 Jazz Dance IV 1
- + DAN240 Tap Dance III 1
- + DAN245 Tap Dance IV 1

Transfer Plan 3: Contemporary Concert Dance (MCC)

Credits: 22

Dance Theory courses:

- DAH100 Introduction to Dance in the United States 3
- DAH201 Dance, Culture, and Global Contexts 3
- DAH250 Dance in Popular Culture 3
- DAN170 Dance Kinesiology 3

Dance Performance courses:

- DAN141 Dance Workshop 1

+ DAN155 Dance Performance II 1

Dance Technique (Core):

DAN131 Ballet I 1

DAN132 Modern Dance I 1

+ DAN134 Ballet II 1

+ DAN135 Modern Dance II 1

+ DAN231 Ballet III 1

+ DAN232 Modern Dance III 1

Dance Technique (Additional):

Students may come in at any level based on assessment by the lead dance residential faculty.

Select two courses from the following for a total of two (2) credits:

DAN102 Hip Hop I 1

+ DAN103 Hip Hop II 1

DAN129 Musical Theatre Dance I 1

+ DAN130 Musical Theatre Dance II 1

DAN133 Jazz Dance I 1

+ DAN136 Jazz Dance II 1

DAN140 Tap Dance I 1

+ DAN145 Tap Dance II 1

+ DAN202 Hip Hop III 1

+ DAN203 Hip Hop IV 1

+ DAN229 Musical Theatre Dance III 1

+ DAN230 Musical Theatre Dance IV 1

+ DAN233 Jazz Dance III 1

+ DAN236 Jazz Dance IV 1

+ DAN240 Tap Dance III 1

+ DAN245 Tap Dance IV 1

Transfer Plan 4: Contemporary Concert Dance (PVCC)

Credits: 23-26

Dance Theory:

DAH100 Introduction to Dance in the United States 3

+ DAH255 Hip Hop: Arts, Aesthetic and Culture 3

DAH201 Dance, Culture, and Global Contexts (3) OR

DAN275 Choreography for Film and Video (3) 3

DAN190 Discovering Dance Careers (1) OR

DAN298AA Special Projects (1) OR

DAN298AB Special Projects (2) OR

DAN298AC Special Projects (3) 1-3

+ DAN265 Choreography II 3

Dance Performance:

Select one to three courses from the following for a total of one (1) to three (3) credits:

+ DAN155 Dance Performance II 1

+ DAN250 Dance Performance III 1

+ DAN255 Dance Performance IV 1

Dance Technique (Core):

Students may come in at any level based on assessment by the lead dance residential faculty.

Select two courses from the following for a total of two (2) credits. Courses may be repeated for credit.

DAN131 Ballet I 1  
+ DAN134 Ballet II 1  
+ DAN231 Ballet III 1

Select one course to attain a minimum of Level III competency in Ballet.

+ DAN231 Ballet III (1) OR  
+ DAN234 Ballet IV (1) 1

Select two courses from the following for a total of two (2) credits. Courses may be repeated for credit.

DAN132 Modern Dance I 1  
+ DAN135 Modern Dance II 1  
+ DAN232 Modern Dance III 1

Select one course to attain a minimum of Level III competency in Modern.

+ DAN232 Modern Dance III (1) OR  
+ DAN235 Modern Dance IV (1) 1

Dance Technique (Additional):

DAN133 Jazz Dance I 1  
DAN136 Jazz Dance II 1

Select coursework from the following for a total of one (1) to two (2) credits:

DAN233 Jazz Dance III 1  
+ DAN236 Jazz Dance IV 1  
DAN290AA Dance Conservatory I 1  
DAN290AB Dance Conservatory I 2  
DAN101AA Social Dance: Ballroom 1  
DAN101AB Social Dance: Swing 1  
DAN101AC Social Dance: Latin 1  
DAN101AE Social Dance: Tango 1

Transfer Plan 5: Contemporary Concert Dance (SCC)

Credits: 42-49

Dance Theory:

DAH201 Dance, Culture, and Global Contexts 3  
DAH250 Dance in Popular Culture 3  
DAN170 Dance Kinesiology 3  
DAN190 Discovering Dance Careers 1  
DAN191 Viewing Dance 1  
DAN192 Digital Music for Dancers 1  
DAN193 Professional Promotion for Dancers 1  
DAN210 Dance Production I 3  
DAN221 Rhythmic Awareness I 3



DAN272 Dance Technology 3  
DAN298AA Special Projects 1

Dance Performance:

Select one to three courses from the following for a total of one (1) to three (3) credits:

- + DAN150 Dance Performance I 1
- + DAN155 Dance Performance II 1
- + DAN250 Dance Performance III 1
- + DAN255 Dance Performance IV 1

Dance Technique (Core):

Students may come in at any level based on assessment by the program director(s).

Select three courses from the following for a total of three (3) to six (6) credits. Courses may be repeated for credit.

- DAN131 Ballet I 1
- + DAN134 Ballet II 1
- + DAN231 Ballet III 1
- + DAN231AA Ballet III: Intensive 2
- + DAN234 Ballet IV 1
- + DAN234AA Ballet IV: Intensive 2

Select one course to attain a minimum of Level III competency in Ballet.

- + DAN231 Ballet III (1) OR
- + DAN231AA Ballet III: Intensive (2) OR
- + DAN234 Ballet IV (1) OR
- + DAN234AA Ballet IV: Intensive (2) 1-2

Select three courses from the following for a total of three (3) to six (6) credits. Courses may be repeated for credit.

- DAN132 Modern Dance I 1
- + DAN135 Modern Dance II 1
- + DAN232 Modern Dance III 1
- + DAN232AA Modern Dance III: Intensive 2
- + DAN235 Modern Dance IV 1
- + DAN235AA Modern Dance IV: Intensive 2

Select one course to attain a minimum of Level III competency in Modern.

- + DAN232 Modern Dance III (1) OR
- + DAN232AA Modern Dance III: Intensive (2)
- + DAN235 Modern Dance IV (1) OR
- + DAN235AA Modern Dance IV: Intensive (2) 1-2

Dance Technique (Additional):

Students may come in at any level based on assessment by the program director(s).

Select four courses from the following for a total of four (4) credits.

- DAN102 Hip Hop I 1
- + DAN103 Hip Hop II 1
- + DAN202 Hip Hop III 1
- + DAN203 Hip Hop IV 1

DAN133 Jazz Dance I 1  
+ DAN136 Jazz Dance II 1  
+ DAN233 Jazz Dance III 1  
+ DAN236 Jazz Dance IV 1

Additional Coursework:

COM110 Interpersonal Communication (3) OR  
+ COM225 Public Speaking (3) 3

EDU222 Introduction to the Exceptional Learner 3

Transfer Plan 6: Jazz and Related Diasporic Forms (CGCC)

Credits: 19-21

Dance Theory:

DAH100 Introduction to Dance in the United States (3) OR

DAH201 Dance, Culture, and Global Contexts (3) OR

DAH250 Dance in Popular Culture (3) OR

DAN221 Rhythmic Awareness I (3) 3

DAN221 recommended

+ DAN265 Choreography II 3

Dance Performance:

Select one to three courses from the following for a total of one (1) to three (3) credits:

+ DAN150 Dance Performance I 1

+ DAN155 Dance Performance II 1

+ DAN250 Dance Performance III 1

+ DAN255 Dance Performance IV 1

Dance Technique (Core):

Students may come in at any level based on assessment by the lead dance residential faculty.

Select eight courses for a total of eight (8) credits from two of the following dance forms: Hip Hop, Musical Theatre, Jazz, or Tap. Students must achieve Level III competency in the two forms selected.

Hip Hop Courses:

DAN102 Hip Hop I 1

+ DAN103 Hip Hop II 1

+ DAN202 Hip Hop III 1

+ DAN203 Hip Hop IV 1

Musical Theater Courses:

DAN129 Musical Theatre Dance I 1

+ DAN130 Musical Theatre Dance II 1

+ DAN229 Musical Theatre Dance III 1

+ DAN230 Musical Theatre Dance IV 1

Jazz Courses:

DAN133 Jazz Dance I 1

- + DAN136 Jazz Dance II 1
- + DAN233 Jazz Dance III 1
- + DAN236 Jazz Dance IV 1

Tap Dance Courses:

- DAN140 Tap Dance I 1
- + DAN145 Tap Dance II 1
- + DAN240 Tap Dance III 1
- + DAN245 Tap Dance IV 1

Dance Technique (Additional):

Students may come in at any level based on assessment by the lead dance residential faculty.

Select four courses from the following for a total of four (4) credits:

- DAN102 Hip Hop I 1
- + DAN103 Hip Hop II 1
- DAN129 Musical Theatre Dance I 1
- + DAN130 Musical Theatre Dance II 1
- DAN131 Ballet I 1
- DAN132 Modern Dance I 1
- DAN133 Jazz Dance I 1
- + DAN134 Ballet II 1
- + DAN135 Modern Dance II 1
- + DAN136 Jazz Dance II 1
- DAN140 Tap Dance I 1
- + DAN145 Tap Dance II 1
- + DAN202 Hip Hop III 1
- + DAN203 Hip Hop IV 1
- + DAN229 Musical Theatre Dance III 1
- + DAN230 Musical Theatre Dance IV 1
- + DAN231 Ballet III 1
- + DAN233 Jazz Dance III 1
- + DAN232 Modern Dance III 1
- + DAN234 Ballet IV 1
- + DAN235 Modern Dance IV 1
- + DAN236 Jazz Dance IV 1
- + DAN237 Ballet Pointe I 1
- + DAN240 Tap Dance III 1
- + DAN245 Tap Dance IV 1

Transfer Plan 7: Jazz and Related Diasporic Forms (GCC)

Credits: 25-33

Dance Theory:

- DAH100 Introduction to Dance in the United States 3

Select two of the following courses for a total of six (6) credits.

- DAH201 Dance, Culture, and Global Contexts 3
- DAH250 Dance in Popular Culture 3
- + DAH255 Hip Hop: Arts, Aesthetic and Culture 3

- DAN170 Dance Kinesiology 3

Dance Performance:

Select one to three courses from the following for a total of one (1) to three (3) credits:

- + DAN155 Dance Performance II 1
- + DAN250 Dance Performance III 1
- + DAN255 Dance Performance IV 1

Dance Technique (Core):

Students may come in at any level based on assessment by the lead dance residential faculty.

Select three courses from the following for a total of (3) to six (6) credits. Courses may be repeated for credit.

- DAN133 Jazz Dance I 1
- + DAN136 Jazz Dance II 1
- + DAN233 Jazz Dance III 1
- + DAN233AA Jazz Dance III: Intensive 2
- + DAN236 Jazz Dance IV 1
- + DAN236AA Jazz Dance IV: Intensive 2

Select one course to attain a minimum of Level III competency in Jazz.

- + DAN233 Jazz Dance III (1) OR
- + DAN233AA Jazz Dance III: Intensive (2)
- + DAN236 Jazz Dance IV (1) OR
- + DAN236AA Jazz Dance IV: Intensive (2) 1-2

Select three courses from the following for a total of 3 credits. Courses may be repeated for credit.

- DAN102 Hip Hop I 1
- + DAN103 Hip Hop II 1
- DAN129 Musical Theatre Dance I 1
- + DAN130 Musical Theatre Dance II 1
- DAN140 Tap Dance I 1
- + DAN145 Tap Dance II 1
- + DAN202 Hip Hop III 1
- + DAN203 Hip Hop IV 1
- + DAN229 Musical Theatre Dance III 1
- + DAN230 Musical Theatre Dance IV 1
- + DAN240 Tap Dance III 1
- + DAN245 Tap Dance IV 1

Select one course to attain a minimum of Level III competency in Hip Hop, Musical Theatre, or Tap.

- + DAN202 Hip Hop III (1) OR
- + DAN203 Hip Hop IV (1) OR
- + DAN229 Musical Theatre Dance III (1) OR
- + DAN230 Musical Theatre Dance IV (1) OR
- + DAN240 Tap Dance III (1) OR
- + DAN245 Tap Dance IV (1) 1

Dance Technique (Additional):

Students may come in at any level based on assessment by the lead dance residential faculty.

Select four courses from the following for a total of four (4) to eight (8) credits.

DAN131 Ballet I 1

DAN132 Modern Dance I 1

+ DAN134 Ballet II 1

+ DAN135 Modern Dance II 1

+ DAN231 Ballet III 1

+ DAN231AA Ballet III: Intensive 2

+ DAN232 Modern Dance III 1

+ DAN232AA Modern Dance III: Intensive 2

+ DAN234 Ballet IV 1

+ DAN234AA Ballet IV: Intensive 2

+ DAN235 Modern Dance IV 1

+ DAN235AA Modern Dance IV: Intensive 2

Transfer Plan 8: Jazz and Related Diasporic Forms (MCC)

Credits: 22

Dance Theory courses:

DAH100 Introduction to Dance in the United States 3

DAH201 Dance, Culture, and Global Contexts 3

DAH250 Dance in Popular Culture 3

DAN170 Dance Kinesiology 3

Dance Performance courses:

DAN141 Dance Workshop 1

+ DAN155 Dance Performance II 1

Dance Technique (Core):

DAN102 Hip Hop I 1

+ DAN103 Hip Hop II 1

DAN133 Jazz Dance I 1

DAN136 Jazz Dance II 1

+ DAN202 Hip Hop III 1

+ DAN233 Jazz Dance III 1

Dance Technique (Additional):

DAN132 Modern Dance I 1

DAN129 Musical Theatre Dance I (1) OR

+ DAN130 Musical Theatre Dance II (1) OR

DAN131 Ballet I (1) OR

DAN132 Modern Dance I (1) OR

+ DAN134 Ballet II (1) OR

+ DAN135 Modern Dance II (1) OR

DAN140 Tap Dance I (1)

+ DAN145 Tap Dance II (1)

+ DAN229 Musical Theatre Dance III (1) OR

+ DAN230 Musical Theatre Dance IV (1) OR

+ DAN231 Ballet III (1) OR

+ DAN232 Modern Dance III (1) OR

+ DAN234 Ballet IV (1) OR

- + DAN235 Modern Dance IV (1)
- + DAN240 Tap Dance III (1)
- + DAN245 Tap Dance IV (1) 1

Transfer Plan 9: Jazz and Related Diasporic Forms (SCC)

Credits: 42-48

Dance Theory:

- DAH201 Dance, Culture, and Global Contexts 3
- DAH250 Dance in Popular Culture 3
- DAN170 Dance Kinesiology 3
- DAN190 Discovering Dance Careers 1
- DAN191 Viewing Dance 1
- DAN192 Digital Music for Dancers 1
- DAN193 Professional Promotion for Dancers 1
- DAN210 Dance Production I 3
- DAN221 Rhythmic Awareness I 3
- DAN272 Dance Technology 3
- DAN298AA Special Projects 1

Dance Performance:

Select one to three courses from the following for a total of one (1) to three (3) credits:

- + DAN150 Dance Performance I 1
- + DAN155 Dance Performance II 1
- + DAN250 Dance Performance III 1
- + DAN255 Dance Performance IV 1

Dance Technique (Core):

Students may come in at any level based on assessment by the program director(s).

Select three courses from the following for a total of three (3) credits. Courses may be repeated for credit.

- DAN102 Hip Hop I 1
- + DAN103 Hip Hop II 1
- + DAN202 Hip Hop III 1
- + DAN203 Hip Hop IV 1

Select one course to attain a minimum of Level III competency in Hip Hop.

- + DAN202 Hip Hop III (1) OR
- + DAN203 Hip Hop IV (1) 1

Select three courses from the following for a total of three (3) credits. Courses may be repeated for credit.

- DAN133 Jazz Dance I 1
- + DAN136 Jazz Dance II 1
- + DAN233 Jazz Dance III 1
- + DAN236 Jazz Dance IV 1

Select one course to attain a minimum of Level III competency in Jazz.

- + DAN233 Jazz Dance III (1) OR
- + DAN236 Jazz Dance IV (1) 1

Dance Technique (Additional):

Students may come in at any level based on assessment by the program director(s).

Select four courses from the following for a total of four (4) to eight (8) credits:

DAN131 Ballet I 1

DAN132 Modern Dance I 1

+ DAN134 Ballet II 1

+ DAN135 Modern Dance II 1

+ DAN231 Ballet III 1

+ DAN231AA Ballet III: Intensive 2

+ DAN232 Modern Dance III 1

+ DAN232AA Modern Dance III: Intensive 2

+ DAN234 Ballet IV 1

+ DAN234AA Ballet IV: Intensive 2

+ DAN235 Modern Dance IV 1

+ DAN235AA Modern Dance IV: Intensive 2

Additional Coursework:

COM110 Interpersonal Communication (3) OR

+ COM225 Public Speaking (3) 3

EDU222 Introduction to the Exceptional Learner 3

## General Education Requirements

Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 20-44

A single course with an [HU], [SB], or [L] designation may also be used to satisfy the Oral Communication, Critical Reading, or Awareness Area ([C], [G] and/or [H]) requirement(s).

First-Year Composition [FYC] Credits: 6

ENG101 First-Year Composition (3) OR

ENG107 First-Year Composition for ESL (3) AND

ENG102 First-Year Composition (3) OR

ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 3

Any approved general education course in the Literacy and Critical Inquiry [L] area.

Mathematics [MA] Credits: 3-6

MAT140 College Mathematics (5) OR

MAT141 College Mathematics (4) OR

MAT142 College Mathematics (3) OR

MAT145 College Mathematics with Review (5) OR

MAT146 College Mathematics with Review (6) OR

Higher approved general education course in the Mathematical Applications [MA] area 3-6

Computer/Statistics/Quantitative Applications [CS] Credits: 3

Any approved general education course in the Computer/Statistics/Quantitative Applications [CS] area.

BPC110 or CIS105 recommended for students in Transfer Plan 5 or Transfer Plan 9

Humanities, Arts and Design [HU] Credits: 0-6

Select two Dance Humanities (DAH) courses for a total of six (6) credits

DAH100 Introduction to Dance 3

DAH201 World Dance Studies 3

DAH250 Dance in Popular Culture 3

+ DAH255 Hip Hop: Arts, Aesthetic and Culture 3

May be met by DAH100, DAH201, DAH250, or DAH255 in Restricted Electives area

Social-Behavioral Sciences [SB] Credits: 0-6

Any approved general education courses in the Social-Behavioral Sciences [SB] area. 6

May be met by COM110 and EDU222 in Restricted Electives area.

Natural Sciences [SG]/[SQ] Credits: 8

BIO160 Introduction to Human Anatomy and Physiology (4) OR

+ BIO201 Human Anatomy and Physiology I (4)

AND

Any approved general education course in the Science Quantitative [SQ] area or the Science General [SG] area (4). 8

At least four (4) credits must be designated as Natural Sciences (Quantitative) [SQ].

Awareness Areas Credits: 0-6

These requirements may be shared with other AGEC requirements. See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

Cultural Diversity in the US [C] Credits: 0-3

Historical/Global Awareness [H]/[G] Credits: 0-3

Any approved general education course with the Historical [H] or Global [G] awareness area designation.

MCCCD Additional Requirements

MCCCD Additional Requirements Credits: 0-6

Courses in this area may also be applied to AGEC Requirements. To minimize total credits required for degree and maximize transferable credits, it is recommended that courses be selected that meet more than one requirement wherever possible.

Oral Communication Credits: 0-3

COM100 Introduction to Human Communication (3) OR

COM110 Interpersonal Communication (3) OR

COM225 Public Speaking (3) OR

COM230 Small Group Communication (3) 0-3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR

Equivalent as indicated by assessment (0) 0-3

## General Electives



Recommended for Transfer Plan 3: Contemporary Concert Dance (MCC) or Transfer Plan 8: Jazz and Related Diasporic Forms (MCC)

DAN141 Dance Workshop 1

+ DAN146 Tap Dance Ensemble 1

DAN164 Improvisation 1

+ DAN235 Modern Dance IV 1

+ DAN250 Dance Performance III 1

+ DAN255 Dance Performance IV 1

+ DAN265 Choreography II 3

+ DAN298AA Special Projects 1

THP213 Introduction to Technical Theatre 4

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=188783>

Starting Term: 2024 Fall

Final Term: 9999

## **ASSOCIATE IN ARTS, FINE ARTS (AAFA) IN ASSOCIATE IN ARTS, FINE ARTS, EMPHASIS IN MUSIC**

Total Credits: 67-83

Major Code: 8313

### **Description**

The Associate in Arts, Fine Arts (AAFA), Emphasis in Music degree is designed for students planning to transfer to four-year colleges and universities with majors in the Fine/Performing Arts. The degree is designed to prepare students to meet selective admission criteria for programs, such as the Bachelor of Music, which may require an audition. Embedded areas of emphasis include choral, instrumental, guitar and popular music performance.

### **Program Notes**

In most cases, courses used to satisfy the AAFA, Emphasis in Music will apply to general university graduation requirements of related majors; however, students need to be aware of any specific lower division requirements of their intended focus at the university to be sure they select courses that will meet those requirements. Some courses may require permission of instructor and/or audition for placement. Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 9-11

FYE101 Introduction to College, Career and Personal Success (1) OR

FYE103 Exploration of College, Career and Personal Success (3) 1-3

MTC105 Music Theory I 3

MTC106	Aural Perception I	1
MTC155	Music Theory II	3
MTC156	Aural Perception II	1

## Restricted Electives

Credits: 23-28

Transfer Plan 1: Classical Music Performance and Music Education

Credits: 24-28

- MUP102++ Private Instruction 2
- + MUP152++ Private Instruction 2
- + MUP202++ Private Instruction 2
- + MTC205 Music Theory III 3
- + MTC206 Aural Perception III 1
- + MUP252++ Private Instruction 2
- + MTC255 Music Theory IV 3
- + MTC256 Aural Perception IV 1

Class Piano Credits: 0-4

- MUP131 Class Piano I 1
- + MUP132 Class Piano II 1
- + MUP231 Class Piano III 1
- + MUP232 Class Piano IV 1

(Student`s level and number of credits required for degree determined by piano instructor based on audition) 0-4

Large Music Ensembles Credits: 4

Choose any four (4) credits from the following list of Musical Ensemble courses based on area of emphasis. Any substitutions require official approval of program director.

- MUP150 Community Chorus 1
- MUP153 Concert Choir 1
- MUP159 Community Orchestra 1
- MUP160 Orchestra 1
- MUP161 Community Band 1
- MUP162 Band 1
- MUP163 Jazz Ensemble 1 (Jazz Big Bands only)
- MUP169 Guitar Ensemble 1
- MUP181 Chamber Music Ensembles 1 (Piano Ensemble only)
- MUP217 Music Theatre: Broadway Solos 1
- + MUP/THP273 Musical Theater Production 1

MUP153 is recommended for Choral students (or, if unavailable, MUP150), MUP160 for Strings students (or, if unavailable, MUP159), MUP162 for Instrumental students (or, if unavailable, MUP161), MUP163 (limited to Jazz Big Bands) for Jazz students, MUP169 for students interested in transfer to Ottawa University for Guitar (or, if unavailable, any other approved ensemble), and MUP181 (limited to Piano Ensembles only) for Piano majors. Ensemble courses can be taken multiple times for credit.

Related Area Credits: 4

Students should choose four (4) additional credits from the following list of options that best

align with their academic and professional goals. Course(s) selected must be different from those used to fulfill a requirement of the AGEC-A and/or those used to fulfill Required Courses and should be selected in consultation with an academic, faculty, or program advisor.

MHL+++ Any MHL Music: History/Literature course(s)

MTC+++ Any MTC Music: Theory/Composition course(s)

MUC+++ Any MUC Music: Commercial/Business course(s)

MUE+++ Any MUE Music: Education course(s)

MUP+++ Any MUP Music Performance course(s)

Transfer Plan 2: Popular Music

Credits: 24-25

MUC140 Songwriting (3) OR

MUC191 Electronic Music I (3) 3

MUC181 Popular Music Orchestration and Arranging (3) OR

+ MUC192 Electronic Music II (3) 3

MUC109 Music Business: Content Creation and Copyright (3) OR

MUC110 Music Business: Marketing and Monetization (3) 3

MUP100 Introduction to Digital Musicianship (2) OR

MUC195 Studio Music Recording I (3) OR

MUC195AA Studio Music Recording I (3) OR

MUC197 Live Sound Reinforcement I (3) OR

+ MUC193 Computer-Based Sound Synthesis (3) OR

+ MUC281 Electronic Music III (3) 2-3

MUC298AA Special Projects 1

MUP101++ Private Instruction (1) (Must be completed for credit twice) OR

MUP102++ Private Instruction (2) 2

+ MUP151++ Private Instruction (1) (Must be completed for credit twice) OR

+ MUP152++ Private Instruction (2) 2

+ MUP201++ Private Instruction (1) (Must be completed for credit twice) OR

+ MUP202++ Private Instruction (2) 2

+ MUP251++ Private Instructions (1) (Must be completed for credit twice) OR

+ MUP252++ Private Instruction (2) 2

Performance Ensemble Credits: 4

Choose any four (4) credits from the following list of Musical Ensemble courses. Ensemble courses can be taken multiple times for credit. Select courses in consultation with an academic, faculty, or program advisor.

MUP150 Community Chorus 1

MUP153 Concert Choir 1

MUP154AA Jazz Vocal Ensemble 1

MUP154AB Jazz Vocal Ensemble 2

MUP158 Rock Band 1

MUP159 Community Orchestra 1

MUP160 Orchestra 1  
MUP161 Community Band 1  
MUP162 Band 1  
MUP163 Jazz Ensemble 1  
MUP169 Guitar Ensemble 1  
MUP181 Chamber Music Ensembles 1 (Jazz Combos)  
MUP190 Percussion Ensemble 1

Transfer Plan 3: Jazz Music  
Credits: 23-25  
MTC130 Jazz Theory 2

MUC181 Popular Music Orchestration and Arranging (3) OR  
MTC203 Jazz Composition (3) OR  
MUP165 Jazz Improvisation II (2) 2-3

MUP100 Introduction to Digital Musicianship (2) OR  
MUC195 Studio Music Recording I (3) OR  
MUC195AA Studio Music Recording I (3) OR  
MUC197 Live Sound Reinforcement I (3) 2-3

MUP164 Jazz Improvisation I 2

MUP101++ Private Instruction (1) (Must be completed for credit twice) OR  
MUP102++ Private Instruction (2) 2

+ MUP151++ Private Instruction (1) (Must be completed for credit twice) OR  
+ MUP152++ Private Instruction (2) 2

+ MUP201++ Private Instruction (1) (Must be completed for credit twice) OR  
+ MUP202++ Private Instruction (2) 2

+ MUP251++ Private Instructions (1) (Must be completed for credit twice) OR  
+ MUP252++ Private Instruction (2) 2

MUP298AA Special Projects 1

Performance Ensemble Credits: 6

Choose any six (6) credits from the following list of Performance Ensemble courses. Ensemble courses can be taken multiple times for credit. Select courses in consultation with an academic, faculty, or program advisor.

MUP163 Jazz Ensemble 1 (May be repeated for credit 4 times)  
MUP181 Chamber Music Ensembles 1 (May be repeated for credit 2 times)  
MUP183 Jazz Combo 1 (May be repeated for credit 2 times)

## **General Education Requirements**

Arizona General Education Curriculum (AGEC)  
AGEC-A Credits: 35-44

A single course with an [HU], [SB], or [L] designation may also be used to satisfy the Oral Communication, Critical Reading, or Awareness Area ([C], [G] and/or [H]) requirement(s).

First-Year Composition [FYC] Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 3

Any approved general education course in the Literacy and Critical Inquiry [L] area.

Mathematics [MA] Credits: 3-6

MAT140 College Mathematics (5) OR  
MAT141 College Mathematics(4) OR  
MAT142 College Mathematics (3) OR  
MAT145 College Mathematics with Review (5) OR  
MAT146 College Mathematics with Review (6) OR  
Higher level mathematics [MA] course 3-6

Computer/Statistics/Quantitative Applications [CS] Credits: 3

Transfer Plan 1: Classical Music Performance and Music Education:

Any approved general education course in the Computer/Statistics/Quantitative Applications [CS] area.

(Recommended: MTC180 Computer Literacy for Musicians 3)

Transfer Plan 2: Popular Music

MTC180 Computer Literacy for Musicians 3

Transfer Plan 3: Jazz Music

MTC180 Computer Literacy for Musicians 3

Humanities, Arts and Design [HU] Credits: 6

MHL194 Music and Culture (3) (Recommended for students transferring to ASU) OR  
MHL241 Music History and Literature to 1750 (3) (Recommended for students transferring to Ottawa/NAU)

AND

Any additional MHL+++ Music: History/Literature course with [HU] designation (3)6

Social-Behavioral Sciences [SB] Credits: 6

Any approved general education courses in the Social-Behavioral Sciences [SB] area.

Natural Sciences [SG]/[SQ] Credits: 8

Any approved general education course in the Natural Sciences (Quantitative) [SQ] area (4)

AND

Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the Natural Sciences (General) [SG] area (4). 8

Awareness Areas Credits: 0-6

These requirements may be shared with other AGECE Requirements.

Cultural Diversity in the US [C] Credits: 0-3

Historical/Global Awareness [H]/[G] Credits: 0-3

Any approved general education course in the Global Awareness [G] or Historical Awareness [H] area.

MCCCD Additional Requirements

MCCCD Additional Requirements Credits: 0-6

Courses in this area may also be applied to AGECE Requirements. To minimize total credits required for degree and maximize transferable credits, it is recommended that courses be selected that meet more than one requirement wherever possible.

Oral Communication Credits: 0-3

COM100 Introduction to Human Communication (3) OR

COM110 Interpersonal Communication (3) OR

COM225 Public Speaking (3) OR

COM230 Small Group Communication (3) 0-3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR

Equivalent as indicated by assessment (0) 0-3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=188784>

Starting Term: 2024 Fall

Final Term: 9999

## **ASSOCIATE IN ARTS, FINE ARTS (AAFA) IN ASSOCIATE IN ARTS, FINE ARTS, EMPHASIS IN MUSICAL THEATRE**

Total Credits: 66-83

Major Code: 8314

### **Description**

The Associate in Arts, Fine Arts (AAFA), Emphasis in Musical Theatre degree provides a foundation in performance and production practices in music, theatre, and dance. The degree is designed to prepare students to meet selective admission criteria for programs, such as the Bachelor of Musical Theatre, which may require an audition.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program. Some courses may require permission of instructor and/or audition for placement. For enrollment in private instruction for voice, consult the college music department. Because transfer requirements vary

by program and institution, students intending to transfer are strongly encouraged to meet with an academic and faculty advisor once they have selected their transfer institution to ensure all requirements for achieving junior standing are satisfied.

## Required Courses

Credits: 30-36

FYE101 Introduction to College, Career and Personal Success (1) OR  
FYE103 Exploration of College, Career and Personal Success (3) 1-3

### Music Theory

MTC101 Introduction to Music Theory 3 OR  
MTC105 Music Theory I (3) AND  
MTC106 Aural Perception I (1) OR  
MTC155 Music Theory II (3) AND  
MTC156 Aural Perception II (1) OR  
MTC205 Music Theory III (3) AND  
MTC206 Aural Perception III (1) OR  
MTC255 Music Theory IV (3) AND  
MTC256 Aural Perception IV (1) 3-4

### Private Voice Instruction

MUP101AA Private Instruction: Voice (1) OR  
MUP102AA Private Instruction: Voice (2) 1-2

MUP151AA Private Instruction: Voice (1) OR  
MUP152AA Private Instruction: Voice (2) 1-2

MUP202AA Private Instruction: Voice 2  
MUP252AA Private Instruction: Voice 2

### Class Piano

MUP131 Class Piano I (1) OR  
MUP132 Class Piano II (1) OR  
MUP231 Class Piano III (1) OR  
MUP232 Class Piano IV (1) 1

### Music Theatre Workshop and Production

Students must complete at least one credit of MUP/THP273.

MUP/THP273 Music Theatre Workshop Production 1 (may be completed for credit twice)

MUP/THO270 Musical Theatre Workshop (2) OR  
MUP/THO270AA Musical Theatre Workshop (1) (may be completed for credit twice) 1-2

### Acting

THP112 Acting I 3  
THP212 Acting II 3

### Technical Theatre

THP213 Introduction to Technical Theatre (4) OR  
DAN210 Dance Production I (3) AND  
THP201AA Theatre Production I (1) OR  
THO202AA Theatre Production I Scene Shop (1)4

### Movement and Voice

COM/THP271 Voice and Diction (3) OR  
THP131 Stage Movement(3) 3

### Dance

Select a total of four credits from the following list. Up to four courses may be selected from the area of Musical Theatre. No more than two courses can be selected from each of the other areas.

### Musical Theatre

DAN129 Musical Theatre Dance I 1  
DAN130 Musical Theatre Dance II 1  
DAN229 Musical Theatre Dance III 1  
DAN230 Musical Theatre Dance IV 1

### Ballroom

DAN104++ Any Ballroom Course 1

DAN106AA Latin I 1  
DAN106AB Latin II 1

### Jazz

DAN133 Jazz Dance I 1  
DAN136 Jazz Dance II 1  
DAN233 Jazz Dance III 1  
DAN233AA Jazz Dance III: Intensive 2  
DAN236 Jazz Dance IV 1  
DAN236AA Jazz Dance IV: Intensive 2

### Ballet

DAN131 Ballet I 1  
DAN134 Ballet II 1  
DAN231 Ballet III 1  
DAN231AA Ballet III: Intensive 2  
DAN234 Ballet IV 1  
DAN234AA Ballet IV: Intensive 2

### Modern

DAN132 Modern Dance I 1  
DAN135 Modern Dance II 1  
DAN232 Modern Dance III 1  
DAN232AA Modern Dance III: Intensive 2  
DAN235 Modern Dance IV 1  
DAN235AA Modern Dance IV: Intensive 2



### Tap

DAN140	Tap Dance I	1
DAN145	Tap Dance II	1
DAN240	Tap Dance III	1
DAN245	Tap Dance IV	1

### Hip Hop

DAN102++	Any Hip Hop Course	1
DAN202++	Any Hip Hop Course	1

## Restricted Electives

Credits: 1-3

Select an elective course within the area of Dance, Music Performance, and/or Theatre Performance/Production in consultation with that Faculty Program advisor and/or the Visual and Performing Arts student success analyst. Course cannot be used to satisfy Required Courses.

DAN+++ Any DAN Dance course

MUP+++ Any MUP Music: Performance course

THP+++ Any Theatre Performance/Production course

## General Education Requirements

Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 35-44

A single course with an [HU], [SB], [L], or [SG/SQ] designation may also be used to satisfy the Oral Communication, Critical Reading, or Awareness Area ([C], [G] and/or [H]) requirement(s). See the AGEC Matrix for course designations.

First-Year Composition [FYC] Credits: 6

ENG101	First-Year Composition (3) OR
ENG107	First-Year Composition for ESL (3) AND
ENG102	First-Year Composition (3) OR
ENG108	First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 3

THE220	Modern Drama	3
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Mathematics [MA] Credits: 3-6

MAT140	College Mathematics (5) OR
MAT141	College Mathematics (4) OR
MAT142	College Mathematics (3) OR
MAT145	College Mathematics with Review (5) OR
MAT146	College Mathematics with Review (6) OR
Any higher approved general education course in the Mathematical Applications [MA] area	
3-6	

Computer/Statistics/Quantitative Applications [CS] Credits: 3

Any approved general education course in the Computer/Statistics/Quantitative Applications [CS] area. 3

Recommended: MTC180 Computer Literacy for Musicians 3

Humanities, Arts and Design [HU] Credits: 6  
MHL146 Survey of Broadway Musicals 3

DAH100 Introduction to Dance (3) OR  
DAH250 Dance in Popular Culture (3) OR  
THE111 Introduction to Theatre (3) 3

Social-Behavioral Sciences [SB] Credits: 6  
COM100 Introduction to Human Communication 3

Any approved general education courses in the Social-Behavioral Sciences [SB] area. 3

Natural Sciences [SG]/[SQ] Credits: 8  
Any approved general education course in the Natural Sciences (Quantitative) [SQ] area 4  
AND  
Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the  
Natural Sciences (General) [SG] area 4

Awareness Areas Credits: 0-6  
Recommend sharing these requirements with other AGECE Requirements.

Cultural Diversity in the US [C] Credits: 0-3  
Historical/Global Awareness [H]/[G] Credits: 0-3  
Any approved general education course with the Historical [H] or Global [G] awareness area  
designation. 0-3

MCCCD Additional Requirements  
MCCCD Additional Requirements Credits: 0-3

Courses in this area may also be applied to AGECE Requirements. To minimize total credits  
required for degree and maximize transferable credits, it is recommended that courses be  
selected that meet more than one requirement wherever possible.

Oral Communication Credits: 0  
Met by COM100 Introduction to Human Communication in the Social-Behavioral Sciences [SB]  
area.

Critical Reading Credits: 0-3  
CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=188785>

Starting Term: 2024 Fall  
Final Term: 9999

# ASSOCIATE IN ARTS, FINE ARTS (AAFA) IN ASSOCIATE IN ARTS, FINE ARTS, EMPHASIS IN THEATRE

Total Credits: 60-92  
Major Code: 8315

## Description

The Associate in Arts, Fine Arts (AAFA), Emphasis in Theatre provides a foundation in design, technical, and performance practices for students who wish to specialize in performing arts, including acting, directing, design and technology, stage management, playwriting, and dramaturgy. This degree helps students develop the communication, collaboration, and creative problem-solving skills that are sought after by most career fields. With an associate degree, students will be prepared to enter a career or for transfer to a bachelor degree program.

## Program Notes

Students must earn a grade of C or better in all courses within the program. Because transfer requirements vary by program and institution, students intending to transfer are strongly encouraged to meet with a faculty program advisor and student success analyst once they have selected their transfer institution to ensure all requirements for achieving junior standing are satisfied.

## Required Courses

Credits: 15-17

FYE101 Introduction to College, Career and Personal Success (1) OR  
FYE103 Exploration of College, Career and Personal Success (3) 1-3

THF115 Makeup for Stage and Screen 3

THP201AA Theatre Production I (1) OR  
THP202 Theatre Production Projects (1) 1

Note that students intending to transfer to the University of Arizona should take THP201AA. Students transferring to NAU should take THP202.

THP112 Acting I 3  
THP213 Introduction to Technical Theatre 4  
THP214 Directing Techniques 3

## Restricted Electives

Credits: 3-17

Complete all courses in the transfer option that best aligns with your academic and professional goals. If your intended transfer institution is not listed, then select a combination of courses from the transfer options listed in order to meet the minimum credits required in the Restricted

Transfer Plan 1: Arizona State University (Herberger Institute for Design and the Arts), Theatre, Bachelor of Arts (BA)

Credits: 6

Complete six (6) credits of coursework that transfer to ASU as direct equivalents or departmental electives in the following ASU prefixes: THE, THF, THP.

Transfer Plan 2: Arizona State University (Herberger Institute for Design and the Arts), Theatre (Acting), Bachelor of Arts (BA)

Credits: 9

COM/THP271 Voice and Diction 3

THP131 Stage Movement 3

+ THP212 Acting II 3

Transfer Plan 3: Arizona State University (Herberger Institute for Design and the Arts), Theatre (Design and Production), Bachelor of Arts (BA)

Credits: 4

THP206 Introduction to Costume Construction for Theatre 4

Transfer Plan 4: Northern Arizona University (NAU), Theatre (Design and Technology Emphasis), Bachelor of Arts (BA) or Bachelor of Science (BS)

Credits: 12-14

THO260 Theatrical Design: Rendering 2

THO202AA Theatre Production I Scene Shop (1) OR

THO202AB Theatre Production I Electrics (1) OR

THO202AC Theatre Production I Costume Shop (1) OR

THO202AD Theatre Production Advanced Projects (1) OR

THO203 Technical Theatre Production (3) OR

THO216 Wig and Hair Production for Theatre and Film (3) OR

+ THP102 Theatre Service Practicum (1) OR

THP202 Theatre Production Projects (1) 1-3

Students who completed THP102 in Required Courses should select between THO202++, THO216, and THP202. Students who completed THP202 in Required Courses should select between THO203 and THP102.

THP206 Introduction to Costume Construction for Theatre 4

+ THP212 Acting II 3

THO261 Previsualization Modeling 2

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 5: Northern Arizona University (NAU), Theatre (Performance Emphasis), Bachelor of Arts or Bachelor (BA) of Science (BS)

Credits: 11-13

COM/THP271 Voice and Diction 3

THO202AA Theatre Production I Scene Shop (1) OR  
THO202AB Theatre Production I Electrics (1) OR  
THO202AC Theatre Production I Costume Shop (1) OR  
THO202AD Theatre Production Advanced Projects (1) OR  
THO203 Technical Theatre Production (3) OR  
THO216 Wig and Hair Production for Theatre and Film (3) OR  
+ THP102 Theatre Service Practicum (1) OR  
THP202 Theatre Production Projects (1) 1-3  
Students who completed THP102 in Required Courses should select between THO202++,  
THO216, and THP202. Students who completed THP202 in Required Courses should select  
between THO203 and THP102.

THP206 Introduction to Costume Construction for Theatre 4  
+ THP212 Acting II 3

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR  
demonstrate proficiency through this level as indicated by assessment is required for this  
university program. The second language requirement may be taken after transfer to avoid  
exceeding your program's maximum transferable credits (typically 64). Please see the General  
Electives for more information.

Transfer Plan 6: Northern Arizona University (NAU), Theatre (Theatre Studies Emphasis),  
Bachelor of Arts (BA) or Bachelor of Science (BS)

Credits: 8-17

THO202AA Theatre Production I Scene Shop (1) OR  
THO202AB Theatre Production I Electrics (1) OR  
THO202AC Theatre Production I Costume Shop (1) OR  
THO202AD Theatre Production Advanced Projects (1) OR  
THO203 Technical Theatre Production (3) OR  
THO216 Wig and Hair Production for Theatre and Film (3) OR  
+ THP102 Theatre Service Practicum (1) OR  
THP202 Theatre Production Projects (1) 1-3  
Students who completed THP102 in Required Courses should select between THO202++,  
THO216, and THP202. Students who completed THP202 in Required Courses should select  
between THO203 and THP102.

THP206 Introduction to Costume Construction for Theatre 4  
+ THP212 Acting II 3

Complete zero to seven (0-7) credits of the following:

COM/THP271 Voice and Diction 3  
THO260 Theatrical Design: Rendering 2  
THO261 Previsualization Modeling 2

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR  
demonstrate proficiency through this level as indicated by assessment is required for this  
university program. The second language requirement may be taken after transfer to avoid  
exceeding your program's maximum transferable credits (typically 64). Please see the General  
Electives for more information.

Transfer Plan 7: University of Arizona (UA), Theatre Arts, Bachelor of Arts (BA)

Credits: 3

+ THP212 Acting II 3

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 8: University of Arizona, Theatre Production: Professional Actors Training Program Emphasis, Bachelor of Fine Arts (BFA)

Credits: 4

THP202 Theatre Production Projects 1

+ THP212 Acting II 3

Second Language Requirement:

Completion of second language courses at the elementary level (102 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

## General Education Requirements

Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 35-44

Some courses with an [HU], [SB], or [L] designation may also be used to satisfy the Oral Communication, Critical Reading, or Awareness Area ([C], [G] and/or [H]) requirement(s).

First-Year Composition [FYC] Credits: 6

ENG101 First-Year Composition (3) OR

ENG107 First-Year Composition for ESL (3) AND

ENG102 First-Year Composition (3) OR

ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 3

THE220 Modern Drama 3

Mathematics [MA] Credits: 3-6

MAT140 College Mathematics (5) OR

MAT141 College Mathematics (4) OR

MAT142 College Mathematics (3) OR

MAT145 College Mathematics with Review (5) OR

MAT146 College Mathematics with Review (6) OR

Any approved general education course in the Mathematical Applications [MA] area (3-6)3-6

Computer/Statistics/Quantitative Applications [CS] Credits: 3  
Any approved general education course in the Computer/Statistics/Quantitative Applications [CS] area 3

Humanities, Arts and Design [HU] Credits: 6  
THE111 Introduction to Theatre 3  
THP217 Introduction to Design Scenography 3

Social-Behavioral Sciences [SB] Credits: 6  
COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM230 Small Group Communication (3) 3

Any approved general education courses in the Social-Behavioral Sciences [SB] area 3

Natural Sciences [SG]/[SQ] Credits: 8  
Any approved general education course in the Science Quantitative [SQ] area (4) AND  
Any approved general education course in the Science Quantitative [SQ] area or the Science General [SG] area (4). 8

Awareness Areas Credits: 0-6  
These requirements may be shared with other AGECE Requirements.  
Cultural Diversity in the US [C] Credits: 0-3  
Historical/Global Awareness [H]/[G] Credits: 0-3

Any approved general education course with the Historical [H] and/or Global [G] awareness area designation. 0-3

MCCCD Additional Requirements  
MCCCD Additional Requirements Credits: 0-3  
Courses in this area may also be applied to AGECE Requirements. To minimize total credits required for degree and maximize transferable credits, it is recommended that courses be selected that meet more than one requirement wherever possible.

Oral Communication Credits: 0  
Met by COM100 OR COM110 OR COM230 in Social-Behavioral Sciences area.

Critical Reading Credits: 0-3  
CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment 0-3

### **General Electives**

The following courses are recommended:  
+ COM/THP241 Oral Interpretation of Literature 3  
COM/THP271 Voice and Diction 3  
MUP/THP270 Musical Theatre Workshop 2  
STO/THP285 Creating/Performing Solo/Collaborative Works 3  
THE+++++ Any Theatre course  
THF+++++ Any Theatre and Film course  
THP+++++ Any Theatre Performance/Production course

Recommended for Transfer Plan 4: Northern Arizona University (NAU), Theatre (Design and Technology Emphasis) OR

Transfer Plan 5: Northern Arizona University (NAU), Theatre (Performance Emphasis), Bachelor of Arts OR

Transfer Plan 6: Northern Arizona University (NAU), Theatre (Theatre Studies Emphasis) OR

Transfer Plan 7: University of Arizona (UA), Theatre Arts, Bachelor of Arts (BA)

Complete a language course at the intermediate level (202 or equivalent) with a C or better OR demonstrate proficiency through this level as indicated by assessment.

ARB+++ any ARB Arabic course(s)

ASL+++ Any ASL American Sign Language course(s)

CHI+++ any CHI Chinese course(s)

FRE+++ any FRE French course(s)

GER+++ any GER German course(s)

ITA+++ any ITA Italian course(s)

JPN+++ any JPN Japanese course(s)

SPA+++ any SPA Spanish course(s)

Recommended for Transfer Plan 8: University of Arizona, Theatre Production: Professional Actors Training Program Emphasis, Bachelor of Fine Arts (BFA)

Complete a language course at the elementary level (102 or equivalent) with a C or better OR demonstrate proficiency through this level as indicated by assessment.

ARB+++ any ARB Arabic course(s)

ASL+++ Any ASL American Sign Language course(s)

CHI+++ any CHI Chinese course(s)

FRE+++ any FRE French course(s)

GER+++ any GER German course(s)

ITA+++ any ITA Italian course(s)

JPN+++ any JPN Japanese course(s)

SPA+++ any SPA Spanish course(s)

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=187848>

Starting Term: 2023 Fall

Final Term: 9999

## **ASSOCIATE IN BUSINESS, GENERAL REQUIREMENTS (ABUS-GR) IN ASSOCIATE IN BUSINESS, GENERAL REQUIREMENTS**

Total Credits: 62

Major Code: 8900

### **Description**

The Associate in Business, General Requirements (ABUS-GR) degree provides the first two years of a four-year curriculum for students who wish to specialize in business. For a comprehensive list of bachelor's programs, visit the



aztransfer business matrix

. With a bachelor`s degree, students may pursue a number of careers, including but not limited to accountancy, business administration, business data analytics, economics, entrepreneurship, finance, marketing, management, retail management, and supply chain management.

## Program Notes

Students must qualify to enter Brief Calculus by coursework or placement. Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 22-28

ACC111	Accounting Principles I (3) AND
ACC230	Uses of Accounting Information I (3) AND
ACC240	Uses of Accounting Information II (3) OR
ACC211	Financial Accounting (3) AND
ACC212	Managerial Accounting (3) OR
ACC111	Accounting Principles I (3) AND
ACC112	Accounting Principles II (3) AND
ACC212	Managerial Accounting (3) 6-9
ECN211	Macroeconomic Principles 3
ECN212	Microeconomic Principles 3
FYE101	Introduction to College, Career and Personal Success (1) OR
FYE103	Exploration of College, Career and Personal Success (3) 1-3
GBS205	Legal, Ethical, and Regulatory Issues in Business 3
GBS220	Quantitative Methods in Business (3) OR
MAT217	Mathematical Analysis for Business (3) OR
MAT218	Mathematical Analysis for Business (4) 3-4

Note: Students planning to transfer to ASU`s W.P. Carey School of Business BS program should take MAT217 or MAT218.

Students planning to transfer to ASU`s W.P. Carey School of Business BA program may take GBS220, MAT217, or MAT218.

Students planning to transfer to the University of Arizona should take GBS220.

GBS221 Business Statistics 3

## Restricted Electives

Credits: 6

Complete six (6) credits from the following options. Some courses may be used to satisfy both Restricted Elective and Arizona General Education Curriculum (AGEC) requirements simultaneously. See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

Meet with an advisor to select from the following options:

CIS114DE	Excel Spreadsheet	3
CIS133DA	Internet/Web Development Level I	3
CIS162AD	C#: Level I	3
GBS110	Human Relations in Business and Industry	(3) OR
MGT251	Human Relations in Business	(3) 3
GBS151	Introduction to Business	3 (Recommended)
GBS220	Quantitative Methods in Business	3
GBS233	Business Communication	3
IBS101	Introduction to International Business	3
MGT253	Owning and Operating a Small Business	3
MKT271	Principles of Marketing	3
PAD100	21st Century Public Policy and Service	3
REA179	Real Estate Principles I	3
REA180	Real Estate Principles II	3
REA201	Real Estate Principles I and II	6
SBU200	Society and Business	3

## General Education Requirements

Arizona General Education Curriculum (AGEC)

AGEC-B Credits: 26-37

A single course with an [L], [HU], [SB], [SG], or [SQ] designation may also be used to satisfy the Awareness Area ([C], [G] and/or [H]) requirement(s). See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

First-Year Composition [FYC] Credits: 6

ENG101	First-Year Composition	(3) OR
ENG107	First-Year Composition for ESL	(3) AND
ENG102	First-Year Composition	(3) OR
ENG108	First-Year Composition for ESL	(3) 6

Literacy and Critical Inquiry [L] Credits: 0-3

Any approved general education course in the Literacy and Critical Inquiry [L] area. 3  
May be met by GBS233 in the Restricted Electives area.

Mathematics [MA] Credits: 3-5

MAT212	Brief Calculus	(3) OR
MAT213	Brief Calculus	(4) OR
Higher general education courses in the Mathematical Applications [MA] area		(3-5). 3-5

Computer/Statistics/Quantitative Applications [CS] Credits: 3

CIS105	Survey of Computer Information Systems	3
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Humanities, Arts and Design [HU] Credits: 6  
Any approved general education courses in the Humanities, Arts and Design [HU] area. 6

Students are encouraged to choose course work from more than one discipline.

Social-Behavioral Sciences [SB] Credits: 0  
Met by ECN211 and ECN212 in the Required Courses area.

Natural Sciences [SG]/[SQ] Credits: 8  
Any approved general education course in the Science Quantitative [SQ] area (4) AND  
Any approved general education course in the Science Quantitative [SQ] area or the Science  
General [SG] area (4). 8

Awareness Areas Credits: 0-6  
These requirements may be shared with other AGEC requirements. See the AGEC matrix on  
aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3  
Historical/Global Awareness [H]/[G] Credits: 0-3

Any approved general education course with the Historical [H] or Global [G] awareness area  
designation. 0-3

May be met by IBS101 or SBU200 in the Restricted Electives area.

MCCCD Additional Requirements  
MCCCD Additional Requirements Credits: 0  
Not required

Oral Communication Credits: 0  
None

Critical Reading Credits: 0  
None

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=187850>

Starting Term: 2023 Fall  
Final Term: 9999

## **ASSOCIATE IN BUSINESS, SPECIAL REQUIREMENTS (ABUS-SR) IN ASSOCIATE IN BUSINESS, SPECIAL REQUIREMENTS**

Total Credits: 62  
Major Code: 8800

### **Description**

The Associate in Business, Special Requirements (ABUS-SR) provides the first two years of a four-year curriculum for students who wish to pursue Computer Information Systems majors at Arizona's public universities. For a comprehensive list of bachelor's programs, visit the

[aztransfer business matrix](#)

. With a bachelor's degree, students may pursue a number of careers, including but not limited to accountancy, business administration, business data analytics, computer information systems, economics, entrepreneurship, finance, marketing, management, retail management, and supply chain management.

## Program Notes

Students must qualify to enter Brief Calculus by coursework or placement. Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 28-34

ACC111 Accounting Principles I (3) AND  
ACC230 Uses of Accounting Information I (3) AND  
ACC240 Uses of Accounting Information II (3) OR  
ACC211 Financial Accounting (3) AND  
ACC212 Managerial Accounting (3) OR  
ACC111 Accounting Principles I (3) AND  
ACC112 Accounting Principles II (3) AND  
ACC212 Managerial Accounting (3) 6-9

CIS162AD C#: Level I 3  
CIS250 Management of Information Systems 3  
ECN211 Macroeconomic Principles 3  
ECN212 Microeconomic Principles 3

FYE101 Introduction to College, Career and Personal Success (1) OR  
FYE103 Exploration of College, Career and Personal Success (3) 1-3

GBS205 Legal, Ethical, and Regulatory Issues in Business 3  
GBS221 Business Statistics 3

GBS220 Quantitative Methods in Business (3) OR  
MAT217 Mathematical Analysis for Business (3) OR  
MAT218 Mathematical Analysis for Business (4) 3-4

Students planning to attend ASU's W.P. Carey School of Business should take MAT217 or MAT218.

## General Education Requirements

Arizona General Education Curriculum (AGEC)  
AGEC-B Credits: 29-37

A single course with an [L], [HU], [SB], [SG], or [SQ] designation may also be used to satisfy the Awareness Area ([C], [G] and/or [H]) requirement(s). See the AGECEC matrix on aztransfer.com for course designations.

First-Year Composition [FYC] Credits: 6  
ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 3  
Any approved general education course in the Literacy and Critical Inquiry [L] area. 3

Students intending to transfer to ASU's W.P. Carey School of Business should take COM225 Public Speaking.

Mathematics [MA] Credits: 3-5  
MAT212 Brief Calculus (3) OR  
MAT213 Brief Calculus (4) OR  
Higher general education courses in the Mathematical Applications [MA] area. (3-5) 3-5

Computer/Statistics/Quantitative Applications [CS] Credits: 3  
CIS105 Survey of Computer Information Systems 3

Humanities, Arts and Design [HU] Credits: 6  
Any approved general education courses in the Humanities, Arts and Design [HU] area. 6

Social-Behavioral Sciences [SB] Credits: 0  
Met by ECN211 and ECN212 in the Required Courses area.

Natural Sciences [SG]/[SQ] Credits: 8  
Any approved general education course in the Science Quantitative [SQ] area (4) AND  
Any approved general education course in the Science Quantitative [SQ] area or the Science General [SG] area (4). 8

Awareness Areas Credits: 0-6  
These requirements may be shared with other AGECEC requirements. See the AGECEC matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3  
Historical/Global Awareness [H]/[G] Credits: 0-3

Any approved general education course with the Historical [H] or Global [G] awareness area designation. 0-3

MCCCD Additional Requirements  
MCCCD Additional Requirements Credits: 0  
Not required

Oral Communication Credits: 0  
None

Critical Reading Credits: 0  
None

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm?id=176727>

Starting Term: 2022 Fall  
Final Term: 9999

## **ASSOCIATE IN GENERAL STUDIES (AGS) IN ASSOCIATE IN GENERAL STUDIES**

Total Credits: 60-64  
Major Code: 2000

### **Description**

The Associate in General Studies (AGS) degree requires 60-64 semester credits in courses numbered 100 and above. The degree includes the following components:

General Education (minimum of 38\* credits):  
Core curriculum (requires a grade of C or better)  
Distribution courses (require a grade of D or better)

General Electives (enough additional courses numbered 100 or above, passed with a grade of D or better, to bring total credits to at least 60)

The AGS degree is recommended for students whose educational goals require flexibility. The AGS allows students to apply any course numbered 100 or above, including some that are not transferable to a state university, toward the credits required for the degree. Therefore, for students who intend to transfer to another college or university in the future to pursue a bachelor's degree, this degree may be less appropriate than other Associate degrees offered (Associate in Arts; Associate in Arts, Elementary Education; Associate in Arts, Fine Arts; Associate in Business, General Requirements; Associate in Business, Special Requirements; Associate in Science, and all major-specific pathway map versions of these degrees) by the Maricopa Community Colleges.

### **Required Courses**

FYE101 Introduction to College, Career and Personal Success (1) OR FYE103 Exploration of College, Career and Personal Success (3) 1-3 General Education Requirements GENERAL EDUCATION CORE (requires a grade of C or better) Credits: 13-19\* First-Year Composition Credits: 6\*\*+ ENG101 First-Year Composition (3) OR+ ENG107 First-Year Composition for ESL (3) AND+ ENG102 First-Year Composition (3) OR+ ENG108 First-Year Composition for ESL (3) 6\*\*FYC may be met with fewer than 6 credits (also reducing Core and General Education totals accordingly) if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full. Mathematics Credits: 3-6 MAT112 Mathematical Concepts and Applications (3) OR Select higher MAT course from approved general studies course list for AGS degree. Computer Usage Credits: 1 Select courses from approved general studies course list for AGS degree. Oral Communication Credits: 3 COM100 Introduction to Human Communication (3) OR COM110

Interpersonal Communication (3) ORCOM225 Public Speaking (3) ORCOM230 Small Group Communication (3)ORCOM100AA Introduction to Human Communication Part I (1) ANDCOM100AB Introduction to Human Communication Part II (1) ANDCOM100AC Introduction to Human Communication Part III (1)ORCOM110AA Interpersonal Communication Part I (1) ANDCOM110AB Interpersonal Communication Part II (1) ANDCOM110AC Interpersonal Communication Part III (1) 3Critical Reading Credits: 0-3+ CRE101 College Critical Reading and Critical Thinking (3) OR Equivalent as indicated by assessment (0) 0-3DISTRIBUTION AREAS (require a grade of D or better)Credits: 22-29Humanities, Arts and Design Credits: 9Students are encouraged to choose course work from more than one discipline. Select courses from approved general studies course list for AGS degree. Social-Behavioral Sciences Credits: 6-9Students are encouraged to choose course work from more than one discipline. Select courses from approved general studies course list for AGS degree. Social-Behavioral Sciences requirements may be met with 6 credits only if COM100, COM110, or COM230 is shared between Core and Distribution Areas. The credits are only counted once, but may be applied to meet Oral Communication and Social-Behavioral Science requirements. Natural Sciences Credits: 7-8Two lecture courses and one corresponding laboratory course are to be selected. Credits for lecture and lab components may be combined or each may carry separate credit. Select courses from approved general studies course list for AGS degree. Literacy and Critical Inquiry Credits: 0-3Select courses from approved general studies course list for AGS degree. May be met with 0 credits only if COM225 or CRE101 is shared between Core and Distribution. The credits are only counted once, but may be applied to meet [Oral Communication and Literacy] or [Critical Reading and Literacy and Critical Inquiry] requirements.

## Free Electives

Select additional courses 100-level or higher to complete a minimum of 60 semester credits but no more than a total of 64 semester credits. Consult with a faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176508>

Starting Term: 2022 Fall  
Final Term: 9999

## ASSOCIATE IN SCIENCE (AS) IN ASSOCIATE IN SCIENCE

Total Credits: 60  
Major Code: 8600

### Description

The Associate in Science (AS) degree is designed for students planning to transfer to four-year colleges and universities. In general, the components of the degree meet requirements for majors with more stringent mathematics and mathematics-based science requirements.

Generally, the degree will transfer as a block without loss of credit to Arizona's public universities and other institutions with district-wide articulation agreements.

In most cases, courses used to satisfy the MCCC Associate in Science (AS) will apply to general university graduation requirements of the majors that align with the AS degree; however, students need to be aware of any specific requirements of their intended major at the university to be sure they select courses that will meet them. Information regarding the articulation of the AS with majors at the Arizona public universities can be accessed via the following website: [www.aztransfer.com](http://www.aztransfer.com)

It is recommended that students select courses that meet more than one general education and/or awareness area requirement. Doing so will maximize the number of math and science electives the student can take as part of his/her Associate in Science degree.

The AS degree requires a minimum of 60 semester credits for the program of study; minimum total credits vary by specific emphasis (for example, Associate in Science, Emphasis in Physics). Refer to the Program (Degree) Search at <https://curriculum.maricopa.edu> for credit minimums for individual degree programs by emphasis.

## **Program Prerequisites**

Program prerequisites for the Associate in Science degree vary by specific emphasis, and are not required without a specific emphasis selected. Refer to the Program (Degree) Search at <https://curriculum.maricopa.edu> for specific courses and credit minimums by emphasis.

## **Required Courses**

Students must complete FYE101 (1) or FYE103 (3) and select the required courses for the specific Associate in Science degree emphasis. Refer to the Program (Degree) Search at <https://curriculum.maricopa.edu> for specific courses and credit minimums by emphasis.

## **Restricted Electives**

Restricted Electives for the Associate in Science degree vary by specific emphasis, and are not required without a specific emphasis selected. Refer to the Program (Degree) Search at <https://curriculum.maricopa.edu> for specific courses and credit minimums by emphasis.

## **General Education Requirements**

Arizona General Education Curriculum (AGEC)

AGEC-S Credits: 36\*-52

\*The AGEC-S requires a minimum of 36 credits (33 if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full).

A single course with an [HU], [SB], or [L] designation may also be used to satisfy the Oral Communication, Critical Reading, or Awareness Area ([C], [G] and/or [H]) requirement(s).

A single course with both the [HU] and [L] designations may be used to satisfy both of these areas.

A single course with both the [SB] and [L] designations may be used to satisfy both of these areas.

See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.



First-Year Composition [FYC] Credits: 6\*  
ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6\*

\*FYC may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

Literacy and Critical Inquiry [L] Credits: 0-3\*\*

Recommend selecting a course that satisfies [L] Literacy and Critical Inquiry and [SB] Social-Behavioral Sciences or [L] Literacy and Critical Inquiry and [HU] Humanities, Arts & Design or [L] Literacy and Critical Inquiry and (COM) Oral Communications or [L] Literacy and Critical Inquiry and CRE101 requirements simultaneously.

\*\*0 credits only if shared with [HU] or [SB]

Mathematics [MA] Credits: 4-5  
MAT220 Calculus with Analytic Geometry I (5) OR  
MAT221 Calculus with Analytic Geometry I (4) OR  
Higher approved general education course in the Mathematical Applications [MA] area for which MAT22+ is a prerequisite. (4-5) 4-5

Humanities, Arts and Design [HU] Credits: 6  
Any approved general education courses in the Humanities, Arts and Design [HU] area. 6

Social-Behavioral Sciences [SB] Credits: 6  
Any approved general education courses in the Social-Behavioral Sciences [SB] area. 6

Natural Sciences [SG]/[SQ] Credits: 8-10  
Students must complete eight to ten (8-10) credits of General Chemistry, University Physics, General Biology for Majors, or Geology.

CHM150 General Chemistry I (4) OR  
CHM151 General Chemistry I (3) AND  
CHM151LL General Chemistry I Laboratory (1) OR  
CHM150AA General Chemistry I (5) OR  
CHM151AA General Chemistry I (4)

AND

CHM152 General Chemistry II (3) AND  
CHM152LL General Chemistry II Laboratory (1) OR  
CHM152AA General Chemistry II (4) 8-9

OR

PHY115 University Physics I (5) OR  
PHY121 University Physics I: Mechanics (4)

AND

PHY116 University Physics II (5) OR  
PHY131 University Physics II: Electricity and Magnetism (4) 8-10

OR

BIO181++ General Biology (Majors) I (4) AND

BIO182++ General Biology (Majors) II (4) 8  
 OR  
 GLG101 Introduction to Geology I - Physical Lecture (3) AND  
 GLG103 Introduction to Geology I - Physical Laboratory (1) OR  
 GLG101IN Introduction to Geology I - Physical (4)  
 AND  
 GLG102 Introduction to Geology II - Historical Lecture (3) AND  
 GLG104 Introduction to Geology II - Historical Laboratory (1) OR  
 GLG102IN Introduction to Geology II - Historical (4) 8

Subject Options Credits: 6-10

Refer to transfer resources, including academic advisement and transfer guides, to select six to ten (6-10) additional math and/or science credits that meet requirements for selected major. Select Mathematics (MAT) course(s) above Calculus I and/or Computer Science (CSC) course(s) and/or Science courses from the following disciplines: Astronomy, Biology, Botany, Chemistry, Engineering, Environmental Science, Geology, Physical Geography, Physics, Zoology (MCCCD prefixes AST, BIO, CHM, ECE, EEE, ENV, GLG, GPH, and/or PHY)

Awareness Areas Credits: 0-6

These requirements may be shared with other AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3  
 Historical/Global Awareness [H]/[G] Credits: 0-3

Any approved general education course in the Historical [H] or Global [G] area. 0-3

MCCCD Additional Requirements  
 MCCCD Additional Requirements Credits: 0-6

Some courses in this area have [SB] and [L] designations and may also be applied to the corresponding AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Oral Communication Credits: 0-3  
 COM100 Introduction to Human Communication (3) OR  
 COM110 Interpersonal Communication (3) OR  
 COM225 Public Speaking (3) OR  
 COM230 Small Group Communication (3) 0-3

Critical Reading Credits: 0-3  
 CRE101 College Critical Reading and Critical Thinking (3) OR  
 Equivalent as indicated by assessment (0) 0-3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=188786>

Starting Term: 2024 Fall  
 Final Term: 9999

# ASSOCIATE IN SCIENCE (AS) IN ASSOCIATE IN SCIENCE, EMPHASIS IN ASTRONOMY

Total Credits: 60-64  
Major Code: 8605

## Description

The Associate in Science (AS), Emphasis in Astronomy provides the first two years of a four-year curriculum for students who intend to transfer to a four-year institution to specialize in Astronomy or a related field. Upon completion of a graduate degree, students may pursue a number of careers including astronomers, atmospheric and space scientists, physicists, and astronomy professors.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 28-35

AST111	Introduction to Solar System Astronomy	4
AST112	Introduction to Stars, Galaxies & Cosmology	4
FYE101	Introduction to College, Career and Personal Success (1)	OR
FYE103	Exploration of College, Career and Personal Success (3)	1-3
MAT230	Calculus with Analytic Geometry II (5)	OR
MAT231	Calculus with Analytic Geometry II (4)	4-5
MAT240	Calculus with Analytic Geometry III (5)	OR
MAT241	Calculus with Analytic Geometry III (4)	4-5
MAT261	Differential Equations (4)	OR
MAT276	Modern Differential Equations (4)	OR
MAT277	Modern Differential Equations (3)	3-4
PHY115	University Physics I (5)	OR
PHY121	University Physics I: Mechanics (4)	4-5
PHY116	University Physics II (5)	OR
PHY131	University Physics II: Electricity and Magnetism (4)	4-5

## Restricted Electives

Credits: 0

The requirements for the transfer plan below are fulfilled upon completion of Required Courses, AGEC Curriculum, and MCCC Additional Requirements. If this is not your intended transfer

institution, please consult with Maricopa and transfer university advisor(s) to identify coursework that is applicable to your intended transfer program.

Transfer Plan 1: Arizona State University (College of Liberal Arts and Sciences), Bachelor of Science, Earth and Space Exploration (Astrophysics)

No additional coursework needed.

## General Education Requirements

Arizona General Education Curriculum (AGEC)

AGEC-S Credits: 22-32

A single course with an [HU], [SB], or [L] designation may also be used to satisfy the Oral Communication, Critical Reading, or Awareness Area ([C], [G] and/or [H]) requirement(s).

A single course with both the [HU] and [L] designations may be used to satisfy both of these areas.

A single course with both the [SB] and [L] designations may be used to satisfy both of these areas.

See the AGECEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

First-Year Composition [FYC] Credits: 6

ENG101 First-Year Composition (3) OR

ENG107 First-Year Composition for ESL (3) AND

ENG102 First-Year Composition (3) OR

ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 0-3

Any approved general education course in the Literacy and Critical Inquiry [L] area. 3

Recommend selecting a course that satisfies [L] Literacy and Critical Inquiry and [SB] Social-Behavioral Sciences or [L] Literacy and Critical Inquiry and [HU] Humanities, Arts & Design or [L] Literacy and Critical Inquiry and (COM) Oral Communications or [L] Literacy and Critical Inquiry and CRE101 requirements simultaneously.

Mathematics [MA] Credits: 4-5

MAT220 Calculus with Analytic Geometry I (5) OR

MAT221 Calculus with Analytic Geometry I (4) OR

Higher approved general education course in the Mathematical Applications [MA] area for which MAT22+ is a prerequisite. (4-5) 4-5

Humanities, Arts and Design [HU] Credits: 6

Any approved general education courses in the Humanities, Arts and Design [HU] area. 6

Social-Behavioral Sciences [SB] Credits: 6

Any approved general education courses in the Social-Behavioral Sciences [SB] area. 6

Natural Sciences [SG]/[SQ] Credits: 0

Met by (PHY115 OR PHY121) AND (PHY116 OR PHY131) in Required Courses.

Subject Options Credits: 0  
Met by (MAT230 OR MAT231) AND (MAT240 OR MAT241) in Required Courses.

Awareness Areas Credits: 0-6  
These requirements may be shared with other AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3  
Historical/Global Awareness [H]/[G] Credits: 0-3  
Any approved general education course with the Historical [H] or Global [G] awareness area designation. 0-3

MCCCD Additional Requirements  
MCCCD Additional Requirements Credits: 0-6

Some courses in this area have [SB] and [L] designations and may also be applied to the corresponding AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Oral Communication Credits: 0-3  
COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 0-3

Critical Reading Credits: 0-3  
CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=183313>

Starting Term: 2023 Fall  
Final Term: 9999

## **ASSOCIATE IN SCIENCE (AS) IN ASSOCIATE IN SCIENCE, EMPHASIS IN BIOCHEMISTRY**

Total Credits: 60-64  
Major Code: 8610

### **Description**

The Associate in Science (AS), Emphasis in Biochemistry provides the first two years of a four-year curriculum for students who wish to specialize in biochemistry or are preparing for graduate programs in the area. With an associate's degree, students may qualify as a chemical technician. With a bachelor's degree, students may pursue a career as a biochemist or

biochemical engineer. With a graduate degree, students may pursue a career as a medical research scientist.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 25-28

- + BIO181++ General Biology (Majors) I 4
- + BIO182++ General Biology (Majors) II 4
  
- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1)
- OR
- + CHM150AA General Chemistry I (5)
- OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1)
- OR
- + CHM151AA General Chemistry I (4) 4-5
  
- + CHM152 General Chemistry II (3) AND
- + CHM152LL General Chemistry II Laboratory (1) OR
- + CHM152AA General Chemistry II (4) 4
  
- + CHM235 General Organic Chemistry I (3) AND
- + CHM235LL General Organic Chemistry I Laboratory (1) OR
- + CHM235AA General Organic Chemistry I with Lab (4) 4
  
- + CHM236 General Organic Chemistry IIA (3) AND
- + CHM236LL General Organic Chemistry IIA Laboratory (1) OR
- + CHM236AA General Organic Chemistry IIA with Lab (4) 4
  
- FYE101 Introduction to College, Career and Personal Success (1) OR
- FYE103 Exploration of College, Career and Personal Success (3) 1-3

## Restricted Electives

Credits 4-13

Complete requirements in the transfer option that best aligns with your academic and professional goals. If your intended transfer institution is not listed, then select a combination of courses from the transfer options listed in order to meet the minimum credits required in the Restricted Electives section. Consult with an academic, faculty, or program advisor to prevent exceeding your university transfer program's maximum transferable credits (typically 64). Courses in the Restricted Electives area may be used to fulfill AGEC requirements simultaneously.

Transfer Plan 1: Arizona State University (College of Liberal Arts and Sciences), Bachelor of Science, Biochemistry

Credits: 12-13

+ MAT230 Calculus with Analytic Geometry II (5) OR

+ MAT231 Calculus with Analytic Geometry II (4) 4-5

+ PHY111 General Physics I 4

+ PHY112 General Physics II 4

Transfer Plan 2: Arizona State University (College of Liberal Arts and Sciences), Bachelor of Arts, Biochemistry

Credits: 4-8

+ PHY101 Introduction to Physics (4)

OR

+ PHY111 General Physics I (4) AND

+ PHY112 General Physics II (4) 4-8

Note that students considering graduate school or health professions should complete PHY111 and PHY112. All other students may complete PHY101.

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

## General Education Requirements

Arizona General Education Curriculum (AGEC)

AGEC-S Credits: 22-32

A single course with an [HU], [SB], or [L] designation may also be used to satisfy the Oral Communication, Critical Reading, or Awareness Area ([C], [G] and/or [H]) requirement(s).

A single course with both the [HU] and [L] designations may be used to satisfy both of these areas.

A single course with both the [SB] and [L] designations may be used to satisfy both of these areas.

See the AGECEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

First-Year Composition [FYC] Credits: 6

ENG101 First-Year Composition (3) OR

ENG107 First-Year Composition for ESL (3) AND

ENG102 First-Year Composition (3) OR

ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 0-3\*\*

Any approved general education course in the Literacy and Critical Inquiry [L] area. 3

Recommend selecting a course that satisfies ([L] and [SB]) or ([L] and [HU]) or ([L] and COM) or ([L] and CRE101) requirements simultaneously.

\*\*0 credits only if shared with [HU] or [SB]

Mathematics [MA] Credits: 4-5

MAT220 Calculus with Analytic Geometry I (5) OR  
MAT221 Calculus with Analytic Geometry I (4) OR

Higher approved general education course in the Mathematical Applications [MA] area for which MAT22+ is a prerequisite. (4-5) 4-5

Humanities, Arts and Design [HU] Credits: 6  
Any approved general education courses in the Humanities, Arts and Design [HU] area. 6

Social-Behavioral Sciences [SB] Credits: 6  
Any approved general education courses in the Social-Behavioral Sciences [SB] area. 6

Natural Sciences [SG]/[SQ] Credits: 0  
Met by BIO181++ and BIO182++ in the Required Courses area.

Subject Options Credits: 0

Met by CHM150, CHM150AA, CHM151, CHM151AA, CHM151LL, CHM152, CHM152AA, CHM152LL, CHM235, CHM235LL, CHM236, CHM236LL, MAT230, and/or MAT231 in the Required Courses area.

Awareness Areas Credits: 0-6  
These requirements may be shared with other AGEC requirements. See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

Cultural Diversity in the US [C] Credits: 0-3  
Historical/Global Awareness [H]/[G] Credits: 0-3  
Any approved general education course with the Historical [H] or Global [G] awareness area designation. 0-3

MCCCD Additional Requirements  
MCCCD Additional Requirements Credits: 0-6

Some courses in this area have [SB] and [L] designations and may also be applied to the corresponding AGEC requirements. See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

Oral Communication Credits: 0-3  
COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 0-3

Critical Reading Credits: 0-3  
CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3



Starting Term: 2023 Fall

Final Term: 9999

## **ASSOCIATE IN SCIENCE (AS) IN ASSOCIATE IN SCIENCE, EMPHASIS IN BIOLOGICAL SCIENCES**

Total Credits: 60-64

Major Code: 8602

### **Description**

The Associate in Science (AS), Emphasis in Biological Sciences provides the first two years of a four-year curriculum for students who wish to specialize in biology-related fields and/or are preparing for application to professional graduate programs in various medical fields. With a bachelor's degree, students may pursue a career as a biological research lab or field technician. With a graduate degree, students may pursue a number of careers, including but not limited to, bioinformatic scientists, molecular and cellular biologists, ecologists, wildlife conservationists and environmental scientists, marine biologists, secondary school (grades 7-12) teachers and university professors, pharmaceutical developer, food safety investigator, geneticists, physicians, physician assistants, pharmacists, dentists, and optometrists and veterinarians.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program. Admission to graduate/professional programs is competitive. GPA in science courses (as well as cumulative GPA) is often an important selection criterion. Understanding of course content is important in preparation for exams such as MCAT, DAT, PCAT and GRE that are generally weighted in admissions rankings.

### **Required Courses**

Credits: 17-20

BIO181++ General Biology (Majors) I 4

BIO182++ General Biology (Majors) II 4

CHM150 General Chemistry I (4) AND

CHM151LL General Chemistry I Laboratory (1) OR

CHM150AA General Chemistry I (5) OR

CHM151 General Chemistry I (3) AND

CHM151LL General Chemistry I Laboratory (1) OR

CHM151AA General Chemistry I (4) 4-5

CHM152 General Chemistry II (3) AND

CHM152LL General Chemistry II Laboratory (1) OR

CHM152AA General Chemistry II (4) 4

FYE101 Introduction to College, Career and Personal Success (1) OR  
FYE103 Exploration of College, Career and Personal Success (3) 1-3

## Restricted Electives

Credits: 6-32

Complete requirements in the transfer option that best aligns with your academic and professional goals. If your intended transfer institution is not listed, then select a combination of courses from the transfer options listed in order to meet the minimum credits required in the Restricted Electives section. Consult with an academic, faculty, or program advisor to prevent exceeding your university transfer program's maximum transferable credits (typically 64).

Transfer Plan 1: Arizona State University (College of Liberal Arts and Sciences), Biological Sciences, Bachelor of Science

Credits: 11-21

+ CHM230 Fundamental Organic Chemistry (3) AND  
+ CHM230LL Fundamental Organic Chemistry Laboratory (1)

OR

+ CHM235 General Organic Chemistry I (3) AND  
+ CHM235LL General Organic Chemistry I Laboratory (1) OR  
+ CHM235AA General Organic Chemistry I with Lab (4)

AND

+ CHM236 General Organic Chemistry IIA (3) AND  
+ CHM236LL General Organic Chemistry IIA Laboratory (1) OR  
+ CHM236AA General Organic Chemistry IIA with Lab (4) 4-8

Note: Pre-health students should take the two semester sequence of organic chemistry (([CHM235 and CHM235LL) or CHM235AA] and [(CHM236 and CHM236LL) or CHM236AA]) prior to transferring to ASU. See the [pre-health website](#) for more information.

+ MAT206 Elements of Statistics (3)

OR

+ PSY230 Introduction to Statistics (3)

OR

+ PSY230 Introduction to Statistics (3) AND

+ PSY231 Laboratory for Statistics (1)

OR

+ PSY230WL Introduction to Statistics with Lab (4)

OR

+ SWU225 Statistics for Social Research/Justice and Government (3) 3-4

Note: Concurrent enrollment in PSY231 lab required with PSY230 enrollment at some MCCCDC colleges

+ PHY101 Introduction to Physics (4) OR

+ PHY101AA Introduction to Physics (5)

OR

+ PHY111 General Physics I (4) OR

+ PHY111AA General Physics I (5) AND

+ PHY112 General Physics II (4) 4-9

Note: Pre-health students should take the two semester sequence of general physics [(PHY111 or PHY111AA) and PHY112]. See the [pre-health website](#) for more information.

Transfer Plan 2: Arizona State University (College of Liberal Arts and Sciences), Biological Sciences (Biomedical Sciences), Bachelor of Science  
Credits: 14-24

+ CHM230 Fundamental Organic Chemistry (3) AND  
+ CHM230LL Fundamental Organic Chemistry Laboratory (1)

OR

+ CHM235 General Organic Chemistry I (3) AND  
+ CHM235LL General Organic Chemistry I Laboratory (1) OR  
+ CHM235AA General Organic Chemistry I with Lab (4)

AND

+ CHM236 General Organic Chemistry IIA (3) AND  
+ CHM236LL General Organic Chemistry IIA Laboratory (1) OR  
+ CHM236AA General Organic Chemistry IIA with Lab (4) 4-8

Note: Pre-health students should take the two semester sequence of organic chemistry [(CHM235 and CHM235LL) or CHM235AA] and [(CHM236 and CHM236LL) or CHM236AA]) prior to transferring to ASU. See the [pre-health website](#) for more information.

+ MAT206 Elements of Statistics (3)

OR

+ PSY230 Introduction to Statistics (3)

OR

+ PSY230 Introduction to Statistics (3) AND

+ PSY231 Laboratory for Statistics (1)

OR

+ PSY230WL Introduction to Statistics with Lab (4)

OR

+ SWU225 Statistics for Social Research/Justice and Government (3) 3-4

Note: Concurrent enrollment in PSY231 lab required with PSY230 enrollment at some MCCC colleges

+ PHY101 Introduction to Physics (4) OR

+ PHY101AA Introduction to Physics (5)

OR

+ PHY111 General Physics I (4) OR

+ PHY111AA General Physics I (5) AND

+ PHY112 General Physics II (4) 4-9

Note: Pre-health students should take the two semester sequence of general physics [(PHY111 or PHY111AA) and PHY112]. See the [pre-health website](#) for more information.

Transfer Plan 3: Arizona State University (College of Liberal Arts and Sciences), Biological Sciences (Conservation Biology and Ecology), Bachelor of Science  
Credits: 6-9

+ MAT206 Elements of Statistics (3)

OR

+ PSY230 Introduction to Statistics (3)

OR

+ PSY230 Introduction to Statistics (3) AND

+ PSY231 Laboratory for Statistics (1)

OR  
+ PSY230WL Introduction to Statistics with Lab (4)

OR  
+ SWU225 Statistics for Social Research/Justice and Government (3) 3-4

Note: Concurrent enrollment in PSY231 lab required with PSY230 enrollment at some MCCCDC colleges

ASU Physical Science Requirement

+ CHM230 Fundamental Organic Chemistry (3) AND  
+ CHM230LL Fundamental Organic Chemistry Laboratory (1)

OR  
+ CHM235 General Organic Chemistry I (3) AND  
+ CHM235LL General Organic Chemistry I Laboratory (1)

OR  
+ CHM235AA General Organic Chemistry I with Lab (4)

OR  
GIS205 Geographic Information Technologies (3)

OR  
GIS211 Geographic Information Science I (4)

OR  
GLG101IN Introduction to Geology I - Physical (4)

OR  
GLG101 Introduction to Geology I - Physical Lecture (3) AND  
GLG103 Introduction to Geology I - Physical Lab (1)

OR  
GPH111 Introduction to Physical Geography Lecture (3) AND  
GPH112 Introduction to Physical Geography Lab (1)

OR  
GPH113 Introduction to Physical Geography (4)

OR  
+ PHY101 Introduction to Physics (4)

OR  
+ PHY101AA Introduction to Physics (5)

OR  
+ PHY111 General Physics I (4)

OR  
+ PHY111AA General Physics I (5) 3-5

Note: Pre-health students should select PHY111, PHY111AA, (CHM235 and CHM235LL), or CHM235AA. See the [pre-health website](#) for more information.

Transfer Plan 4: Arizona State University (College of Liberal Arts and Sciences), Biological Sciences (Genetics, Cell and Development Biology), Bachelor of Science  
Credits: 11-21

+ CHM230 Fundamental Organic Chemistry (3) AND  
+ CHM230LL Fundamental Organic Chemistry Laboratory (1)

OR  
+ CHM235 General Organic Chemistry I (3) AND  
+ CHM235LL General Organic Chemistry I Laboratory (1) OR  
+ CHM235AA General Organic Chemistry I with Lab (4)

AND  
+ CHM236 General Organic Chemistry IIA (3) AND

+ CHM236LL General Organic Chemistry IIA Laboratory (1) OR  
+ CHM236AA General Organic Chemistry IIA with Lab (4) 4-8  
Note: Pre-health students should take the two semester sequence of organic chemistry  
([(CHM235 and CHM235LL) or CHM235AA] and [(CHM236 and CHM236LL) or CHM236AA])  
prior to transferring to ASU. See the [pre-health website](#) for more information.

+ MAT206 Elements of Statistics (3)  
OR  
+ PSY230 Introduction to Statistics (3)  
OR  
+ PSY230 Introduction to Statistics (3) AND  
+ PSY231 Laboratory for Statistics (1)  
OR  
+ PSY230WL Introduction to Statistics with Lab (4)  
OR  
+ SWU225 Statistics for Social Research/Justice and Government (3) 3-4  
Note: Concurrent enrollment in PSY231 lab required with PSY230 enrollment at some MCCC  
colleges

+ PHY101 Introduction to Physics (4) OR  
+ PHY101AA Introduction to Physics (5)  
OR  
+ PHY111 General Physics I (4) OR  
+ PHY111AA General Physics I (5) AND  
+ PHY112 General Physics II (4) 4-9  
Note: Pre-health students should take the two semester sequence of general physics [(PHY111  
or PHY111AA) and PHY112]. See the [pre-health website](#) for more information.

Transfer Plan 5: Arizona State University (College of Liberal Arts and Sciences), Biological  
Sciences (Neurobiology, Physiology and Behavior), Bachelor of Science  
Credits: 11-21

+ CHM230 Fundamental Organic Chemistry (3) AND  
+ CHM230LL Fundamental Organic Chemistry Laboratory (1)  
OR  
+ CHM235 General Organic Chemistry I (3) AND  
+ CHM235LL General Organic Chemistry I Laboratory (1) OR  
+ CHM235AA General Organic Chemistry I with Lab (4)  
AND  
+ CHM236 General Organic Chemistry IIA (3) AND  
+ CHM236LL General Organic Chemistry IIA Laboratory (1) OR  
+ CHM236AA General Organic Chemistry IIA with Lab (4) 4-8  
Note: Pre-health students should take the two semester sequence of organic chemistry  
([(CHM235 and CHM235LL) or CHM235AA] and [(CHM236 and CHM236LL) or CHM236AA])  
prior to transferring to ASU. See the [pre-health website](#) for more information.

+ MAT206 Elements of Statistics (3)  
OR  
+ PSY230 Introduction to Statistics (3)  
OR  
+ PSY230 Introduction to Statistics (3) AND  
+ PSY231 Laboratory for Statistics (1)

OR  
+ PSY230WL Introduction to Statistics with Lab (4)

OR  
+ SWU225 Statistics for Social Research/Justice and Government (3) 3-4

Note: Concurrent enrollment in PSY231 lab required with PSY230 enrollment at some MCCC colleges

+ PHY101 Introduction to Physics (4) OR  
+ PHY101AA Introduction to Physics (5)

OR  
+ PHY111 General Physics I (4) OR  
+ PHY111AA General Physics I (5) AND  
+ PHY112 General Physics II (4) 4-9

Note: Pre-health students should take the two semester sequence of general physics [(PHY111 or PHY111AA) and PHY112]. See the [pre-health website](#) for more information.

Transfer Plan 6: Arizona State University (College of Liberal Arts and Sciences), Molecular Biosciences and Biotechnology, Bachelor of Science  
Credits: 11-25

+ BIO220 Biology of Microorganisms (4) 0-4

Note: If course is not available, take MIC220 and MIC206 after transferring to ASU.

+ CHM230 Fundamental Organic Chemistry (3) AND  
+ CHM230LL Fundamental Organic Chemistry Laboratory (1)

OR  
+ CHM235 General Organic Chemistry I (3) AND  
+ CHM235LL General Organic Chemistry I Laboratory (1) OR  
+ CHM235AA General Organic Chemistry I with Lab (4)

AND  
+ CHM236 General Organic Chemistry IIA (3) AND  
+ CHM236LL General Organic Chemistry IIA Laboratory (1) OR  
+ CHM236AA General Organic Chemistry IIA with Lab (4) 4-8

Note: Pre-health students should take the two semester sequence of organic chemistry [(CHM235 and CHM235LL) or CHM235AA] and [(CHM236 and CHM236LL) or CHM236AA] prior to transferring to ASU. See the [pre-health website](#) for more information.

+ MAT206 Elements of Statistics (3)

OR  
+ PSY230 Introduction to Statistics (3)

OR  
+ PSY230 Introduction to Statistics (3) AND  
+ PSY231 Laboratory for Statistics (1)

OR  
+ PSY230WL Introduction to Statistics with Lab (4)

OR  
+ SWU225 Statistics for Social Research/Justice and Government (3) 3-4

Note: Concurrent enrollment in PSY231 lab required with PSY230 enrollment at some MCCC colleges

+ PHY101 Introduction to Physics (4) OR  
+ PHY101AA Introduction to Physics (5)

OR

- + PHY111 General Physics I (4) OR
- + PHY111AA General Physics I (5) AND
- + PHY112 General Physics II (4) 4-9

Note: Students considering graduate school and/or pre-health students should take the two semester sequence of general physics [(PHY111 or PHY111AA) and PHY112]. See the [pre-health website](#) for more information.

Transfer Plan 7: Arizona State University (College of Liberal Arts and Sciences), Microbiology, Bachelor of Science or Arizona State University (College of Liberal Arts and Sciences), Microbiology (Medical Microbiology), Bachelor of Science

Credits: 11-25

- + BIO220 Biology of Microorganisms (4) 0-4

Note: If course is not available, take MIC220 and MIC206 after transferring to ASU.

- + CHM230 Fundamental Organic Chemistry (3) AND
- + CHM230LL Fundamental Organic Chemistry Laboratory (1)

OR

- + CHM235 General Organic Chemistry I (3) AND
- + CHM235LL General Organic Chemistry I Laboratory (1) OR
- + CHM235AA General Organic Chemistry I with Lab (4)

AND

- + CHM236 General Organic Chemistry IIA (3) AND
- + CHM236LL General Organic Chemistry IIA Laboratory (1) OR
- + CHM236AA General Organic Chemistry IIA with Lab (4) 4-8

Note: Pre-health students should take the two semester sequence of organic chemistry [(CHM235 and CHM235LL) or CHM235AA] and [(CHM236 and CHM236LL) or CHM236AA] prior to transferring to ASU. See the [pre-health website](#) for more information.

- + MAT206 Elements of Statistics (3)

OR

- + PSY230 Introduction to Statistics (3)

OR

- + PSY230 Introduction to Statistics (3) AND

- + PSY231 Laboratory for Statistics (1)

OR

- + PSY230WL Introduction to Statistics with Lab (4)

OR

- + SWU225 Statistics for Social Research/Justice and Government (3) 3-4

Note: Concurrent enrollment in PSY231 lab required with PSY230 enrollment at some MCCC colleges

- + PHY101 Introduction to Physics (4) OR

- + PHY101AA Introduction to Physics (5)

OR

- + PHY111 General Physics I (4) OR
- + PHY111AA General Physics I (5) AND
- + PHY112 General Physics II (4) 4-9

Note: Students considering graduate school and/or pre-health students should take the two semester sequence of general physics [(PHY111 or PHY111AA) and PHY112]. See the [pre-health website](#) for more information.

Transfer Plan 8: Arizona State University (College of Integrative Sciences and Arts), Applied Biological Sciences (Applied Biological Sciences), Bachelor of Science

Credits: 8-17

+ CHM230 Fundamental Organic Chemistry (3) AND  
+ CHM230LL Fundamental Organic Chemistry Laboratory (1)

OR

+ CHM235 General Organic Chemistry I (3) AND  
+ CHM235LL General Organic Chemistry I Laboratory (1) OR  
+ CHM235AA General Organic Chemistry I with Lab (4)

AND

+ CHM236 General Organic Chemistry IIA (3) AND  
+ CHM236LL General Organic Chemistry IIA Laboratory (1) OR  
+ CHM236AA General Organic Chemistry IIA with Lab (4) 4-8

Note: Students considering graduate school and/or health professions should take the two semester sequence of organic chemistry ([CHM235 and CHM235LL] or CHM235AA) and [(CHM236 and CHM236LL) or CHM236AA]. See the [pre-health website](#) for more information.

+ PHY101 Introduction to Physics (4) OR

+ PHY101AA Introduction to Physics (5)

OR

+ PHY111 General Physics I (4) OR  
+ PHY111AA General Physics I (5) AND  
+ PHY112 General Physics II (4) 4-9

Note: Students considering graduate school and/or pre-health students should take the two semester sequence of general physics [(PHY111 or PHY111AA) and PHY112]. See the [pre-health website](#) for more information.

Transfer Plan 9: Arizona State University (College of Integrative Sciences and Arts), Applied Biological Sciences (Preveterinary Medicine), Bachelor of Science

Credits: 23-24

+ BIO205 Microbiology 4

+ CHM235 General Organic Chemistry I (3) AND  
+ CHM235LL General Organic Chemistry I Laboratory (1) OR  
+ CHM235AA General Organic Chemistry I with Lab (4) 4

+ CHM236 General Organic Chemistry IIA (3) AND  
+ CHM236LL General Organic Chemistry IIA Laboratory (1) OR  
+ CHM236AA General Organic Chemistry IIA with Lab (4) 4

+ HON201 Leadership Development: Historical and Contemporary Perspectives (3) OR  
MGT229 Management and Leadership I (3) OR  
MGT230 Management and Leadership II (3) 3

+ PHY111 General Physics I (4) OR  
+ PHY111AA General Physics I (5) 4-5

+ PHY112 General Physics II 4

Transfer Plan 10: Arizona State University (New College of Interdisciplinary Arts and Sciences),



Biology, Bachelor of Science

Credits: 15-31

- + CHM235 General Organic Chemistry I (3) AND
  - + CHM235LL General Organic Chemistry I Laboratory (1) OR
  - + CHM235AA General Organic Chemistry I with Lab (4) 4
  
  - + GBS221 Business Statistics (3) OR
  - + MAT206 Elements of Statistics (3) OR
  - + SWU225 Statistics for Social Research/Justice and Government (3) 3
  
  - + PHY111 General Physics I (4) OR
  - + PHY111AA General Physics I (5) 4-5
  
  - + PHY112 General Physics II 4
  
  - + CHM236 General Organic Chemistry IIA (3) AND
  - + CHM236LL General Organic Chemistry IIA Laboratory (1) OR
  - + CHM236AA General Organic Chemistry IIA with Lab (4) OR
  - + CHM238 General Organic Chemistry IIB (3) AND
  - + CHM238LL General Organic Chemistry IIB Laboratory (2) 0-5
- Note: This requirement may be completed after transferring to ASU

Transfer Plan 11: Arizona State University (New College of Interdisciplinary Arts and Sciences), Biology (Pharmacology/Toxicology), Bachelor of Science

Credits: 23-24

- + BIO201++ Human Anatomy and Physiology I 4
- + BIO202 Human Anatomy and Physiology II 4
  
- + CHM235 General Organic Chemistry I (3) AND
- + CHM235LL General Organic Chemistry I Laboratory (1) OR
- + CHM235AA General Organic Chemistry I with Lab (4) 4
  
- + CHM236 General Organic Chemistry IIA (3) AND
- + CHM236LL General Organic Chemistry IIA Laboratory (1) OR
- + CHM236AA General Organic Chemistry IIA with Lab (4) 4
  
- + GBS221 Business Statistics (3) OR
- + MAT206 Elements of Statistics (3) OR
- + SWU225 Statistics for Social Research/Justice and Government (3) 3
  
- + PHY111 General Physics I (4) OR
- + PHY111AA General Physics I (5) 4-5

Note: Students can complete General Physics II and the Languages and Cultures requirement for the BS at ASU after transferring so the maximum of 64 transfer credits is not exceeded.

Transfer Plan 12: Northern Arizona University, Biology, Bachelor of Science

Credits: 19-20

- + BIO205 Microbiology 4

- + BIO234 Fundamental Evolutionary Biology 3
- + CHM230 Fundamental Organic Chemistry (3) AND
- + CHM230LL Fundamental Organic Chemistry Laboratory (1)
- OR
- + CHM235 General Organic Chemistry I (3) AND
- + CHM235LL General Organic Chemistry I Laboratory (1)
- OR
- + CHM235AA General Organic Chemistry I with Lab (4) 4
- + PHY111 General Physics I (4) OR
- + PHY111AA General Physics I (5) 4-5
- + PHY112 General Physics II 4

Transfer Plan 13: University of Arizona, Biology (Biomedical Sciences), Bachelor of Science or University of Arizona, Biology (Organismal Biology), Bachelor of Science  
Credits: 19-22

- + CHM235 General Organic Chemistry I (3) AND
- + CHM235LL General Organic Chemistry I Laboratory (1) OR
- + CHM235AA General Organic Chemistry I with Lab (4) 4
- + CHM236 General Organic Chemistry IIA (3) AND
- + CHM236LL General Organic Chemistry IIA Laboratory (1) OR
- + CHM236AA General Organic Chemistry IIA with Lab (4) 4
- + ECE/MAT280 Foundational Statistics for Engineers (3) OR
- + MAT230 Calculus with Analytic Geometry II (5) OR
- + MAT231 Calculus with Analytic Geometry II (4) 3-5
- + PHY111 General Physics I (4) OR
- + PHY111AA General Physics I (5) 4-5
- + PHY112 General Physics II 4

Second Language Requirement:

Completion of second language courses at the elementary level (102 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 14: Grand Canyon University, Biological Sciences, Bachelor of Science  
Credits: 14-16

- + MAT206 Elements of Statistics (3)
- OR
- + PSY230 Introduction to Statistics (3)
- OR
- + PSY230 Introduction to Statistics (3) AND
- + PSY231 Laboratory for Statistics (1)
- OR

+ PSY230WL Introduction to Statistics with Lab (4)  
OR

+ SWU225 Statistics for Social Research/Justice and Government (3) 3-4

Note: Concurrent enrollment in PSY231 lab required with PSY230 enrollment at some MCCCDC colleges

+ PHY111 General Physics I (4) OR

+ PHY111AA General Physics I (5) 4-5

+ PHY112 General Physics II 4

PSY101 Introduction to Psychology 3

Note: May be used to meet 3 credits of [SB] Social-Behavioral Science in AGECE

## General Education Requirements

Arizona General Education Curriculum (AGECE)

AGECE-S Credits: 19-32

A single course with an [HU], [SB], or [L] designation may also be used to satisfy the Oral Communication, Critical Reading, or Awareness Area ([C], [G] and/or [H]) requirement(s).

A single course with both the [HU] and [L] designations may be used to satisfy both of these areas.

A single course with both the [SB] and [L] designations may be used to satisfy both of these areas.

See the AGECE matrix on [aztransfer.com](http://aztransfer.com) for course designations.

First-Year Composition [FYC] Credits: 6

ENG101 First-Year Composition (3) OR

ENG107 First-Year Composition for ESL (3) AND

ENG102 First-Year Composition (3) OR

ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 0-3

Any approved general education course in the Literacy and Critical Inquiry [L] area. 3

Recommend selecting a course that satisfies [L] and [SB] or [L] and [HU] or [L] and (COM) or [L] and CRE101 requirements simultaneously.

Mathematics [MA] Credits: 4-5

MAT220 Calculus with Analytic Geometry I (5) OR

MAT221 Calculus with Analytic Geometry I (4) OR

Higher approved general education course in the Mathematical Applications [MA] area for which MAT22+ is a prerequisite. (4-5) 4-5

Humanities, Arts and Design [HU] Credits: 6

Any approved general education courses in the Humanities, Arts and Design [HU] area. 6

Social-Behavioral Sciences [SB] Credits: 3-6

Any approved general education courses in the Social-Behavioral Sciences [SB] area. 6

May be met by PSY101 in the Restricted Electives area

Natural Sciences [SG]/[SQ] Credits: 0

Met by BIO181++ and BIO182++ in the Required Courses area.

Subject Options Credits: 0

Met by [(CHM150 and CHM151LL) OR CHM150AA OR (CHM151 and CHM151LL) OR CHM151AA] AND [(CHM152 and CHM152LL) OR CHM152AA] in the Required Courses area.

Awareness Areas Credits: 0-6

These requirements may be shared with other AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

Historical/Global Awareness [H]/[G] Credits: 0-3

Any approved general education in the Historical [H] or Global [G] area.

MCCCD Additional Requirements

MCCCD Additional Requirements Credits: 0-6

Some courses in this area have [SB] and [L] designations and may also be applied to the corresponding AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Oral Communication Credits: 0-3

COM100 Introduction to Human Communication (3) OR

COM110 Interpersonal Communication (3) OR

COM225 Public Speaking (3) OR

COM230 Small Group Communication (3) 0-3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR

Equivalent as indicated by assessment (0) 0-3

## General Electives

Recommended for Transfer Plan 13: University of Arizona, Biology (Biomedical Sciences), Bachelor of Science or University of Arizona, Biology (Organismal Biology), Bachelor of Science Complete a language course at the elementary level (102 or equivalent), with a C or better OR demonstrate proficiency through this level as indicated by assessment.

ARB+++ Any ARB Arabic course(s)

ASL+++ Any ASL American Sign Language course(s)

CHI+++ Any CHI Chinese course(s)

FRE+++ Any FRE French course(s)

GER+++ Any GER German course(s)

ITA+++ Any ITA Italian course(s)

JPN+++ Any JPN Japanese course(s)

SPA+++ Any SPA Spanish course(s)

Starting Term: 2023 Fall

Final Term: 9999

## **ASSOCIATE IN SCIENCE (AS) IN ASSOCIATE IN SCIENCE, EMPHASIS IN CHEMISTRY**

Total Credits: 60-64

Major Code: 8603

### **Description**

The Associate in Science (AS), Emphasis in Chemistry provides the first two years of a four-year curriculum for students who wish to specialize in chemistry or are preparing for graduate programs in the area. With an associate's degree, students may qualify as a chemical technician or chemical equipment operator and tender. With a bachelor's degree, students may pursue a career as a chemist, chemical engineer, or materials scientist. Upon completion of a graduate degree, students may pursue a career as a chemistry professor.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 36-44

CHM150	General Chemistry I (4) AND	
CHM151LL	General Chemistry I Laboratory (1) OR	
CHM150AA	General Chemistry I (5) OR	
CHM151	General Chemistry I (3) AND	
CHM151LL	General Chemistry I Laboratory (1) OR	
CHM151AA	General Chemistry I (4)	4-5
CHM152	General Chemistry II (3) AND	
CHM152LL	General Chemistry II Laboratory (1) OR	
CHM152AA	General Chemistry II (4)	4
CHM235	General Organic Chemistry I	3
CHM235LL	General Organic Chemistry I Laboratory	1
CHM236	General Organic Chemistry IIA	3
CHM236LL	General Organic Chemistry IIA Laboratory	1
FYE101	Introduction to College, Career and Personal Success (1) OR	
FYE103	Exploration of College, Career and Personal Success (3)	1-3
MAT230	Calculus with Analytic Geometry II (5) OR	
MAT231	Calculus with Analytic Geometry II (4)	4-5

MAT240	Calculus with Analytic Geometry III (5) OR	
MAT241	Calculus with Analytic Geometry III (4)	4-5
MAT276	Modern Differential Equations (4) OR	
MAT277	Modern Differential Equations (3)	3-4
PHY115	University Physics I (5) OR	
PHY121	University Physics I: Mechanics (4)	4-5
PHY116	University Physics II (5) OR	
PHY131	University Physics II: Electricity and Magnetism (4)	4-5

## Restricted Electives

Credits: 0

Complete requirements in the transfer option that best aligns with your academic and professional goals. If your intended transfer institution is not listed, then select a combination of courses from the transfer options listed in order to meet the minimum credits required in the Restricted Electives section. Consult with an academic, faculty, or program advisor to prevent exceeding your university transfer program's maximum transferable credits (typically 64).

Transfer Plan 1: Arizona State University (College of Liberal Arts and Sciences), Chemistry, Bachelor of Science

No additional coursework needed for this transfer plan.

Transfer Plan 2: Northern Arizona University, Chemistry (Chemistry or Advanced Chemistry Emphasis), Bachelor of Science

No additional coursework needed for this transfer plan.

Transfer Plan 3: Grand Canyon University, Chemistry, Bachelor of Science

No additional coursework needed for this transfer plan

## General Education Requirements

Arizona General Education Curriculum (AGEC)  
AGEC-S Credits: 22-32

A single course with an [HU], [SB], or [L] designation may also be used to satisfy the Oral Communication, Critical Reading, or Awareness Area ([C], [G] and/or [H]) requirement(s). A single course with both the [HU] and [L] designations may be used to satisfy both of these areas.

A single course with both the [SB] and [L] designations may be used to satisfy both of these areas.

See the AGECEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

First-Year Composition [FYC]Credits: 6  
ENG101 First-Year Composition (3) OR

ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 0-3  
Any approved general education course in the Literacy and Critical Inquiry [L] area. 3

Recommend selecting a course that satisfies [L] and [SB] or [L] and [HU] or [L] and (COM) or [L] and CRE101 requirements simultaneously.

Mathematics [MA] Credits: 4-5  
MAT220 Calculus with Analytic Geometry I (4) OR  
MAT221 Calculus with Analytic Geometry I (5) OR  
Higher approved general education course in the Mathematical Applications [MA] area for which MAT22+ is a prerequisite. (4-5) 4-5

Humanities, Arts and Design [HU] Credits: 6  
Any approved general education courses in the Humanities, Arts and Design [HU] area. 6

Social-Behavioral Sciences [SB] Credits: 6  
Any approved general education courses in the Social-Behavioral Sciences [SB] area. 6

Natural Sciences [SG]/[SQ] Credits: 0  
Met by [(CHM150 and CHM151LL) OR CHM150AA OR (CHM151 and CHM151LL) OR CHM151AA] AND [(CHM152 and CHM152LL) OR CHM152AA] in the Required Courses area.

Subject Options Credits: 0  
Met by CHM235, CHM235LL, CHM236 and CHM236LL in the Required Courses area.

Awareness Areas Credits: 0-6  
These requirements may be shared with other AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3  
Historical/Global Awareness [H]/[G] Credits: 0-3

Any approved general education course in the Historical [H] or Global Awareness [G] area.0-3

MCCCD Additional Requirements  
MCCCD Additional Requirements Credits: 0-6

Some courses in this area have [SB] and [L] designations and may also be applied to the corresponding AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Oral Communication Credits: 0-3  
COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 0-3  
(COM230 Small Group Communication Recommended)

Critical Reading Credits: 0-3  
CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=183340>

Starting Term: 2023 Fall  
Final Term: 9999

## **ASSOCIATE IN SCIENCE (AS) IN ASSOCIATE IN SCIENCE, EMPHASIS IN COMPUTER SCIENCE**

Total Credits: 60-64  
Major Code: 8601

### **Description**

The Associate in Science (AS), Emphasis in Computer Science degree provides the first two years of a four-year curriculum for students who wish to specialize in computer science. With an associate degree, students may seek employment as a computer user support specialist. With a bachelor degree, students may pursue employment opportunities in several careers, including computer network architects, computer programmers, computer systems analysts, database administrators, information security analysts, network and computer systems administrators, and/or software developers in a number of sectors including arts, sciences, manufacturing, engineering, medicine, energy, and security.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 21-24

CSC110 Introduction to Computer Science (Java) (3) OR  
CSC110AA Introduction to Computer Science (Java) (3) OR  
CSC110AB Introduction to Computer Science (Java) (4) 3-4

Students intending to transfer to NAU should take CSC110AB.  
CSC/EEE120 Digital Design Fundamentals 4

CSC205 Object Oriented Programming and Data Structures (3) OR  
CSC205AA Object Oriented Programming and Data Structures (3) OR  
CSC205AB Object Oriented Programming and Data Structures (4) OR  
CSC205AC Object Oriented Programming and Data Structures (4) OR  
CSC205AD Object Oriented Programming and Data Structures (4) 3-4

Students intending to transfer to NAU should take CSC205AB, CSC205AC, or CSC205AD.



CSC/EEE230 Computer Organization and Assembly Language 4

FYE101 Introduction to College, Career and Personal Success (1) OR  
FYE103 Exploration of College, Career and Personal Success (3) 1-3

MAT227 Discrete Mathematical Structures 3  
MAT230 Calculus with Analytic Geometry II (5) OR  
MAT231 Calculus with Analytic Geometry II (4) 4-5

## Restricted Electives

Credits: 0-17

Complete requirements in the transfer option that best aligns with your academic and professional goals. If your intended transfer institution is not listed, then select a combination of courses from the transfer options listed in order to meet the minimum credits required in the Restricted Electives section. Consult with an academic, faculty, or program advisor to prevent exceeding your university transfer program's maximum transferable credits (typically 64).

Transfer Plan 1: Arizona State University (Ira A. Fulton Schools of Engineering), Computer Science, Bachelor of Science (any emphasis)

Credits: 15-17

+ CSC240 Introduction to Different Programming Languages (3) OR  
+ CSC240AA Introduction to Different Programming Languages (4) 3-4

+ ECE102 Engineering Analysis Tools and Techniques 2

+ ECE103 Engineering Problem Solving and Design (2) OR  
+ ECE103EP Engineering Problem Solving and Design (with EPICS projects) (2) 2

+ MAT240 Calculus with Analytic Geometry III (5) OR  
+ MAT241 Calculus with Analytic Geometry III (4) 4-5

Any additional course in the Natural Science [SQ]/[SG] area 4

Transfer Plan 2: Northern Arizona University, Computer Science, Bachelor of Science in Computer Science

Credits: 3

+ MAT206 Elements of Statistics 3

Transfer Plan 3: University of Arizona, Computer Science, Bachelor of Science

Credits: 0

Second Language Requirement:

Completion of second language courses at the elementary level (102 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

## General Education Requirements

Arizona General Education Curriculum (AGEC)

AGEC-S Credits: 30-40

A single course with an [HU], [SB], or [L] designation may also be used to satisfy the Oral Communication, Critical Reading, or Awareness Area ([C], [G] and/or [H]) requirement(s).

A single course with both the [HU] and [L] designations may be used to satisfy both of these areas.

A single course with both the [SB] and [L] designations may be used to satisfy both of these areas.

See the AGECEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

First-Year Composition [FYC] Credits: 6

ENG101 First-Year Composition (3) OR

ENG107 First-Year Composition for ESL (3) AND

ENG102 First-Year Composition (3) OR

ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 0-3

Any approved general education course in the Literacy and Critical Inquiry [L] area.

Recommend selecting a course that satisfies ([L] and [SB]) or ([L] and [HU]) or ([L] and COM) or ([L] and CRE101) requirements simultaneously.

Mathematics [MA] Credits: 4-5

MAT220 Calculus with Analytic Geometry I (5) OR

MAT221 Calculus with Analytic Geometry I (4) 4-5

Humanities, Arts and Design [HU] Credits: 6

Any approved general education course in the Humanities, Arts and Design [HU] area.

Social-Behavioral Sciences [SB] Credits: 6

Any approved general education courses in the Social-Behavioral Sciences [SB] area.

Natural Sciences [SG]/[SQ] Credits: 8

Students must complete eight (8-10) credits of General Chemistry, University Physics or General Biology for Majors, or Geology.

ASU transfer plans require completion of the CHM or PHY subject area.

NAU transfer plans require completion of the CHM, PHY, or BIO subject area.

CHM150 General Chemistry I (4) OR

CHM151 General Chemistry I (3) AND

CHM151LL General Chemistry I Laboratory (1) OR

CHM150AA General Chemistry I (5) OR

CHM151AA General Chemistry I (4) AND

CHM152 General Chemistry II (3) AND

CHM152LL General Chemistry II Laboratory (1) OR

CHM152AA General Chemistry II (4) 8-9

OR

PHY115 University Physics I (5) AND  
PHY116 University Physics II (5) OR  
PHY121 University Physics I: Mechanics (4) AND  
PHY131 University Physics II: Electricity and Magnetism (4) 8-10

OR

BIO181 General Biology (Majors) I (4) OR  
BIO181XT General Biology (Majors) I (4) AND  
BIO182 General Biology (Majors) II (4) OR  
BIO182XT General Biology (Majors) II (4) 8

OR

GLG101 Introduction to Geology I - Physical Lecture (3) AND  
GLG103 Introduction to Geology I - Physical Lab (1) OR  
GLG101IN Introduction to Geology I - Physical (4)  
AND  
GLG102 Introduction to Geology II - Historical Lecture (3) AND  
GLG104 Introduction to Geology II - Historical Lab (1) OR  
GLG102IN Introduction to Geology II - Historical (4) 8

Subject Options Credits: 0

Met by (CSC110, CSC110AA, or CSC110AB) AND (CSC205, CSC205AA, CSC205AB, CSC205AC, or CSC205AD) in Required Courses.

Awareness Areas Credits: 0-6

These requirements may be shared with other AGEC requirements. See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

Cultural Diversity in the US [C] Credits: 0-3  
Historical/Global Awareness [H]/[G] Credits: 0-3

Any approved general education course in the Historical [H] or Global awareness [G] area.  
0-3

MCCCD Additional Requirements

MCCCD Additional Requirements Credits: 0-6

Some courses in this area have [SB] and [L] designations and may also be applied to the corresponding AGEC requirements. See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations

Oral Communication Credits: 0-3

COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 0-3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR

Equivalent as indicated by assessment (0) 0-3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=183314>

Starting Term: 2023 Fall  
Final Term: 9999

## **ASSOCIATE IN SCIENCE (AS) IN ASSOCIATE IN SCIENCE, EMPHASIS IN ENGINEERING**

Total Credits: 60-64  
Major Code: 8607

### **Description**

The Associate in Science (AS), Emphasis in Engineering provides the majority of the first two years of a four-year curriculum for students who wish to transfer to a four-year institution to earn a bachelor's degree in an engineering discipline. With a bachelor's degree students may pursue a career as an engineer in a number of areas including but not limited to aerospace engineering, biomedical engineering, chemical engineering, civil engineering, computer systems engineering, electrical engineering, industrial engineering, and mechanical engineering.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program. Students who aim to transfer to a 4-year degree program should be aware that many universities have certain GPA requirements (often a minimum 2.75 or 3.00 GPA). Students should check with the program they would like to transfer to, before initiating pursuit of their intended degree program.

### **Required Courses**

Credits: 24-31

ECE102	Engineering Analysis Tools and Techniques	2
ECE103	Engineering Problem Solving and Design	2
FYE101	Introduction to College, Career and Personal Success	(1) OR
FYE103	Exploration of College, Career and Personal Success	(3) 1-3
MAT230	Calculus with Analytic Geometry II	(5) OR
MAT231	Calculus with Analytic Geometry II	(4) 4-5
MAT240	Calculus with Analytic Geometry III	(5) OR
MAT241	Calculus with Analytic Geometry III	(4) 4-5
MAT276	Modern Differential Equations	(4) OR

MAT277	Modern Differential Equations (3)	3-4
PHY115	University Physics I (5) OR	
PHY121	University Physics I: Mechanics (4)	4-5
PHY116	University Physics II (5) OR	
PHY131	University Physics II: Electricity and Magnetism (4)	4-5

## Restricted Electives

Credits: 14-39

Complete requirements in the transfer plan that best aligns with your transfer and academic/professional goals. If your intended transfer institution is not listed, meet with a discipline faculty advisor to establish a program of study to meet credits required in the Restricted Electives section.

Transfer Plan 1: Arizona State University (Ira A. Fulton Schools of Engineering), BSE, Aerospace Engineering (Aeronautics)

Credits: 27-30

+ CHM140AA General Chemistry for Engineers with Lab (6)

OR

+ CHM150 General Chemistry I (4) AND

+ CHM151LL General Chemistry I Laboratory (1) OR

+ CHM150AA General Chemistry I (5) OR

+ CHM151 General Chemistry I (3) AND

+ CHM151LL General Chemistry I Laboratory (1) OR

+ CHM151AA General Chemistry I (4)

AND

+ CHM152 General Chemistry II (3) AND

+ CHM152LL General Chemistry II Laboratory (1) OR

+ CHM152AA General Chemistry II (4) 6-9

+ ECE105 MATLAB Programming 1

+ ECE211 Engineering Mechanics-Statics 3

+ ECE212 Engineering Mechanics-Dynamics 3

+ ECE215 Mechanics of Materials 3

+ ECE216 Computer-Aided Engineering (2) AND

+ ECE216LL Computer-Aided Engineering Laboratory (1) OR

+ ECE216AA Computer-Aided Engineering (3) 3

+ EEE202 Circuits and Devices 5

+ MAT225 Elementary Linear Algebra 3

Transfer Plan 2: Arizona State University (Ira A. Fulton Schools of Engineering), BSE, Aerospace Engineering (Astronautics)

Credits: 30-33

+ CHM140AA General Chemistry for Engineers with Lab (6)

OR

+ CHM150 General Chemistry I (4) AND

- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4)
- AND
- + CHM152 General Chemistry II (3) AND
- + CHM152LL General Chemistry II Laboratory (1) OR
- + CHM152AA General Chemistry II (4) 6-9
  
- + ECE105 MATLAB Programming 1
- + ECE211 Engineering Mechanics-Statics 3
- + ECE212 Engineering Mechanics-Dynamics 3
- + ECE215 Mechanics of Materials 3
  
- + ECE216 Computer-Aided Engineering (2) AND
- + ECE216LL Computer-Aided Engineering Laboratory (1) OR
- + ECE216AA Computer-Aided Engineering (3) 3
  
- + EEE202 Circuits and Devices 5
- + EEE203 Signals and Systems 3
- + MAT225 Elementary Linear Algebra 3

Transfer Plan 3: Arizona State University (Ira A. Fulton Schools of Engineering), BSE,  
 Aerospace Engineering (Autonomous Vehicle Systems)  
 Credits: 27-30

- + CHM140AA General Chemistry for Engineers with Lab (6)
- OR
- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4)
- AND
- + CHM152 General Chemistry II (3) AND
- + CHM152LL General Chemistry II Laboratory (1) OR
- + CHM152AA General Chemistry II (4) 6-9
  
- + ECE105 MATLAB Programming 1
- + ECE211 Engineering Mechanics-Statics 3
- + ECE212 Engineering Mechanics-Dynamics 3
- + ECE215 Mechanics of Materials 3
  
- + ECE216 Computer-Aided Engineering (2) AND
- + ECE216LL Computer-Aided Engineering Laboratory (1) OR
- + ECE216AA Computer-Aided Engineering (3) 3
  
- + EEE202 Circuits and Devices 5
- + MAT225 Elementary Linear Algebra 3

Transfer Plan 4: Arizona State University (Ira A. Fulton Schools of Engineering), BSE, Biomedical Engineering

Credits: 29-32

- + BIO181 General Biology (Majors) I (4) OR
- + BIO181XT General Biology (Majors) I (4) 4
  
- + BIO201 Human Anatomy and Physiology I (4) OR
- + BIO201XT Human Anatomy and Physiology I (4) 4
  
- + BIO202 Human Anatomy and Physiology II 4
  
- + CHM140AA General Chemistry for Engineers with Lab (6)  
OR
- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4)  
AND
- + CHM152 General Chemistry II (3) AND
- + CHM152LL General Chemistry II Laboratory (1) OR
- + CHM152AA General Chemistry II (4) 6-9
  
- + EEE202 Circuits and Devices 5
  
- + GBS221 Business Statistics (3) OR
- + MAT206 Elements of Statistics (3) OR
- + SWU225 Statistics for Social Research/Justice and Government (3) 3
  
- + MAT225 Elementary Linear Algebra 3

Transfer Plan 5: Arizona State University (Ira A. Fulton Schools of Engineering), BSE, Chemical Engineering

Credits: 27-30

- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4) 4-5
  
- + CHM152 General Chemistry II (3) AND
- + CHM152LL General Chemistry II Laboratory (1) OR
- + CHM152AA General Chemistry II (4) 4
  
- + CHM235 General Organic Chemistry I (3) AND
- + CHM235LL General Organic Chemistry I Laboratory (1) OR
- + CHM235AA General Organic Chemistry I with Lab (4) 4
  
- + CHM236 General Organic Chemistry IIA (3) OR

- + CHM236 General Organic Chemistry IIA (3) AND
- + CHM236LL General Organic Chemistry IIA Laboratory (1) OR
- + CHM236AA General Organic Chemistry IIA with Lab (4) 3-4
  
- + ECE230 Introduction to the Chemical Engineering Process 3
- + ECE231 Introduction to Fluid Transport Phenomena 3
- + MAT225 Elementary Linear Algebra 3

Bioscience Elective

- + BIO181 General Biology (Majors) I (4) OR
- + BIO181XT General Biology (Majors) I (4) OR
- + BIO182 General Biology (Majors) II (4) OR
- + BIO182XT General Biology (Majors) II (4) OR
- + BIO201 Human Anatomy and Physiology I (4) OR
- + BIO201XT Human Anatomy and Physiology I (4) OR
- + BIO202 Human Anatomy and Physiology II (4) OR
- + BIO205 Microbiology (4) OR
- + BIO220 Biology of Microorganisms (4) OR
- ECE111 Bioengineering Systems (3) 3-4

Transfer Plan 6: Arizona State University (Ira A. Fulton Schools of Engineering), BSE, Civil Engineering

Credits: 24-28

- + BIO181 General Biology (Majors) I (4) OR
- + BIO181XT General Biology (Majors) I (4) OR
- + BIO182 General Biology (Majors) II (4) OR
- + BIO182XT General Biology (Majors) II (4) OR
- + CHM230 Fundamental Organic Chemistry (3) OR
- + CHM230 Fundamental Organic Chemistry (3) AND
- + CHM230LL Fundamental Organic Chemistry Laboratory (1) OR
- + CHM230AA Fundamental Organic Chemistry with Lab (4) OR
- GLG101 Introduction to Geology I - Physical Lecture (3) OR
- GLG101 Introduction to Geology I - Physical Lecture (3) AND
- GLG103 Introduction to Geology I - Physical Lab (1) OR
- GLG101IN Introduction to Geology I - Physical (4) 3-4

+ CHM140AA General Chemistry for Engineers with Lab (6)  
OR

- + CHM150 General Chemistry I (4) AND
  - + CHM151LL General Chemistry I Laboratory (1) OR
  - + CHM150AA General Chemistry I (5) OR
  - + CHM151 General Chemistry I (3) AND
  - + CHM151LL General Chemistry I Laboratory (1) OR
  - + CHM151AA General Chemistry I (4)
- AND
- + CHM152 General Chemistry II (3) AND
  - + CHM152LL General Chemistry II Laboratory (1) OR
  - + CHM152AA General Chemistry II (4) 6-9

- + ECE211 Engineering Mechanics-Statics 3
- + ECE212 Engineering Mechanics-Dynamics 3



+ ECE215 Mechanics of Materials 3

ECN211 Macroeconomic Principles (3) OR  
ECN212 Microeconomic Principles (3) 3

+ MAT225 Elementary Linear Algebra 3

Transfer Plan 7: Arizona State University (Ira A. Fulton Schools of Engineering), BSE, Civil Engineering (Sustainable Engineering)

Credits: 24-28

+ BIO181 General Biology (Majors) I (4) OR  
+ BIO181XT General Biology (Majors) I (4) OR  
+ BIO182 General Biology (Majors) II (4) OR  
+ BIO182XT General Biology (Majors) II (4) OR  
+ CHM230 Fundamental Organic Chemistry (3) OR  
+ CHM230 Fundamental Organic Chemistry (3) AND  
+ CHM230LL Fundamental Organic Chemistry Laboratory (1) OR  
+ CHM230AA Fundamental Organic Chemistry with Lab (4) OR  
GLG101 Introduction to Geology I - Physical Lecture (3) OR  
GLG101IN Introduction to Geology I - Physical (4) OR  
GLG101 Introduction to Geology I - Physical Lecture (3) AND  
GLG103 Introduction to Geology I - Physical Lab (1) 3-4

+ CHM140AA General Chemistry for Engineers with Lab (6)  
OR

+ CHM150 General Chemistry I (4) AND  
+ CHM151LL General Chemistry I Laboratory (1) OR  
+ CHM150AA General Chemistry I (5) OR  
+ CHM151 General Chemistry I (3) AND  
+ CHM151LL General Chemistry I Laboratory (1) OR  
+ CHM151AA General Chemistry I (4)  
AND  
+ CHM152 General Chemistry II (3) AND  
+ CHM152LL General Chemistry II Laboratory (1) OR  
+ CHM152AA General Chemistry II (4) 6-9

+ ECE211 Engineering Mechanics-Statics 3  
+ ECE212 Engineering Mechanics-Dynamics 3  
+ ECE215 Mechanics of Materials 3

ECN211 Macroeconomic Principles (3) OR  
ECN212 Microeconomic Principles (3) 3

+ MAT225 Elementary Linear Algebra 3

Transfer Plan 8: Arizona State University (Ira A. Fulton Schools of Engineering), BSE, Computer Systems Engineering

Credits: 24-27

+ BIO181 General Biology (Majors) I (4) OR  
+ BIO181XT General Biology (Majors) I (4) OR  
+ BIO182 General Biology (Majors) II (4) OR

- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4) OR
- + CHM152 General Chemistry II (3) AND
- + CHM152LL General Chemistry II Laboratory (1) OR
- + CHM152AA General Chemistry II (4) 4-5
  
- + CSC110 Introduction to Computer Science (Java) (3) OR
- + CSC110AA Introduction to Computer Science (Java) (3) OR
- + CSC110AB Introduction to Computer Science (Java) (4) 3-4
  
- + CSC/EEE120 Digital Design Fundamentals 4
  
- + CSC205 Object-Oriented Programming and Data Structures (3) OR
- + CSC205AA Object-Oriented Programming and Data Structures (3) OR
- + CSC205AB Object-Oriented Programming and Data Structures (4) OR
- + CSC205AC Object-Oriented Programming and Data Structures (4) OR
- + CSC205AD Object-Oriented Programming and Data Structures (4) 3-4
  
- + CSC/EEE220 Programming for Computer Engineering 3
- + CSC/EEE230 Computer Organization and Assembly Language 4
- + MAT227 Discrete Mathematical Structures 3

Transfer Plan 9: Arizona State University (Ira A. Fulton Schools of Engineering), BSE, Computer Systems Engineering (Cybersecurity)

Credits: 24-27

- + BIO181 General Biology (Majors) I (4) OR
- + BIO181XT General Biology (Majors) I (4) OR
- + BIO182 General Biology (Majors) II (4) OR
- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4) OR
- + CHM152 General Chemistry II (3) AND
- + CHM152LL General Chemistry II Laboratory (1) OR
- + CHM152AA General Chemistry II (4) 4-5
  
- + CSC110 Introduction to Computer Science (Java) (3) OR
- + CSC110AA Introduction to Computer Science (Java) (3) OR
- + CSC110AB Introduction to Computer Science (Java) (4) 3-4
  
- + CSC/EEE120 Digital Design Fundamentals 4
  
- + CSC205 Object-Oriented Programming and Data Structures (3) OR
- + CSC205AA Object-Oriented Programming and Data Structures (3) OR
- + CSC205AB Object-Oriented Programming and Data Structures (4) OR

- + CSC205AC Object-Oriented Programming and Data Structures (4) OR
- + CSC205AD Object-Oriented Programming and Data Structures (4) 3-4
- + CSC/EEE220 Programming for Computer Engineering 3
- + CSC/EEE230 Computer Organization and Assembly Language 4
- + MAT227 Discrete Mathematical Structures 3

Transfer Plan 10: Arizona State University (Ira A. Fulton Schools of Engineering), BSE,  
Construction Engineering

Credits: 35-39

- + BIO181 General Biology (Majors) I (4) OR
- + BIO181XT General Biology (Majors) I (4) OR
- + BIO182 General Biology (Majors) II (4) OR
- + BIO182XT General Biology (Majors) II (4) OR
- ECE111 Bioengineering Systems (3) OR
- GLG101 Introduction to Geology I - Physical Lecture (3) OR
- GLG101IN Introduction to Geology I - Physical (4) OR
- GLG101 Introduction to Geology I - Physical Lecture (3) AND
- GLG103 Introduction to Geology I - Physical Lab (1) 3-4

- + CHM140AA General Chemistry for Engineers with Lab (6)  
OR
- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4)  
AND
- + CHM152 General Chemistry II (3) AND
- + CHM152LL General Chemistry II Laboratory (1) OR
- + CHM152AA General Chemistry II (5) 6-9

- CON101 Construction and Culture 3
- CON271 Construction Safety 3
- + ECE211 Engineering Mechanics-Statics 3
- + ECE212 Engineering Mechanics-Dynamics 3
- + ECE215 Mechanics of Materials 3

- ECN211 Macroeconomic Principles (3) OR
- ECN212 Microeconomic Principles (3) 3

- + EEE202 Circuits and Devices 5
- + MAT225 Elementary Linear Algebra 3

Transfer Plan 11: Arizona State University (Ira A. Fulton Schools of Engineering), BSE,  
Electrical Engineering

Credits: 27-31

- + CHM140AA General Chemistry for Engineers with Lab (6)  
OR
- + CHM150 General Chemistry I (4) AND

- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4)

AND

- + CHM152 General Chemistry II (3) AND
- + CHM152LL General Chemistry II Laboratory (1) OR
- + CHM152AA General Chemistry II (5) 6-9

- + CSC100 Introduction to Computer Science (C++) (3) OR
- + CSC100AA Introduction to Computer Science (C++) (3) OR
- + CSC100AB Introduction to Computer Science (C++) (4) OR
- + CSC110 Introduction to Computer Science (Java) (3) OR
- + CSC110AA Introduction to Computer Science (Java) (3) OR
- + CSC110AB Introduction to Computer Science (Java) (4) 3-4

- + CSC/EEE120 Digital Design Fundamentals (4) OR
- ELE131 Digital Logic and Circuits (3) 3-4

ECN211 Macroeconomic Principles (3) OR

ECN212 Microeconomic Principles (3) 3

- + EEE202 Circuits and Devices 5
- + EEE203 Signals and Systems 3
- + PHY241 University Physics III: Thermodynamics, Optics, and Wave Phenomena 4

Transfer Plan 12: Arizona State University (Ira A. Fulton Schools of Engineering), BSE,  
Electrical Engineering (Electric Power and Energy Systems)

Credits: 27-31

- + CHM140AA General Chemistry for Engineers with Lab (6)

OR

- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4)

AND

- + CHM152 General Chemistry II (3) AND
- + CHM152LL General Chemistry II Laboratory (1) OR
- + CHM152AA General Chemistry II (5) 6-9

- + CSC100 Introduction to Computer Science (C++) (3) OR
- + CSC100AA Introduction to Computer Science (C++) (3) OR
- + CSC100AB Introduction to Computer Science (C++) (4) OR
- + CSC110 Introduction to Computer Science (Java) (3) OR
- + CSC110AA Introduction to Computer Science (Java) (3) OR
- + CSC110AB Introduction to Computer Science (Java) (4) 3-4

- + CSC/EEE120 Digital Design Fundamentals (4) OR

ELE131 Digital Logic and Circuits (3) 3-4

ECN211 Macroeconomic Principles (3) OR

ECN212 Microeconomic Principles (3) 3

+ EEE202 Circuits and Devices 5

+ EEE203 Signals and Systems 3

+ PHY241 University Physics III: Thermodynamics, Optics, and Wave Phenomena 4

Transfer Plan 13: Arizona State University (Ira A. Fulton Schools of Engineering), BSE,  
Engineering

Credits: 14-23

AIT125 DC and AC Components and Circuits (3) OR

+ CSC/EEE120 Digital Design Fundamentals (4) AND

+ EEE202 Circuits and Devices (5) 3-5

+ CHM150 General Chemistry I (4) AND

+ CHM151LL General Chemistry I Laboratory (1) OR

+ CHM150AA General Chemistry I (5) OR

+ CHM151 General Chemistry I (3) AND

+ CHM151LL General Chemistry I Laboratory (1) OR

+ CHM151AA General Chemistry I (4) 4-5

+ ECE211 Engineering Mechanics-Statics (3) AND

+ ECE212 Engineering Mechanics-Dynamics (3) OR

+ ECE214 Engineering Mechanics (4) 4-6

+ ECE/MAT280 Foundational Statistics for Engineers 3

Transfer Plan 14: Arizona State University (Ira A. Fulton Schools of Engineering), BSE,  
Engineering (Automotive Systems)

Credits: 14-23

AIT125 DC and AC Components and Circuits (3) OR

+ CSC/EEE120 Digital Design Fundamentals (4) AND

+ EEE202 Circuits and Devices (5) 3-9

+ CHM150 General Chemistry I (4) AND

+ CHM151LL General Chemistry I Laboratory (1) OR

+ CHM150AA General Chemistry I (5) OR

+ CHM151 General Chemistry I (3) AND

+ CHM151LL General Chemistry I Laboratory (1) OR

+ CHM151AA General Chemistry I (4) 4-5

+ ECE211 Engineering Mechanics-Statics (3) AND

+ ECE212 Engineering Mechanics-Dynamics (3) OR

+ ECE214 Engineering Mechanics (4) 4-6

+ ECE/MAT280 Foundational Statistics for Engineers 3

Transfer Plan 15: Arizona State University (Ira A. Fulton Schools of Engineering), BSE,  
Engineering (Electrical Systems)

Credits: 14-23

AIT125 DC and AC Components and Circuits (3) OR  
+ CSC/EEE120 Digital Design Fundamentals (4) AND  
+ EEE202 Circuits and Devices (5) 3-9

+ CHM150 General Chemistry I (4) AND  
+ CHM151LL General Chemistry I Laboratory (1) OR  
+ CHM150AA General Chemistry I (5) OR  
+ CHM151 General Chemistry I (3) AND  
+ CHM151LL General Chemistry I Laboratory (1) OR  
+ CHM151AA General Chemistry I (4) 4-5

+ ECE211 Engineering Mechanics-Statics (3) AND  
+ ECE212 Engineering Mechanics-Dynamics (3) OR  
+ ECE214 Engineering Mechanics (4) 4-6

+ ECE/MAT280 Foundational Statistics for Engineers 3

Transfer Plan 16: Arizona State University (Ira A. Fulton Schools of Engineering), BSE,  
Engineering (Mechanical Engineering Systems)

Credits: 14-23

AIT125 DC and AC Components and Circuits (3) OR  
+ CSC/EEE120 Digital Design Fundamentals (4) AND  
+ EEE202 Circuits and Devices (5) 3-9

+ CHM150 General Chemistry I (4) AND  
+ CHM151LL General Chemistry I Laboratory (1) OR  
+ CHM150AA General Chemistry I (5) OR  
+ CHM151 General Chemistry I (3) AND  
+ CHM151LL General Chemistry I Laboratory (1) OR  
+ CHM151AA General Chemistry I (4) 4-5

+ ECE211 Engineering Mechanics-Statics (3) AND  
+ ECE212 Engineering Mechanics-Dynamics (3) OR  
+ ECE214 Engineering Mechanics (4) 4-6

+ ECE/MAT280 Foundational Statistics for Engineers 3

Transfer Plan 17: Arizona State University (Ira A. Fulton Schools of Engineering), BSE,  
Engineering (Robotics)

Credits: 14-23

AIT125 DC and AC Components and Circuits (3) OR  
+ CSC/EEE120 Digital Design Fundamentals (4) AND  
+ EEE202 Circuits and Devices (5) 3-9

+ CHM150 General Chemistry I (4) AND  
+ CHM151LL General Chemistry I Laboratory (1) OR  
+ CHM150AA General Chemistry I (5) OR  
+ CHM151 General Chemistry I (3) AND  
+ CHM151LL General Chemistry I Laboratory (1) OR  
+ CHM151AA General Chemistry I (4) 4-5

- + ECE211 Engineering Mechanics-Statics (3) AND
- + ECE212 Engineering Mechanics-Dynamics (3) OR
- + ECE214 Engineering Mechanics (4) 4-6
  
- + ECE/MAT280 Foundational Statistics for Engineers 3

Transfer Plan 18: Arizona State University (Ira A. Fulton Schools of Engineering), BSE,  
Industrial Engineering

Credits: 16-21

- + CHM140AA General Chemistry for Engineers with Lab (6) OR
- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4) 4-6
  
- + CSC110 Introduction to Computer Science (Java) (3) OR
- + CSC110AA Introduction to Computer Science (Java) (3) OR
- + CSC110AB Introduction to Computer Science (Java) (4) 3-4
  
- + CSC205 Object-Oriented Programming and Data Structures (3) OR
- + CSC205AA Object-Oriented Programming and Data Structures (3) OR
- + CSC205AB Object-Oriented Programming and Data Structures (4) OR
- + CSC205AC Object-Oriented Programming and Data Structures (4) OR
- + CSC205AD Object-Oriented Programming and Data Structures (4) 3-4
  
- + ECE211 Engineering Mechanics-Statics (3) OR
- + ECE214 Engineering Mechanics (4) 3-4

ECN211 Macroeconomic Principles (3) OR  
ECN212 Microeconomic Principles (3) 3

Transfer Plan 19: Arizona State University (Ira A. Fulton Schools of Engineering), BSE,  
Materials Science and Engineering

Credits: 15-20

- + CHM140AA General Chemistry for Engineers with Lab (6)  
OR
- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4)  
AND
- + CHM152 General Chemistry II (3) AND
- + CHM152LL General Chemistry II Laboratory (1) OR
- + CHM152AA General Chemistry II (5) 6-9
  
- + ECE211 Engineering Mechanics-Statics (3) OR

+ ECE214 Engineering Mechanics (4) 3-4

+ ECE215 Mechanics of Materials 3

Math or Science Elective

+ AST111 Introduction to Solar System Astronomy (4) OR

+ AST112 Introduction to Stars, Galaxies, and Cosmology (4) OR

+ BIO181 General Biology (Majors) I (4) OR

+ BIO181XT General Biology (Majors) I (4) OR

+ BIO182 General Biology (Majors) II (4) OR

+ BIO182XT General Biology (Majors) II (4) OR

+ BIO201 Human Anatomy and Physiology I (4) OR

+ BIO201XT Human Anatomy and Physiology I (4)

+ CHM230 Fundamental Organic Chemistry (3) OR

+ CHM235 General Organic Chemistry I (3)

GLG101 Introduction to Geology I - Physical Lecture (3) OR

GLG101IN Introduction to Geology I - Physical (4) OR

+ MAT217 Mathematical Analysis for Business (4) OR

+ MAT218 Mathematical Analysis for Business (4) OR

+ MAT227 Discrete Mathematical Structures (3) 3-4

Transfer Plan 20: Arizona State University (Ira A. Fulton Schools of Engineering), BSE,  
Mechanical Engineering

Credits: 27-30

+ CHM140AA General Chemistry for Engineers with Lab (6)

OR

+ CHM150 General Chemistry I (4) AND

+ CHM151LL General Chemistry I Laboratory (1) OR

+ CHM150AA General Chemistry I (5) OR

+ CHM151 General Chemistry I (3) AND

+ CHM151LL General Chemistry I Laboratory (1) OR

+ CHM151AA General Chemistry I (4)

AND

+ CHM152 General Chemistry II (3) AND

+ CHM152LL General Chemistry II Laboratory (1) OR

+ CHM152AA General Chemistry II (5) 6-9

+ ECE105 MATLAB Programming 1

+ ECE211 Engineering Mechanics-Statics 3

+ ECE212 Engineering Mechanics-Dynamics 3

+ ECE215 Mechanics of Materials 3

+ ECE216 Computer-Aided Engineering (2) AND

+ ECE216LL Computer-Aided Engineering Laboratory (1) OR

+ ECE216AA Computer-Aided Engineering (3) 3

+ EEE202 Circuits and Devices 5

+ MAT225 Elementary Linear Algebra 3

Transfer Plan 21: Arizona State University (Ira A. Fulton Schools of Engineering), BSE,  
Mechanical Engineering (Computational Mechanics)



Credits: 30-34

+ CHM140AA General Chemistry for Engineers with Lab (6)

OR

+ CHM150 General Chemistry I (4) AND

+ CHM151LL General Chemistry I Laboratory (1) OR

+ CHM150AA General Chemistry I (5) OR

+ CHM151 General Chemistry I (3) AND

+ CHM151LL General Chemistry I Laboratory (1) OR

+ CHM151AA General Chemistry I (4)

AND

+ CHM152 General Chemistry II (3) AND

+ CHM152LL General Chemistry II Laboratory (1) OR

+ CHM152AA General Chemistry II (5) 6-9

+ CSC100 Introduction to Computer Science (C++) (3) OR

+ CSC100AA Introduction to Computer Science (C++) (3) OR

+ CSC100AB Introduction to Computer Science (C++) (4) OR

+ CSC110 Introduction to Computer Science (Java) (3) OR

+ CSC110AA Introduction to Computer Science (Java) (3) OR

+ CSC110AB Introduction to Computer Science (Java) (4) OR

+ CSC150 Programming in C/C++ (3) OR

+ CSC150AA Programming in C/C++ (4) 3-4

+ ECE105 MATLAB Programming 1

+ ECE211 Engineering Mechanics-Statics 3

+ ECE212 Engineering Mechanics-Dynamics 3

+ ECE215 Mechanics of Materials 3

+ ECE216 Computer-Aided Engineering (2) AND

+ ECE216LL Computer-Aided Engineering Laboratory (1) OR

+ ECE216AA Computer-Aided Engineering (3) 3

+ EEE202 Circuits and Devices 5

+ MAT225 Elementary Linear Algebra 3

Transfer Plan 22: Arizona State University (Ira A. Fulton Schools of Engineering), BSE,  
Mechanical Engineering (Energy and Environment)

Credits: 30-34

+ CHM140AA General Chemistry for Engineers with Lab (6)

OR

+ CHM150 General Chemistry I (4) AND

+ CHM151LL General Chemistry I Laboratory (1) OR

+ CHM150AA General Chemistry I (5) OR

+ CHM151 General Chemistry I (3) AND

+ CHM151LL General Chemistry I Laboratory (1) OR

+ CHM151AA General Chemistry I (4)

AND

+ CHM152 General Chemistry II (3) AND

+ CHM152LL General Chemistry II Laboratory (1) OR

+ CHM152AA General Chemistry II (5) 6-9

- + CHM230 Fundamental Organic Chemistry (3) OR
- + CHM230AA Fundamental Organic Chemistry with Lab (4) OR
- + CHM230 Fundamental Organic Chemistry (3) AND
- + CHM230 Fundamental Organic Chemistry Laboratory (1) OR
- + CHM235 General Organic Chemistry I (3) OR
- + CHM235AA General Organic Chemistry I with Lab (4) OR
- + CHM235 General Organic Chemistry I (3) AND
- + CHM235LL General Organic Chemistry I Laboratory (1) 3-4

- + ECE105 MATLAB Programming 1
- + ECE211 Engineering Mechanics-Statics 3
- + ECE212 Engineering Mechanics-Dynamics 3
- + ECE215 Mechanics of Materials 3

- + ECE216 Computer-Aided Engineering (2) AND
- + ECE216LL Computer-Aided Engineering Laboratory (1) OR
- + ECE216AA Computer-Aided Engineering (3) 3

Transfer Plan 23: Northern Arizona University, BS, Civil Engineering  
Credits: 19-21

- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4) 4-5

- + ECE211 Engineering Mechanics-Statics 3
- + ECE212 Engineering Mechanics-Dynamics 3
- + ECE215 Mechanics of Materials 3

- GLG101 Introduction to Geology I - Physical Lecture (3) AND
- GLG103 Introduction to Geology I - Physical Lab (1) OR
- GLG101IN Introduction to Geology I - Physical (4) OR
- GLG110 Geological Disasters and the Environment (3) AND
- GLG111 Geological Disasters and the Environment Lab (1) OR
- GLG140IN Introduction to Oceanography (4) OR
- + GPH230 Climate Change (3) 3-4

PHI105 Introduction to Ethics 3

Transfer Plan 24: Northern Arizona University, BS, Computer Engineering  
Credits: 27-28

- AST101 Survey of Astronomy (4) OR
- + AST111 Introduction to Solar System Astronomy (4) OR
- + AST112 Introduction to Stars, Galaxies, and Cosmology (4) OR
- + BIO181 General Biology (Majors) I (4) OR
- + BIO181XT General Biology (Majors) I (4) OR
- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR

- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4) OR
- GLG101 Introduction to Geology I - Physical Lecture (3) AND
- GLG103 Introduction to Geology I - Physical Lab (1) OR
- GLG101IN Introduction to Geology I - Physical (4) 4-5

- + CSC110AB Introduction to Computer Science (Java) 4
- + CSC/EEE120 Digital Design Fundamentals 4
- + CSC205AB Object Oriented Programming and Data Structures 4
- + ECE/MAT280 Foundational Statistics for Engineers 3
- + EEE202 Circuits and Devices 5
- + MAT227 Discrete Mathematical Structures 3

Transfer Plan 25: Northern Arizona University, BS, Electrical Engineering  
Credits: 26-29

- AST101 Survey of Astronomy (4) OR
- + AST111 Introduction to Solar System Astronomy (4) OR
- + AST112 Introduction to Stars, Galaxies, and Cosmology (4) OR
- + BIO181 General Biology (Majors) I (4) OR
- + BIO181XT General Biology (Majors) I (4) OR
- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4) OR
- GLG101 Introduction to Geology I - Physical Lecture (3) AND
- GLG103 Introduction to Geology I - Physical Lab (1) OR
- GLG101IN Introduction to Geology I - Physical (4) 4-5

- + CSC110 Introduction to Computer Science (Java) (3) OR
- + CSC110AA Introduction to Computer Science (Java) (3) OR
- + CSC110AB Introduction to Computer Science (Java) (4) 3-4

- + CSC/EEE120 Digital Design Fundamentals 4

- + CSC205 Object-Oriented Programming and Data Structures (3) OR
- + CSC205AA Object-Oriented Programming and Data Structures (3) OR
- + CSC205AB Object-Oriented Programming and Data Structures (4) OR
- + CSC205AC Object-Oriented Programming and Data Structures (4) OR
- + CSC205AD Object-Oriented Programming and Data Structures (4) 3-4

- + CSC/EEE220 Programming for Computer Engineering 3
- + EEE202 Circuits and Devices 5
- + PHY241 University Physics III: Thermodynamics, Optics, and Wave Phenomena 4

Transfer Plan 26: Northern Arizona University, BS, Mechanical Engineering  
Credits: 31-33

- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR

- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4) 4-5
  
- + CSC110 Introduction to Computer Science (Java) (3) OR
- + CSC110AA Introduction to Computer Science (Java) (3) OR
- + CSC110AB Introduction to Computer Science (Java) (4) 3-4
  
- + CSC/EEE120 Digital Design Fundamentals 4
  
- + CSC205 Object-Oriented Programming and Data Structures (3) OR
- + CSC205AA Object-Oriented Programming and Data Structures (3) OR
- + CSC205AB Object-Oriented Programming and Data Structures (4) OR
- + CSC205AC Object-Oriented Programming and Data Structures (4) OR
- + CSC205AD Object-Oriented Programming and Data Structures (4) 3-4
  
- + CSC/EEE220 Programming for Computer Engineering 3
- + ECE211 Engineering Mechanics-Statics 3
- + ECE212 Engineering Mechanics-Dynamics 3
- + ECE215 Mechanics of Materials 3
  
- + ECE216 Computer-Aided Engineering (2) AND
- + ECE216LL Computer-Aided Engineering Laboratory (1) OR
- + ECE216AA Computer-Aided Engineering (3) 3

+ EEE202 Circuits and Devices 5

Transfer Plan 27: University of Arizona, BS, Aerospace Engineering  
Credits: 10-11

- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4) 4-5
  
- + ECE211 Engineering Mechanics-Statics 3
- + ECE212 Engineering Mechanics-Dynamics 3

Transfer Plan 28: University of Arizona, BS, Biomedical Engineering  
Credits: 23-24

- + BIO181 General Biology (Majors) I (4) OR
- + BIO181XT General Biology (Majors) I (4) 4
  
- + BIO182 General Biology (Majors) II (4) OR
- + BIO182XT General Biology (Majors) II (4) OR
- + BIO202 Human Anatomy and Physiology II (4) 4
  
- + BIO201 Human Anatomy and Physiology I (4) OR
- + BIO201XT Human Anatomy and Physiology I (4) 4

- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4) 4-5
  
- + CHM152 General Chemistry II (3) AND
- + CHM152LL General Chemistry II Laboratory (1) OR
- + CHM152AA General Chemistry II (4) 4
  
- + ECE211 Engineering Mechanics-Statics 3

Transfer Plan 29: University of Arizona, BS, Chemical Engineering  
Credits: 15-16

- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4) 4-5
  
- + CHM152 General Chemistry II (3) AND
- + CHM152LL General Chemistry II Laboratory (1) OR
- + CHM152AA General Chemistry II (4) 4
  
- + CHM235 General Organic Chemistry I (3) AND
- + CHM235LL General Organic Chemistry I Laboratory (1) OR
- + CHM235AA General Organic Chemistry I with Lab (4) 4
  
- + CHM236 General Organic Chemistry IIA 3

Transfer Plan 30: University of Arizona, BS, Civil Engineering  
Credits: 17-18

- + BIO181 General Biology (Majors) I (4) OR
- + BIO181XT General Biology (Majors) I (4) OR
- GLG101 Introduction to Geology I - Physical Lecture (3) AND
- GLG103 Introduction to Geology I - Physical Lab (1) OR
- GLG101IN Introduction to Geology I - Physical (4) 4
  
- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4) 4-5

- CON241 Surveying 3
- + ECE211 Engineering Mechanics-Statics 3
- + ECE215 Mechanics of Materials 3

Transfer Plan 31: University of Arizona, BS, Electrical and Computer Engineering  
Credits: 29-32

- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4) 4-5
  
- + CSC110 Introduction to Computer Science (Java) (3) OR
- + CSC110AA Introduction to Computer Science (Java) (3) OR
- + CSC110AB Introduction to Computer Science (Java) (4) 3-4
  
- + CSC/EEE120 Digital Design Fundamentals 4
  
- + CSC205 Object-Oriented Programming and Data Structures (3) OR
- + CSC205AA Object-Oriented Programming and Data Structures (3) OR
- + CSC205AB Object-Oriented Programming and Data Structures (4) OR
- + CSC205AC Object-Oriented Programming and Data Structures (4) OR
- + CSC205AD Object-Oriented Programming and Data Structures (4) 3-4
  
- + CSC/EEE220 Programming for Computer Engineering 3
- + EEE202 Circuits and Devices 5
- + MAT227 Discrete Mathematical Structures 3
- + PHY241 University Physics III: Thermodynamics, Optics, and Wave Phenomena 4

Transfer Plan 32: University of Arizona, BS, Industrial Engineering  
Credits: 14-18

- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4) 4-5
  
- + BIO181 General Biology (Majors) I (4) OR
- + BIO181XT General Biology (Majors) I (4) OR
- + CHM152 General Chemistry II (3) AND
- + CHM152LL General Chemistry II Laboratory (1) OR
- + CHM152AA General Chemistry II (4) 4
  
- + CSC100 Introduction to Computer Science (C++) (3) OR
- + CSC100AA Introduction to Computer Science (C++) (3) OR
- + CSC100AB Introduction to Computer Science (C++) (4) OR
- + CSC110 Introduction to Computer Science (Java) (3) OR
- + CSC110AA Introduction to Computer Science (Java) (3) OR
- + CSC110AB Introduction to Computer Science (Java) (4) 3-4
  
- + ECE211 Engineering Mechanics-Statics (3) OR
- + EEE202 Circuits and Devices (5) 3-5

Transfer Plan 33: University of Arizona, BS, Mechanical Engineering

Credits: 15-16

- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4) 4-5
  
- + ECE211 Engineering Mechanics-Statics 3
- + ECE212 Engineering Mechanics-Dynamics 3
- + EEE202 Circuits and Devices 5

Transfer Plan 34: University of Arizona, BS, Mining and Geological Engineering

Credits: 21-23

- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4) 4-5
  
- + CHM152 General Chemistry II (3) AND
- + CHM152LL General Chemistry II Laboratory (1) OR
- + CHM152AA General Chemistry II (5) 4-5

GLG101 Introduction to Geology I (3) AND  
GLG103 Introduction to Geology I Lab (1) 4

- + ECE205 Introduction to Mining Engineering 3
- + ECE211 Engineering and Mechanics-Statics 3
- + ECE215 Mechanics of Materials 3

## General Education Requirements

Arizona General Education Curriculum (AGEC)

AGEC-S Credits: 16-32

A single course with an [HU], [SB], or [L] designation may also be used to satisfy the Oral Communication, Critical Reading, or Awareness Area ([C], [G] and/or [H]) requirement(s).

A single course with both the [HU] and [L] designations may be used to satisfy both of these areas.

A single course with both the [SB] and [L] designations may be used to satisfy both of these areas.

See the AGECEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

First-Year Composition [FYC]Credits: 6

- ENG101 First-Year Composition (3) OR
- ENG107 First-Year Composition for ESL (3) AND
- ENG102 First-Year Composition (3) OR

ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 0-3

Any approved general education course in the Literacy and Critical Inquiry [L] area. 0-3

AIS213 or COM241 or DAH255 or ENG200 or ENG218 or ENH241 or ENH254 or ENH255 or ENH277AE or HUM250 or HUM251 or MHL204 or PHI103 or PHI218 or PHI224 or REL203 or REL205 or REL207 or SLC202 or THE220 or THP241 or any course with both the [HU] and [L] designations recommended.

Mathematics [MA] Credits: 4-5

MAT220 Calculus with Analytic Geometry I (5) OR

MAT221 Calculus with Analytic Geometry I (4) OR

Higher approved general education course in the Mathematical Applications [MA] area for which MAT22+ is a prerequisite. (4-5) 4-5

Humanities, Arts and Design [HU] Credits: 3-6

May be met by CON101, PHI103, PHI105, OR SSH111 (if not used to meet [SB]) in Restricted Electives (3) AND

Any approved general education courses in the Humanities, Arts and Design [HU] area. (3) 6

Recommend selecting a course that fulfills the G/H and/or C awareness areas. At least one course fulfilling each of these two awareness areas is required for graduation but may be the same course used in another requirement.

Social-Behavioral Sciences [SB] Credits: 3-6

May be met by ECN211, ECN212, or SSH111 (if not used to meet [HU]) in Restricted Electives (3) AND

Any approved general education courses in the Social-Behavioral Sciences [SB] area. (3) 6

Recommended: COM100, COM110, or COM230

Recommend selecting a course that fulfills the G/H and/or C awareness areas. At least one course fulfilling each of these two awareness areas is required for graduation but may be the same course used in another requirement.

Natural Sciences [SG]/[SQ] Credits: 0

Met by PHY115 and PHY116 OR PHY121 and PHY131 in Required Courses.

Subject Options Credits: 0

Met by MAT230 or MAT231 AND MAT240 or MAT241 in Required Courses.

Awareness Areas Credits: 0-6

These requirements may be shared with other AGEC requirements. See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

Cultural Diversity in the US [C] Credits: 0-3

Historical/Global Awareness [H]/[G] Credits: 0-3



Any approved general education course with the Historical [H] or Global [G] awareness area designation. 0-3

MCCCD Additional Requirements

MCCCD Additional Requirements Credits: 0-6

Some courses in this area have [SB] and [L] designations and may also be applied to the corresponding AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Oral Communication Credits: 0-3

COM100 Introduction to Human Communication (3) OR

COM110 Interpersonal Communication (3) OR

COM225 Public Speaking (3) OR

COM230 Small Group Communication (3) 3

COM100, COM110, or COM230 recommended.

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR

Equivalent as indicated by assessment (0) 0-3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=188787>

Starting Term: 2024 Fall

Final Term: 9999

## **ASSOCIATE IN SCIENCE (AS) IN ASSOCIATE IN SCIENCE, EMPHASIS IN GEOGRAPHY - METEOROLOGY**

Total Credits: 60-64

Major Code: 8604

### **Description**

The Associate in Science (AS), Emphasis in Geography - Meteorology provides the first two years of a four-year curriculum for students who intend to transfer to a four-year institution to study meteorology and/or climatology. This associate degree will prepare students for employment opportunities in a number of careers including forest and conservation workers and air traffic controllers. Upon completion of a bachelor's degree, students may pursue a career in several areas including broadcast meteorology, geography, hydrology, environmental science, and forest fire inspection and prevention. Upon completion of a graduate degree, students may pursue a number of careers including atmospheric and space scientist, geoscientist, climate change analyst, and geography professor.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 35-41

FYE101 Introduction to College, Career and Personal Success (1) OR  
FYE103 Exploration of College, Career and Personal Success (3) 1-3

GCU102 Introduction to Human Geography 3  
GIS205 Geographic Information Technology 3

GPH111 Introduction to Physical Geography (3) AND  
GPH112 Introduction to Physical Geography Lab (1) OR  
GPH113 Introduction to Physical Geography (4) 4  
GPH212 Introduction to Meteorology I (3) AND  
GPH214 Introduction to Meteorology Laboratory I (1) 4

GPH213 Climate and Weather (3) AND  
GPH215 Climate and Weather Laboratory (1) 4

MAT230 Calculus with Analytic Geometry II (5) OR  
MAT231 Calculus with Analytic Geometry II (4) 4-5

MAT240 Calculus with Analytic Geometry III (5) OR  
MAT241 Calculus with Analytic Geometry III (4) 4-5

PHY115 University Physics I (5) OR  
PHY121 University Physics I: Mechanics (4) 4-5

PHY116 University Physics II (5) OR  
PHY131 University Physics II: Electricity and Magnetism (4) 4-5

## Restricted Electives

Credits: 0

The requirements for the transfer plan below are fulfilled upon completion of Required Courses, AGECC Curriculum, and MCCC Additional Requirements. If this is not your intended transfer institution, please consult with Maricopa and transfer university advisor(s) to identify coursework that is applicable to your intended transfer program.

Transfer Plan 1: Arizona State University (College of Liberal Arts and Sciences), Bachelor of Science, Geography (Meteorology-Climatology)

No additional coursework needed.

## General Education Requirements

Arizona General Education Curriculum (AGEC)

AGEC-S Credits: 19-26

A single course with an [HU], [SB], or [L] designation may also be used to satisfy the Oral Communication, Critical Reading, or Awareness Area ([C], [G] and/or [H]) requirement(s).

A single course with both the [HU] and [L] designations may be used to satisfy both of these areas.

A single course with both the [SB] and [L] designations may be used to satisfy both of these areas.

See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

First-Year Composition [FYC] Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 0-3\*\*

Any approved general education course in the Literacy and Critical Inquiry [L] area. 3

Recommend selecting a course that satisfies ([L] and [SB]) or ([L] and [HU]) or ([L] and COM) or ([L] and CRE101) requirements simultaneously.

\*\*0 credits only if shared with [HU] or [SB]

Mathematics [MA] Credits: 4-5

MAT220 Calculus with Analytic Geometry I (5) OR  
MAT221 Calculus with Analytic Geometry I (4) OR  
Higher approved general education course in the Mathematical Applications [MA] area for which  
MAT22+ is a prerequisite. (4-5) 4-5

Humanities, Arts and Design [HU] Credits: 6

Any approved general education courses in the Humanities, Arts and Design [HU] area. 6

Social-Behavioral Sciences [SB] Credits: 3

Any approved general education course in Social-Behavioral Sciences [SB] area 3  
AND

Met by GCU102 in the Required Courses area

Natural Sciences [SG]/[SQ] Credits: 0

Met by (PHY115 OR PHY121) AND (PHY116 OR PHY131) in the Required Courses area.

Subject Options Credits: 0

Met by (GPH212 and GPH214) AND (GPH213 and GPH215) in the Required Courses area.

Awareness Areas Credits: 0-3

These requirements may be shared with other AGEC requirements. See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

Cultural Diversity in the US [C] Credits: 0-3

Historical/Global Awareness [H]/[G] Credits: 0

Met by GCU102 in the Required Courses area.

MCCCD Additional Requirements

MCCCD Additional Requirements Credits: 0-6

Some courses in this area have [SB] and [L] designations and may also be applied to the corresponding AGEC requirements. See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

Oral Communication Credits: 0-3

COM100 Introduction to Human Communication (3) OR

COM110 Interpersonal Communication (3) OR

COM225 Public Speaking (3) OR

COM230 Small Group Communication (3) 0-3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR

Equivalent as indicated by assessment (0) 0-3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=188788>

Starting Term: 2024 Fall

Final Term: 9999

## **ASSOCIATE IN SCIENCE (AS) IN ASSOCIATE IN SCIENCE, EMPHASIS IN GEOLOGY**

Total Credits: 60-64

Major Code: 8608

### **Description**

The Associate in Science (AS), Emphasis in Geology provides the first two years of a four-year curriculum for students who wish to specialize in geological sciences and/or are preparing for application to graduate programs in related fields. With a bachelor's degree, students may pursue a career as a research lab or field technician in environmental geology, mining, petroleum exploration, geological engineering, forestry, conservation, and hydrology. With a graduate degree, students may pursue a number of careers, including but not limited to secondary school (grades 7-12) teachers and university professors, geologic consultants, seismologists, volcanologists, paleontologists, and geologists in a variety of areas.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 17-21

FYE101 Introduction to College, Career and Personal Success (1) OR

FYE103 Exploration of College, Career and Personal Success (3) 1-3

GLG101 Introduction to Geology I - Physical Lecture (3) AND

GLG103 Introduction to Geology I - Physical Lab (1) OR  
GLG101IN Introduction to Geology I - Physical (4) 4

GLG102 Introduction to Geology II - Historical Lecture (3) AND  
GLG104 Introduction to Geology II - Historical Lab (1) OR  
GLG102IN Introduction to Geology II - Historical (4) 4

+ MAT230 Calculus with Analytic Geometry II (5) OR  
+ MAT231 Calculus with Analytic Geometry II (4) 4-5

+ PHY115 University Physics I (5) OR  
+ PHY121 University Physics I: Mechanics (4) 4-5

### **Restricted Electives**

Credits: 0-10

Complete requirements in the transfer option that best aligns with your academic and professional goals. If your intended transfer institution is not listed, then select a combination of courses from the transfer options listed in order to meet the minimum credits required in the Restricted Electives section. Consult with an academic, faculty, or program advisor to prevent exceeding your university transfer program's maximum transferable credits (typically 64).

Transfer Plan 1: Arizona State University (College of Liberal Arts and Sciences), Earth and Space Exploration (Geological and Planetary Sciences), Bachelor of Science

Credits: 6

+ CHM140AA General Chemistry for Engineers with Lab 6

Transfer Plan 2: University of Arizona, Geosciences (Geology Emphasis), Bachelor of Science  
Credits: 15-19

+ CHM150 General Chemistry I (4) AND  
+ CHM151LL General Chemistry I Laboratory (1) OR  
+ CHM150AA General Chemistry I (5) OR  
+ CHM151 General Chemistry I (3) AND  
+ CHM151LL General Chemistry I Laboratory (1) OR  
+ CHM151AA General Chemistry I (4) 4-5

+ CHM152 General Chemistry II (3) AND  
+ CHM152LL General Chemistry II Laboratory (1) OR  
+ CHM152AA General Chemistry II (4) 4

MAT206 Elements of Statistics (3) OR  
+ MAT240 Calculus with Analytic Geometry III (5) OR  
+ MAT241 Calculus with Analytic Geometry III (4) 3-5

+ PHY116 University Physics II (5) OR  
+ PHY131 University Physics II: Electricity and Magnetism (4) 4-5

Second Language Requirement:

Completion of second language courses at the elementary level (102 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this

university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

## General Education Requirements

Arizona General Education Curriculum (AGEC)

AGEC-S Credits: 22-32

A single course with an [HU], [SB], or [L] designation may also be used to satisfy the Oral Communication, Critical Reading, or Awareness Area ([C], [G] and/or [H]) requirement(s).

A single course with both the [HU] and [L] designations may be used to satisfy both of these areas.

A single course with both the [SB] and [L] designations may be used to satisfy both of these areas.

See the AGECEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

First-Year Composition [FYC] Credits: 6

ENG101 First-Year Composition (3) OR

ENG107 First-Year Composition for ESL (3) AND

ENG102 First-Year Composition (3) OR

ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 0-3

Any approved general education course in the Literacy and Critical Inquiry [L] area. 3

Recommend selecting a course that satisfies ([L] and [SB]) or ([L] and [HU]) or ([L] and COM) or ([L] and CRE101) requirements simultaneously.

Mathematics [MA] Credits: 4-5

MAT220 Calculus with Analytic Geometry I (5) OR

MAT221 Calculus with Analytic Geometry I (4) OR

Higher approved general education course in the Mathematical Applications [MA] area for which MAT22+ is a prerequisite. (4-5) 4-5

Humanities, Arts and Design [HU] Credits: 6

Any approved general education courses in the Humanities, Arts and Design [HU] area. 6

Social-Behavioral Sciences [SB] Credits: 6

Any approved general education courses in the Social-Behavioral Sciences [SB] area. 6

Natural Sciences [SG]/[SQ] Credits: 0

Met by (PHY115 OR PHY121) AND (PHY116 OR PHY131) in the Required Courses area.

Subject Options Credits: 0

Met by (MAT230 or MAT231) AND (PHY121) in the Required Courses area.

Awareness Areas Credits: 0-6

These requirements may be shared with other AGECEC requirements. See the AGECEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

Cultural Diversity in the US [C] Credits: 0-3  
Historical/Global Awareness [H]/[G] Credits: 0-3  
Any approved general education course with the Historical [H] or Global [G] awareness area designation. 0-3

MCCCD Additional Requirements  
MCCCD Additional Requirements Credits: 0-6

Some courses in this area have [SB] and [L] designations and may also be applied to the corresponding AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Oral Communication Credits: 0-3  
COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 0-3

Critical Reading Credits: 0-3  
CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

### **General Electives**

Recommended for Transfer Plan 2: University of Arizona, Geosciences (Geology Emphasis), Bachelor of Science

Complete a language course at the elementary level (102 or equivalent) with a C or better OR demonstrate proficiency through this level as indicated by assessment:

ARB+++ Any ARB Arabic course(s)  
ASL+++ Any ASL American Sign Language course(s)  
CHI+++ Any CHI Chinese course(s)  
FRE+++ Any FRE French course(s)  
GER+++ Any GER German course(s)  
ITA+++ Any ITA Italian course(s)  
JPN+++ Any JPN Japanese course(s)  
SPA+++ Any SPA Spanish course(s)

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=184004>

Starting Term: 2023 Fall  
Final Term: 9999

## **ASSOCIATE IN SCIENCE (AS) IN ASSOCIATE IN SCIENCE, EMPHASIS IN PHYSICS**

Total Credits: 60-64  
Major Code: 8606

## Description

The Associate in Science (AS), Emphasis in Physics degree provides the first two years of a four-year curriculum for students who wish to specialize in Physics or are preparing for application to professional graduate programs in various medical fields. With a bachelor's degree, students may pursue a career as a secondary education Physics teacher, physicist, or materials scientist. Upon completion of a graduate degree, students may pursue a number of careers, including but not limited to, Physics professor, physicist, engineer, or researcher.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 17-23

FYE101 Introduction to College, Career and Personal Success (1) OR  
FYE103 Exploration of College, Career and Personal Success (3) 1-3

MAT230 Calculus with Analytic Geometry II (5) OR  
MAT231 Calculus with Analytic Geometry II (4) 4-5

MAT240 Calculus with Analytic Geometry III (5) OR  
MAT241 Calculus with Analytic Geometry III (4) 4-5

PHY115 University Physics I (5) OR  
PHY121 University Physics I: Mechanics (4) 4-5

PHY116 University Physics II (5) OR  
PHY131 University Physics II: Electricity and Magnetism (4) 4-5

## Restricted Electives

Credits: 0-36

Complete requirements in the transfer option that best aligns with your academic and professional goals. If your intended transfer institution is not listed, then select a combination of courses from the transfer options listed in order to meet the minimum credits required in the Restricted Electives section. Consult with an academic, faculty, or program advisor to prevent exceeding your university transfer program's maximum transferable credits (typically 64).

Transfer Plan 1: Arizona State University (College of Liberal Arts and Sciences), Bachelor of Science, Physics

Credits: 10-11

+ MAT225 Elementary Linear Algebra 3

+ MAT276 Modern Differential Equations (4) OR

+ MAT277 Modern Differential Equations (3) 3-4

Note: (MAT 276 or MAT 277) and (MAT 225) will satisfy the ASU PHY 201 requirement for Physics majors.



+ PHY241 University Physics III: Thermodynamics, Optics, and Wave Phenomena 4

Transfer Plan 2: Arizona State University (College of Liberal Arts and Sciences), Bachelor of Science, Biophysics

Credits: 16-28

+ BIO181++ General Biology (Majors) I 4

+ BIO182++ General Biology (Majors) II 4

+ CHM150 General Chemistry I (4) AND

+ CHM151LL General Chemistry I Laboratory (1) OR

+ CHM150AA General Chemistry I (5) OR

+ CHM151 General Chemistry I (3) AND

+ CHM151LL General Chemistry I Laboratory (1) OR

+ CHM151AA General Chemistry I (4) 4-5

+ CHM152 General Chemistry II (3) AND

+ CHM152LL General Chemistry II Laboratory (1) OR

+ CHM152AA General Chemistry II (4) 4

+ MAT276 Modern Differential Equations (4) OR

+ MAT277 Modern Differential Equations (3) OR

May be completed after transferring to ASU (0) 0-4

+ MAT225 Elementary Linear Algebra (3) OR

May be completed after transferring to ASU (0) 0-3

Note: (MAT 276 or MAT 277) and (MAT 225) will satisfy the ASU PHY 201 requirement for Biophysics majors.

+ PHY241 University Physics III: Thermodynamics, Optics, and Wave Phenomena (4) OR

May be completed after transferring to ASU (0) 0-4

Transfer Plan 3: Arizona State University (College of Integrative Sciences and Arts), Bachelor of Science, Applied Physics

Credits: 0

No additional required coursework for this transfer plan.

Transfer Plan 4: Arizona State University (College of Liberal Arts and Sciences), Bachelor of Arts, Physics

Credits: 14-16

+ CHM150 General Chemistry I (4) AND

+ CHM151LL General Chemistry I Laboratory (1) OR

+ CHM150AA General Chemistry I (5) OR

+ CHM151 General Chemistry I (3) AND

+ CHM151LL General Chemistry I Laboratory (1) OR

+ CHM151AA General Chemistry I (4) 4-5

+ MAT225 Elementary Linear Algebra 3

+ MAT276 Modern Differential Equations (4) OR

+ MAT277 Modern Differential Equations (3) 3-4

Note: (MAT 276 or MAT 277) and (MAT 225) will satisfy the ASU PHY 201 requirement for Physics majors.

+ PHY241 University Physics III: Thermodynamics, Optics, and Wave Phenomena 4

Second Language Requirement:

Completion of second language courses at the intermediate level (202 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

Transfer Plan 5: Northern Arizona University, Bachelor of Science, Physics

Credits: 7-8

+ MAT276 Modern Differential Equations (4) OR

+ MAT277 Modern Differential Equations (3) 3-4

+ PHY241 University Physics III: Thermodynamics, Optics, and Wave Phenomena 4

Transfer Plan 6: University of Arizona, Bachelor of Science, Physics

Credits: 11-13

+ CHM150 General Chemistry I (4) AND

+ CHM151LL General Chemistry I Laboratory (1) OR

+ CHM150AA General Chemistry I (5) OR

+ CHM151 General Chemistry I (3) AND

+ CHM151LL General Chemistry I Laboratory (1) OR

+ CHM151AA General Chemistry I (4) 4-5

+ MAT276 Modern Differential Equations (4) OR

+ MAT277 Modern Differential Equations (3) 3-4

+ PHY241 University Physics III: Thermodynamics, Optics, and Wave Phenomena 4

Second Language Requirement:

Completion of second language courses at the elementary level (102 or equivalent) OR demonstrate proficiency through this level as indicated by assessment is required for this university program. The second language requirement may be taken after transfer to avoid exceeding your program's maximum transferable credits (typically 64). Please see the General Electives for more information.

## General Education Requirements

Arizona General Education Curriculum (AGEC)

AGEC-S Credits: 22-32

A single course with an [HU], [SB], or [L] designation may also be used to satisfy the Oral Communication, Critical Reading, or Awareness Area ([C], [G] and/or [H]) requirement(s).

A single course with both the [HU] and [L] designations may be used to satisfy both of these areas.

A single course with both the [SB] and [L] designations may be used to satisfy both of these areas.

See the AGECEC matrix on aztransfer.com for course designations.

First-Year Composition [FYC] Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 0-3

Any approved general education course in the Literacy and Critical Inquiry area [L]. 3

Recommend selecting a course that satisfies [L] and [SB] or [L] and [HU] or [L] and (COM) or [L] and CRE101 requirements simultaneously.

Mathematics [MA] Credits: 4-5

MAT220 Calculus with Analytic Geometry I (5) OR  
MAT221 Calculus with Analytic Geometry I (4) OR  
Higher approved general education course in the Mathematical Applications [MA] area for which  
MAT22+ is a prerequisite (4-5) 4-5

Humanities, Arts and Design [HU] Credits: 6

Any approved general education courses in the Humanities, Arts and Design [HU] area. 6

Social-Behavioral Sciences [SB] Credits: 6

Any approved general education courses in the Social-Behavioral Sciences [SB] area. 6

Natural Sciences [SG]/[SQ] Credits: 0

Met by (PHY115 or PHY121) and (PHY116 or PHY131) in the Required Courses area.

Subject Options Credits: 0

Met by (MAT230 or MAT231) and (MAT240 or MAT241) in the Required Courses area.

Awareness Areas Credits: 0-6

These requirements may be shared with other AGECEC requirements. See the AGECEC matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

Historical/Global Awareness [H]/[G] Credits: 0-3

Any approved general education course with the Historical [H] or Global [G] awareness area designation. 0-3

MCCCD Additional Requirements

MCCCD Additional Requirements Credits: 0-6

Some courses in this area have [SB] and [L] designations and may also be applied to the corresponding AGECEC requirements. See the AGECEC matrix on aztransfer.com for course designations.

Oral Communication Credits: 0-3

COM100 Introduction to Human Communication (3) OR

COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 0-3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

The following is recommended for students intending to transfer to Arizona State University (College of Liberal Arts and Sciences) to earn a Bachelor in Science, Physics or a Bachelor in Science, Biophysics to partially fulfill Arizona State University (College of Liberal Arts and Sciences) Science and Society Elective requirement:

ASB100 Introduction to Global Health (3) OR  
ASM275 Forensic Anthropology (4) OR  
+ GPH210 Society and Environment (3) OR  
+ GPH211 Landform Processes (4) OR  
GPH213 Climate and Weather (3) 3-4

The following courses are recommended for students intending to transfer to Northern Arizona University to earn a Bachelor in Science, Physics:

+ CHM150 General Chemistry I (4) AND  
+ CHM151LL General Chemistry I Laboratory (1) OR  
+ CHM150AA General Chemistry I (5) OR  
+ CHM151 General Chemistry I (3) AND  
+ CHM151LL General Chemistry I Laboratory (1) OR  
+ CHM151AA General Chemistry I (4) 4-5  
  
+ CHM152 General Chemistry II (3) AND  
+ CHM152LL General Chemistry II Laboratory (1) OR  
+ CHM152AA General Chemistry II (5) 4-5

Recommended for Transfer Plan 6: University of Arizona, Bachelor of Science, Physics  
Complete a language course at the elementary level (102 or equivalent) with a C or better OR demonstrate proficiency through this level as indicated by assessment.

ARB+++ Any ARB Arabic course(s)  
ASL+++ Any ASL American Sign Language course(s)  
CHI+++ Any CHI Chinese course(s)  
FRE+++ Any FRE French course(s)  
GER+++ Any GER German course(s)  
ITA+++ Any ITA Italian course(s)  
JPN+++ Any JPN Japanese course(s)  
SPA+++ Any SPA Spanish course(s)

Recommended for Transfer Plan 4: Arizona State University (College of Liberal Arts and Sciences), Bachelor of Arts, Physics  
Complete a language course at the intermediate level (202 or equivalent) with a C or better OR demonstrate proficiency through this level as indicated by assessment.

ARB+++ Any ARB Arabic course(s)  
ASL+++ Any ASL American Sign Language course(s)  
CHI+++ Any CHI Chinese course(s)  
FRE+++ Any FRE French course(s)

GER+++ Any GER German course(s)  
ITA+++ Any ITA Italian course(s)  
JPN+++ Any JPN Japanese course(s)  
SPA+++ Any SPA Spanish course(s)

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=188789>

Starting Term: 2024 Fall  
Final Term: 9999

## **ASSOCIATE IN SCIENCE (AS) IN ASSOCIATE IN SCIENCE, EMPHASIS IN SECONDARY EDUCATION**

Total Credits: 60-64  
Major Code: 8609

### **Description**

The Associate in Science (AS), Emphasis in Secondary Education provides the first two years of a four-year curriculum for students who wish to transfer to a four-year institution and earn a bachelor's degree in secondary education leading to teacher certification for grades 6-12 in Biology, Chemistry, and Physics. Foundational education courses and discipline specific courses are designed to provide future teachers with the knowledge and skills related to educational philosophies, policies, attitudes, behaviors, and instruction in order to effectively perform the duties associated with the position of a classroom teacher. Students will participate in classroom field experiences to connect theory with practice.

### **Program Notes**

Students must earn a grade of C or better in each course to transfer. State certification requirements include demonstration of proficiency in the constitutions of the United States and Arizona. Proficiency can be demonstrated via the Arizona Educator Proficiency Assessments (AEPA) Constitutions of the United States and Arizona test or by taking appropriate coursework: GCU113, POS113, HIS103 and POS221, POS221 and POS222, or POS220. Identity Verified Prints (IVP) Fingerprint Clearance Card is required for participation in field experiences and for admission to a university teacher education program. Applicants must present an IVP Fingerprint Clearance Card to be copied by the advisor or designee. Please contact your advisor for information about obtaining the IVP Fingerprint Clearance Card.

### **Required Courses**

Credits: 1-3

FYE101 Introduction to College, Career and Personal Success (1) OR  
FYE103 Exploration of College, Career and Personal Success (3) 1-3

### **Restricted Electives**

Credits: 30-46

Complete requirements in the transfer option that best aligns with your academic and professional goals. Students should work with an advisor to determine the appropriate coursework and transfer institution for their intended area of study. If your intended transfer institution is not listed, then select a combination of courses from the transfer options listed in order to meet the minimum credits required in the Restricted Electives. Consult with an academic, faculty, or program advisor to prevent exceeding your university transfer program's maximum transferable credits (typically 64).

Transfer Plan 1: Arizona State University (Mary Lou Fulton Teachers College), Bachelor of Arts in Education, Secondary Education (Biological Sciences)

Credits: 38-45

+ BIO181++ General Biology (Majors) I 4

+ BIO182++ General Biology (Majors) II 4

Note that these courses may be used to satisfy the Natural Sciences requirement.

+ BIO201++ Human Anatomy and Physiology I (4) OR

Students may choose to complete specified upper division courses upon transfer to ASU to fulfill this requirement (0) 0-4

CSC180 Computer Literacy (3) OR

CSC180AA Computer Literacy (3) OR

CSC180AB Computer Literacy (4) OR

EDU/EED115 Digital Literacy for Teaching and Learning in Education (3) 3-4

EDU/EED115 recommended.

+ CHM150 General Chemistry I (4) AND

+ CHM151LL General Chemistry I Laboratory (1) OR

+ CHM150AA General Chemistry I (5) OR

+ CHM151 General Chemistry I (3) AND

+ CHM151LL General Chemistry I Laboratory (1) OR

+ CHM151AA General Chemistry I (4) 4-5

Note that these courses may be used to satisfy the Subject Options requirement.

+ CHM152 General Chemistry II (3) AND

+ CHM152LL General Chemistry II Laboratory (1) OR

+ CHM152AA General Chemistry II (4) 4

Note that these courses may be used to satisfy the Subject Options requirement.

CFS/ECH176 Child Development 3

EDU220 Introduction to Serving English Language Learners (ELL) 3

EDU221 Introduction to Education 3

Note that this course may be used to satisfy the [SB] requirement.

EDU222 Introduction to the Exceptional Learner 3

Note that this course may be used to satisfy the [SB] requirement.

EDU225 Professionalism and Ethics in Education 1

EDU230 Cultural Diversity in Education 3

GCU/POS113 United States and Arizona Social Studies (3) OR

HIS103 United States History to 1865 (3) AND  
POS221 Arizona Constitution (1) 3-4

Note that GCU/POS113 or HIS103 may be used to satisfy outstanding AGEC requirements

Transfer Plan 2: Arizona State University (College of Integrative Sciences and Arts), Bachelor of Science, Applied Biological Sciences (Secondary Education in Biology)

Credits: 33-37

+ BIO181++ General Biology (Majors) I 4

+ BIO182++ General Biology (Majors) II 4

Note that these courses may be used to satisfy the Natural Sciences requirement.

+ BIO205 Microbiology 4

+ CHM150 General Chemistry I (4) AND

+ CHM151LL General Chemistry I Laboratory (1) OR

+ CHM150AA General Chemistry I (5) OR

+ CHM151 General Chemistry I (3) AND

+ CHM151LL General Chemistry I Laboratory (1) OR

+ CHM151AA General Chemistry I (4) 4-5

Note that these courses may be used to satisfy the Subject Options requirement.

+ CHM152 General Chemistry II (3) AND

+ CHM152LL General Chemistry II Laboratory (1) OR

+ CHM152AA General Chemistry II (4) OR

+ CHM154 General Chemistry II with Qualitative Analysis (3) AND

+ CHM154LL General Chemistry II with Qualitative Laboratory (2) 4-5

Note that these courses may be used to satisfy the Subject Options requirement.

EDU220 Introduction to Serving English Language Learners (ELL) 3

EDU222 Introduction to the Exceptional Learner 3

Note that this course may be used to satisfy the [SB] requirement.

GCU/POS113 United States and Arizona Social Studies (3) OR

HIS103 United States History to 1865 (3) AND

POS221 Arizona Constitution (1) 3-4

Note that GCU/POS113 or HIS103 may be used to satisfy outstanding AGEC requirements

+ PHY101 Introduction to Physics (4) OR

+ PHY101AA Introduction to Physics (5) OR

+ PHY111 General Physics I (4) OR

+ PHY111AA General Physics I (5) 4-5

Transfer Plan 3: Northern Arizona University, Bachelor of Science in Education, Secondary Education - Biology

Credits: 43-46

+ BIO181++ General Biology (Majors) I 4

+ BIO182++ General Biology (Majors) II 4

Note that these courses may be used to satisfy the Natural Sciences requirement.

+ BIO201++ Human Anatomy and Physiology I 4

- + BIO202 Human Anatomy and Physiology II 4
- + BIO240 General Genetics 4

- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4) 4-5

Note that these courses may be used to satisfy the Subject Options requirement.

- + CHM152 General Chemistry II (3) AND
- + CHM152LL General Chemistry II Laboratory (1) OR
- + CHM152AA General Chemistry II (4) 4

Note that these courses may be used to satisfy the Subject Options requirement.

- + CHM230 Fundamental Organic Chemistry 3
- + CHM230LL Fundamental Organic Chemistry Laboratory 1

GCU/POS113 United States and Arizona Social Studies (3) OR

HIS103 United States History to 1865 (3) AND

POS221 Arizona Constitution (1) OR

POS220 U.S. and Arizona Constitution (3) 3-4

Note that GCU/POS113 or HIS103 may be used to satisfy outstanding AGECE requirements

- + PHY111 General Physics I (4) OR
- + PHY111AA General Physics I (5) 4-5

GLG101 Introduction to Geology I - Physical Lecture (3) AND

GLG103 Introduction to Geology I - Physical Lab (1) OR

GLG101IN Introduction to Geology I - Physical (4) 4

Transfer Plan 4: Northern Arizona University, Bachelor of Science in Education, Secondary Education - Chemistry

Credits: 39-44

- + BIO181++ General Biology (Majors) I 4

- + CHM150 General Chemistry I (4) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM150AA General Chemistry I (5) OR
- + CHM151 General Chemistry I (3) AND
- + CHM151LL General Chemistry I Laboratory (1) OR
- + CHM151AA General Chemistry I (4) 4-5

Note that these courses may be used to satisfy the Natural Sciences requirement.

- + CHM152 General Chemistry II (3) AND
- + CHM152LL General Chemistry II Laboratory (1) OR
- + CHM152AA General Chemistry II (4) 4

Note that these courses may be used to satisfy the Natural Sciences requirement.

- + CHM235 General Organic Chemistry I 3



- + CHM235LL General Organic Chemistry I Laboratory 1
- + CHM236 General Organic Chemistry IIA 3
- + CHM236LL General Organic Chemistry IIA Laboratory 1

Note that these courses may be used to satisfy the Subject Options requirement.

GCU/POS113 United States and Arizona Social Studies (3) OR

HIS103 United States History to 1865 (3) AND

POS221 Arizona Constitution (1) OR

POS220 U.S. and Arizona Constitution (3) 3-4

Note that GCU/POS113 or HIS103 may be used to satisfy outstanding AGEC requirements.

Students must petition NAU to accept GCU/POS113 OR (HIS103 and POS221) for POS220.

GLG101 Introduction to Geology I - Physical Lecture (3) AND

GLG103 Introduction to Geology I - Physical Lab (1) OR

GLG101IN Introduction to Geology I - Physical (4) 4

- + MAT230 Calculus with Analytic Geometry II (5) OR

- + MAT231 Calculus with Analytic Geometry II (4) 4-5

- + PHY115 University Physics I (5) OR

- + PHY121 University Physics I: Mechanics (4) 4-5

- + PHY116 University Physics II (5) OR

- + PHY131 University Physics II: Electricity and Magnetism (4) 4-5

Transfer Plan 5: Northern Arizona University, Bachelor of Science in Education, Secondary Education - Physics

Credits: 30-36

- + AST/GLG106 Life in the Universe 4

GCU/POS113 United States and Arizona Social Studies (3) OR

HIS103 United States History to 1865 (3) AND

POS221 Arizona Constitution (1) OR

POS220 U.S. and Arizona Constitution (3) 3-4

Note that GCU/POS113 or HIS103 may be used to satisfy outstanding AGEC requirements.

Students must petition NAU to accept GCU/POS113 OR (HIS103 and POS221) for POS220.

- + MAT230 Calculus with Analytic Geometry II (5) OR

- + MAT231 Calculus with Analytic Geometry II (4) 4-5

Note that this course may be used to satisfy the Subject Options requirement.

- + MAT240 Calculus with Analytic Geometry III (5) OR

- + MAT241 Calculus with Analytic Geometry III (4) 4-5

Note that this course may be used to satisfy the Subject Options requirement.

- + MAT276 Modern Differential Equations (4) OR

- + MAT277 Modern Differential Equations (3) 3-4

- + PHY115 University Physics I (5) OR

- + PHY121 University Physics I: Mechanics (4) 4-5

Note that this course may be used to satisfy the Natural Sciences requirement.

+ PHY116 University Physics II (5) OR  
+ PHY131 University Physics II: Electricity and Magnetism (4) 4-5  
Note that this course may be used to satisfy the Natural Sciences requirement.

+ PHY241 University Physics III: Thermodynamics, Optics, and Wave Phenomena 4

## General Education Requirements

Arizona General Education Curriculum (AGEC)

AGEC-S Credits: 13-52

A single course with an [HU], [SB], or [L] designation may also be used to satisfy the Oral Communication, Critical Reading, or Awareness Area ([C], [G] and/or [H]) requirement(s).

A single course with both the [HU] and [L] designations may be used to satisfy both of these areas.

A single course with both the [SB] and [L] designations may be used to satisfy both of these areas.

See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

First-Year Composition [FYC] Credits: 6

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) AND  
ENG102 First-Year Composition (3) OR  
ENG108 First-Year Composition for ESL (3) 6

Literacy and Critical Inquiry [L] Credits: 0-3\*\*

Any approved general education course in the Literacy and Critical Inquiry [L] area. 3

Recommend selecting a course that satisfies ([L] and [SB]) or ([L] and [HU]) or ([L] and COM) or ([L] and CRE101) requirements simultaneously.

\*\*0 credits only if shared with [HU] or [SB]

Mathematics [MA] Credits: 4-5

MAT220 Calculus with Analytic Geometry I (5) OR  
MAT221 Calculus with Analytic Geometry I (4) OR  
Higher approved general education course in the Mathematical Applications [MA] area for which MAT22+ is a prerequisite. (4-5) 4-5

Humanities, Arts and Design [HU] Credits: 3-6

Any approved general education courses in the Humanities, Arts and Design [HU] area. 6

May be met by specific transfer plan option selections.

Social-Behavioral Sciences [SB] Credits: 0-6

Any approved general education courses in the Social-Behavioral Sciences [SB] area. 6

May be met by specific transfer plan option selections.

Natural Sciences [SG]/[SQ] Credits: 0-10  
CHM150 General Chemistry I (4) OR  
CHM151 General Chemistry I (3) AND  
CHM151LL General Chemistry I Laboratory (1) OR  
CHM150AA General Chemistry I (5) OR  
CHM151AA General Chemistry I (4)

AND

CHM152 General Chemistry II (3) AND  
CHM152LL General Chemistry II Laboratory (1) OR  
CHM152AA General Chemistry II (4) 8-9

OR

PHY115 University Physics I (5) OR  
PHY121 University Physics I: Mechanics (4) AND  
PHY116 University Physics II (5) OR  
PHY131 University Physics II: Electricity and Magnetism (4) 8-10

OR

BIO181++ General Biology (Majors) I (4) AND  
BIO182++ General Biology (Majors) II (4) 8

OR

GLG101 Introduction to Geology I - Physical Lecture (3) AND  
GLG103 Introduction to Geology I - Physical Lab (1) OR  
GLG101IN Introduction to Geology I - Physical (4)

AND

GLG102 Introduction to Geology II - Historical Lecture (3) AND  
GLG104 Introduction to Geology II - Historical Lab (1) OR  
GLG102IN Introduction to Geology II - Historical (4) 8

May be met by specific transfer plan option selections.

Subject Options Credits: 0-10  
Any approved general education courses in the Subject Options area. 6-10  
May be met by specific transfer plan option selections.

Awareness Areas Credits: 0-6  
These requirements may be shared with other AGEC requirements. See the AGEC matrix on [aztransfer.com](http://aztransfer.com) for course designations.

Cultural Diversity in the US [C] Credits: 0-3  
Historical/Global Awareness [H]/[G] Credits: 0-3

Any approved general education course with the Historical [H] or Global [G] awareness area designation. 0-3

MCCCD Additional Requirements  
MCCCD Additional Requirements Credits: 0-6

Some courses in this area have [SB] and [L] designations and may also be applied to the corresponding AGEC requirements. See the AGEC matrix on aztransfer.com for course designations.

Oral Communication Credits: 0-3  
COM100 Introduction to Human Communication (3) OR  
COM110 Interpersonal Communication (3) OR  
COM225 Public Speaking (3) OR  
COM230 Small Group Communication (3) 0-3

Critical Reading Credits: 0-3  
CRE101 College Critical Reading and Critical Thinking (3) OR  
Equivalent as indicated by assessment (0) 0-3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=164078>

Starting Term: 2021 Spring  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN ACCOUNTING**

Total Credits: 24-27  
Major Code: 5665

### **Description**

The Certificate of Completion (CCL) in Accounting program is designed for students seeking to gain skills and knowledge in the field of accounting and tax. Possible entry-level positions for this program include accounting clerk, accounts payable/receivable clerk, claims clerk, credit clerk, bookkeeper, accounting intern, or comparable positions. An Associate in Applied Science (AAS) in Accounting and a Certificate of Completion (CCL) in Enrolled Agent are also available.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program. Consultation with an Academic Advisor is recommended for course selection.

### **Required Courses**

Credits: 24-27  
ACC111 Accounting Principles I (3) AND  
ACC230 Uses of Accounting Information I (3) AND  
ACC240 Uses of Accounting Information II (3)

OR

ACC111 Accounting Principles I (3) AND  
ACC112 Accounting Principles II (3) AND  
ACC212 Managerial Accounting (3)

OR

ACC211 Financial Accounting (3) AND  
ACC212 Managerial Accounting (3) 6-9

ACC105 Payroll, Sales and Property Taxes (3) OR  
ACC222 Payroll Accounting (3)3

ACC121 Individual Tax Preparation (3) OR  
ACC221 Tax Accounting (3) 3

ACC115 Computerized Accounting 3  
CIS114DE Excel Spreadsheet 3  
CIS105 Survey of Computer Information Systems 3  
GBS151 Introduction to Business 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=134336>

Starting Term: 2019 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN ADMINISTRATION OF JUSTICE**

Total Credits: 15  
Major Code: 5007N

### **Description**

The Certificate of Completion (CCL) in Administration of Justice program is designed to be interdisciplinary by nature and provides students with foundational knowledge of the criminal justice system and operational processes for addressing crime within society. This program also examines diverse populations and communities, and their effects on relationships with the criminal justice system. In addition, this program allows students to familiarize themselves with and evaluate various career opportunities in the criminal justice field and is one pathway to the Associate in Applied Science (AAS) in Administration of Justice.

### **Program Notes**

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits:	15	
AJS101	Introduction to Criminal Justice	3
AJS109	Substantive Criminal Law (3) OR	
AJS260	Procedural Criminal Law (3)	3
AJS123	Ethics and the Administration of Justice	3
AJS230	The Police Function	3
AJS240	The Correction Function	3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=165303>

Starting Term: 2021 Fall

Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN ADOBE FOUNDATIONS: ANIMATION AND GRAPHICS PRODUCTION

Total Credits: 9

Major Code: 5167N

### Description

The Certificate of Completion (CCL) in Adobe Foundations: Animation and Graphics Production program helps prepare students to create, edit, and enhance digital images, graphics, and animation for use in web, print, and video. A Certificate of Completion in Adobe Foundations: Video and Audio Production and an Associate in Applied Science (AAS) in Web Design and Development are also available.

### Program Notes

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits:	9	
CIS120DB	Introduction to Adobe Illustrator	3
CIS120DC	Introduction to Adobe Animate	3
CIS120DF	Introduction to Adobe Photoshop	3

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Starting Term: 2021 Spring  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN ALTERATION SPECIALIST**

Total Credits: 19-27  
Major Code: 5556

### **Description**

The Certificate of Completion (CCL) in Alteration Specialist is designed to prepare students for employment in alterations for the apparel industry. Students will develop skills in advanced clothing construction, tailoring and couture techniques appropriate for a variety of fabrics and designs, and fitting techniques for all types of apparel. They will develop the ability to select appropriate fashion fabrics, interfacing, and lining materials for specific items of apparel. Students completing this certificate will be able to alter and repair ready-made garments in entry level positions in the alteration profession for retailers, dry-cleaning industry or their own alteration establishment. An Associate in Applied Science (AAS) in Fashion Design is also available.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 19-27

TEC110 Beginning Apparel Construction (3) OR  
Permission of Program Director 0-3

TEC111 Intermediate Apparel Construction (3) OR  
Permission of Program Director 0-3

TEC122 Sewing with Knits 3  
TEC124 Advanced Apparel Construction 3  
TEC129 Sewing with a Serger 3  
TEC130 Alteration of Ready Made Garments 3  
TEC222 Textiles 3

TEC223 Tailoring (3) OR  
TEC227 Couture Sewing (3) 3

TEC277++ Any Alteration Internship course 1-3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=162079>

Starting Term: 2021 Spring  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN AMAZON WEB SERVICES CLOUD ASSOCIATE**

Total Credits: 3-6  
Major Code: 5330N

### **Description**

The Certificate of Completion (CCL) in Amazon Web Services (AWS) Cloud Associate builds the knowledge and skills to design, plan, and implement a cloud solution architecture. Students will be introduced to concepts and hands-on opportunities to manage cloud systems/architectures for real world-applications. Students with the requisite experience in the field who complete this CCL can pursue employment in a variety of information technology jobs. This CCL also helps to prepare students for the AWS Certified Solutions Architect – Associate examination, which is the second level of the AWS certifications.

### **Program Notes**

This program is not eligible for Title IV Federal Financial Aid.

This Certificate of Completion (CCL) is intended for industry professionals with the requisite experience such as database, Linux, information security, networking, programming, and DevOps who are interested in expanding their knowledge in the area of cloud computing to enhance their employment opportunities. Speak to a program director for additional information. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: BPC, CIS, CLD, CNT, ITS, and MST. Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 3-6

CLD110 Amazon Web Services Cloud Foundations (3) OR  
Certificate of Completion in Amazon Web Services Cloud Practitioner (5141N) (3) OR  
AWS Certified Cloud Practitioner certification badge (0) OR  
Permission of Program Director (0) 0-3

(CCL/5141N is not eligible for Title IV Federal Financial Aid.)

CLD120 Amazon Web Services Cloud Architect Associate 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=173500>



Starting Term: 2022 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN AMAZON WEB SERVICES CLOUD PRACTITIONER**

Total Credits: 3  
Major Code: 5141N

### **Description**

The Certificate of Completion (CCL) in Amazon Web Services Cloud Practitioner builds the practical knowledge and skills of cloud computing. Cloud computing provides reliable, scalable, secure, and flexible technology solutions for personal and business use. This CCL will introduce students new to or interested in cloud computing to the fundamental concepts of cloud services as well as hands-on opportunities to apply these concepts to real-world applications. Students with the requisite experience in the field who complete this CCL can pursue employment in a variety of information technology jobs. This CCL also helps to prepare students for the Amazon Web Services (AWS) Certified Cloud Practitioner exam, which is the first level of the AWS certification.

### **Program Notes**

This program is not eligible for Title IV Federal Financial Aid.

This Certificate of Completion (CCL) is intended for industry professionals with the requisite experience such as database, Linux, information security, networking, programming, and DevOps who are interested in expanding their knowledge in the area of cloud computing to enhance their employment opportunities. Speak to a program director for additional information. Students must earn a grade of C or better in all courses within the program. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

### **Required Courses**

CLD110      Amazon Web Services Cloud Foundations    3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=188747>

Starting Term: 2024 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN AMAZON WEB SERVICES CLOUD SPECIALIST**

Total Credits: 3-9  
Major Code: 5331N

## Description

The Certificate of Completion (CCL) in Amazon Web Services (AWS) Cloud Specialist builds the requisite knowledge and skills to perform core Amazon Web Services (AWS) services in a manner that is based on compute, data, security and requirements as well as AWS best practices. Students select a specialization in either Developer or SysOps. Developer focuses on developing, deploying and debugging cloud based applications using AWS. SysOps focuses on deploying, managing and operating scalable, highly available, and fault tolerant systems on AWS.

Students will have hands-on opportunities to manage cloud systems/architectures for real world-scenarios. Students with the requisite prior experience in the field who complete this CCL can pursue employment in a variety of information technology jobs.

This CCL also helps to prepare students for industry-standard certification as either AWS Certified Developer - Associate or AWS Certified SysOps Administrator - Associate based on their emphasis.

## Program Notes

This program is not eligible for Title IV Federal Financial Aid.

This Certificate of Completion (CCL) is intended for industry professionals with the requisite experience such as database, Linux, information security, networking, programming, and DevOps who are interested in expanding their knowledge in the area of cloud computing to enhance their employment opportunities. Speak to a program director for additional information. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the CCL to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST. Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 3-9

CLD110 Amazon Web Services Cloud Foundations (3) OR  
AWS Cloud Practitioner Certification (0) OR  
Permission of Program Director (0) 0-3

CLD120 Amazon Web Services Cloud Architect Associate (3) OR  
AWS Certified Solutions Architect - Associate certification (0) OR  
Permission of Program Director (0) 0-3

Complete all courses in the specialization below that best aligns with your academic and professional goals. Consult with an academic, faculty, or program advisor.

Specialization 1: AWS Certified Developer - Associate

CLD130 Amazon Web Services Cloud Developing 3

Specialization 2: AWS Certified SysOps Administrator - Associate

CLD140 Amazon Web Services Cloud Operations 3

Starting Term: 2024 Fall  
Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN ANIMATION

Total Credits: 40  
Major Code: 5169

### Description

The Certificate of Completion (CCL) in Animation develops knowledge and skills in the area of digital animation, including but not limited to the production of still and time-based media, animation techniques, narrative development, character design, compositing, motion graphics, and interactive design. The curriculum is designed to provide the student with an understanding of animation techniques, use of production equipment, animation terminology, media and interactivity applications, and industry practices. This certificate prepares students for employment and upgrades the skills of persons employed in occupations such as digital animators, media producers, storyboard artists, media artist/designers, and interaction designers. Certificates of Completion (CCL) in Video Game Production, and Associate in Applied Science (AAS) degrees in Animation and Time-Based Media and Video Game Production, are also available. Some of these programs are available at select colleges. Please check with your local college for program availability.

### Program Notes

Students must earn a grade of C or better in all courses within the program. This CCL is designed for individuals who already have a degree or relevant experience in the field or who are currently employed in the field.

### Required Courses

Credits: 40

AVC169	2D Media Design (3) OR	
AVC178	Digital Arts Studies (3)	3
AVC177	Digital Photographic Imaging I	3
AVC/MMT184	Digital Animation I	3
ART111	Drawing I	3
ART116	Life Drawing I	3
AVC100	Introduction to Digital Arts	1
AVC150	Multimedia Storytelling (3) OR	
CRW150	Introduction to Creative Writing (3) OR	
CRW172	Introduction to Comic Book Writing (3) OR	
CRW176	Writing Narrative for Video Games (3) OR	
FMT121	Story Theory for Film, Television and Media (3)	3

ART170 3D Computer Design (3) OR  
AVC/THO246 Digital Fabrication (3) 3

AVC/MMT185 3D Modeling for Animation I 3  
AVC200 Animation and Interactivity 3  
AVC240 Cinematography and Directing for 2D/3D Animation 3  
AVC284 Digital Animation II 3  
AVC/MMT285 3D Modeling and Animation II 3  
AVC287 3D Character Animation 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=185547>

Starting Term: 2024 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN APPLECARE HARDWARE REPAIR EXAM PREP**

Total Credits: 6  
Major Code: 5341N

### **Description**

The Certificate of Completion (CCL) in AppleCare Hardware Repair Exam Prep prepares students to perform troubleshooting and repair of devices and computer models currently supported by Apple. Upon successful completion, students will have the opportunity to become certified in the Global Service Exchange (GSX) using Apple Technical Learning Administration System (ATLAS), the Apple learning management system. The CCL in AppleCare Hardware Repair Exam Prep prepares students to take the AppleCare Hardware Certification exams.

### **Program Notes**

This program is not eligible for Title IV Federal Financial Aid.

### **Required Courses**

Credits: 6

BPC260 AppleCare Exam Prep: iOS Device Repair 3  
BPC262 AppleCare Exam Prep: Mac Computer Models Repair 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=182598>

Starting Term: 2023 Fall  
Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN AUDIO PRODUCTION TECHNOLOGIES

Total Credits: 39-40

Major Code: 5334

## Description

The Certificate of Completion (CCL) in Audio Production Technologies offers students hands-on study of audio engineering and related media fields. Students learn and apply the concepts and theories associated with music recording, live sound reinforcement, and sound design. The program is designed to give students foundational knowledge and experience essential in the field of audio production. An Associate in Applied Science (AAS) is also available.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 30-31

MTC101	Introduction to Music Theory	3
MUC109	Music Business: Content Creation and Copyright	3
MUC110	Music Business: Marketing and Monetization (3) OR	
MUC145	Recording Studio Business Operations (2)	2-3
MUC111	Digital Audio Workstation I (DAW I)	3
MUC191	Electronic Music I	3
MUC192	Electronic Music II	3
MUC194	Audio Mixing Techniques	3
MUC195	Studio Music Recording I (3) OR	
MUC195AA	Studio Music Recording I (3)	3
MUC196	Studio Music Recording II (3) OR	
MUC196AA	Studio Music Recording II (3)	3
MUC197	Live Sound Reinforcement I	3
MUC296WA	Cooperative Education (1) OR	
MUC297AA	Audio Production Internship (1) OR	
MUC298AA	Special Projects (1)	1

## Restricted Electives

Credits: 9

Students must select a total of nine (9) credits from the list below in consultation with an academic advisor.

NOTE: at least one (1) of the following courses must be completed: MUC281, MUC289, MUC292, or MUC295.

MUC112	Digital Audio Workstation II (DAW II)	3
MUC122	Sound Design I	3
MUC193	Computer-Based Sound Synthesis	3
MUC198	Live Sound Reinforcement II	3
MUC222	Sound Design II	3
MUC281	Electronic Music III	3
MUC289	Live Sound Reinforcement III	3
MUC292	Sound Design III	3
MUC295	Studio Music Recording III	3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=172199>

Starting Term: 2021 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN AUTOMATED INDUSTRIAL TECHNOLOGY II**

Total Credits: 32  
Major Code: 5924

### **Description**

The Certificate of Completion (CCL) in Automated Industrial Technology II prepares students to troubleshoot, maintain and repair a variety of automated electro-mechanical, product assembly, process control, and product distribution systems that use programmable controls and other methodologies to accomplish system management. These systems include robotic, mechanical, hydraulic, pneumatic, electrical and electronic devices. Through this certificate, graduates will gain the skills to define, integrate, install, program, and maintain complex control systems. An Associate in Applied Science (AAS) in Automated Industrial Technology (AIT) and additional AIT Certificates of Completion (CCLs) are also available at select colleges. Please check with your local college for program availability.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program. This program may require students to be able to lift objects as heavy as 50 pounds.

### **Required Courses**

Credits:	32
AIT100	Industrial Safety 1
AIT105	Modern Maintenance Operations 3
AIT110	Mechanical Power Transmission Systems 3
AIT115	Hydraulic Systems 3
AIT120	Pneumatic Systems 3
AIT125	DC and AC Components and Circuits 3
AIT205	Power Electronics and Variable Frequency Drives 3
AIT210	Programmable Logic Controller Programming and Troubleshooting 3
AIT215	Process Control Systems 4
AIT225	Industrial Motors and Motor Control 3
AIT270	Robotics I 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=181231>

Starting Term: 2023 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN AUTOMOTIVE AUTOMATIC TRANSMISSION AND TRANSAXLE**

Total Credits: 4  
Major Code: 5930N

### **Description**

The Certificate of Completion (CCL) in Automotive Automatic Transmission and Transaxle provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of automatic transmission and transaxle. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A2 Test.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

### **Program Notes**

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for each course listed in the Required Courses area.

### **Required Courses**

Credits: 4

ASE120	Automatic Transmission and Transaxle (4) OR
ASE120AU	Automatic Transmission and Transaxle (4) 4

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=181235>

Starting Term: 2023 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN AUTOMOTIVE BRAKE SYSTEMS**

Total Credits: 4  
Major Code: 5936N

### **Description**

The Certificate of Completion (CCL) in Automotive Brake Systems provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of brake systems. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A5 Test.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

### **Program Notes**

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for each course listed in the Required Courses area.

### **Required Courses**

Credits: 4

ASE150 Automotive Brake Systems (4) OR  
ASE150AU Automotive Brake Systems (4) 4

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=181244>

Starting Term: 2023 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN AUTOMOTIVE CHASSIS**

Total Credits: 16  
Major Code: 5952

### **Description**



The Certificate of Completion (CCL) in Automotive Chassis provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of suspension, steering, brakes and electrical systems. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A4, A5 and A6 Tests.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

## Program Notes

Students must earn a grade of C or better for each course listed in the Required Courses area.

## Required Courses

Credits: 16

ASE140 Automotive Steering, Suspension and Alignment (4) OR  
ASE140AU Automotive Steering, Suspension and Alignment (4) 4

ASE150 Automotive Brake Systems (4) OR  
ASE150AU Automotive Brake Systems (4) 4

ASE160 Introduction to Automotive Electrical (4) OR  
ASE160AU Introduction to Automotive Electrical (4) 4

ASE260 Advanced Automotive Electrical (4) OR  
ASE260AU Advanced Automotive Electrical (4) 4

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=181242>

Starting Term: 2023 Fall

Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN AUTOMOTIVE DRIVE TRAIN

Total Credits: 16

Major Code: 5950

## Description

The Certificate of Completion (CCL) in Automotive Drive Train provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of automatic and manual transmissions and drivetrains and electrical systems. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A2, A3 and A6 Tests.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

## Program Notes

Students must earn a grade of C or better for each course listed in the Required Courses area.

## Required Courses

Credits: 16

ASE120 Automatic Transmission and Transaxle (4) OR  
ASE120AU Automatic Transmission and Transaxle (4) 4

ASE130 Manual Drive Trains and Axles (4) OR  
ASE130AU Manual Drive Trains and Axles (4) 4

ASE160 Introduction to Automotive Electrical (4) OR  
ASE160AU Introduction to Automotive Electrical (4) 4

ASE260 Advanced Automotive Electrical (4) OR  
ASE260AU Advanced Automotive Electrical (4) 4

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=181241>

Starting Term: 2023 Fall  
Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN AUTOMOTIVE ELECTRICAL, HEATING, VENTILATION AND AIR CONDITIONING SYSTEMS

Total Credits: 12  
Major Code: 5948N

## Description

The Certificate of Completion (CCL) in Automotive Electrical, Heating, Ventilation and Air Conditioning Systems provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of electrical systems and heating, ventilation and air conditioning. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A7 and A6 Tests.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

## Program Notes

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for each course listed in the Required Courses area. This program replaces: CCL/5860 Automotive Heating, Ventilation and Air Conditioning (HVAC)

## Required Courses

Credits: 12

ASE160 Introduction to Automotive Electrical (4) OR  
ASE160AU Introduction to Automotive Electrical (4) 4

ASE170 Automotive Heating, Ventilation and Air Conditioning Systems (4) OR  
ASE170AU Automotive Heating, Ventilation and Air Conditioning Systems (4) 4

ASE260 Advanced Automotive Electrical (4) OR  
ASE260AU Advanced Automotive Electrical (4) 4

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=181236>

Starting Term: 2023 Fall  
Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN AUTOMOTIVE ELECTRONIC/ELECTRICAL SYSTEMS

Total Credits: 8  
Major Code: 5938N

### Description

The Certificate of Completion (CCL) in Automotive Electronic/Electrical Systems provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of electronic/electrical systems. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A6 Test.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

### Program Notes

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for each course listed in the Required Courses area. This program replaces: CCL/5449 Automotive Electrical Systems

## Required Courses

Credits: 8

ASE160 Introduction to Automotive Electrical (4) OR  
ASE160AU Introduction to Automotive Electrical (4) 4

ASE260 Advanced Automotive Electrical (4) OR  
ASE260AU Advanced Automotive Electrical (4) 4

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=181238>

Starting Term: 2023 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN AUTOMOTIVE ENGINE AND OPERATIONS MANAGEMENT**

Total Credits: 8  
Major Code: 5942N

### **Description**

The Certificate of Completion (CCL) in Automotive Engine and Operations Management provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of engine performance. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A8 Test.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

### **Program Notes**

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for each course listed in the Required Courses area.

### **Required Courses**

Credits: 8

ASE180 Introduction to Engine Management (4) OR  
ASE180AU Introduction to Engine Management (4) 4

ASE280 Engine Management (4) OR  
ASE280AU Engine Management (4) 4

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=181245>

Starting Term: 2023 Fall  
Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN AUTOMOTIVE ENGINE MANAGEMENT AND REPAIR

Total Credits: 22  
Major Code: 5954

## Description

The Certificate of Completion (CCL) in Automotive Engine Management and Repair provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of engine repair and performance and electrical systems. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A1, A6 and A8 Tests.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

## Program Notes

Students must earn a grade of C or better for each course listed in the Required Courses area.

## Required Courses

Credits: 22

ASE100 Introduction to Automotive Service 2

ASE110 Engine Fundamentals (4) OR  
ASE110AU Engine Fundamentals (4) 4

ASE160 Introduction to Automotive Electrical (4) OR  
ASE160AU Introduction to Automotive Electrical (4) 4

ASE180 Introduction to Engine Management (4) OR  
ASE180AU Introduction to Engine Management OR (4) 4

ASE260 Advanced Automotive Electrical (4) OR  
ASE260AU Advanced Automotive Electrical (4) 4

ASE280 Engine Management (4) OR  
ASE280AU Engine Management (4) 4

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=181229>

Starting Term: 2023 Fall  
Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN AUTOMOTIVE ENGINE REPAIR

Total Credits: 6  
Major Code: 5928N

## Description

The Certificate of Completion (CCL) in Automotive Engine Repair provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of engine repair. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A1 Test.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

## Program Notes

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for each course listed in the Required Courses area.

## Required Courses

Credits: 6

ASE100	Introduction to Automotive Service	2
ASE110	Engine Fundamentals	4

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=181237>

Starting Term: 2023 Fall  
Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN AUTOMOTIVE HEATING, VENTILATION AND AIR CONDITIONING SYSTEMS

Total Credits: 4  
Major Code: 5940N

## Description

The Certificate of Completion (CCL) in Automotive Heating, Ventilation and Air Conditioning (HVAC) Systems provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of HVAC systems. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A7 Test.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

## Program Notes

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for each course listed in the Required Courses area.

## Required Courses

Credits: 4

ASE170 Automotive Heating, Ventilation and Air Conditioning Systems (4) OR  
ASE170AU Automotive Heating, Ventilation and Air Conditioning Systems (4) 4

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=181240>

Starting Term: 2023 Fall

Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN AUTOMOTIVE MAINTENANCE AND LIGHT REPAIR

Total Credits: 22

Major Code: 5946

## Description

The Certificate of Completion (CCL) in Automotive Maintenance and Light Repair provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of basic electrical and mechanical maintenance and repair. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification Tests.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

## Program Notes

Students must earn a grade of C or better for each course listed in the Required Courses area. This program replaces: CCL/5597N Workforce Development: Automotive Technology Level IICCL/5856 Automotive Maintenance and Light Repair

## Required Courses

Credits: 22

ASE100 Introduction to Automotive Service 2

ASE140	Automotive Steering, Suspension and Alignment (4) OR	
ASE140AU	Automotive Steering, Suspension and Alignment (4)	4
ASE150	Automotive Brake Systems (4) OR	
ASE150AU	Automotive Brake Systems (4)	4
ASE160	Introduction to Automotive Electrical (4) OR	
ASE160AU	Introduction to Automotive Electrical (4)	4
ASE170	Automotive Heating, Ventilation and Air Conditioning Systems (4) OR	
ASE170AU	Automotive Heating, Ventilation and Air Conditioning Systems (4)	4
ASE180	Introduction to Engine Management (4) OR	
ASE180AU	Introduction to Engine Management (4)	4

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=181233>

Starting Term: 2023 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN AUTOMOTIVE MANUAL DRIVE TRAIN AND AXLES**

Total Credits: 4  
Major Code: 5932N

### **Description**

The Certificate of Completion (CCL) in Automotive Manual Drive Train and Axles provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of manual drive train and axles. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A3 Test.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

### **Program Notes**

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better for each course listed in the Required Courses area.

### **Required Courses**

Credits: 4

ASE130 Manual Drive Trains and Axles (4) OR



<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=181246>

Starting Term: 2023 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN AUTOMOTIVE SERVICE**

Total Credits: 45-48  
Major Code: 5956

### **Description**

The Certificate of Completion (CCL) in Automotive Service prepares individuals to apply technical knowledge and skills to repair, service, and maintain automobiles. Instruction is in both the theoretical and practical aspects of automotive repair, service and maintenance, and includes brake systems, electrical systems, engine performance, engine repair, suspension and steering, automatic and manual transmissions and drivetrains, and heating and air conditioning systems. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile Certification Tests (A1 - A8).

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

### **Program Notes**

Students must earn a grade of C or better for each course listed in the Required Courses area.

### **Required Courses**

Credits: 42

ASE100 Introduction to Automotive Service 2

ASE110 Engine Fundamentals (4) OR  
ASE110AU Engine Fundamentals (4) 4

ASE120 Automatic Transmission and Transaxle (4) OR  
ASE120AU Automatic Transmission and Transaxle (4) 4

ASE130 Manual Drive Trains and Axles (4) OR  
ASE130AU Manual Drive Trains and Axles (4) 4

ASE140 Automotive Steering, Suspension and Alignment (4) OR  
ASE140AU Automotive Steering, Suspension and Alignment (4) 4

ASE150	Automotive Brake Systems (4) OR	
ASE150AU	Automotive Brake Systems (4)	4
ASE160	Introduction to Automotive Electrical (4) OR	
ASE160AU	Introduction to Automotive Electrical (4)	4
ASE170	Automotive Heating, Ventilation and Air Conditioning Systems (4) OR	
ASE170AU	Automotive Heating, Ventilation and Air Conditioning Systems (4)	4
ASE180	Introduction to Engine Management (4) OR	
ASE180AU	Introduction to Engine Management (4)	4
ASE260	Advanced Automotive Electrical (4) OR	
ASE260AU	Advanced Automotive Electrical (4)	4
ASE280	Engine Management (4) OR	
ASE280AU	Engine Management (4)	4

### Restricted Electives

Credits: 3-8

ASE240	Advanced Driver Assistance Systems	2	
ASE265	Introduction to Electric and Hybrid Vehicles	2	
ASE290++	Automotive Service Internship (any suffixed courses)		1-4
ASE296++	Cooperative Education (any suffixed courses)		1-4
ASE298++	Special Projects (any suffixed courses)	1-3	

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=181234>

Starting Term: 2023 Fall

Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN AUTOMOTIVE STEERING AND SUSPENSION

Total Credits: 4

Major Code: 5934N

### Description

The Certificate of Completion (CCL) in Automotive Steering and Suspension provides individuals with the technical knowledge and skills needed by automotive technicians specializing in the area of steering and suspension. The curriculum within this certificate aligns with the Automotive Service Excellence (ASE) Automobile and Light Truck Certification A4 Test.

See program advisor for additional certificate offerings. An Associate in Applied Science (AAS) in Automotive Service is also available.

## Program Notes

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better for each course listed in the Required Courses area.

## Required Courses

Credits: 4

ASE140 Automotive Steering, Suspension and Alignment (4) OR  
ASE140AU Automotive Steering, Suspension and Alignment (4) 4

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=184488>

Starting Term: 2023 Fall  
Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN BIOMEDICAL EQUIPMENT TECHNOLOGY

Total Credits: 26-36  
Major Code: 5985

## Description

The Certificate of Completion (CCL) in Biomedical Equipment Technology program introduces students to the technical knowledge and skills needed for entry level positions troubleshooting, repairing, and maintaining biomedical equipment used by hospitals, clinics, home healthcare providers, and medical device manufacturers and repair companies. Coursework includes the study of electronics, networking, information security, human anatomy and physiology, regulatory, and healthcare delivery systems.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 26-36

BIO160 Introduction to Human Anatomy and Physiology 4  
BME101 Introduction to Biomedical Equipment Technology 3

CIS105 Survey of Computer Information Systems (3) AND  
CIS190 Introduction to Networking (3)  
OR  
CNT140AB Introduction to Networks (4) 4-6

ELE111 Circuit Analysis I 4

ELE121	Solid-State Devices and Circuits I	4
ELE131	Digital Logic and Circuits	3
HCC130	Fundamentals in Health Care Delivery	3
HCC145	Medical Terminology for Health Care Professionals (3) OR	
HCC145AA	Medical Terminology for Health Care Professionals I (1)	1-3
MAT120	Intermediate Algebra (5) OR	
MAT121	Intermediate Algebra (4) OR	
MAT122	Intermediate Algebra (3) OR	
MAT126	Intermediate Algebra with Review (6) OR	
Permission of Program Director (0)		0-6

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=161204>

Starting Term: 2021 Fall

Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN BUILDING INSPECTION**

Total Credits: 18

Major Code: 5554

### **Description**

The Certificate of Completion (CCL) in Building Inspection helps prepare the student for a career as an inspector in various areas of the building inspection fields. The student gains the knowledge and develops skills necessary to perform as a building inspector in general building code compliance inspection or in specific areas of code compliance. It is one pathway to the Associate in Applied Science (AAS) in Construction Management.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 18

CON101	Construction and Culture	3
CON244	Working Drawing Analysis: Blueprint Reading	3
CON252	Building Construction Methods, Materials, and Equipment	3
CON262	Introduction International Residential Code (IRC)	3
CON263	Building Codes	3
CON271	Construction Safety	3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm?id=188742>

Starting Term: 2024 Fall  
Final Term: 9999

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=164092>

Starting Term: 2021 Spring  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN CABLE AND WIRE HARNESS ASSEMBLY**

Total Credits: 3  
Major Code: 5206N

### **Description**

The Certificate of Completion (CCL) in Cable and Wire Harness Assembly will prepare the successful student to receive the "Certified IPC Specialist" (CIS) certification from The Institute for Interconnecting and Packaging Electronic Circuits (IPC)/Wire Harness Manufacturer's Association (WHMA) in "Requirements and Acceptance for Cable and Wire Harness Assemblies" (IPC/WHMA-A-620 Certification). Topics covered and skills to be demonstrated are: soldered terminations, crimp terminations, insulation displacement terminations (IDC), splices, connectorization, marking/labeling, coaxial cable assemblies, electrical shielding, wire marking and labeling, and testing methodologies. Certification is verified by a certified IPC trainer (CIT).

### **Program Notes**

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 3

AIT128A-620 Cable and Wire Harness Assembly Certification 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=183674>

Starting Term: 2023 Spring  
Final Term: 9999

# **CERTIFICATE OF COMPLETION (CCL) IN CISCO CERTIFIED NETWORK PROFESSIONAL: ENTERPRISE**

Total Credits: 16  
Major Code: 5190

## **Description**

The Certificate of Completion (CCL) in Cisco Certified Network Professional: Enterprise builds the advanced knowledge and skills needed for professional-level networking technologies and architecture. This CCL includes fundamental concepts of virtualization, network assurance, security, automation, and the implementation and troubleshooting of advanced routing technologies, as well as hands-on opportunities to apply these concepts to real-world applications. Students with the requisite experience in the field who complete this CCL can pursue employment in a variety of information technology jobs. This CCL also helps to prepare students for the Cisco Enterprise Network Core Technologies (ENCOR) certification and Implementing Cisco Enterprise Network Advanced Routing and Services (ENARSI) exams aligned with the CCNP Enterprise, CCIE Enterprise Infrastructure, CCIE Enterprise Wireless, and Cisco Certified Specialist - Enterprise core, CCNP Enterprise, Cisco Certified Specialist - Advanced Infrastructure Implementation certifications.

Additional Certificates of Completion (CCLs) in Cisco Certified Network Security (CCNA Security), Cisco Certified Network Professional: Enterprise Core, Cisco Certified Network Professional: Enterprise Advanced Routing and Services, Cisco Network Administration: CCNP, as well as an Associate in Applied Science (AAS) in Network and Systems Administration, are also available at select colleges. Please check with your local college for program availability.

## **Program Notes**

This Certificate of Completion (CCL) is intended for industry professionals with the requisite skills aligned with the Cisco Certified Network Associate (CCNA) industry certification who are interested in expanding their knowledge in the area in professional-level networking or to enhance their employment opportunities. Speak to a program director for additional information. Students must earn a grade of C or better in all courses within the program. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## **Admission Criteria**

This Certificate of Completion (CCL) is intended for industry professionals with the requisite experience. To pursue this CCL, students must complete the following prerequisites to the courses within the Required Course area as follows with a C or better OR have a Cisco Certified Network Associate (CCNA) industry certification OR receive permission of the Program Director: CNT140AB Introduction to Networks 4+ CNT150AB Switching, Routing, and Wireless Essentials 4+ CNT160AB Enterprise Networking, Security, and Automation 4. Students also have the option to complete the full CCL in this program, Cisco Network Administration: CCNP (major code 5037), that includes the prerequisites and required courses.

## **Required Courses**

Credits: 16

CNT240 Cisco Certified Network Professional: Enterprise Core (8) OR  
CNT240AA Cisco Certified Network Professional: Enterprise Core I (4) AND  
CNT240AB Cisco Certified Network Professional: Enterprise Core II (4)8

CNT250 Cisco Certified Network Professional: Enterprise Advanced Routing and Services  
(8) OR  
CNT250AA Cisco Certified Network Professional: Enterprise Advanced Routing and Services  
I (4) AND  
CNT250AB Cisco Certified Network Professional: Enterprise Advanced Routing and Services  
II (4) 8

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=188748>

Starting Term: 2024 Fall

Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN CISCO CERTIFIED NETWORK PROFESSIONAL: ENTERPRISE ADVANCED ROUTING AND SERVICES**

Total Credits: 8

Major Code: 5187N

### **Description**

The Certificate of Completion (CCL) in Cisco Certified Network Professional: Enterprise Advanced Routing and Services builds the advanced knowledge and skills needed for professional-level networking technologies and architecture. This CCL includes concepts of implementation and troubleshooting of advanced routing technologies and services including Layer 3 VPN services, infrastructure security, and infrastructure services, as well as hands-on opportunities to apply these concepts to real-world applications. Students with the requisite experience in the field who complete this CCL can pursue employment in a variety of information technology jobs. This CCL also helps to prepare students for the Implementing Cisco Enterprise Network Advanced Routing and Services (ENARSI) certification exam aligned with the CCNP Enterprise, Cisco Certified Specialist - Advanced Infrastructure Implementation certifications. Additional Certificates of Completion (CCLs) in Cisco Certified Network Security (CCNA Security), Cisco Certified Network Professional: Enterprise Core, Cisco Certified Network Professional: Enterprise, Cisco Network Administration: CCNP, as well as an Associate in Applied Science (AAS) in Network and Systems Administration, are also available at select colleges. Please check with your local college for program availability.

### **Program Notes**

This program is not eligible for Title IV Federal Financial Aid.

This Certificate of Completion (CCL) is intended for industry professionals with the requisite skills aligned with the Cisco Certified Network Associate (CCNA) industry certification who are interested in expanding their knowledge in the area in professional-level networking or to enhance their employment opportunities. Speak to a program director for additional information. Students must earn a grade of C or better in all courses within the program. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Admission Criteria

This Certificate of Completion (CCL) is intended for industry professionals with the requisite experience. To pursue this CCL, students must complete the following prerequisites to the courses within the Required Course area as follows with a C or better OR have a Cisco Certified Network Associate (CCNA) industry certification OR receive permission of the Program Director: CNT140AB Introduction to Networks 4+ CNT150AB Switching, Routing, and Wireless Essentials 4+ CNT160AB Enterprise Networking, Security, and Automation 4. Students also have the option to complete the full CCL in this program, Cisco Network Administration: CCNP (major code 5037), that includes the prerequisites and required courses.

## Required Courses

Credits: 8

CNT250 Cisco Certified Network Professional: Enterprise Advanced Routing and Services (8) OR  
CNT250AA Cisco Certified Network Professional: Enterprise Advanced Routing and Services I (4) AND  
CNT250AB Cisco Certified Network Professional: Enterprise Advanced Routing and Services II (4) 8

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=188749>

Starting Term: 2024 Fall

Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN CISCO CERTIFIED NETWORK PROFESSIONAL: ENTERPRISE CORE

Total Credits: 8

Major Code: 5189N

## Description

The Certificate of Completion (CCL) in Cisco Certified Network Professional: Enterprise Core builds the knowledge and skills needed for professional-level networking technologies and architecture. This CCL includes the fundamental concepts of virtualization, network assurance, security, and automation, as well as hands-on opportunities to apply these concepts to real-



world applications. Students with the requisite experience in the field who complete this CCL can pursue employment in a variety of information technology jobs. This CCL also helps to prepare students for the Cisco Enterprise Network Core Technologies (ENCOR) certification exam aligned with the CCNP Enterprise, CCIE Enterprise Infrastructure, CCIE Enterprise Wireless, and Cisco Certified Specialist - Enterprise core certifications.

Additional Certificates of Completion (CCLs) in Cisco Certified Network Security (CCNA Security), Cisco Certified Network Professional: Enterprise, Cisco Certified Network Professional: Enterprise Core and Advanced Routing and Services, Cisco Network Administration: CCNP, as well as an Associate in Applied Science (AAS) in Network and Systems Administration, are also available at select colleges. Please check with your local college for program availability.

## Program Notes

This program is not eligible for Title IV Federal Financial Aid.

This Certificate of Completion (CCL) is intended for industry professionals with the requisite skills aligned with the Cisco Certified Network Associate (CCNA) industry certification who are interested in expanding their knowledge in the area in professional-level networking or to enhance their employment opportunities. Speak to a program director for additional information. Students must earn a grade of C or better in all courses within the program. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Admission Criteria

This Certificate of Completion (CCL) is intended for industry professionals with the requisite experience. To pursue this CCL, students must complete the following prerequisites to the courses within the Required Course area as follows with a C or better OR have a Cisco Certified Network Associate (CCNA) industry certification OR receive permission of the Program Director: CNT140AB Introduction to Networks 4+ CNT150AB Switching, Routing, and Wireless Essentials 4+ CNT160AB Enterprise Networking, Security, and Automation 4. Students also have the option to complete the full CCL in this program, Cisco Network Administration: CCNP (major code 5037), that includes the prerequisites and required courses.

## Required Courses

Credits: 8

CNT240 Cisco Certified Network Professional: Enterprise Core (8) OR  
CNT240AA Cisco Certified Network Professional: Enterprise Core I (4) AND  
CNT240AB Cisco Certified Network Professional: Enterprise Core II (4)8

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=164763>

Starting Term: 2021 Fall  
Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN CISCO NETWORK ADMINISTRATION AND SECURITY

Total Credits: 16-19  
Major Code: 5036

## Description

The Certificate of Completion (CCL) in Cisco Network Administration and Security provides training for those interested in working with Cisco network and Internet hardware with a particular emphasis on securing networks from threats and vulnerabilities. Knowledge and skills are developed to install, configure, and maintain Cisco routers and switches; configure routing protocols, and Local Area Networks (LANs); troubleshoot problems with various hardware and software configurations; perform administrative tasks in a network. Specific skills in maintaining integrity, accountability, and confidentiality of data are also developed. Taught by Cisco Certified professionals using the Cisco Network Academy program curriculum, courses are designed to help prepare students for the Cisco Certified Network Associate (CCNA) and Security examinations. Students who complete this program may seek employment in a variety of environments. An additional Certificate of Completion (CCL) in Cisco Certified Network Professional (CCNP), as well as an Associate in Applied Science (AAS) in Network and Systems Administration are also available at select colleges. Please check with your local college for program availability.

## Program Notes

Students must earn a grade of C or better in all courses within the program. Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 16-19

CIS105 Survey of Computer Information Systems (3) OR  
Permission of the Program Director (0) 0-3

CNT140AB Introduction to Networks 4  
CNT150AB Switching, Routing, and Wireless Essentials 4  
CNT160AB Enterprise Networking, Security, and Automation 4

CNT202 Cisco Secure Firewall Appliance Configuration (4) OR  
CNT205 Cisco Certified Network Associate Security (4) 4

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=174360>

Starting Term: 2022 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN CISCO NETWORK ADMINISTRATION: CCNA**

Total Credits: 12-15  
Major Code: 5969N

### **Description**

The Certificate of Completion (CCL) in Cisco Network Administration: CCNA provides training for those interested in working with network and Internet hardware. Knowledge and skills are developed to install, configure, and maintain Cisco routers and switches; configure advanced routing protocols, and Local Area Networks (LANs); troubleshoot hardware and software configurations; perform administrative tasks in a network. Taught by Cisco Certified professionals using the Cisco Networking Academy program curriculum, courses are designed to help prepare students for the Cisco Certified Network Associate (CCNA) examination. Students who complete this program may seek employment in a variety of environments. Additional Certificates of Completion (CCLs) in Cisco Network Administration and Security and Cisco Network Administration: CCNP, as well as an Associate in Applied Science (AAS) in Network and Systems Administration, are also available at select colleges. Please check with your local college for program availability.

### **Program Notes**

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program. Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST. This program replaces: CCL/5967 Networking Technology: Cisco

### **Required Courses**

Credits: 12-15

CIS105 Survey of Computer Information Systems (3) OR  
Permission of Program Director (0) 0-3

CNT140AB Introduction to Networks 4  
CNT150AB Switching, Routing, and Wireless Essentials 4  
CNT160AB Enterprise Networking, Security, and Automation 4

Starting Term: 2023 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN CISCO NETWORK ADMINISTRATION: CCNP**

Total Credits: 28-31  
Major Code: 5037

### **Description**

The Certificate of Completion (CCL) in Cisco Network Administration: CCNP provides students with advanced knowledge and skills to install, configure, and maintain Cisco routers and switches; configure advanced routing protocols, Local Area Networks (LANs), and Wide Area Networks (WANs); troubleshoot complex hardware and software configurations; and perform administrative tasks in a network at the professional level. Taught by Cisco Certified professionals using the Cisco Network Academy program curriculum, courses are designed to help prepare students for the Cisco Certified Network Associate (CCNA) and Cisco Certified Network Professional Certifications (CCNP) examinations. Students who complete this program may seek employment in a variety of environments. An additional Certificate of Completion (CCL) in Cisco Network Administration and Security, as well as an Associate in Applied Science (AAS) in Network and Systems Administration, are also available.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program. Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

### **Required Courses**

Credits: 28-31

CIS105 Survey of Computer Information Systems (3) OR  
Permission of program director (0) 0-3

CNT140AB Introduction to Networks 4  
CNT150AB Switching, Routing, and Wireless Essentials 4  
CNT160AB Enterprise Networking, Security, and Automation 4

CNT240 Cisco Certified Network Professional: Enterprise Core (8) OR  
CNT240AA Cisco Certified Network Professional: Enterprise Core I (4) AND  
CNT240AB Cisco Certified Network Professional: Enterprise Core II (4)8

CNT250 Cisco Certified Network Professional: Enterprise Advanced Routing and Services (8) OR  
CNT250AA Cisco Certified Network Professional: Enterprise Advanced Routing and Services I (4) AND  
CNT250AB Cisco Certified Network Professional: Enterprise Advanced Routing and Services II (4) 8

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=146560>

Starting Term: 2020 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN CNC MACHINE OPERATOR**

Total Credits: 6  
Major Code: 5103N

### **Description**

The Certificate of Completion (CCL) in CNC Machine Operator prepares students for employment as entry level operators and technicians in the manufacturing industry. The program provides applied skills in the operation of manual/Computer Numeric Control (CNC) machines for current and future needs of the manufacturing industry. Certificates of Completion (CCLs) in CNC Machining I and CNC Machining II and an Associate in Applied Science (AAS) in Manufacturing Production Technology are also available.

### **Program Notes**

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 6

MPT130 CNC Machine Operator (6) OR  
MPT130MP CNC Machine Operator (6) 6

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=187888>

Starting Term: 2024 Spring  
Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN CNC MACHINING I

Total Credits: 25  
Major Code: 5100

## Description

The Certificate of Completion (CCL) in CNC Machining I prepares students for employment as entry-level operators and technicians in the manufacturing industry. The program provides applied skills in process planning, quality control, set-up and operation of manual/Computer Numeric Control (CNC) machines for current and future needs of the manufacturing industry. This program introduces students to manual data programming and Computer-Aided Design/Computer-Aided Manufacturing (CAD/CAM). A CCL in CNC Machining II and an Associate in Applied Science (AAS) in Manufacturing Production Technology are also available.

## Program Notes

Students must earn a grade of C or better in all courses within the program. This program replaces: CCL/5440 Production Technology: CNC Technology CCL/5616 CNC Machining I

## Required Courses

Credits: 25

MPT101	Technical Documentation (3) OR	
MPT101MP	Technical Documentation (3)	3
MPT110	Inspection Techniques (3) OR	
MPT110MP	Inspection Techniques (3)	3
MPT111	Geometric Dimensioning and Tolerance (GDT) (3) OR	
MPT111MP	Geometric Dimensioning and Tolerance (GDT) (3)	3
MPT113	Coordinate Measuring Machines I (3) OR	
MPT140	Manual CNC Programming (3)	3
MPT120	Introduction to Manual Machining (4) OR	
MPT120MP	Introduction to Manual Machining (4)	4
MPT130	CNC Machine Operator (6) OR	
MPT130MP	CNC Machine Operator (6) OR	
MPT131	CNC Machining Level I (6) OR	
MPT131MP	CNC Machining Level I (6)	6
MPT132	CNC Machining Level II (3) OR	
MPT132MP	CNC Machining Level II (3)	3

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Starting Term: 2024 Spring  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN CNC MACHINING II**

Total Credits: 43-44  
Major Code: 5102

### **Description**

The Certificate of Completion (CCL) in CNC Machining II prepares students for advanced employment opportunities as operators and technicians in the manufacturing industry. The program provides applied skills in process design as well as advanced knowledge in quality control, Computer Numeric Control (CNC), and Computer Aided-Design/Computer-Aided Manufacturing (CAD/CAM) programming for current and future needs of the manufacturing industry. An Associate in Applied Science (AAS) in Manufacturing Production Technology is also available.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program. This program replaces: CCL/5647 CNC Machining IICCL/5795 CAM Systems Programming

### **Required Courses**

Credits: 37

Required Courses for CCL in CNC Machining I

MPT101	Technical Documentation (3) OR
MPT101MP	Technical Documentation (3) 3
MPT110	Inspection Techniques (3) OR
MPT110MP	Inspection Techniques (3) 3
MPT111	Geometric Dimensioning and Tolerance (3) OR
MPT111MP	Geometric Dimensioning and Tolerance (3) 3
MPT113	Coordinate Measuring Machines I (3) OR
MPT140	Manual CNC Programming (3) 3
MPT120	Introduction to Manual Machining (4) OR
MPT120MP	Introduction to Manual Machining (4) 4
MPT130	CNC Machine Operator (6) OR

MPT130MP	CNC Machine Operator (6) OR	
MPT131	CNC Machining Level I (6) OR	
MPT131MP	CNC Machining Level I (6)	6
MPT132	CNC Machining Level II (3) OR	
MPT132MP	CNC Machining Level II (3) OR	3

#### Required Courses for CCL in CNC Machining II

Students interested in taking MPT250 are advised to take MPT151

MPT150	Introduction to SolidWorks (3) OR	
MPT151	Solid Design I: SolidWorks (3)	3
MPT260	Computer Aided Manufacturing (CAM) I (3) OR	
MPT260MP	Computer Aided Manufacturing (CAM) I (3)	3
MPT262	Computer Aided Manufacturing (CAM) II (3) OR	
MPT262MP	Computer Aided Manufacturing (CAM) II (3)	3
MPT270	Tooling, Fixtures, and Gauges	3

### Restricted Electives

Credits: 6-7

Students should complete 6-7 credits from the category below that best aligns with their academic and professional goals.

#### Quality and Inspection:

MPT215	Workplace Quality Systems	3
MPT216	Applied Statistical Process Control Methods	3
MPT217	Lean and Six Sigma Applied Concepts	3

#### Industrial Design:

MPT152	Solid Design: Certified SolidWorks Associate/Certified SolidWorks Professional Test Preparation	1
MPT250	Solid Design II: Advanced Part Modeling: SolidWorks	3
MPT255	Solid Design 3D Printing	4
MPT261	Mastercam Certified Programmer Mill Level I: Test Preparation: CPgM1	1

#### Manual Machining:

MPT220	Manual Machining: NIMS Level I Certification	3
MPT221	Manual Machining: NIMS Level II Certification	3

#### Related Experience:

AIT100	Industrial Safety	1
AIT105	Modern Maintenance Operations	3



MPT282++	Volunteerism for Manufacturing: A Service Learning Experience	1-3
MPT290++	Manufacturing Production Internship Fall	1-3
MPT296++	Cooperative Education	1-4
WLD101	Welding I	3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=188446>

Starting Term: 2024 Fall  
Final Term: 9999

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=151036>

Starting Term: 2020 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN COMPUTER AIDED DRAFTING**

Total Credits: 19  
Major Code: 5547

### **Description**

The Certificate of Completion (CCL) in Computer Aided Drafting (CAD) program is designed to prepare students as drafting technicians. Students will learn Computer Aided Design to develop skills in completing orthographic layouts, dimensioning, 2D and 3D computer aided drafting, and 3D printing all using American standards (ANSI). The program emphasizes current technological needs in the drafting industry. Students may apply these courses towards the Associate in Applied Science (AAS) in Drafting and Design Technology (3504).

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 19

DFT105AA	Computer Aided Drafting I: AutoCAD3	
DFT110	Introduction to Drafting	3
DFT111	Intermediate Drafting	3
DFT254AA	Computer Aided Drafting II: AutoCAD	3
DFT255	3D Printing/Additive Manufacturing	4

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=143791>

Starting Term: 2020 Fall

Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN COMPUTER SYSTEM CONFIGURATION AND SUPPORT**

Total Credits: 6-9

Major Code: 5038N

### **Description**

The Certificate of Completion (CCL) in Computer System Configuration and Support program is designed to prepare students for entry-level computer maintenance, help desk, and network technician jobs. The classes focus on the development of knowledge and skills in computer technologies including system components, installation, system configuration, peripheral devices, and notebooks. Emphasis is placed on hardware installation, maintenance, mobile devices, hardware troubleshooting, proper use of tools, safety procedures, and professionalism. This program helps prepare students for the CompTIA A+ certification exams. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCL) in a variety of specializations within the information technology field to deepen their knowledge and skills and help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available at select colleges. Please check with your local college for program availability.

### **Program Notes**

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program. Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

### **Required Courses**

Credits: 6-9

CIS105 Survey of Computer Information Systems (3) OR  
Permission of program director (0) 0-3

BPC170 A+ Exam Prep: Computer Hardware Configuration and Support 3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=148336>

Starting Term: 2020 Fall

Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN COMPUTER SYSTEM CONFIGURATION AND SUPPORT, LINUX**

Total Credits: 9-12

Major Code: 5039N

### **Description**

The Certificate of Completion (CCL) in Computer System Configuration and Support, Linux program is designed to prepare students for entry-level computer maintenance, help desk, and network technician jobs with an emphasis on Linux. The classes focus on the development of knowledge and skills in computer and network technologies including system components, installation, system configuration, peripheral devices, and notebooks. Emphasis is placed on the Linux Operating system including knowledge and skills required to install, configure and troubleshoot a Linux-based workstation. This program helps prepare students for the CompTIA A+ and Linux+ certification exams. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCLs) in a variety of specializations within the information technology field to deepen their knowledge and skills and help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

### **Program Notes**

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

### **Required Courses**

Credits: 9-12

CIS105 Survey of Computer Information Systems (3) OR

Permission of program director (0)	0-3
BPC170	A+ Exam Prep: Computer Hardware Configuration and Support 3
BPC270	A+ Exam Prep: Operating System Configuration and Support 3
CIS126DL	Linux Operating System (3) OR
CIS126RH	Red Hat System Administration I (3) 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm?id=143792>

Starting Term: 2020 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN COMPUTER SYSTEM CONFIGURATION AND SUPPORT, NETWORK**

Total Credits: 9-13  
Major Code: 5044N

### **Description**

The Certificate of Completion (CCL) in Computer System Configuration and Support, Network program is designed to prepare students for entry-level computer maintenance, help desk, and network technician jobs with an emphasis on networking. The courses focus on the development of knowledge and skills in computer and network technologies including system components, installation, system configuration, peripheral devices, and notebooks. Emphasis is placed on elements of a data network, network components, and use of a network. This program helps prepare students for the CompTIA A+ and Network+ certification exams. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCLs) in a variety of specializations within the information technology field to deepen their knowledge and skills and help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

### **Program Notes**

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program. Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST. This program replaces: CCL/5909 Computer Hardware and Network Support

### **Required Courses**

Credits: 9-13

CIS105 Survey of Computer Information Systems (3) OR  
Permission of program director (0) 0-3

BPC170 A+ Exam Prep: Computer Hardware Configuration and Support 3  
BPC270 A+ Exam Prep: Operating System Configuration and Support 3

CIS190 Introduction to Networking (3) OR  
CNT140AB Introduction to Networks (4) 3-4

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=182697>

Starting Term: 2024 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN COMPUTER SYSTEM CONFIGURATION AND SUPPORT, SECURITY**

Total Credits: 9-16  
Major Code: 5040N

### **Description**

The Certificate of Completion (CCL) in Computer System Configuration and Support, Security program is designed to prepare students for entry-level computer maintenance, help desk, and network technician jobs with an emphasis on security. The courses focus on the development of knowledge and skills in computer and security technologies including system components, installation, system configuration, peripheral devices, and notebooks. Emphasis is placed on preventing, identifying, and mitigating threats to the security of information systems and utilizing the basic tools for information security. This program helps prepare participants for the CompTIA A+, Security+, and certification exams. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCLs) in a variety of specializations within the information technology field to deepen their knowledge and skills and help prepare them for multiple industry certification examinations. The Associate in Applied Science (AAS) in Network and Systems Administration is also available.

### **Program Notes**

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program. Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 9-16

CIS105 Survey of Computer Information Systems (3) OR  
Permission of Program Director (0) 0-3

BPC170 A+ Exam Prep: Computer Hardware Configuration and Support 3  
BPC270 A+ Exam Prep: Operating System Configuration and Support 3

Select from one of the following areas of specialization.

Specialization 1: Credits 3-6  
CIS270 Essentials of Network and Information Security (3) OR  
ITS110 Information Security Fundamentals (3) AND  
CIS126DL Linux Operating System (3) OR  
CIS126RH Red Hat System Administration I (3) 3-6

Specialization 2: Credits 6-7  
CNT140AB Introduction to Networks (4) OR  
CIS190 Introduction to Networking (3) 3-4  
CIS270 Essentials of Network and Information Security 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm?id=149317>

Starting Term: 2020 Fall  
Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN CONSTRUCTION BUILDING CODES

Total Credits: 3  
Major Code: 5182N

### Description

The Certificate of Completion (CCL) in Construction Building Codes is designed specifically to acquaint students with safety principles of building construction under the Uniform Building Code, including structural requirements for wood, masonry and concrete, fire resistance of building construction, fire resistant materials, and ratings and occupancy requirements. After completion of the certificate, students may take the International Code Council Residential Building Code exam for international certification.

### Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 3

CON263 Building Codes 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm?id=149314>

Starting Term: 2020 Fall

Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN CONSTRUCTION SAFETY OSHA 30

Total Credits: 3

Major Code: 5179N

### Description

The Certificate of Completion (CCL) in Construction Safety OSHA 30 provides training in a comprehensive overview of standards that Occupational Safety and Health Administration (OSHA) has set in place for job site safety. Specifically structured for hazard identification, avoidance, control and prevention.

### Program Notes

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 3

CON271 Construction Safety 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=188894>

Starting Term: 2024 Fall

Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN CONSTRUCTION TRADES: CARPENTRY

Total Credits: 16-18

Major Code: 5108

### Description

The Certificate of Completion (CCL) in Construction Trades: Carpentry is designed to provide knowledge, safety, and skills in the carpentry construction trade. This program is an introduction to common construction skills to include safety, codes, construction drawings, tools, wall systems, flooring systems, and roof systems. Students can seek employment as carpentry technicians on residential and commercial job sites. A Certificate of Competency (CCT) in Construction Trades: Carpentry is available. A second Carpentry CCL and Associate in Applied Science (AAS) in Construction Technology are also available.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 16-18

CON102	Foundations of Construction Trades (6) OR	
CON102AA	Foundations of Construction Trades: Tools, Equipment, and Workspace (2) AND	
CON102AB	Foundations of Construction Trades: Construction Calculations (2) AND	
CON102AC	Foundations of Construction Trades: Construction Drawings and Materials (2)	
	6	
CON103	Foundation of Construction Safety (1) OR	
CON271	Construction Safety (3)	1-3
CON110	Construction: Carpentry (9) OR	
CON110AA	Construction: Carpentry/Floor Systems (3) AND	
CON110AB	Construction: Carpentry/Wall Systems (3) AND	
CON110AC	Construction: Carpentry/Ceiling and Roof Systems (3)	9

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=188896>

Starting Term: 2024 Fall

Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN CONSTRUCTION TRADES: CARPENTRY, COMMERCIAL AND RESIDENTIAL

Total Credits: 25-27

Major Code: 5118

## Description

The Certificate of Completion (CCL) in Construction Trades: Carpentry, Commercial and Residential is designed to provide knowledge, safety, and skills in the carpentry construction trade. This program reinforces common construction skills to include use of tools, adherence to safety and codes, and reading construction drawings. It offers further theory and practice in



commercial and specialty carpentry, to include steel framing, conventional roofing, interior finishing, and concrete forms. Students can seek employment as carpentry technicians on residential and commercial job sites. A Certificate of Competency (CCT) in Carpentry: Commercial and Residential is also available. The CCL/CCT can be applied to an available Associate in Applied Science (AAS) in Construction Trades.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 25-27

CON102 Foundations of Construction Trades (6) OR  
CON102AA Foundations of Construction Trades: Tools, Equipment, and Workspace (2) AND  
CON102AB Foundations of Construction Trades: Construction Calculations (2) AND  
CON102AC Foundations of Construction Trades: Construction Drawings and Materials (2)  
6

CON103 Foundation of Construction Safety (1) OR  
CON271 Construction Safety (3) 1-3

CON110 Construction: Carpentry (9) OR  
CON110AA Construction: Carpentry/Floor Systems (3) AND  
CON110AB Construction: Carpentry/Wall Systems (3) AND  
CON110AC Construction: Carpentry/Ceiling and Roof Systems (3) 9

CON210 Carpentry: Commercial and Residential 9

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=172289>

Starting Term: 2022 Fall

Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN CONSTRUCTION TRADES: CONSTRUCTION MANAGEMENT

Total Credits: 20-29

Major Code: 5595

### Description

The Certificate of Completion (CCL) in Construction Trades: Construction Management is designed to provide individuals in the construction industry work-ready skill sets in management, leadership, motivation, oral and written communications, problem solving,

planning and scheduling, cost awareness and production control, sustainability, time management, and OSHA safety. The skills acquired prepare individuals for a productive career in the construction industry as a foreman, manager, project manager, and owner. The program provides students a career pathway for entry into the Associate in Applied Science (AAS) in Construction Management.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 20-29

CON100 Introduction to Construction 2  
 CON181 Cost Estimating 3  
 CON244 Working Drawing Analysis: Blueprint Reading 3  
 CON251 Microcomputers for Constructors 3  
 CON252 Building Construction Methods, Materials, and Equipment 3

CON271 Construction Safety (3) OR  
 Equivalent OSHA 30 Certification (0)0-3

GTC108 Technical Mathematics II (3)  
 OR

MAT150 College Algebra/Functions (5) AND  
 MAT182 Plane Trigonometry (3) OR

MAT151 College Algebra/Functions (4) AND  
 MAT182 Plane Trigonometry (3)  
 OR

MAT152 College Algebra/Functions (3) AND  
 MAT182 Plane Trigonometry (3)  
 OR

MAT155 College Algebra/Functions with Review (5) AND  
 MAT182 Plane Trigonometry (3)  
 OR

MAT156 College Algebra/Functions with Review (6) AND  
 MAT182 Plane Trigonometry (3)  
 OR

MAT187 Precalculus (5)  
 OR

Higher level course in the Mathematical Applications [MA] area (3-5) 3-9

MGT229 Management and Leadership I 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=189026>

Starting Term: 2024 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN CONSTRUCTION TRADES: ELECTRICAL**

Total Credits: 16-18  
Major Code: 5112

### **Description**

The Certificate of Completion (CCL) in Construction Trades: Electrical is designed to provide beginning knowledge, safety, and skills in the electrical construction trade. This program is an introduction to common construction to include use of tools, safety, codes, installation of circuitry, equipment, construction drawings, and a basic understanding of electricity. Students can seek employment as electrical technicians on residential and commercial job sites. A Certificate of Competency (CCT) and an Associate in Applied Science (AAS) in Construction Trades are also available.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Required courses

Credits: 16-18

CON102	Foundations of Construction Trades (6) OR
CON102AA	Foundations of Construction Trades: Tools, Equipment, and Workspace (2) AND
CON102AB	Foundations of Construction Trades: Construction Calculations (2) AND
CON102AC	Foundations of Construction Trades: Construction Drawings and Materials (2)
6	
CON103	Foundation of Construction Safety (1) OR
CON271	Construction Safety (3) 1-3
CON132	Construction: Electrical Systems (9) OR
CON132AA	Construction: Electrical Systems/Introduction to Electrical (3) AND
CON132AB	Construction: Electrical Systems/Electrical Power Generation (3) AND
CON132AC	Construction: Electrical Systems/Raceways and Wireways (3) 9

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=189028>

Starting Term: 2024 Fall  
Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN CONSTRUCTION TRADES: ELECTRICAL, COMMERCIAL AND RESIDENTIAL

Total Credits: 25-27  
Major Code: 5120

## Description

The Certificate of Completion (CCL) in Construction Trades: Electrical, Commercial and Residential is designed to provide knowledge, safety, and skills in the electrical construction trade. This program reinforces common construction skills to include use of tools, adherence to safety and codes, and reading construction drawings. This award offers further theory and practice in commercial and specialty electrical, to include work with electric power distribution, motors and motor controls, specialty electrical lighting and services, and electrical currents. Students can seek employment as electrical technicians on residential and commercial job sites. A Certificate of Competency (CCT) and an Associate in Applied Science (AAS) in Construction Trades are also available.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 25-27

CON102	Foundations of Construction Trades (6) OR
CON102AA	Foundations of Construction Trades: Tools, Equipment, and Workspace (2) AND
CON102AB	Foundations of Construction Trades: Construction Calculations (2) AND
CON102AC	Foundations of Construction Trades: Construction Drawings and Materials (2)
6	
CON103	Foundation of Construction Safety (1) OR
CON271	Construction Safety (3) 1-3
CON132	Construction: Electrical Systems (9) OR
CON132AA	Construction: Electrical Systems/Introduction to Electrical (3) AND
CON132AB	Construction: Electrical Systems/Electrical Power Generation (3) AND
CON132AC	Construction: Electrical Systems/Raceways and Wireways (3) 9
CON232	Construction: Advanced Electrical 9

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=189374>

Starting Term: 2024 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN CONSTRUCTION TRADES: PLUMBING**

Total Credits: 16-18  
Major Code: 5116

### **Description**

The Certificate of Completion (CCL) in Construction Trades: Plumbing is designed to provide knowledge safety and skills in the plumbing construction trade. This program is an introduction to common construction skills to include safety; codes; construction drawings; tools; fixtures; pipes and fittings; drain, waste, and vent systems; and water distribution systems. Students can seek employment as plumbing technicians on residential and commercial job sites. A Certificate of Competency (CCT) and an Associate in Applied Science (AAS) in Construction Trades are also available.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 16-18

CON102 Foundations of Construction Trades (6) OR  
CON102AA Foundations of Construction Trades: Tools, Equipment, and Workspace (2) AND  
CON102AB Foundations of Construction Trades: Construction Calculations (2) AND  
CON102AC Foundations of Construction Trades: Construction Drawings and Materials (2)  
6

CON103 Foundation of Construction Safety (1) OR  
CON271 Construction Safety (3) 1-3

CON122 Construction: Plumbing (9) OR  
CON122AA Construction: Plumbing/Pipes and Fittings (3) AND  
CON122AB Construction: Plumbing/Drain, Waste and Vent (3) AND  
CON122AC Construction: Plumbing/Fixtures, Faucets and Water Distribution Systems (3) 9

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=189384>

Starting Term: 2024 Fall  
Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN CONSTRUCTION TRADES: PLUMBING, COMMERCIAL AND RESIDENTIAL

Total Credits: 25-27

Major Code: 5122

## Description

The Certificate of Completion (CCL) in Construction Trades: Plumbing, Commercial and Residential is designed to provide knowledge safety and skills in the plumbing construction trade. This program reinforces common construction skills to include use of tools, adherence to safety and codes, and reading construction drawings. It offers further instruction and practice in commercial and specialty plumbing, to include work in piping systems; water resource solutions; water disposal systems; and plumbing fixtures and appliances. Students can seek employment as plumbing technicians on residential and commercial job sites. A Certificate of Competency (CCT) and an Associate in Applied Science (AAS) in Construction Trades are also available.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 25-27

CON102	Foundations of Construction Trades (6) OR
CON102AA	Foundations of Construction Trades: Tools, Equipment, and Workspace (2) AND
CON102AB	Foundations of Construction Trades: Construction Calculations (2) AND
CON102AC	Foundations of Construction Trades: Construction Drawings and Materials (2)
6	
CON103	Foundation of Construction Safety (1) OR
CON271	Construction Safety (3) 1-3
CON122	Construction: Plumbing (9) OR
CON122AA	Construction: Plumbing/Pipes and Fittings (3) AND
CON122AB	Construction: Plumbing/Drain, Waste and Vent (3) AND
CON122AC	Construction: Plumbing/Fixtures, Faucets and Water Distribution Systems (3) 9
CON222	Construction: Advanced Plumbing 9

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=135226>

Starting Term: 2019 Fall

Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN CORRECTIONS

Total Credits: 15  
Major Code: 5776N

## Description

The Certificate of Completion (CCL) in Corrections program is designed for students intending to pursue careers in various correctional components of the justice system, including parole, probation, jail, and prisons. Focus is broader learning about the correction function in the context of overall administration of justice system.

## Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 15

AJS101 Introduction to Criminal Justice 3

AJS123 Ethics and the Administration of Justice (3) OR  
AJS255 The Criminal Justice System Handling of the Mentally Ill (3)3

AJS212 Juvenile Justice Procedures 3  
AJS240 The Correction Function 3

AJS205 Effective Communication and Report Writing in Criminal Justice (3) OR  
AJS275 Criminal Investigation I (3) 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=182634>

Starting Term: 2023 Fall  
Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN COSTUME DESIGN AND PRODUCTION, LEVEL I

Total Credits: 28-34  
Major Code: 5406

## Description

The Certificate of Completion (CCL) in Costume Design and Production, Level I trains students to design and make costumes for theatre, film, opera, dance and period reproductions. A

Certificate of Completion (CCL) in Costume Design and Production, Level II and an Associate in Applied Science (AAS) in Fashion Design are also available.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 25-31

TEC105	Cultural Aspects of Clothing (3) OR		
THF115	Makeup for Stage and Screen (3)	3	
TEC106	History of Fashion	3	
TEC110	Beginning Apparel Construction (3) OR		
Permission of Program Director		0-3	
TEC111	Intermediate Apparel Construction (3) OR		
THP206	Introduction to Costume Construction for Theatre (4)		3-4
TEC120	Specialty Apparel Construction (3) OR		
TEC124	Advanced Apparel Construction (3) OR		
TEC227	Couture Sewing (3)	3	
TEC122	Sewing with Knits	3	
TEC134	Fashion Illustration I	3	
TEC225	Pattern Design I	3	
TEC226	Draping for Fashion Design	3	
TEC278++	Any Costume Design and Production Internship course(s) (1-3) OR		
THP201++	Any Theatre Production course(s) (1-2) OR		
THO202AC	Theatre Production I Costume Shop (1)		1-3

## Restricted Electives

Credits: 3

TEC113	Textiles: Dyeing	1	
TEC114	Textiles: Block Printing/Silk Screening		1
TEC115	Textiles: Hand Painting	1	
TEC116	Textiles: Stitchery and Embellishment		1
TEC121	Creative Sewing Machine Use	3	
TEC161	Digital Machine Embroidery Laboratory		1
TEC222	Textiles	3	

Note: TEC113, TEC114, TEC115, TEC116, TEC161 may be repeated for up to three (3) credits.

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=187232>



Starting Term: 2024 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN CRIME SCENE INVESTIGATION**

Total Credits: 16-18  
Major Code: 5964

### **Description**

The Certificate of Completion (CCL) in Crime Scene Investigation is designed to develop knowledge and skills required to investigate and reconstruct crime scenes using scientific evidence and logical analysis. The program provides instruction in criminal investigation procedures, collection and preservation of physical and biological evidence, death investigation techniques, crime scene reconstruction methodology and presentation of testimony in court.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 16-18

AJS213	Evidence Technology: Fingerprints (3) OR	
AJS243	Crime Scene Reconstruction (3)	3
AJS215	Criminalistics: Physical Evidence (3) OR	
AJS219	Crime Scene Technology: Physical Evidence (3) OR	
FOR105	Forensic Science: Physical Evidence (4)	3-4
AJS216	Criminalistics: Biological Evidence (3) OR	
FOR106	Forensic Science: Biological Evidence (4)	3-4
AJS214	Evidence Technology/Photography	3
AJS275	Criminal Investigation I	3
AJS290BN	Courtroom Testimony Seminar	1

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=144941>

Starting Term: 2020 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN CRITICAL CARE PARAMEDICINE**

Total Credits: 8  
Major Code: 5003N

## Description

The Certificate of Completion (CCL) in Critical Care Paramedicine is designed to provide the knowledge, skills and ability to synthesize standard of care and expanded scope of practice with comprehensive assessment, diagnostic technology, patient advocacy, ethical and professional behaviors, to practice patient-centered evidence based paramedicine in the clinical, out-of-hospital, and inter-facility transport settings. This certificate prepares students for a critical care paramedic credential.

## Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

## Admission Criteria

Current state Paramedic certification.

## Required Courses

Credits: 8

PME292 Critical Care Paramedicine 8

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=183050>

Starting Term: 2024 Fall  
Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN CYBER ENGINEERING

Total Credits: 42-43  
Major Code: 5149

## Description

The Certificate of Completion (CCL) in Cyber Engineering program is designed to focus on the necessary skills required to secure, protect and identify vulnerabilities in a network, including various operating systems and network devices. Emphasis is placed on developing the theoretical, legal, ethical and practical skills needed to maintain security on mission-critical networking and server systems. The program is designed to meet the training needs of

government and industry employees. The program covers a variety of information security technologies and structured languages. The Cyber Engineering program also focuses on the skills needed for internationally recognized IT certifications and high demands in business, industry, and government. The Associate in Applied Science (AAS) in Cybersecurity is also available.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 42-43

The following courses are required and included in the CCL in Cybersecurity Fundamentals

BPC270 A+ Exam Prep: Operating System Configuration and Support (3) OR  
MST150++ Any Microsoft Windows course (3) 3

CIS105 Survey of Computer Information Systems 3

CIS111 Ethics in Information Technology (3) OR  
ITS120Legal, Ethical and Regulatory Issues (3) 3

CIS126DL Linux Operating System (3) OR  
CIS126RH Red Hat System Administration I (3) 3

CIS156 Python Programming: Level I 3  
CIS190 Introduction to Networking (3) OR

CNT140AB Introduction to Networks (4) 3-4  
CIS270 Essentials of Network and Information Security (3) OR  
ITS110Information Security Fundamentals (3) 3

ITS240Ethical Hacking and Network Defense 3

The following courses are required in the CCL in Cyber Engineering

CIS119DO Introduction to Oracle: SQL (3) OR  
CIS276++ Any SQL Database course (3) 3

CIS162++ Any C Programming: Level I course 3  
CIS227 Assembler Language 3

CIS238DL Linux System Administration (3) OR  
CIS238RH Red Hat System Administration II (3) 3  
CIS250 Management of Information Systems 3

CIS262++ Any C Programming: Level II course 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=162493>

Starting Term: 2021 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN CYBER OPERATIONS**

Total Credits: 41-42  
Major Code: 5165

### **Description**

The Certificate of Completion (CCL) in Cyber Operations program is designed to focus on the necessary skills required to secure, protect and identify vulnerabilities in a network, including various operating systems and network devices. Emphasis is placed on developing the theoretical, legal, ethical and practical skills needed to maintain security on mission-critical networking and server systems. The program is designed to meet the training needs of government and industry employees. The program covers a variety of information security technologies and structured languages. The Cyber Operations program also focuses on the skills needed for internationally recognized IT certifications and high demands in business, industry, and government. An Associate in Applied Science (AAS) in Cybersecurity is also available.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

### **Required Courses**

Credits: 41-42

The following courses are required and included in CCL Cybersecurity Fundamentals.

BPC270 A+ Exam Prep: Operating System Configuration and Support (3) OR  
MST150++ Any Microsoft Windows course (3) 3

CIS105 Survey of Computer Information Systems 3

CIS111 Ethics in Information Technology (3) OR  
ITS120Legal, Ethical and Regulatory Issues (3) 3

CIS126DL Linux Operating System (3) OR

CIS126RH Red Hat System Administration I (3) 3  
CIS156 Python Programming: Level I 3

CIS190 Introduction to Networking (3) OR  
CNT140AB Introduction to Networks (4) 3-4

ITS110 Information Security Fundamentals 3  
ITS240 Ethical Hacking and Network Defense 3

The following courses are required in Cyber Operations

BPC170 A+ Exam Prep: Computer Hardware Configuration and Support 3

CIS238DL Linux System Administration (3) OR  
CIS238RH Red Hat System Administration II (3) 3

CIS290AC Computer Information Systems Internship (3) OR  
CIS298AC Special Projects (3) 3

ITS291 Computer Forensics Foundations 4  
ITS292 Advanced Computer Forensics 4

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=183072>

Starting Term: 2024 Fall

Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN CYBERSECURITY FUNDAMENTALS**

Total Credits: 24-25

Major Code: 5154

### **Description**

The Certificate of Completion (CCL) in Cybersecurity Fundamentals is designed to focus on the necessary skills required to secure, protect and identify vulnerabilities in a network, including various operating systems and network devices. Emphasis is placed on developing the theoretical, legal, ethical and practical skills needed to maintain security on mission-critical networking and server systems. The program is designed to provide applied skills necessary for government and industry employees. The program covers a variety of information security technologies and structured languages. The Cybersecurity program also focuses on the skills needed for internationally recognized IT certifications and high demands in business, industry, and government. The Associate in Applied Science (AAS) in Cybersecurity is also available.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 24-25

BPC270 A+ Exam Prep: Operating System Configuration and Support (3) OR  
MST150++ Any Microsoft Windows course (3) 3

CIS105 Survey of Computer Information Systems 3  
CIS111 Ethics in Information Technology (3) OR

ITS120 Legal, Ethical and Regulatory Issues (3) 3

CIS126DL Linux Operating System (3) OR  
CIS126RH Red Hat System Administration I (3) 3

CIS156 Python Programming: Level I 3

CIS190 Introduction to Networking (3) OR  
CNT140AB Introduction to Networks (4) 3-4

CIS270 Essentials of Network and Information Security (3) OR  
ITS110 Information Security Fundamentals (3) 3

ITS240 Ethical Hacking and Network Defense 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=179773>

Starting Term: 2023 Fall

Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN DATA ANALYTICS

Total Credits: 18-24

Major Code: 5884

### Description

The Certificate of Completion (CCL) in Data Analytics is designed to prepare students to model, synthesize, analyze, and present large data sets for business decision making. Courses will focus on the techniques and computer software used in industry to extract data from various data sources, model and integrate that data, and then visualize this data for business decision making and intelligence gathering. This program prepares students for industry certification and

is embedded (can be used to fulfill requirements) in the Associate of Applied Science (AAS) in Data Analytics available at MCCCDCD.

## Program Notes

Students must earn a grade of C or better in all courses within the program. CIS214DE is not equivalent to CIS214DA for the purposes of this certificate and should not be used to complete program requirements. Students who have completed GBS221 can use this course in lieu of GBS220. Computer Information System (CIS) courses required by this program are not applicable if taken more than eight (8) years prior to the completion of the program of study. Consult with an Academic Advisor for complete information.

## Required Courses

Credits: 18-24

CIS114DE	Excel Spreadsheet	3
CIS117DM	Microsoft Access: Database Management	3
CIS214DA	Advanced Excel for Data Analytics	3
CIS217AM	Advanced Microsoft Access: Database Management (3) OR	
CIS276DA	MySQL Database (3) OR	
CIS276DB	SQL Server Database (3)	3
GBS151	Introduction to Business	3
GBS220	Quantitative Methods in Business (3) OR	
GBS221	Business Statistics (3)	3
MAT150	College Algebra/Functions (5) OR	
MAT151	College Algebra/Functions (4) OR	
MAT152	College Algebra/Functions (3) OR	
MAT155	College Algebra/Functions with Review (5) OR	
MAT156	College Algebra/Functions with Review (6) OR	
	Satisfactory District math placement (0)	0-6

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCDCD.woa/wa/freeForm11?id=175945>

Starting Term: 2022 Fall

Final Term: 9999

## Certificate of Completion (CCL) in Database Development

Total Credits 24

Major Code 5083

### Description

The Certificate of Completion (CCL) in Database Development prepares students to design and implement the infrastructure for business solutions using database and programming tools. The

program focuses on administrative tasks and building database applications using programming skills such as data collection, query techniques, and database creation. This certificate can embed into the Associate in Applied Science (AAS) degree in Information Technology.

### Program Notes

Students must earn a grade of C or better in all courses within the program.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

### Required Courses

CIS105 Survey of Computer Information Systems 3

CIS117DM Microsoft Access: Database Management (3) OR  
CIS154 Database Modeling and Design (3) 3

CIS119DO Introduction to Oracle: SQL 3  
CIS150++ Programming Fundamentals 3

CIS156 Python Programming: Level I (3) OR  
CIS159 Visual Basic Programming I (3) OR  
CIS162AD C#: Level I (3) OR  
CIS163AA Java Programming: Level I (3) 3

CIS164AB Oracle: PL/SQL Programming (3) OR  
CIS276DA MySQL Database (3) OR  
CIS276DB SQL Server Database (3) 3

CIS217AM Advanced Microsoft Access: Database Management 3  
CIS225AB Object-Oriented Analysis and Design 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=164765>

Starting Term: 2021 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN DESKTOP SUPPORT**

Total Credits: 19-22  
Major Code: 5043

### **Description**

The Certificate of Completion (CCL) in Desktop Support program is designed to prepare students for entry-level computer maintenance, help desk, and network technician jobs. The classes focus on the development of knowledge and skills in computer, network, and security



technologies, as well as the interpersonal skills in customer service/technical support needed to be successful within the industry. Depending on course selection, this program helps prepare students for the CompTIA A+, CompTIA Network+, and/or CompTIA Linux+ certification exams. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCLs) in a variety of specializations within the information technology field to deepen their knowledge and skills and help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

## Program Notes

Students must earn a grade of C or better in all courses within the program. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST. This program replaces CCL/5841 Microsoft Technical Specialist

## Required Courses

Credits: 18-19

BPC170	A+ Exam Prep: Computer Hardware Configuration and Support	3
BPC270	A+ Exam Prep: Operating System Configuration and Support	3
CIS102DA	Customer User Support	3
CIS105	Survey of Computer Information Systems	3
CIS126DL	Linux Operating System (3) OR	
CIS126RH	Red Hat System Administration I (3)	3
CIS190	Introduction to Networking (3) OR	
CNT140AB	Introduction to Networks (4)	3-4

(Note: CNT140AB is recommended for students interested in pursuing their Cisco Network Administration Certification)

## Restricted Electives

Credits: 1-3

Students must select one to three (1-3) credits from the following:

BPC171	Recycling Used Computer Technology	1
CIS290AA	Computer Information Systems Internship	1
CIS290AB	Computer Information Systems Internship	2
CIS290AC	Computer Information Systems Internship	3
CIS296WB	Cooperative Education	2
CIS296WC	Cooperative Education	3
CIS298AA	Special Projects	1
CIS298AB	Special Projects	2
CIS298AC	Special Projects	3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm?id=189647>

Starting Term: 2024 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN DIGITAL ARTS: DIGITAL PHOTOGRAPHY**

Total Credits: 22  
Major Code: 5632

### **Description**

The Certificate of Completion (CCL) in Digital Arts: Digital Photography prepares students for careers in photography and digital imaging as photo assistants, commercial photographers, portrait and fine art photographers, digital production technicians and photo retoucher. In the program the student develops an understanding of traditional photographic principles, film, cameras, and printing, and learns how to apply these principles using digital cameras, inkjet printers and computer software. Knowledge and skills can be applied to such occupational areas as media production, marketing, graphic production and multimedia. The program is designed for both those seeking to enter a career in digital photography or digital imaging and those already working in the field who wish to advance and update their knowledge and skills.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 22

ART131	Photography I	3
ART132	Photography II	3
AVC100	Introduction to Digital Arts	1
AVC142	Introduction to Digital Photography	3
AVC143	Intermediate Digital Photography	3
AVC177	Digital Photographic Imaging I	3
AVC270	Digital Photographic Imaging II	3
AVC274	Digital Photographic Imaging III	3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=175859>

Starting Term: 2022 Fall  
Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN DISC JOCKEY TECHNIQUES I

Total Credits: 11  
Major Code: 5976N

## Description

The Certificate of Completion (CCL) in Disc Jockey Techniques I is designed to prepare students for entry level employment as a live-performance disc jockey (DJ). This program is designed to provide the student with the technical skills required for a successful performance or production and to demonstrate an understanding of common business practices in a highly competitive and rapidly changing entertainment industry. A Certificate of Completion (CCL) in Disc Jockey Techniques II and an Associate in Applied Science (AAS) Disc Jockey Techniques is available for students who want to deepen their knowledge and skills within the field.

## Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 11

MUC135	Introduction to Disc Jockey Techniques	3
MUC136	Turntablism: The Art of the Scratch DJ	3
MUC137	Digital DJ Performance Techniques	3
MUC138	Disc Jockey Laboratory	1
MUC293	Self Promotion for Music	1

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=175858>

Starting Term: 2022 Fall  
Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN DISC JOCKEY TECHNIQUES II

Total Credits: 23  
Major Code: 5745

## Description

The Certificate of Completion (CCL) in Disc Jockey Techniques II is designed to prepare students for entry level employment as a live-performance disc jockey (DJ). This program is

designed to provide the student with the technical skills required for a successful performance or production and to demonstrate an understanding of common business practices in a highly competitive and rapidly changing entertainment industry. An Associate in Applied Science (AAS) in Disc Jockey Techniques is also available.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 23

MHL204	Hip-Hop Music and Culture	3
MUC109	Music Business: Content Creation and Copyright	3
MUC135	Introduction to Disc Jockey Techniques	3
MUC136	Turntablism: The Art of the Scratch DJ	3
MUC137	Digital DJ Performance Techniques	3
MUC138	Disc Jockey Laboratory	1
MUC139	Introduction to Emcee-Rapping Techniques	3
MUC197	Live Sound Reinforcement I	3
MUC293	Self Promotion for Music	1

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm?id=175656>

Starting Term: 2023 Fall

Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN EARLY CHILDHOOD EDUCATION

Total Credits: 36

Major Code: 5056

## Description

The Certificate of Completion (CCL) in Early Childhood Education is designed to prepare students for employment as early childhood teachers in a variety of educational programs. Students learn effective teaching skills as they apply developmentally appropriate early childhood educational theory in the classroom setting. Courses have been selected with a focus on developing an educational career ladder. An Associate in Applied Science (AAS) in Early Childhood Education is also available and includes additional early childhood electives and general education classes to broaden the student's base of knowledge.

## Program Notes

Students must earn a grade of C or better in all courses within the program. For some employment and field experiences (including internship courses), students will be required to have a current Identity Verified Print (IVP) Fingerprint Clearance Card and a current TB test.

## Required Courses

Credits: 29-34

- CFS101AH Art Activities for the Young Child (1) AND  
 ECH281 Movement/Music for the Young Child (1) OR  
 ECH128 Early Learning: Play and the Arts (3) OR  
 EED210 Creative and Cognitive Play (3) 2-3
- CFS123 Health and Nutrition In Early Childhood Settings (1) AND  
 CFS125 Safety in Early Childhood Settings (1) AND  
 ECH280 Food Experiences With Young Children (1) OR  
 EED215 Early Learning: Health, Safety, Nutrition and Physical Fitness (3) 3
- CFS/ECH176 Child Development (3) OR  
 CFS235 Developing Child: Theory into Practice, Prenatal to Age Eight (3) OR  
 EED205 The Developing Child: Prenatal to Age Eight (3) 3
- CFS/ECH269 Child Care Seminar (1) AND  
 CFS/ECH287 Professional Development in Early Childhood Education (1) OR  
 EED255 Portfolio Development and Writing for the Profession (3) 2-3
- CFS/ECH271 Arranging the Environment (1) AND  
 CFS282 Mainstreaming The Young Child with A Disability (1) AND  
 ECH282 Discipline/Guidance of Child Groups (1) OR  
 EED212 Guidance, Effective Interactions and the Environment (3) 3
- CFS/ECH273 Math for the Young Child (1) AND  
 CFS/ECH275 Literacy Development and the Young Child (1) AND  
 ECH272 Science for the Young Child (1) AND  
 ECH279 Early Childhood Curriculum Development (1) OR  
 EED278 Early Learning Curriculum and Instruction - Birth to Age Eight (3) 3-4
- CFS/ECH284AB Early Childhood Teaching Internship (3) OR  
 EED260 Early Childhood Infant/Toddler Internship (1) AND  
 EED261 Early Childhood Preschool Internship (1) OR  
 CFS/ECH284AA Early Childhood Teaching Internship (1) 2-3
- ECH140 Learning Made Visible Through Documentation (1) AND  
 ECH270 Observing Young Children (1) OR  
 ED280 Standards, Observation and Assessment of Typical/Atypical Behaviors of Young Children Birth Age Eight (3) 2-3
- EED200 Foundations of Early Childhood Education 3  
 EED222 Introduction to the Exceptional Young Child: Birth to Age Eight 3
- EED225 Language and Literacy in the Context of Culture and Relationships 3

## Restricted Electives

Credits: 2-7

Students must select 2-7 credits from the following courses to meet a minimum of 36 credits for the certificate. Cannot be shared with Required Courses Area.

CFS+++ Any CFS Child/Family Studies course(s)  
ECH+++ Any ECH Early Childhood Education course(s)  
EDU+++ Any EDU Education course(s)  
EED+++ Any EED Early Education course(s)  
FCS+++ Any FCS Family and Consumer Science course(s)  
ITD+++ Any ITD Infant/Toddler Development course(s)

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=147874>

Starting Term: 2020 Fall  
Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN ELECTRONICS TECHNOLOGY

Total Credits: 24  
Major Code: 5591

### Description

The Certificate of Completion (CCL) in Electronics Technology is designed to prepare students to work as electronics technicians, manufacturing supervisors, test equipment specialists, prototype fabricators, and in other positions in firms that specialize in electronic design, manufacturing, service, and development. Students with this certificate may work in industries that include, but are not limited to, aerospace, biotechnology, communications, entertainment, industrial, medical, power, semiconductor, and transportation. This Certificate of Completion (CCL) comprises the first two semesters of the Associate in Applied Science (AAS) degree in Electronics Technology.

### Program Notes

Students must earn a grade of C or better in all courses within the program.

### Required Courses

Credits: 24

ELE111	Circuit Analysis I	4
ELE112	Circuit Analysis II	4
ELE121	Solid-State Devices and Circuits I	4
ELE131	Digital Logic and Circuits	3
ELE181	Computer Programming for Technology	3

ELE241	Microprocessor Concepts	4
GTC/OSH/MIT106	Industrial Safety	2

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=173311>

Starting Term: 2022 Summer  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN EMERGENCY MEDICAL TECHNOLOGY**

Total Credits: 13  
Major Code: 5643N

### **Description**

The Certificate of Completion (CCL) in Emergency Medical Technology curriculum provides the student with the necessary knowledge and skills in accordance with the National EMS Scope of Practice published by National Highway Traffic Safety Administration (NHTSA) and the Arizona Department of Health Services. Successful completion of the curriculum and upon licensure, the candidate can seek employment with ambulance service companies, first responder agencies, fire departments, and hospitals as an Emergency Medical Technician (EMT). Emphasis is on the fundamental principles and skills required to provide emergency medical care for the ill or injured. The primary focus of an EMT is to respond to, assess and triage emergent, urgent, and non-urgent requests for medical care, apply basic knowledge and skills necessary to provide patient care and medical transportation to/from an emergency or health care facility.

This program is designed to meet education requirements for licensure or certification in the State of Arizona. Granting licensure and certification is the sole responsibility of the state board or approval agency. This program is only offered and available to students located in the State of Arizona. The Maricopa County Community College District and colleges define student location within Administrative Regulation 2.2.3(7).

### **Program Notes**

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program. EMT104 requires students to complete additional hours in a competency-based clinical, vehicular, and/or scenario based experience. Depending on the college, this may be completed through EMT104AB or program director-approved rotation.

### **Admission Criteria**

At Rio Salado College, this program is offered through an educational partnership. Employment by the partnership organization is required for admission.

### **Required Courses**

Credits: 13

Students who have current validation in Basic Life Support (BLS) are required to receive credit by evaluation.

EMT101 Basic Life Support/Cardiopulmonary Resuscitation (CPR) for Health Care Providers (0.5) OR

Current validation in Basic Life Support (BLS) Health Care Provider/Professional Rescuer (0) AND

Credit By Evaluation (0.5) 0.5

EMT104AB Applied Practical Studies for Emergency Medical Technology 0.5

EMT104LL Emergency Medical Technology Practicum 2

EMT104 Emergency Medical Technology 10

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=180706>

Starting Term: 2023 Fall

Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN EMERGENCY MEDICAL TECHNOLOGY COMPREHENSIVE**

Total Credits: 16-17

Major Code: 5058

### **Description**

The Certificate of Completion (CCL) in Emergency Medical Technology Comprehensive curriculum provides the student with the necessary knowledge and skills in accordance with the National EMS Scope of Practice published by National Highway Traffic Safety Administration (NHTSA) and the Arizona Department of Health Services. This certificate provides students with the expanded knowledge and skills for pre-hospital settings. Successful completion of the curriculum and upon licensure, the candidate can seek employment with ambulance service companies, first responder agencies, fire departments, and hospitals as an Emergency Medical Technician (EMT). Emphasis is on the fundamental principles and skills required to provide emergency medical care for the ill or injured. The primary focus of an EMT is to respond to, assess and triage emergent, urgent, and non-urgent requests for medical care, apply basic knowledge and skills necessary to provide patient care and medical transportation to/from an emergency or health care facility.

This program is designed to meet education requirements for licensure or certification in the State of Arizona. Granting licensure and certification is the sole responsibility of the state board or approval agency. This program is only offered and available to students located in the State of Arizona. The Maricopa County Community College District and colleges define student location within Administrative Regulation 2.2.3(7).

### **Program Notes**



Students must earn a grade of C or better in all courses within the program. EMT104 requires students to complete additional hours in a competency-based clinical, vehicular, and/or scenario based experience. Depending on the college, this may be completed through EMT104AB or program director-approved rotation.

## Required Courses

Students who have current validation in Basic Life Support (BLS) are required to receive credit by evaluation.

EMT101 Basic Life Support/Cardiopulmonary Resuscitation (CPR) for Health Care Providers (0.5) OR  
Current validation in Basic Life Support (BLS) Health Care Provider/Professional Rescuer (0) AND  
Credit By Evaluation (0.5) 0.5

EMT104AB Applied Practical Studies for Emergency Medical Technology 0.5  
EMT104 Emergency Medical Technology 10  
EMT104LL Emergency Medical Technology Practicum 2

## Restricted Electives

Credits: 3-4

AJS/EMT/FSC258 Victimology and Crisis Management in Public Safety 3  
BIO156 Introductory Biology for Allied Health 4  
HCC145 Medical Terminology for Health Care Professionals 3  
PME190 Introduction to ECG Rhythm Analysis and Interpretation for EMS Professionals 3  
PME191 Introduction to Pharmacology for EMS Professionals 3  
SWU258 Victimology and Crisis Management 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=139035>

Starting Term: 2019 Fall  
Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN ENTREPRENEURIAL STUDIES LEVEL I

Total Credits: 10-11  
Major Code: 5819N

### Description

The Certificate of Completion (CCL) in Entrepreneurial Studies Level I program is designed to provide students with an introduction to the entrepreneurial process. Courses include a history of entrepreneurship, current research into its impacts on society, types of business start-up

opportunities, and creating a preliminary business plan, as well as securing a healthy financial future. A Certificate of Completion (CCL) in Entrepreneurial Studies Level II is also available.

## Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 10-11

EPS150	Introduction to Entrepreneurship	3
EPS160	New Venture Creation	2

EPS162	Introduction to Social Entrepreneurship (3) OR	
EPS195	Business Start-Up and Planning (2)	2-3

GBS132	Personal and Family Financial Security	3
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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=189422>

Starting Term: 2024 Summer

Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN ENTREPRENEURIAL STUDIES LEVEL II

Total Credits: 18-19

Major Code: 5820

## Description

The Certificate of Completion (CCL) in Entrepreneurial Studies Level II program is designed to prepare students to acquire additional skills, tools and knowledge necessary for successful venture opportunities. A Certificate of Completion (CCL) in Entrepreneurial Studies Level I is also available and fully embedded in this program.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 18-19

EPS150	Introduction to Entrepreneurship	3
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EPS160	New Venture Creation	2
EPS162	Introduction to Social Entrepreneurship (3) OR	
EPS195	Business Start-Up and Planning (2)	2-3
GBS/HEC132	Personal and Family Financial Security	3
EPS161	New Venture Law and Finance (3) OR	
EPS180	Technology Business Planning (3)	3
EPS165	New Venture Feasibility Analysis	2
MGT253	Owning and Operating a Small Business	3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=187233>

Starting Term: 2024 Fall

Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN FINGERPRINT IDENTIFICATION AND PHOTOGRAPHY**

Total Credits: 10

Major Code: 5010N

### **Description**

The Certificate of Completion (CCL) in Fingerprint Identification and Photography is designed to prepare students for entry level positions in the field of fingerprint classification and identification. It is one pathway to the Associate in Applied Science (AAS) in Forensic Science.

### **Program Notes**

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 10

AJS101	Introduction to Criminal Justice	3
AJS213	Evidence Technology: Fingerprints	3
AJS214	Evidence Technology/Photography	3
AJS290BN	Courtroom Testimony Seminar	1

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=173595>

Starting Term: 2022 Spring  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN FIREFIGHTER OPERATIONS**

Total Credits: 16.5-33  
Major Code: 5557

### **Description**

The Certificate of Completion (CCL) in Firefighter Operations provides the opportunity for individuals seeking careers in the fire service to acquire minimum standard firefighting skills and prepare for state and/or national certifications, including the Firefighter I and II Certification. An Associate in Applied Science (AAS) in Fire Science is also available.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Admission Criteria**

Formal application and admission to the program is required.

### **Required Courses**

Credits: 16.5-33

EMT101 Basic Life Support/Cardiopulmonary Resuscitation (CPR) for Health Care Providers (0.5)

OR

Current validation in Basic Life Support (BLS) Health Care Provider/Professional Rescuer (0) AND

Credit By Evaluation (0.5) 0.5

EMT104 Emergency Medical Technology (10) AND

EMT104AB Applied Practical Studies for Emergency Medical Technology (0.5) AND

EMT104LL Emergency Medical Technology Practicum (2)

OR

Arizona State EMT Certification (0) OR

Arizona State Paramedic Certification (0) OR

Permission of Program Director (0) 0-12.5

FSC102 Fire Department Operations 11

FSC105 Hazardous Materials/First Responder (3) OR

Permission of Program Director (0) 0-3

FSC130 Fitness for Firefighters/CPAT (1) OR  
Verification of CPAT completion (0) 0-1

FSC134 Fitness and Conditioning for Firefighters 3  
FSC174 Functions of Command 2

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm?id=188746>

Starting Term: 2024 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN FOUNDATIONS OF EARLY CHILDHOOD EDUCATION**

Total Credits: 18-19  
Major Code: 5054

### **Description**

The Certificate of Completion (CCL) in Foundations of Early Childhood Education is designed to prepare students with foundational knowledge regarding the growth and development of the young child. Topics include cognitive and physical development of the young child, language acquisition, curriculum development, health and safety guidelines, business procedures, and family/community relationship building. This CCL is embedded (can be used to fulfill part of the requirements) in a second available CCL, Early Childhood Education. Both CCLs are embedded (can be used to fulfill requirements) in the Associate in Applied Science (AAS) in Early Childhood Education.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program. For some employment and field experiences (including internship courses), students will be required to have a current Identity Verified Print (IVP) Fingerprint Clearance Card and a current TB test.

### **Required Courses**

Credits: 18-19

CFS101AH Art Activities for the Young Child (1) AND  
ECH281 Movement/Music for the Young Child (1) OR  
ECH128 Early Learning: Play and the Arts (3) OR  
EED210 Creative and Cognitive Play (3) 2-3

CFS123 Health and Nutrition In Early Childhood Settings (1) AND  
CFS125 Safety in Early Childhood Settings (1) AND  
ECH280 Food Experiences with Young Children (1) OR

EED215 Early Learning: Health, Safety, Nutrition and Physical Fitness (3) 3

CFS/ECH176 Child Development (3) OR  
CFS235 Developing Child: Theory into Practice, Prenatal to Age Eight (3) OR  
EED205 The Developing Child: Prenatal to Age Eight (3) 3

CFS/ECH271 Arranging the Environment (1) AND  
CFS282 Mainstreaming The Young Child with A Disability (1) AND  
ECH282 Discipline/Guidance of Child Groups (1) OR  
EED212 Guidance, Effective Interactions and the Environment (3) 3

CFS/ECH284AA Early Childhood Teaching Internship (1) OR  
EED260 Early Childhood Infant/Toddler Internship (1) OR

EED261 Early Childhood Preschool Internship (1) 1  
EED200 Foundations of Early Childhood Education 3

EED222 Introduction to the Exceptional Young Child: Birth to Age Eight 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm?id=179414>

Starting Term: 2023 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN GENERAL BUSINESS**

Total Credits: 21  
Major Code: 5683

### **Description**

The Certificate of Completion (CCL) in General Business is designed to provide business training for various entry-level positions in business. The courses include an introduction to business concepts, accounting and computer principles, and legal issues related to business. An Associate in Applied Science (AAS) is also available.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 12

ACC111 Accounting Principles I 3  
CIS105 Survey of Computer Information Systems 3  
GBS151 Introduction to Business 3  
GBS205 Legal, Ethical and Regulatory Issues in Business 3

## Restricted Electives

Credits: 9

Students should select nine (9) credits from the following courses/subjects. Any 100/200 level courses in the following subjects can be used, except courses used to satisfy the Required Courses area.

ACC+++ Any ACC Accounting course(s)  
CIS114DE Excel Spreadsheet 3  
CIS117DM Microsoft Access: Database Management 3  
CIS133DA Internet/Web Development Level I 3  
EPS+++ Any EPS Entrepreneurial Studies course(s) 1-3  
GBS+++ Any GBS General Business course(s)  
MGT+++ Any MGT Management course(s)  
MKT+++ Any MKT Marketing course(s)  
IBS+++ Any IBS International Business course(s)  
REA+++ Any REA Real Estate course(s)  
SBS+++ Any SBS Small Business Management course(s)  
TQM+++ Any TQM Total Quality Management course(s)

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm?id=151472>

Starting Term: 2020 Fall

Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN GEOSPATIAL TECHNOLOGIES

Total Credits: 33-45

Major Code: 5135

### Description

The Certificate of Completion (CCL) in Geospatial Technologies program provides a solid foundation in Geographic Information Systems (GIS) concepts, not simply GIS software. This program equips students with fundamental GIS abilities that can be applied in a variety of environments where spatial data analysis is required.

### Program Notes

Students must earn a grade of C or better in all courses within the program. Program is designed for students with varying skills; consult with a program director. Depending on a student's educational experience, additional coursework may be needed to be eligible for MAT220 or MAT221.

### Required Courses

Credits: 24-26

In addition to the required coursework students must consult with a program advisor to select one of the specializations within the Restricted Electives area.

CIS105	Survey of Computer Information Systems	3	
GCU102	Introduction to Human Geography	3	
GIS205	Geographic Information Technologies	3	
GIS211	Geographic Information Science I	4	
GIS220	Introduction to ArcPy Scripting	3	
GIS222	Geographic Information Science II	3	
GPH113	Introduction to Physical Geography	4	
GCU/GPH298++	Special Projects (any suffixed course)		1-3

## Restricted Electives

Credits: 9-19

### Specialization I: Technician

CIS163AA	Java Programming: Level I	3	
CIS117DM	Microsoft Access: Database Management	3	
GIS223	Introduction to Digital Image Processing	3	

### Specialization II: Analyst/Developer

CSC110	Introduction to Computer Science (Java)	3	
CIS276DB	SQL Server Database3		
GIS223	Introduction to Digital Image Processing	3	

MAT120	Intermediate Algebra (5) OR		
MAT121	Intermediate Algebra (4) OR		
MAT122	Intermediate Algebra (3) OR		
MAT126	Intermediate Algebra with Review (6) OR		
Appropriate District Placement		0-6	

### Related Area:

GPH212	Introduction to Meteorology I (4) OR		
GPH213	Climate and Weather (3) OR		
GPH267	Extreme Weather and Climate (3)	3-4	

### Specialization III: Transfer Emphasis

CSC110	Introduction to Computer Science (Java)	3	
CSC205AB	Object Oriented Programming and Data Structures	4	

### Related Area:

GPH212	Introduction to Meteorology I (4) OR		
GPH213	Climate and Weather (3) OR		
GPH267	Extreme Weather and Climate (3)	3-4	

MAT220	Calculus with Analytic Geometry I (5) OR		
MAT221	Calculus with Analytic Geometry I (4)	4-5	

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=187296>



Starting Term: 2024 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN GRAPHIC DESIGN**

Total Credits: 34  
Major Code: 5173

### **Description**

The Certificate of Completion (CCL) in Graphic Design develops the knowledge and skills required to create graphic designs, including images, layouts, typography, packaging, motion and interactive graphics, and branding in various print and digital media. This certificate prepares students for employment and upgrades the skills of persons employed in occupations such as production artists, graphic designers, and art directors. An Associate in Applied Science (AAS) in Graphic Design is also available.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits:	31		
AVC169	2D Media Design	3	
AVC177	Digital Photographic Imaging I		3
AVC183	Digital Graphic Arts I	3	
ART255	Art Marketing (3) OR		
AVC248	Design Self Promotion (3)	3	
AVC100	Introduction to Digital Arts	1	
AVC283	Digital Graphic Arts II	3	
ART111	Drawing I (3) OR		
ART116	Life Drawing I (3)	3	
ART113	Color (3) OR		
AVC114	Digital Color (3)	3	
AVC142	Introduction to Digital Photography	3	
AVC178	Digital Arts Studies	3	
AVC/MMT190	Art of Web Site Design	3	

### **Restricted Electives**

Credits: 3

Students must select 3 credits from the following list of courses:

AVC150	Multimedia Storytelling	3
AVC103	Typography in the Digital Age	3
AVC175	Electronic Publishing Design I	3
AVC289	Computer Illustration	3
AVC192	Advanced Web Presentation Design	3
AVC200	Animation and Interactivity	3
AVC210	Design Tools for Imagery, Production, and Publishing	3
AVC/THO246	Digital Fabrication	3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=186128>

Starting Term: 2024 Fall

Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN HUMAN RESOURCES MANAGEMENT**

Total Credits: 24

Major Code: 5580

### **Description**

The Certificate of Completion (CCL) in Human Resources Management program is designed to provide skills necessary for careers in human resources management. The program is designed to provide students a series of courses with an emphasis in management and is designed to prepare students for an entry-level position in human resources. Graduates may be employed in employment (recruiting, interviewing, and hiring), benefits administration, compensation, and employee relations. A Certificate of Completion (CCL) in Human Resources: Compensation and Benefits is also available.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 24

BPC110	Computer Usage and Applications (3) OR	
CIS105	Survey of Computer Information Systems (3)	3
GBS205	Legal, Ethical, and Regulatory Issues in Business	3
GBS131	Business Calculations (3) OR	
MAT112	Mathematical Concepts and Applications (3) OR	
	Satisfactory completion of higher level Mathematics course	3

GBS120	Workplace Communication Skills	3	
MGT229	Management and Leadership I	3	
MGT251	Human Relations in Business	3	
MGT276	Human Resources Management	3	
MGT286	Human Resource Employment Management		3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=184876>

Starting Term: 2023 Fall

Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN ILLUSTRATION

Total Credits: 31

Major Code: 5174

### Description

The Certificate of Completion (CCL) in Illustration develops knowledge and skills in creating visual narratives through traditional and digital media. The program emphasizes art principles, knowledge, and skills needed to solve design and compositional problems. Focus areas include graphic arts, publications, and storyboarding for animation, video, and media. This certificate prepares students for employment and upgrades the skills of persons employed in occupations such as freelance artist-designer, concept artist, visual development artist for gaming/film, and storyboarder. Students may also pursue an Associate in Applied Science (AAS) in Illustration and Sequential Art.

### Program Notes

Students must earn a grade of C or better in all courses within the program.

### Required Courses

AVC169	2D Media Design	3	
AVC177	Digital Photographic Imaging I		3
ART255	Art Marketing (3) OR		
AVC248	Design Self Promotion (3)		3
AVC289	Computer Illustration	3	
AVC100	Introduction to Digital Arts		1
ART111	Drawing I	3	
ART113	Color (3) OR		
AVC114	Digital Color (3)		3
ART116	Life Drawing I	3	
AVC178	Digital Arts Studies		3

## Restricted Electives

Credits: 6

Students must select six (6) credits from the following list of courses. Students may select from one focus area or may select from different focus areas to fulfill the six (6) credit requirement.

### Animation Focus Area

AVC/MMT184 Digital Animation I 3  
AVC/MMT185 3D Modeling for Animation I 3

### Drawing Focus Area

ART117 Life Drawing II 3  
ART118 Art Anatomy 3  
ART122 Drawing and Composition II 3

### Painting Focus Area

ART165 Watercolor Painting I 3  
ART166 Watercolor Painting II 3  
ART167 Painting I 3  
ART168 Painting II 3  
ART263 Figure Painting 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/acres.woa/wa/fullView?id=189811>

Starting Term: Spring 2025

Final Term: 9999

Total Credits: 14

Major Code: 5313N

## Certificate of Completion (CCL) in Industrial Control Systems

### Description

The Certificate of Completion (CCL) in Industrial Control Systems program curriculum is designed to prepare students to troubleshoot, maintain, and repair a variety of automated electro-mechanical, product assembly, process control, and product distribution systems that use programmable controllers, process controllers, and electronic control systems. An Associate in Applied Science (AAS) in Automated Industrial Technology (AIT) and additional AIT Certificates of Completion (CCL) are also available at select colleges. Please check with your local college for program availability.

### Program Notes

This program is not eligible for Title IV Federal Financial Aid.  
Students must earn a grade of C or better in all courses within the program.

### Required Courses

AIT100 Industrial Safety 1  
AIT125 DC and AC Components and Circuits 3  
+ AIT205 Power Electronics and Variable Frequency Drives 3  
+ AIT210 Programmable Logic Controller Programming and Troubleshooting 3  
+ AIT215 Process Control Systems 4

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/acres.woa/wa/fullView?id=189837>

Starting Term: Spring 2025  
Final Term: 9999

## **Certificate of Completion (CCL) in Industrial Electrical Systems**

Total Credits: 10  
Major Code: 5317N

### **Program Description**

The Certificate of Completion (CCL) in Industrial Electrical Systems program curriculum is designed to prepare students to troubleshoot, maintain and repair a variety of automated electro-mechanical, product assembly and product distribution systems that use electrical devices. An Associate in Applied Science (AAS) in Automated Industrial Technology (AIT) and additional AIT Certificates of Completion (CCL) are also available at select colleges. Please check with your local college for program availability.

### **Program Notes**

This program is not eligible for Title IV Federal Financial Aid.  
Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

AIT100 Industrial Safety 1  
AIT125 DC and AC Components and Circuits 3  
AIT225 Industrial Motors and Motor Control 3  
AIT227 Power Distribution Systems 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/acres.woa/wa/fullView?id=189840>

Starting Term: Spring 2025  
Final Term: 9999

## **Certificate of Completion (CCL) in Industrial Fluid Systems**

Total Credits: 7  
Major Code: 5318N

## **Program Description**

The Certificate of Completion (CCL) in Industrial Fluid Systems program curriculum is designed to prepare students to troubleshoot, maintain and repair a variety of automated electro-mechanical, product assembly and product distribution systems that use hydraulic and pneumatic devices. An Associate in Applied Science (AAS) in Automated Industrial Technology (AIT) and additional AIT Certificates of Completion (CCL) are also available at select colleges. Please check with your local college for program availability.

## **Program Notes**

This program is not eligible for Title IV Federal Financial Aid.  
Students must earn a grade of C or better in all courses within the program.

## **Required Courses**

AIT100 Industrial Safety 1  
AIT115 Hydraulic Systems 3  
AIT120 Pneumatic Systems 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=173262>

Starting Term: 2024 Fall  
Final Term: 9999

# **CERTIFICATE OF COMPLETION (CCL) IN INDUSTRIAL TECHNOLOGY FOR SEMICONDUCTOR**

Total Credits: 3  
Major Code: 5260N

## **Description**

The Certificate of Completion (CCL) in Industrial Technology for Semiconductor prepares individuals to apply basic engineering principles and technical skills to operate and monitor equipment for the fabrication of semiconductors or microchips from silicon wafers, and to troubleshoot, maintain, and repair the specialized equipment used in this process. Includes instruction in AC and DC circuits, digital fundamentals, solid state devices, manufacturing processes, vacuum principles and technology, industrial electronics, quality assurance, and semiconductor manufacturing technology.

## **Program Notes**

This program is not eligible for Title IV Federal Financial Aid.  
Students must earn a grade of C or better in all courses within the program.

## **Required Courses**

Credits: 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/acres.woa/wa/fullView?id=189843>

Starting Term: 2025

Final Term: 9999

## **Certificate of Completion (CCL) in Industrial Mechanical Systems**

Total Credits: 7

Major Code: 5319N

### **Description**

The Certificate of Completion (CCL) in Industrial Mechanical Systems program curriculum is designed to prepare students to troubleshoot, maintain and repair a variety of automated electro-mechanical, product assembly and product distribution systems that use mechanical devices. An Associate in Applied Science (AAS) in Automated Industrial Technology (AIT) and additional AIT Certificates of Completion (CCL) are also available at select colleges. Please check with your local college for program availability.

### **Program Notes**

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

AIT100 Industrial Safety 1

AIT105 Modern Maintenance Operations 3

AIT110 Mechanical Power Transmission Systems 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm?id=92540>

Starting Term: 2016 Spring

Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN INSTRUCTIONAL ASSISTANCE**

Total Credits: 27

Major Code: 5119

### **Description**

The Certificate of Completion (CCL) in Instructional Assistance program is designed to prepare students to assist the classroom teacher in grades K through 12. Program requirements include

coursework in foundations of education and language as well as practical application coursework, including a practicum within a classroom setting.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Program Prerequisites

Credits: 18

CFS/ECH176 Child Development 3  
EDU220 Introduction to Serving English Language Learners (ELL) 3  
EDU221 Introduction to Education 3  
EDU222 Introduction to the Exceptional Learner 3  
EDU230 Cultural Diversity in Education 3  
EDU/ENH291 Children's Literature 3

## Restricted Electives

Credits: 9

Restricted Electives (BPC110 or CIS105), COM225, and (ENG101 or ENG107) courses are recommended if completing coursework for the Associate in Arts Elementary Education (AAEE) degree.

BPC110 Computer Usage and Applications (3) OR  
CIS105 Survey of Computer Information Systems (3) 3  
  
COM225 Public Speaking 3  
EDU101A+ Tutor Training and Practicum (any suffixed course) 1-3  
EDU236 Classroom Relationships 3  
EDU282A+ Service-Learning Experience in Education (any suffixed course) 1-3  
EDU/HUM/STO292 The Art of Storytelling 3  
ECH/EDU298A+ Special Projects (any suffixed course) 3  
  
ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) 3

Any foreign language course 3-4

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm?id=149316>

Starting Term: 2020 Fall

Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN INTERNATIONAL RESIDENTIAL CODE



Total Credits: 3  
Major Code: 5181N

## Description

The Certificate of Completion (CCL) in International Residential Code covers International Residential Code for construction trades, including building, mechanical, plumbing and electrical, for one and two family residential construction. After completion of the certificate, students may take the International Code Council International Building Code exam for international certification.

## Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 3

CON262 Introduction International Residential Code (IRC) 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=164061>

Starting Term: 2021 Spring  
Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN J-STD SOLDERING CERTIFICATION

Total Credits: 3  
Major Code: 5196N

## Description

The Certificate of Completion (CCL) in J-STD Soldering Certification will prepare the successful student to receive the "Certified IPC Specialist" (CIS) certification from The Institute for Interconnecting and Packaging Electronic Circuits (IPC) in "Requirements for Soldered Electrical and Electronic Assemblies" (IPC J-STD-001). Topics covered and skills to be demonstrated are: soldered wires and terminals, through hole connections, surface mount components, and inspection. Certification is verified by a certified J-STD trainer.

## Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 3

AIT123J-STD Soldering Certification 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=187952>

Starting Term: 2024 Fall

Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN JAMF TRAINING FOUNDATION

Total Credits: 9

Major Code: 5303N

### Description

The Certificate of Completion (CCL) in Jamf Training Foundation offers a core understanding of Jamf Pro and Jamf Protect as well as an enterprise-focused examination of the macOS, iOS, and iPadOS platforms. The hands-on and example-based environment provides experience in the configuration of Jamf Pro, Jamf Protect, device enrollment, distributing App Store apps, building and managing packages to deploy to computers, configuration and settings for computers and mobile devices, device security, a scripting overview (Bash), and an introduction to the security standards.

### Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 9

BPC260	AppleCare Exam Prep: iOS Device Repair	3
BPC262	AppleCare Exam Prep: Mac Computer Models Repair.	3
BPC265	Jamf Training Foundation	3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=186186>

Starting Term: 2024 Fall

Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN LANDSCAPE AIDE

Total Credits: 13  
Major Code: 5069N

## Description

The Certificate of Completion (CCL) in Landscape Aide program emphasizes the basic skills of Plant Science and Plant Identification, incorporating these skills into the practical study of Landscape Design and Construction. The program is designed to prepare students to become employed as technicians, salespeople and supervisors in nurseries or landscape design/build firms. Students may continue their studies with the Certificate of Completion in Landscape Specialist program. In addition, the program prepares students for jobs with government agencies or other agencies involved with the technical phases of the Landscape Horticulture industry.

## Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 13

AGL181	Landscape Construction Techniques	3
AGL189	Landscape Design I	3
AGS164	Plant Growth and Development	4
AGS183	Urban Plant Identification and Use	3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=135313>

Starting Term: 2019 Fall  
Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN LANDSCAPE SPECIALIST

Total Credits: 27-30  
Major Code: 5073

## Description

The Certificate of Completion (CCL) in Landscape Specialist program emphasizes the technology of production and management. The program is designed to prepare students to

become employed in nurseries or landscape construction and maintenance industry as technicians, supervisors, managers, or owners. In addition the program prepares students for jobs with government agencies or other agencies involved with the technical phases of the Landscape Horticulture industry.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 27-30

AGB130	Establishing and Running an Agribusiness	3
AGB139	Agribusiness Computer Operations	3
AGL181	Landscape Construction Techniques	3
AGL189	Landscape Design I	3
AGS164	Plant Growth and Development	4
AGS183	Urban Plant Identification and Use	3
AGS260	Soils	4
AGS268	Integrated Pest Management in the Cultivated Environment	4
CHM130	Fundamental Chemistry (3) OR Permission of Program Director	0-3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=141531>

Starting Term: 2019 Fall  
Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN LAW ENFORCEMENT

Total Credits: 15  
Major Code: 5987N

### Description

The Certificate of Completion (CCL) in Law Enforcement is designed for students who are interested in pursuing a course of study specifically focused on law enforcement. The certificate program specializes in training and education related to the duties of law enforcement. The program is designed for the student with no Arizona police academy experience and is one pathway to the Associate in Applied Science (AAS) in Administration of Justice.

### Program Notes

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 15

AJS101	Introduction to Criminal Justice	3
AJS123	Ethics and the Administration of Justice	3
AJS205	Effective Communication and Report Writing in Criminal Justice	3
AJS230	The Police Function	3
AJS275	Criminal Investigation I	3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=184297>

Starting Term: 2024 Fall

Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN LEGAL STUDIES

Total Credits: 15

Major Code: 5966N

### Description

The Certificate of Completion (CCL) in Legal Studies is designed for students who are interested in pursuing a course of study specifically focused on legal studies. It is one pathway to the Associate in Applied Science (AAS) in Administration of Justice.

### Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 15

AJS109	Substantive Criminal Law	3
AJS201	Rules of Evidence	3
AJS123	Ethics and the Administration of Justice (3) OR	
AJS205	Effective Communication and Report Writing in Criminal Justice (3)	3
AJS210	Constitutional Law	3
AJS260	Procedural Criminal Law	3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=143806>

Starting Term: 2020 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN LINUX ASSOCIATE**

Total Credits: 6-9  
Major Code: 5046N

### **Description**

The Certificate of Completion (CCL) in Linux Associate program is designed to help prepare students for employment or to improve current professional skills. The program includes Linux operating system basics and management including sophisticated manipulation of file structures, backup systems, printing processes, troubleshooting, user account management, hard disk maintenance and configuration, process monitoring and prioritizing, kernel customization, and system resource control. This program helps prepare students for the Linux Professional Institute Certification (LPIC-1) and CompTIA Linux + certification exams. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCLs) in a variety of specializations within the information technology field to deepen their knowledge and skills and to help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

### **Program Notes**

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program. Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST. This program replaces: CCL/5219 Linux Associate

### **Required Courses**

Credits: 6-9

CIS105 Survey of Computer Information Systems (3) OR  
Permission of program director (0) 0-3

CIS126DL Linux Operating System 3  
CIS238DL Linux System Administration 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=187781>

Starting Term: 2024 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN LINUX SYSTEM ADMINISTRATION**

Total Credits: 15-18  
Major Code: 5052N

### **Description**

The Certificate of Completion (CCL) in Linux System Administration program is designed to help prepare students for a variety of industry-recognized Linux certification exams as well as provide practical hands-on skills for the workplace. The program includes a core of Linux classes including Linux operating system basics, system administration, network administration and network security. The courses in the program will help develop a student's knowledge and skill level in preparation for employment or to improve current professional skills. Students who complete this program may seek employment in a variety of environments. The program helps prepare students for the Red Hat Certified System Administrator (RHCSA), Red Hat Certified Engineer (RHCE), and CompTIA Linux+ certification exams. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

### **Program Notes**

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program. Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST. This program replaces: CCL/5225 Linux Networking Administration

### **Required Courses**

Credits: 15-18

CIS105 Survey of Computer Information Systems (3) OR  
Permission of program director (0) 0-3

Students should select from one of the following two specializations (Linux or Red Hat Enterprise Linux):

Specialization: Linux

CIS126DL	Linux Operating System	3
CIS238DL	Linux System Administration	3
CIS239DL	Linux Shell Scripting	3
CIS240DL	Linux Network Administration	3
CIS275DL	Linux Capstone	3

Specialization: Red Hat Enterprise Linux		
CIS126RH	Red Hat System Administration I	3
CIS238RH	Red Hat System Administration II	3
CIS239DL	Linux Shell Scripting	3
CIS240RH	Red Hat System Administration III	3
CIS275DL	Linux Capstone	3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=139036>

Starting Term: 2020 Fall

Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN MANAGEMENT

Total Credits: 18

Major Code: 5729

### Description

The Certificate of Completion (CCL) in Management is designed to provide skills for management careers. Students completing this program are better equipped to apply competencies needed for successful performance in management occupations such as manufacturing, wholesaling, retailing, and service industries. An Associate in Applied Science (AAS) in Management is also available.

### Program Notes

Students must earn a grade of C or better in all courses within the program.

### Required Courses

Credits: 18

ACC111	Accounting Principles I	3
BPC110	Computer Usage and Applications (3) OR	
CIS105	Survey of Computer Information Systems (3)	3
GBS151	Introduction to Business	3
GBS205	Legal, Ethical, and Regulatory Issues in Business	3
MGT229	Management and Leadership I	3
MGT251	Human Relations in Business	3

### Restricted Electives

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=168309>



Starting Term: 2021 Spring  
Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN MARKETING

Total Credits: 21  
Major Code: 5094

### Description

The Certificate of Completion (CCL) in Marketing program meets students' needs by providing skills necessary for marketing careers. The program is designed to develop competencies essential for success in Marketing. By completing this program, students will be better equipped for successful performance in a variety of marketing/management occupations including wholesaling, retailing, professional sales, and entrepreneurship. An Associate in Applied Science (AAS) in Marketing and Sales is available.

### Program Notes

Students must earn a grade of C or better in all courses within the program.

### Required Courses

Credits: 18

BPC110	Computer Usage and Applications (3) OR	
CIS105	Survey of Computer Information Systems (3)	3
GBS151	Introduction to Business	3
GBS120	Workplace Communication Skills	3
MKT263	Advertising Principles	3
MKT267	Principles of Sales	3
MKT271	Principles of Marketing	3

### Restricted Electives

Credits: 3

Students should select from the following courses in consultation with Department Advisor.

CIS103	Introduction to Social Media	3
MKT101	Introduction to Public Relations	3
MKT110	Marketing and Social Networking	3
MKT268	Merchandising	3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm?id=163369>

Starting Term: 2021 Fall  
Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN MECHANICAL DRAFTING

Total Credits: 37-40  
Major Code: 5600

## Description

The Certificate of Completion (CCL) in Mechanical Drafting program prepares students to work in the mechanical drafting field. The program emphasizes current technological trends in the industry and is designed both for those planning to enter a career in the field as well as for those already working in the field who want to advance and update their knowledge and skills.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 37-40

GTC107 Technical Mathematics I (3) OR  
Permission of Program Director. 0-3

DFT105AA	Computer Aided Drafting I: AutoCAD	3
DFT110	Introduction to Drafting	3
DFT111	Intermediate Drafting	3
DFT112	Advanced Drafting	3
DFT115	Geometric Dimensioning and Tolerancing	3
DFT254AA	Computer Aided Drafting II: AutoCAD	3
DFT255	3D Printing/Additive Manufacturing	4
GTC108	Technical Mathematics II	3
GTC216	Properties of Materials	3
MPT130MP	CNC Machine Operator	6
MPT150	Introduction to SolidWorks	3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm?id=143633>

Starting Term: 2020 Fall  
Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN MICROSOFT DESKTOP ASSOCIATE

Total Credits: 3  
Major Code: 5030N

## Description

The Certificate of Completion (CCL) in Microsoft Desktop Associate program is designed to provide students with background knowledge and skills required for learning the specific tasks and industry recognized standards associated with how to effectively install and configure Windows operating systems. The course includes basic features of the Windows operating system, virtualization improvements, network connectivity, access to resources, monitor and maintain Windows clients and backup and recovery. It is designed to prepare students for the Microsoft 365 Certified: Modern Desktop Administrator Associate certification exam. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCL) in a variety of specializations within the information technology field to deepen their knowledge and skills and to help prepare them for multiple industry certification exams. An Associate in Applied Science (AAS) in Network and Systems Administration is also available at select colleges. Please check with your local college for program availability.

## Program Notes

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program. Students are encouraged, but not required, to complete CIS105, or CIS190, or CNT140AB prior to beginning this CCL. Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 3

MST150WT Installing and Configuring Microsoft Windows 10 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=162481>

Starting Term: 2021 Fall

Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN MICROSOFT OFFICE PROFESSIONAL

Total Credits: 16-22

Major Code: 5132

## Description

The Certificate of Completion (CCL) in Microsoft Office Professional emphasizes training on word processing, spreadsheet, database, and presentation software for business purposes.

This certificate provides students with the knowledge and skills requisite of various business settings. This certificate helps with initial preparation for the Microsoft examinations for certification as a Microsoft Office Specialist (MOS). This certificate embeds into the Associate in Applied Science (AAS) degree in Information Technology and Certificate of Complete (CCL) in Microsoft Office Specialist.

## Program Notes

Students must earn a grade of C or better in all courses within the program. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST. This program replaces: CCL/5146 Computer Applications: Microsoft Office Specialist/Basic CCL/5147 Computer Applications: Microsoft Office Specialist/Advanced CCL/5212 Business Office Computer Applications CCL/5213 Computer Usage and Applications CCL/5214 Computer Applications Technology CCL/5217 Computer Applications CCL/5644 Business Applications Specialist

## Required Courses

Credits: 16-22

BPC/OAS111AA Computer Keyboarding I (1) OR  
Permission of Program Director (0) 0-1

CIS105 Survey of Computer Information Systems (3) OR  
Permission of Program Director (0) 0-3

CIS113DE Microsoft Word: Word Processing 3

CIS114DE Excel Spreadsheet 3

CIS117DM Microsoft Access: Database Management 3

CIS118DB Desktop Presentation: Powerpoint 3

BPC270 A+ Exam Prep: Operating System Configuration and Support (3) OR

CIS121AE Windows Operating System: Level I (1) AND

CIS122AE Windows Operating System: Level II (1) OR

MST150++ Microsoft Windows (3) 2-3

CIS124AA Project Management Software: Level I (1) AND

CIS124BA Project Management Software: Level II (1) OR

CIS224 Project Management Microsoft Project for Windows (3) 2-3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=184485>

Starting Term: 2023 Fall

Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN MICROSOFT OFFICE SPECIALIST

Total Credits: 25-31  
Major Code: 5137

## Description

The Certificate of Completion (CCL) in Microsoft Office Specialist emphasizes advanced training on word processing, spreadsheet, and database software for business purposes. This certificate builds upon the knowledge and skills gained by the CCL in Microsoft Office Professional for use in various business settings. This certificate helps prepare students for the Microsoft Office Specialist (MOS) certification examinations. This certificate embeds into the Associate in Applied Science (AAS) degree in Information Technology.

## Program Notes

Students must earn a grade of C or better in all courses within the program. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 25-31

The following courses are required and included in Microsoft Office Professional CCL

BPC/OAS111AA Computer Keyboarding I (1) OR  
Permission of Program Director (0) 0-1

CIS105 Survey of Computer Information Systems (3) OR  
Permission of Program Director (0) 0-3

CIS113DE Microsoft Word: Word Processing 3  
CIS114DE Excel Spreadsheet 3  
CIS117DM Microsoft Access: Database Management 3  
CIS118DB Desktop Presentation: Powerpoint 3

BPC270 A+ Exam Prep: Operating System Configuration and Support (3) OR  
CIS121AE Windows Operating System: Level I (1) AND  
CIS122AE Windows Operating System: Level II (1) OR  
MST150++ Microsoft Windows (3) 2-3

CIS124AA Project Management Software: Level I (1) AND  
CIS124BA Project Management Software: Level II (1) OR  
CIS224 Project Management Microsoft Project for Windows (3) 2-3

The following courses are required in Microsoft Office Specialist CCL

CIS213DE Advanced Microsoft Word: Word Processing 3  
CIS214DE Advanced Excel Spreadsheet: Level II 3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=175857>

Starting Term: 2022 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN MUSIC BUSINESS I**

Total Credits: 16  
Major Code: 5106

### **Description**

The Certificate of Completion (CCL) in Music Business I is designed to provide aspiring music industry professionals with a broad background in music management, production, and entrepreneurship activities. The program combines foundational and applied learning experiences to help students gain a strategic understanding of commercial music as both an art and profession. There is a Certificate of Completion (CCL) in Music Business II available as well as an Associate in Applied Science (AAS) in Music Industries: Music Business.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits:        16

MGT253	Owning and Operating a Small Business	3
MKT110	Marketing and Social Networking (3) OR	
MKT271	Principles of Marketing (3)	3
MUC109	Music Business: Content Creation and Copyright	3
MUC110	Music Business: Marketing and Monetization	3
MUC293	Self Promotion for Music	1

MTC180	Computer Literacy for Musicians (3) OR	
MUC180	Computer Literacy for the Music Business (3)	3

Note: Students who have not already completed MTC180 must take MUC180

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=175846>

Starting Term: 2022 Fall  
Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN MUSIC BUSINESS II

Total Credits: 35-37

Major Code: 5258

## Description

The Certificate of Completion (CCL) in Music Business II is designed to provide aspiring music industry professionals with a broad background in music management, production, and entrepreneurship activities. The program combines theoretical and applied learning experiences to help students gain a strategic understanding of commercial music as both an art and profession. An Associate in Applied Science (AAS) in Music Industries: Music Business is available.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 25-26

MGT253	Owning and Operating a Small Business	3
MKT110	Marketing and Social Networking	3
MKT271	Principles of Marketing	3
MUC109	Music Business: Content Creation and Copyright	3
MUC110	Music Business: Marketing and Monetization	3

MTC180	Computer Literacy for Musicians (3) OR	
MUC180	Computer Literacy for the Music Business (3)	3

Note: Students who have not already completed MTC180 must take MUC180

MUC209	Music Industry Entrepreneurship	3
MUC293	Self Promotion for Music	1

Music Industry Capstone Experience

MUC290AA	Music Business Internship (1) OR	
MUC296WA	Cooperative Education (1) OR	
MUC298AA	Special Projects (1)	1

Overview of Music Genres

MUC242	Music Genres and Styles (2) OR	
MHL155	Survey of American Music (3)	2-3

## Restricted Electives

Credits: 10-11

Students should work with their program advisor to select 10-11 credits from courses that align with the academic/career goals and further their development in the areas of Music Business

and Marketing, Music Production, and Commercial Performance. Courses from required courses area may not be used.

#### Music Business and Marketing

GBS+++ Any GBS General Business course

MKT+++ Any MKT Marketing course

MUC+++ Any MUC Music: Commercial/Business course

#### Music Production

MTC+++ Any MTC Music: Theory/Composition course

MUC+++ Any MUC Music: Commercial/Business course

#### Commercial Performance

MTC+++ Any MTC Music: Theory/Composition course

MUP+++ Any MUP Music: Performance course

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=175278>

Starting Term: 2022 Fall

Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN NURSE ASSISTING**

Total Credits: 2-4.5

Major Code: 5963N

### **Description**

The Certificate of Completion (CCL) in Nurse Assisting prepares students for employment as a nurse assistant. The program combines classroom instruction with clinical laboratory practice and long-term care and/or acute care experiences. Students who complete the program are eligible to take a written and practical certification examination if desired to meet employment requirements to be a nurse assistant. Certification/licensing requirements are the exclusive responsibility of the Arizona State Board of Nursing.

The MCCC CD Nurse Assisting program is approved by the Arizona State Board of Nursing.

#### Waiver of Licensure/Certification Guarantee:

Admission or completion from the MCCC CD Nurse Assisting program does not guarantee obtaining a license or certificate to practice as a nurse assistant. Licensure and certification requirements and the subsequent procedures are the exclusive right and responsibility of the Arizona State Board of Nursing. Students must satisfy the requirements of the Nurse Practice Act: Statutes, Rules and Regulations, independently of any college or school requirements for graduation.

Pursuant to A.R.S. §32-1606(B)(17), an applicant for professional or practical nurse license by examination is not eligible for licensure if the applicant has any felony convictions and has not



received an absolute discharge from the sentences for all felony convictions. The absolute discharge must be received five or more years before submitting this application. If you cannot prove that the absolute discharge date is five or more years, the Board cannot process your application.

All nurse assistant applicants for certification will be fingerprinted to permit the Department of Public Safety to obtain state and federal criminal history information. All applicants with a positive history are investigated. If there is any question about eligibility for licensure or certification, contact the nursing education consultant at the Arizona State Board of Nursing (602-899-5150).

#### Health Declaration:

It is essential that students be able to perform a number of physical activities in the clinical portion of the program. At a minimum, students will be required to lift patients, stand for several hours at a time and perform bending activities. The clinical nursing experience also places students under considerable mental and emotional stress as they undertake responsibilities and duties impacting patients' lives. Students must be able to demonstrate rational and appropriate behavior under stressful conditions. Individuals should give careful consideration to the mental and physical demands of the program prior to making application.

#### Health and Safety Requirements for MCCC Nurse Assisting Program:

1. Students must meet and maintain health and safety requirements throughout the program.
2. Admission to a Maricopa County Community College District health program requires that students be in compliance with the MCCC Supplemental Background Check Policy. Evidence of a current Arizona Department of Public Safety Level One Fingerprint Clearance Card is required for program application.
3. Negative urine drug screen.

#### Grade Requirements:

Student must obtain a C grade or better in all courses.

#### University Transfer Students:

For students planning a university program:

Students who are planning to earn the Bachelor of Science in Nursing may obtain their prerequisite courses at Maricopa Community Colleges. For information on courses that meet requirements for admission into a baccalaureate program, please contact a program advisor.

#### THE NURSE ASSISTING PATHWAY

The nurse assisting pathway is designed to prepare students to complete the Nurse Assistant certification/licensure through the Arizona State Board of Nursing to practice in a health care agency as a nurse assistant. Completion of the Nurse Assistant program of study provides job ready skills as a nurse assistant.

This program is designed to meet education requirements for licensure or certification in the State of Arizona. Granting licensure and certification is the sole responsibility of the state board or approval agency. This program is only offered and available to students located in the State of Arizona. The Maricopa County Community College District and colleges define student location within Administrative Regulation 2.2.3(7).

### **Program Notes**

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program.

### **Admission Criteria**

Application and acceptance into the program, high school graduate or GED, and meet current health and safety course requirements.

### **Required Courses**

Credits: 2-4.5

NUR158 Nurse Assisting (4.5) OR

Advanced Placement course:

NCE150 Advanced Placement: Nurse Assisting (2) 2-4.5

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm?id=67483>

Starting Term: 2015 Spring

Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN NURSING REFRESHER**

Total Credits: 10

Major Code: 5739N

### **Description**

The Certificate of Completion (CCL) in Nursing Refresher program provides registered nurses with a review and update of nursing theory and practice. The goal of the program is to update and refine theoretical and practical nursing knowledge and facilitate the nurse's transition back into professional practice. The Nursing Refresher program is approved by the Arizona State Board of Nursing. Successful program completion satisfies the Arizona State Board of Nursing RN license renewal requirement for applicants who do not meet the practice mandate as stated in The Nurse Practice Act, R4-19312 (B).

Health Declaration: It is essential that Nursing Refresher students be able to perform a number of physical activities in the clinical portion of the program. At a minimum, students will be required to lift patients, stand for several hours at a time and perform bending activities. The clinical nursing experience also places students under considerable mental and emotional stress as they undertake responsibilities and duties impacting patients' lives. Students must be able to demonstrate rational and appropriate behavior under stressful conditions. Individuals should give careful consideration to the mental and physical demands of the program prior to making application.

This program is designed to meet education requirements for licensure or certification in the State of Arizona. Granting licensure and certification is the sole responsibility of the state board

or approval agency. This program is only offered and available to students located in the State of Arizona. The Maricopa County Community College District and colleges define student location within Administrative Regulation 2.2.3(7).

## Program Notes

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program. Massachusetts Nurse of the Future Core Competencies are integrated into the student learning outcomes/program competencies. Course Fee Information: Please see class schedule for information regarding course fees.

## Admission Criteria

Formal application and admission to the program is required. All applicants must have an active or inactive Registered Nurse (RN) license that is eligible for renewal per Regulatory Board requirements or has successfully passed the RN licensing examination, but has never worked as a registered nurse. All applicants must be eligible for issuance of an active or temporary registered nurse license. All applicants must be in good standing with the Regulatory Board. RN's with restricted licenses are not eligible for the program. Once enrolled, students receiving any disciplinary actions against their license must notify the Nursing Program Chair within five (5) school days. The Nursing Program Chair reserves the right to restrict the student's participation in clinical experiences and involvement in patient care until the license is valid and unrestricted. Health and Safety Requirements for the Nursing Refresher Program: 1. Students must submit a Health and Safety Documentation verifying completion of all requirements and maintain current status throughout the program. 2. Students must submit the Health Declaration Form signed by a licensed health care provider. 3. Students must test negative on a timed urine drug screen. 4. Students must provide a copy of their current and valid Level One Finger Print Clearance Card upon application.

## Required Courses

Credits: 10

NUR295 Registered Nurse Refresher 10

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=159109>

Starting Term: 2020 Fall

Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN ORGANIZATIONAL LEADERSHIP

Total Credits: 18

Major Code: 5731

## Description

The Certificate of Completion (CCL) in Organizational Leadership is designed to prepare students with knowledge and skills needed in today's changing workplace. The program provides leadership and communication skills and techniques for planning, organizing, leading and controlling business situations. This program also emphasizes procedures for effective resource allocation. The CCL in Organizational Leadership is fully embedded in an Associate in Applied Science (AAS) in Organizational Management.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 18

BPC110	Computer Usage and Applications (3) OR	
CIS105	Survey of Computer Information Systems (3)	3
GBS110	Human Relations in Business and Industry (3) OR	
MGT251	Human Relations in Business (3)	3
GBS120	Workplace Communication Skills	3
GBS151	Introduction to Business	3
MGT175	Business Organization and Management (3) OR	
TQM240	Project Management in Quality Organizations (3)	3
MGT101	Techniques of Supervision (3) OR	
MGT229	Management and Leadership I (3)	3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=187585>

Starting Term: 2024 Fall

Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN PARAMEDICINE

Total Credits: 45.5

Major Code: 5990

## Description

The Certificate of Completion (CCL) in Paramedicine is a nationally accredited program designed to prepare students to become Paramedics. This program is a formal education in such paramedicine topics as anatomy and physiology, pathophysiology, cardiology, pulmonary, pharmacology, pediatrics, geriatrics hematology, toxicology. Paramedicine builds upon EMT education and includes paramedic scope of practice. Paramedicine is integrated with fire service, law enforcement, ground transport services, flight transport services, search and

rescue, hospitals, clinical setting, community paramedicine, and EMS education. There is an Associate in Applied Science (AAS) in Paramedicine available.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Admission Criteria

Students must be current and in good standing with the Arizona Department of Health Services Bureau of Emergency Medical Services-Certified as an Emergency Medical Technician. EMT certification preparatory courses are available at Maricopa County Community Colleges. Contact an academic advisor for details. Students must complete an application and selection process.

## Required Courses

Credits: 45.5

BIO160	Introduction to Human Anatomy and Physiology	4
EMT101 Providers	Basic Life Support/Cardiopulmonary Resuscitation (CPR) for Health Care	0.5
PME201	Advanced Cardiac Life Support (ACLS) Initial Provider in Paramedicine	1
PME202	Pediatric Advanced Life Support (PALS) Initial Provider in Paramedicine	1
PME203	Pediatric Emergencies for Prehospital Professionals (PEPP) Initial Provider in Paramedicine	1
PME204	Neonatal Resuscitation Provider (NRP) in Paramedicine	0.5
PME205	Advanced Medical Life Support (AMLS) Initial Provider in Paramedicine	1
PME206	International Trauma Life Support (ITLS) Provider/Pre-Hospital Trauma Life Support (PHTLS)	1
PME240	Pharmacology in Paramedicine	3
PME245	Airway and Ventilatory Management in Paramedicine	3
PME250	Comprehensive Patient Assessment in Paramedicine	1
PME251	Medical Emergencies in Paramedicine I	4
PME252	Medical Emergencies in Paramedicine II	4
PME253	Medical Emergencies in Paramedicine III	4
PME254	Technical Operations in Paramedicine	2.5
PME260	Trauma Patient Management in Paramedicine	2
PME270	Immersive Total Patient Management Experience (ITPME)	2
PME280	Preparation for Paramedicine Practicum	1
PME281	Paramedicine Clinical Practicum: Comprehensive (2) OR	
PME281AA	Paramedicine Clinical Practicum: Phase I (1) AND	
PME281AB	Paramedicine Clinical Practicum: Phase II (1)	2
PME288	Paramedicine Comprehensive Field Internship Practicum	5
PME289	Preparation for Paramedic National Credentialing	2

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Starting Term: 2023 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN PERSONAL TRAINING**

Total Credits: 18-18.5  
Major Code: 5421

### **Description**

The Certificate of Completion (CCL) in Personal Training is designed to prepare students for the American College of Sports Medicine (ACSM), National Strength and Conditioning Association (NSCA), National Academy of Sports Medicine (NASM), and the American Council on Exercise (ACE) personal trainer certifications. These certifications are generally required for employment in personal training positions and/or professional advancement within the fitness industry. The curriculum provides students with the foundational skills needed to design and implement fitness programs appropriate to clients' goals and aligned with current industry best practices. A CCL in Personal Training: Advanced, an Associate in Applied Science (AAS) in Exercise Science: Health, Fitness, and Sports Performance, and an Associate in Arts (AA), Emphasis in Exercise Science are also available for students interested in continuing their studies in this field.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 17-17.5

EMT101 Basic Life Support/Cardiopulmonary Resuscitation (CPR) for Health Care Providers (0.5) OR  
WED106 Cardiopulmonary Resuscitation (CPR)/Automated External Defibrillator (AED) (0.5) OR  
Current CPR/AED certification (0) 0-0.5

EXS101 Introduction to Exercise Science 3  
EXS125 Introduction to Exercise Physiology 3  
EXS146 Introduction to Exercise Testing 1  
EXS215 Resistance Training and Recovery Techniques 3  
EXS217 Cardiorespiratory and Flexibility Training 3

FON100 Introductory Nutrition (3) OR  
FON241 Principles of Human Nutrition (3) 3

PED101ST Strength Training (1) OR

PED101RT Resistance Training for Improved Sports Performance (1) 1

## Restricted Electives

Credits: 1

Complete one (1) credit from one of the following course options not already selected in the Required Courses area. Choose a course that best aligns with your academic and professional goals. Consult with an academic, faculty, or program advisor as needed.

EXS+++++	Any EXS Exercise Science course	1
FON+++++	Any FON Food and Nutrition course	1
HES+++++	Any HES Health Science course	1
PED+++++	Any PED Physical Education course	1
IFS110	Critical Research for College Success	1

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=178662>

Starting Term: 2023 Fall  
Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN PERSONAL TRAINING: ADVANCED

Total Credits: 30-30.5  
Major Code: 5445

### Description

The Certificate of Completion (CCL) in Personal Training: Advanced is designed to prepare students for the American College of Sports Medicine (ACSM), National Strength and Conditioning Association (NSCA), National Academy of Sports Medicine (NASM), and the American Council on Exercise (ACE) personal trainer certifications. These certifications are generally required for employment in personal training positions and/or professional advancement within the fitness industry. The curriculum is designed to prepare students for employment in positions such as personal training within health and fitness clubs, wellness centers, and public and private recreation facilities. The curriculum includes the foundational courses required for the CCL in Personal Training coupled with advanced hands-on courses that foster the development of critical thinking and leadership skills important for developing, implementing and leading exercise programs. An Associate in Applied Science (AAS) in Exercise Science: Health, Fitness, and Sports Performance and an Associate in Arts (AA), Emphasis in Exercise Science are also available for students interested in continuing their studies in this field.

### Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 29-29.5

EMT101 Basic Life Support/Cardiopulmonary Resuscitation (CPR) for Health Care Providers (0.5) OR  
WED106 Cardiopulmonary Resuscitation (CPR)/Automated External Defibrillator (AED) (0.5) OR  
Current CPR/AED certification (0) 0-0.5

EXS101 Introduction to Exercise Science 3  
EXS125 Introduction to Exercise Physiology 3  
EXS146 Introduction to Exercise Testing 1  
EXS215 Resistance Training and Recovery Techniques 3  
EXS217 Cardiorespiratory and Flexibility Training 3  
EXS246 Advanced Exercise Testing 2  
EXS255 Program Design: Muscular Fitness and Performance 3  
EXS257 Program Design: Cardiorespiratory Fitness 3

Student must complete three (3) credits from the following EXS internship course options:

EXS270 Exercise Science Internship (3) OR  
EXS270AA Exercise Science Internship (1) AND  
EXS270AB Exercise Science Internship (2) OR  
EXS275 Sport Science Internship (3) OR  
EXS275AA Sport Science Internship (1) AND  
EXS275AB Sport Science Internship (2) OR  
EXS270AA Exercise Science Internship (1) AND  
EXS275AB Sport Science Internship (2) OR  
EXS270AB Exercise Science Internship (2) AND  
EXS275AA Sport Science Internship (1) 3

FON100 Introductory Nutrition (3) OR  
FON241 Principles of Human Nutrition (3) 3

PED101ST Strength Training (1) OR  
PED101RT Resistance Training for Improved Sports Performance (1) 1

PED101BC Boot Camp (1) OR  
PED101BS Body Sculpting (1) OR  
PED101CY Cycling - Indoor (1) OR  
PED101GF Group Fitness/Aerobics (1) OR  
PED101KB Kickboxing (1) OR  
PED101LD Latin Dancing (1) OR  
PED101PC Physical Conditioning (1) OR  
PED101PS Pilates (1) OR  
PED101SR Stretch and Relaxation (1) OR  
PED101TC Tai Chi (1) OR  
PED101TX Suspension Training (1) OR  
PED101YG Gentle Yoga (1) OR  
PED101YH Hatha Yoga (1) OR  
PED101YO Yoga (1) OR



PED101YP Power Yoga (1) OR  
PED101YR Restorative Yoga (1) OR  
PED101ZU Zumba Fitness (1) 1

## Restricted Electives

Credits: 1

Complete one (1) credit from one of the following course options not already selected in the Required Courses area. Choose a course that best aligns with your academic and professional goals. Consult with an academic, faculty, or program advisor as needed.

EXS+++++ Any EXS Exercise Science course (1)  
FON+++++ Any FON Food and Nutrition course (1)  
HES+++++ Any HES Health Science course (1)  
PED+++++ Any PED Physical Education course (1)  
IFS110 Critical Research for College Success (1)

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=164729>

Starting Term: 2021 Fall

Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN PROGRAMMING AND SYSTEMS ANALYSIS LEVEL I

Total Credits: 24

Major Code: 5048

### Description

The Certificate of Completion (CCL) in Programming and Systems Analysis Level I provides an exploration of different computer language and technical skills. The CCL includes, but is not limited to the following: operating systems, local area networks, business communication, team roles, and dynamics. A Certificate of Completion (CCL) in Programming and Systems Analysis Level II, Certificate of Completion (CCL) in iOS App Development and an Associate in Applied Science (AAS) in Programming and Systems Analysis are also available.

### Program Notes

Students must earn a grade of C or better in all courses within the program. Consultation with an Academic Advisor is recommended for course selection. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

### Required Courses

Credits: 24

CIS105	Survey of Computer Information Systems	3
CIS119DO	Introduction to Oracle: SQL (3) OR	
CIS276DA	MySQL Database (3) OR	
CIS276DB	SQL Server Database (3)	3
CIS126DL	Linux Operating System (3) OR	
CIS126RH	Red Hat System Administration I (3) OR	
MST150++	Any Microsoft Windows course (3)	3
CIS133DA	Internet/Web Development Level I	3
CIS150	Programming Fundamentals (3) OR	
CIS150AB	Object-Oriented Programming Fundamentals (3)	3
CIS166++	Any Web Scripting course(s)	3
GBS151	Introduction to Business	3

Select a programming language from below that best aligns with academic and professional goals (1 course for a total of 3 credits) in one of the following areas:

CIS156	Python Programming: Level I (3) OR	
CIS159	Visual Basic Programming I (3) OR	
CIS162++	Any C Programming: Level I course (3) OR	
CIS163AA	Java Programming: Level I (3) OR	
CIS165++	Any Mobile Application Development course (3)	3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=179818>

Starting Term: 2023 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN PROGRAMMING AND SYSTEMS ANALYSIS LEVEL II**

Total Credits: 36-38  
Major Code: 5962

### **Description**

The Certificate of Completion (CCL) in Programming and Systems Analysis Level II provides an in-depth exploration of different computer language and technical skills. This CCL includes, but is not limited to the following: local area networks, team roles, and dynamics. A Certificate of Completion (CCL) in iOS Application Development and an Associate in Applied Science (AAS) in Programming and Systems Analysis are available.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program. Consultation with an Academic Advisor is recommended for course selection.

## Required Courses

Credits: 33-34

The following courses are required and included in CCL Programming and Systems Analysis Level I

CIS105	Survey of Computer Information Systems	3
CIS119DO	Introduction to Oracle: SQL (3) OR	
CIS276DA	MySQL Database (3) OR	
CIS276DB	SQL Server Database (3)	3
CIS126DL	Linux Operating System (3) OR	
CIS126RH	Red Hat System Administration I (3) OR	
MST150++	Any Microsoft Windows course (3)	3
CIS133DA	Internet/Web Development Level I	3
CIS150	Programming Fundamentals (3) OR	
CIS150AB	Object-Oriented Programming Fundamentals (3)	3
CIS156	Python Programming: Level I (3) OR	
CIS159	Visual Basic Programming I (3) OR	
CIS162++	Any C Programming: Level I course (3) OR	
CIS163AA	Java Programming: Level I (3) OR	
CIS165++	Any Mobile Application Development course (3)	3
CIS166++	Any Web Scripting course(s)	3
GBS151	Introduction to Business	3

The following courses are required for CCL Programming and Systems Level II

CIS190	Introduction to Networking (3) OR	
CNT140AB	Introduction to Networks (4) OR	
MST140	Microsoft Networking Essentials (3)	3-4
CIS225	Business Systems Analysis and Design (3) OR	
CIS225AB	Object-Oriented Analysis and Design (3) OR	
CIS250	Management of Information Systems (3)	3

Select a programming language from below that best aligns with academic and professional goals (1 course for a total of 3 credits) in one of the following areas:

CIS256	Python Programming: Level II (3) OR	
CIS259	Visual Basic Programming II (3) OR	
CIS262++	Any C Programming: Level II course (3) OR	
CIS263AA	Java Programming: Level II (3) OR	
CIS265	Advanced iOS Application Development (3)	3

## Restricted Electives

Credits: 3-4

Select one of the courses below that best aligns with academic and professional goals for a total of 3-4 credits. Students may not choose courses they have taken from the required courses area.

CIS151	Computer Game Development-Level I	3
CIS156	Python Programming: Level I	3
CIS159	Visual Basic Programming I	3
CIS162++	Any C Programming: Level I course	3
CIS163AA	Java Programming: Level I	3
CIS165++	Any Mobile Application Development course	3
CIS224	Project Management Microsoft Project for Windows	3
CIS251	Computer Game Development-Level II	3
CIS256	Python Programming: Level II	3
CIS259	Visual Basic Programming II	3
CIS262++	Any C Programming: Level II course	3
CIS263AA	Java Programming: Level II	3
CIS265	Advanced iOS Application Development	3
CIS267	Pega System Architect Essentials	4
GBS211	Legal, Ethical and Regulatory Issues of the Internet Studies	3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm?id=125887>

Starting Term: 2018 Fall

Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN PROJECT MANAGEMENT**

Total Credits: 14

Major Code: 5477N

### **Description**

The Certificate of Completion (CCL) in Project Management program prepares the student for career opportunities as a project manager and provides those working as project managers with the skills required to prepare for project management certification exams. This program covers principles, requirements, benefits, and tools of project management.

### **Program Notes**

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program.

### **Program Prerequisites**

Credits: 3

TQM240 Project Management in Quality Organizations (3) OR  
department approval 3

### Required Courses

Credits: 14

CIS224 Project Management Microsoft Project for Windows 3  
MGT242 Project Scope and Procurement Management 2  
MGT243 Project Time and Cost Management 2  
MGT244 Project Risk and Quality Management 2  
MGT245 Project Human Resources and Committee Management 2  
MGT246 Principles of Project Management 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=168830>

Starting Term: 2022 Fall  
Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN PYTHON APPLICATIONS

Total Credits: 12-22  
Major Code: 5340N

### Description

The Certificate of Completion (CCL) in Python Applications is designed to provide students with a set of skills necessary to successfully perform Python related programming projects. The courses consist of both practical knowledge and hands-on experience with the Python language and the programming techniques used in the industry. Through the elective courses, students will be able to apply the knowledge obtained to specific areas of interest using Python.

### Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program. Required Courses and Restricted Electives must be taken within five (5) years prior to completion of the program to be applied toward this award.

### Required Courses

Credits: 9-15

CIS105 Survey of Computer Information Systems (3) OR  
Permission of Program Director (0) 0-3

CIS150AB Object-Oriented Programming Fundamentals (3) OR

Permission of Program Director (0) 0-3

CIS119DO	Introduction to Oracle: SQL (3) OR	
CIS276DA	MySQL Database (3) OR	
CIS276DB	SQL Server Database (3)	3
CIS156	Python Programming: Level I	3
CIS256	Python Programming: Level II	3

## Restricted Electives

Credits: 3-7

Specialization 1: Cybersecurity and Networking

CNT140AB	Introduction to Networks	4
CIS256CN	Python for Cybersecurity and Networking	3

Specialization 2: Data Analytics

CIS256DA	Python for Data Analytics	3
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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=183269>

Starting Term: 2023 Fall

Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN REAL ESTATE: PRELICENSE

Total Credits: 6.5

Major Code: 5139N

## Description

The Certificate of Completion (CCL) in Real Estate: Prelicense introduces students to the real estate profession. This program is designed to prepare students to meet the requirements to take the Arizona State Real Estate Salesperson's Exam. Emphasis will be placed on license laws, real and personal property, financing, purchasing, selling, renting, legal descriptions, rights and interests in property, ownership, contracts, real estate terminology and economics, investing in real estate, foreclosure, land use, and evaluation.

This program is designed to meet education requirements for licensure or certification in the State of Arizona. Granting licensure and certification is the sole responsibility of the state board or approval agency. This program is only offered and available to students located in the State of Arizona. The Maricopa County Community College District and colleges define student location within Administrative Regulation 2.2.3(7).

## Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 6.5

REA179	Real Estate Principles I (3) AND	
REA180	Real Estate Principles II (3) OR	
REA201	Real Estate Principles I and II (6)	6
REA290AH	Real Estate Seminar: Contract Writing	0.5

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=184489>

Starting Term: 2024 Fall

Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN RED HAT LINUX ADMINISTRATOR

Total Credits: 6-9

Major Code: 5049N

## Description

The Certificate of Completion (CCL) in Red Hat Linux Administrator program is designed to help prepare students for employment or to improve current professional skills. The program includes Red Hat Enterprise Linux system basics and management including sophisticated manipulation of file structures, backup systems, troubleshooting, user account management, hard disk maintenance and configuration, process monitoring and prioritizing, and system resource control. This program helps prepare students for the Red Hat Certified System Administrator (RHCSA) certification exam. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCLs) in a variety of specializations within the information technology field to deepen their knowledge and skills and help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

## Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program. Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director. Courses within any of the following prefixes must be taken

within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 6-9

CIS105 Survey of Computer Information Systems (3) OR  
Permission of program director (0) 0-3

CIS126RH Red Hat System Administration I 3  
CIS238RH Red Hat System Administration II 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=184490>

Starting Term: 2024 Fall  
Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN RED HAT LINUX ENGINEER

Total Credits: 9-12  
Major Code: 5050N

## Description

The Certificate of Completion (CCL) in Red Hat Linux Engineer program is designed to help prepare students for employment or to improve current professional skills. The program includes in depth Red Hat Enterprise Linux system networking including integrating Linux servers and workstations into a network environment with multi-platform network operating systems with a variety of open-standard and proprietary protocols. This program helps prepare students for the Red Hat Certified System Administrator (RHCSA) and Red Hat Certified Engineer (RHCE) certification exams. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCL) in a variety of specializations within the information technology field to deepen their knowledge and skills and help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

## Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program. Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director. Courses within any of the following prefixes must be taken



within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 9-12

CIS105 Survey of Computer Information Systems (3) OR  
Permission of Program Director (0) 0-3

CIS126RH Red Hat System Administration I 3  
CIS238RH Red Hat System Administration II 3  
CIS240RH Red Hat System Administration III 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm?id=119603>

Starting Term: 2018 Fall  
Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN RESIDENTIAL APPRAISAL TRAINEE

Total Credits: 6  
Major Code: 5619N

## Description

The Certificate of Completion (CCL) in Residential Appraiser Trainee will prepare students for entry level employment as a trainee in Real Estate Appraisal. Licensed Appraisal students will gain entry level knowledge in the field of appraisal. Upon completion students will have completed the necessary education requirements designated by the National Appraisal Qualification board. An Appraiser Trainee is subject to direct supervision by an appraiser who is certified in good standing, and may appraise those properties that his or her supervising appraiser is permitted to appraise.

## Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 6

REA270 Basic Appraisal Principles 2  
REA271 Basic Appraisal Procedures 2  
REA272 Uniform Standards of Professional Appraisal Practice (USPAP) 1  
REA150 Supervisory Appraiser/Trainee Appraiser 1

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/acres.woa/wa/fullView?id=171606>

Starting Term: 2022 Spring  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN ROBOTICS TECHNOLOGY**

Total Credits: 7  
Major Code: 5252N

### **Description**

The Certificate of Completion (CCL) in Robotics Technology prepares students for the field of robotics operations, applications, programming and Automation System Integration. The program emphasizes knowledge and skills required to troubleshoot, program, repair, operate and work safely with robots. Courses in this certificate can apply toward the Associate in Applied Science (AAS) in Automated Industrial Technology and preparation for industry validated certification.

### **Program Notes**

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 7

AIT100Industrial Safety	1
AIT270Robotics I	3
AIT275Robotics II	3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=184892>

Starting Term: 2023 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN SEQUENTIAL ART**

Total Credits: 40  
Major Code: 5177

## Description

The Certificate of Completion (CCL) in Sequential Art develops knowledge and skills in the area of sequential art, including but not limited to comics, graphic novels, anime, children's books, self-publishing, digital illustration, and storyboarding for digital media. Students will develop diverse narratives that reflect cultural, historical, and social diversity. The program provides the student with an understanding of writing for sequential art, illustration techniques, and digital media tools for illustration, layout and publication. This certificate prepares students for employment and upgrades the skills of persons employed in occupations such as illustrator, comic book artist, storyboarder, cartoonist, penciler, inker, colorist, letterer, production artist, game designer, and comic book writer. An Associate in Applied Science (AAS) in Illustration and Sequential Art is also available.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 40

ART111	Drawing I	3	
AVC100	Introduction to Digital Arts	1	
AVC169	2D Media Design	3	
AVC177	Digital Photographic Imaging I		3
AVC289	Computer Illustration	3	
ART113	Color (3) OR		
AVC114	Digital Color (3)	3	
ART116	Life Drawing I	3	
AVC119	Penciling for Sequential Art	3	
AVC120	Inking for Sequential Art	3	
AVC178	Digital Arts Studies	3	
AVC219	Coloring, Toning and Lettering for Sequential Art		3
AVC220	Publishing for the Comic Industry	3	
AVC221	Comics Creation	3	
CRW172	Introduction to Comic Book Writing (3) OR		
CRW176	Writing Narrative for Video Games (3) OR		
CRW190	Introduction to Screenwriting (3)	3	

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm?id=183585>

Starting Term: 2023 Fall

Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN SMALL BUSINESS MANAGEMENT LEVEL I

Total Credits: 10-12

Major Code: 5153N

## Description

The Certificate of Completion (CCL) in Small Business Management Level I program is designed to meet the needs of individuals who wish to own and/or manage a small business. Prepares students to acquire the skills, tools and knowledge necessary for successful start-up and operations of a business.

## Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 10-12

EPS195	Business Start-Up and Planning (2) OR
SBS216	Planning for a Small Business (2) OR
MGT253	Owning and Operating a Small Business (3) 2-3
SBS200	Small Business Operations 2
SBS202	Small Business Bookkeeping and Tax Preparation (1) AND
SBS203	Financing and Cash Management for a Small Business (1) OR
SBS230	Financial and Tax Management for Small Business (2) 2
SBS204	Small Business Marketing and Advertising (2) OR
SBS220	Internet Marketing for Small Business (2) OR
MKT271	Principles of Marketing (3) 2-3
SBS213	Hiring and Managing Employees 1
SBS214	Small Business Customer Relations 1

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm?id=187780>

Starting Term: 2024 Fall

Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN SMALL BUSINESS MANAGEMENT LEVEL II

Total Credits: 16-18  
Major Code: 5978

## Description

The Certificate of Completion (CCL) in Small Business Management Level II program is designed to focus on aspects critical to a specific individual's small business. Prepares students to acquire additional skills, tools and knowledge necessary for successful start-up and operations of a business. A Certificate of Completion (CCL) in Small Business Management Level I is also available and fully embedded in this program.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 10-12

EPS195	Business Start-Up and Planning (2) OR	
SBS216	Planning for a Small Business (2) OR	
MGT253	Owning and Operating a Small Business (3) 2-3	
SBS200	Small Business Operations	2
SBS202	Small Business Bookkeeping and Tax Preparation (1) AND	
SBS203	Financing and Cash Management for a Small Business (1) OR	
SBS230	Financial and Tax Management for Small Business (2)	2
SBS204	Small Business Marketing and Advertising (2) OR	
SBS220	Internet Marketing for Small Business (2) OR	
MKT271	Principles of Marketing (3)	2-3
SBS213	Hiring and Managing Employees	1
SBS214	Small Business Customer Relations	1

## Restricted Electives

Credits: 6

Choose 6 credits from the restricted electives below. Courses cannot be shared with Required Courses.

EPS150	Introduction to Entrepreneurship	3
EPS195	Business Start-Up and Planning	2
MGT253	Owning and Operating a Small Business	3
MKT271	Principles of Marketing	3
SBS202	Small Business Bookkeeping and Tax Preparation	1
SBS203	Financing and Cash Management For a Small Business	1
SBS204	Small Business Marketing and Advertising	2
SBS216	Planning for a Small Business	2

SBS217	Starting/Managing a Home Business	1
SBS220	Internet Marketing for Small Business	2
SBS221	Social Media Marketing for Small Business	2
SBS230	Financial and Tax Management for Small Business	2

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=172196>

Starting Term: 2021 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN SOCIAL MEDIA MARKETING**

Total Credits: 17-18  
Major Code: 5830

### **Description**

The Certificate of Completion (CCL) in Social Media Marketing is designed to provide useful skills important in a variety of strategic marketing areas, e.g., social media, digital communications, integrated marketing, media relations, and brand management. An Associate in Applied Science (AAS) in Marketing and Sales is also available.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 15

CIS103	Introduction to Social Media	3
GBS120	Workplace Communication Skills	3
MKT110	Marketing and Social Networking	3
MKT111	Applied Marketing and Social Networking	3
MKT271	Principles of Marketing	3

### **Restricted Electives**

Credits: 2-3

MKT101	Introduction to Public Relations	3
MKT280AB	Marketing Internship	2
MKT298AB	Special Projects	2

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=181789>

Starting Term: 2023 Fall  
Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN SUSTAINABLE AGRICULTURE

Total Credits: 25-28  
Major Code: 5886

### Description

The Certificate of Completion (CCL) in Sustainable Agriculture program focuses on hands-on skills in sustainable agriculture, agribusiness, and urban farming.

### Program Notes

Students must earn a grade of C or better in all courses within the program.

### Required Courses

Credits: 25-28

AGB130	Establishing and Running an Agribusiness	3	
AGS164	Plant Growth and Development	4	
AGS217	Introduction to Hydroponics and Controlled Environment Agriculture		4
AGS260	Soils	4	
AGS262	Irrigation Design, Installation, Operation, and Trouble Shooting	3	
AGS265	Crops Science and Production	3	
AGS268	Integrated Pest Management in the Cultivated Environment	4	
CHM130	Fundamental Chemistry (3) OR		
Permission of Program Director		0-3	

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=184893>

Starting Term: 2023 Fall  
Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN TECHNICAL THEATRE

Total Credits: 21-48  
Major Code: 5462

### Description

The Certificate of Completion (CCL) in Technical Theatre is designed to prepare students for a wide range of careers within theatre operations and production. The curriculum includes a foundation of applied skills within technical theatre including backstage personnel skills, as well as hands-on experience working on live theatre productions and events. Students may select from a choice of specializations in audio, costuming, group/solo cosplay, hair and makeup, lighting, properties, puppetry, and set/scenic construction. Program graduates can directly enter the workforce into positions such as cosplay actor, puppeteer, sound engineer, lighting technician, carpenter, scenic painter, stage crew, stage management, wardrobe crew, costume stitcher, costume crafts apprentice, and hair/makeup artist in a range of settings including live theatre, television and film, conferences and events, attractions and shows.

Students can earn an embedded Certificate of Completion (CCL) in Stage Crew along with one additional area: Audio Technician, Costuming, Group/Solo Cosplay, Hair and Makeup, Lighting, Properties, Puppetry, and Set/Scenic construction. An Associate in Arts, Fine Arts (AAFA), Emphasis in Theatre is also available for students interested in university transfer.

## Program Notes

Students must earn a grade of C or better in all courses within the program. Students should select an area of specialization based on their personal, academic, and professional goals. Students should speak to a program director or academic advisor for details.

## Required Courses

Credits: 14-23

ENG101	First Year Composition	0-3	
Students who intend to take THE220 must take ENG101.			
THE111	Introduction to Theatre	3	
THE220	Modern Drama (3) OR		
THO225	Visual Script Analysis (2) OR		
THP291AC	Summer Conservatory: Script Analysis (ACT) (1)	1-3	
THO203	Technical Theatre Production (3) OR		
THP201AB	Theatre Production II (2)	2-3	
THO251	Safety Practices in Theatre and Film Production	1	
THO266	Production Careers in Technical Theatre	1	
THO269	Technical Theatre Portfolio Development	1	
THP213	Introduction to Technical Theatre	4	
THP296++	Cooperative Education	1-4	

## Restricted Electives

Credits: 7-25

Students must also select and complete one of the following specialization areas in Technical Theatre based on their personal, academic, and professional goals. Speak to a program director or academic advisor for details.



Specialization 1: Audio Technician

MUC122	Sound Design I	3	
MUC197	Live Sound Reinforcement I	3	
MUC198	Live Sound Reinforcement II	3	

THO202AB	Theatre Production I Electrics (1)	OR	
THP201AA	Theatre Production I (1)	OR	
THP201AB	Theatre Production II (2)	OR	
THP202	Theatre Production Projects (1)		1-2

Specialization 2: Cosplay I

TEC111	Intermediate Apparel Construction (3)	OR	
THP206	Introduction to Costume Construction for Theatre (4)		3-4
THF115	Makeup for Stage and Screen	3	
THO208	Costume Play Solo Performance Practicum	3	
THO250	Stage Properties	3	

Specialization 3: Cosplay II

CIS103	Introduction to Social Media (3)	OR	
MKT110	Marketing and Social Networking (3)		3

TEC111	Intermediate Apparel Construction (3)	OR	
THP206	Introduction to Costume Construction for Theatre (4)		3-4
THF115	Makeup for Stage and Screen	3	
THO215	Advanced Makeup Techniques for Stage and Screen		3
THO218	Wig and Hair Production for Theatre and Film	3	
THO208	Costume Play Solo Performance Practicum	3	
THO209	Costume Play Group Performance Practicum		3
THO250	Stage Properties	3	

Specialization 4: Costuming

THO202AC	Theatre Production I Costume Shop (1)	OR	
THP201AA	Theatre Production I (1)	OR	
THP201AB	Theatre Production II (2)		1-2
THP206	Introduction to Costume Construction for Theatre		4

Students should work with their program advisor to select 3 credits that align with the academic/career goals and further their development in the area of Costuming.

TEC113	Textiles: Dyeing (1)	AND	
TEC114	Textiles: Block Printing/Silk Screening (1)	AND	
TEC115	Textiles: Hand Painting (1)	OR	
TEC225	Pattern Design I (3)		
THF115	Makeup for Stage and Screen (3)		3

Specialization 5: Hair and Makeup

THF115	Makeup for Stage and Screen	3	
THO215	Advanced Makeup Techniques for Stage and Screen		3
THO218	Wig and Hair Production for Theatre and Film	3	

THO202AC Theatre Production I Costume Shop (1) OR  
THP201AA Theatre Production I (1) OR  
THP201AB Theatre Production II (2) 1-2

Specialization 6: Lighting

THO202AB Theatre Production I Electrics (1) OR  
THP201AA Theatre Production I (1) OR  
THP201AB Theatre Production II (2) 1-2

THO218 Beginning Stage Lighting 3  
THO263 Entertainment Industry Drafting I: 2D CAD 3

Specialization 7: Properties

THO202AA Theatre Production I Scene Shop (1) OR  
THO202AC Theatre Production I Costume Shop (1) OR  
THP201AA Theatre Production I (1) OR  
THP201AB Theatre Production II (2) OR 1-2

THO267 Painting Techniques for Film, TV and Theatre (3) OR  
THP206 Introduction to Costume Construction for Theatre (4) 3-4

THO250 Stage Properties 3

Specialization 8: Puppetry

THP112 Acting I (3) OR  
THP151 Theatre for Youth (3) 3  
THP201AA Theatre Production I (1) OR  
THP201AB Theatre Production II (2) OR  
THO202AA Theatre Production I Scene Shop (1) OR  
THO202AC Theatre Production I Costume Shop (1) 1-2

THO219 Introduction to Puppetry 3  
THO250 Stage Properties 3  
THP206 Introduction to Costume Construction for Theatre 4

Specialization 9: Set/Scenic Construction

ARC141 Architectural CAD I: Introduction (3) OR  
CAD100 Fundamentals of 2D AutoCAD (3) 3

THO202AA Theatre Production I Scene Shop (1) OR  
THP201AA Theatre Production I OR (1)  
THP201AB Theatre Production II (2) 1-2

THO263 Entertainment Industry Drafting I: 2D CAD 3  
THO267 Painting Techniques for Film, TV and Theatre (3) OR  
WLD102 Basic Welding Metal Sculpture (3) 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=184813>

Starting Term: 2023 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN TECHNICAL THEATRE: AUDIO TECHNICIAN**

Total Credits: 11-12  
Major Code: 5077N

### **Description**

The Certificate of Completion (CCL) in Technical Theatre: Audio Technician is designed to prepare students to apply live sound reinforcement in theatre productions. Classes include instruction in live sound reinforcement, setting up equipment, and sound design for theatrical productions. A Certificate of Completion (CCL) in Technical Theatre and the Associate in Arts, Fine Arts (AAFA), Emphasis in Theatre are also available.

### **Program Notes**

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 11-12

MUC122	Sound Design I	3
MUC197	Live Sound Reinforcement I	3
MUC198	Live Sound Reinforcement II	3
THP201AA	Theatre Production I (1) OR	
THP201AB	Theatre Production II (2) OR	
THP202	Theatre Production Projects (1) OR	
THO202AB	Theatre Production I Electrics (1)	1-2
THO251	Safety Practices in Theatre and Film Production	1

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=184837>

Starting Term: 2023 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN TECHNICAL THEATRE: COSPLAY I**

Total Credits: 13-14  
Major Code: 5080N

## Description

The Certificate of Completion (CCL) in Technical Theatre: Cosplay I is designed to provide students with the skills to create characters in the world of Cosplay. The courses explore the history, culture, and rules of Cosplay, as well as costume, makeup, wigs, and properties development and use. A Certificate of Completion (CCL) in Technical Theatre and the Associate in Arts, Fine Arts (AAFA), Emphasis in Theatre are also available.

## Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 13-14

TEC111	Intermediate Apparel Construction (3) OR	
THP206	Introduction to Costume Construction for Theatre (4)	3-4
THF115	Makeup for Stage and Screen	3
THO208	Costume Play Solo Performance Practicum	3
THO250	Stage Properties	3
THO251	Safety Practices in Theatre and Film Production	1

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=184831>

Starting Term: 2023 Fall  
Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN TECHNICAL THEATRE: COSPLAY II

Total Credits: 25-26  
Major Code: 5087

## Description

The Certificate of Completion (CCL) in Technical Theatre: Cosplay II is designed to provide students with the skills to create characters in the world of Cosplay. The courses explore the history, culture, and rules of Cosplay, as well as costume, makeup, wigs, and properties development and use. Students develop characters that coincide with characters from the same canon. A Certificate of Completion (CCL) in Technical Theatre and the Associate in Arts, Fine Arts (AAFA), Emphasis in Theatre are also available.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 25-26

CIS103	Introduction to Social Media (3) OR	
MKT110	Marketing and Social Networking (3) 3	
TEC111	Intermediate Apparel Construction (3) OR	
THP206	Introduction to Costume Construction for Theatre (4)	3-4
THF115	Makeup for Stage and Screen	3
THO215	Advanced Makeup Techniques for Stage and Screen	3
THO216	Wig and Hair Production for Theatre and Film	3
THO208	Costume Play Solo Performance Practicum	3
THO209	Costume Play Group Performance Practicum	3
THO250	Stage Properties	3
THO251	Safety Practices in Theatre and Film Production	1

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=184795>

Starting Term: 2023 Fall  
Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN TECHNICAL THEATRE: COSTUMING

Total Credits: 8-9  
Major Code: 5090N

### Description

The Certificate of Completion (CCL) in Technical Theatre: Costuming is designed to provide students with skills in the acquisition, construction, alteration, and maintenance of costumes for theatrical performances. Courses include instruction in costume construction, theory and period styles. A Certificate of Completion (CCL) in Technical Theatre and the Associate in Arts, Fine Arts (AAFA), Emphasis in Theatre are also available.

### Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

### Required Courses

Credits:	5-6
THP201AA	Theatre Production I (1) OR
THP201AB	Theatre Production II (2) OR
THO202AC	Theatre Production I Costume Shop (1)      1-2
THP206	Introduction to Costume Construction for Theatre      4

### Restricted Electives

Credits: 3

Students should select courses for a total of 3 credits based on their career goal. Speak to a Program Director for additional information.

TEC113	Textiles: Dyeing	1
TEC114	Textiles: Block Printing/Silk Screening	1
TEC115	Textiles: Hand Painting	1
TEC225	Pattern Design I	3
THF115	Makeup for Stage and Screen	3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=184901>

Starting Term: 2023 Fall

Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN TECHNICAL THEATRE: HAIR AND MAKEUP

Total Credits: 10-11

Major Code: 5091N

### Description

The Certificate of Completion (CCL) in Technical Theatre: Hair and Makeup is designed to provide students with the skills to apply makeup and produce wigs for theatrical performances. The classes include instruction in makeup techniques and wig ventilation; period and contemporary hairstyling and costuming; wig work and hairpiece application; synthetic hair and masks; cosmetic preparations and treatments; makeup artistry; and attachment, removal, and camouflaging of prostheses. A Certificate of Completion (CCL) in Technical Theatre and the Associate in Arts, Fine Arts (AAFA), Emphasis in Theatre are also available.

### Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 10-11

THF115	Makeup for Stage and Screen	3	
THO215	Advanced Makeup Techniques for Stage and Screen		3
THO216	Wig and Hair Production for Theatre and Film	3	
THP201AA	Theatre Production I (1) OR		
THP201AB	Theatre Production II (2) OR		
THO202AC	Theatre Production I Costume Shop (1)	1-2	

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=184902>

Starting Term: 2023 Fall

Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN TECHNICAL THEATRE: LIGHTING

Total Credits: 12-13

Major Code: 5095N

### Description

The Certificate of Completion (CCL) in Technical Theatre: Lighting is designed to provide students with skills in lighting for theatrical performances. Courses include instruction in basic circuiting and dimmer application, lighting plots, programming, hanging and focus of lighting instruments, light board operation, and safety in the theatre. A Certificate of Completion (CCL) in Technical Theatre and the Associate in Arts, Fine Arts (AAFA), Emphasis in Theatre are also available.

### Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 12-13

THP201AA	Theatre Production I (1) OR		
THP201AB	Theatre Production II (2) OR		
THO202AB	Theatre Production I Electrics (1)	1-2	
THP213	Introduction to Technical Theatre	4	
THO216	Beginning Stage Lighting	3	

THO251 Safety Practices in Theatre and Film Production 1  
THO263 Entertainment Industry Drafting I: 2D CAD 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=184904>

Starting Term: 2023 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN TECHNICAL THEATRE: PROPERTIES**

Total Credits: 12-14  
Major Code: 5098N

### **Description**

The Certificate of Completion (CCL) in Technical Theatre: Properties is designed to provide students with skills in the acquisition, construction, alteration, maintenance, and repair of properties for theatrical performances. Courses include instruction in prop construction, sewing, use of tools, and creation and maintenance of production paperwork. A Certificate of Completion (CCL) in Technical Theatre and the Associate in Arts, Fine Arts (AAFA), Emphasis in Theatre are also available.

### **Program Notes**

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 12-14

THO202AA	Theatre Production I Scene Shop (1) OR	
THO202AC	Theatre Production I Costume Shop (1) OR	
THP201AA	Theatre Production I (1) OR	
THP201AB	Theatre Production II (2)	1-2
THO267	Painting Techniques for Film, TV and Theatre (3) OR	
THP206	Introduction to Costume Construction for Theatre (4)	3-4
THO250	Stage Properties	3
THO251	Safety Practices in Theatre and Film Production	1
THP213	Introduction to Technical Theatre	4

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=184001>



Starting Term: 2023 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN TECHNICAL THEATRE: PUPPETRY**

Total Credits: 15-16  
Major Code: 5148N

### **Description**

The Certificate of Completion (CCL) in Technical Theatre: Puppetry is designed to provide students with skills in puppetry for theatrical performances. Courses include instruction in the creation and operation of puppets in performance. A Certificate of Completion (CCL) in Technical Theatre and the Associate in Arts, Fine Arts (AAFA), Emphasis in Theatre are also available.

### **Program Notes**

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 15-16

THP112	Acting I (3) OR	
THP151	Theatre for Youth (3)	3
THP201AA	Theatre Production I (1) OR	
THP201AB	Theatre Production II (2) OR	
THO202AC	Theatre Production I Costume Shop (1) OR	
THO202AA	Theatre Production I Scene Shop (1)	1-2
THP206	Introduction to Costume Construction for Theatre	4
THO219	Introduction to Puppetry	3
THO250	Stage Properties	3
THO251	Safety Practices in Theatre and Film Production	1

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=184839>

Starting Term: 2023 Fall  
Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN TECHNICAL THEATRE: SET/SCENIC CONSTRUCTION

Total Credits: 9-10  
Major Code: 5096N

## Description

The Certificate of Completion (CCL) in Technical Theatre: Set/Scenic Construction is designed to provide students with skills in the construction of sets for theatrical performances. Courses include instruction in theatrical set and scene construction, use of scene shop tools, materials and hardware. Plan reading and safety for set and scenic construction are also emphasized. A Certificate of Completion (CCL) in Technical Theatre and the Associate in Arts, Fine Arts (AAFA), Emphasis in Theatre are also available.

## Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 9-10

THP201AA	Theatre Production I (1) OR	
THP201AB	Theatre Production II (2) OR	
THO202AA	Theatre Production I Scene Shop (1)1-2	
THP213	Introduction to Technical Theatre	4
THO251	Safety Practices in Theatre and Film Production	1
THO267	Painting Techniques for Film, TV and Theatre (3) OR	
WLD102	Basic Welding Metal Sculpture (3)	3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=187803>

Starting Term: 2024 Fall  
Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN TECHNICAL THEATRE: STAGE CREW TECHNICIAN

Total Credits: 6-7  
Major Code: 5099N

## Description

The Certificate of Completion (CCL) in Technical Theatre: Stage Crew Technician is designed to provide students with skills to work on theatrical productions as part of the stage crew. The courses include instruction in general theatre knowledge and safety and provide opportunities for hands-on theatrical production experience. A Certificate of Completion (CCL) in Technical Theatre and the Associate in Arts, Fine Arts (AAFA), Emphasis in Theatre are also available at select colleges. Please check with your local college for program availability.

## Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 6-7

THP201AA	Theatre Production I (1) OR	
THP201AB	Theatre Production II (2) OR	
THO202AA	Theatre Production I Scene Shop (1) OR	
THO202AB	Theatre Production I Electrics (1)	1-2
THP213	Introduction to Technical Theatre	4
THO251	Safety Practices in Theatre and Film Production	1

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=146771>

Starting Term: 2020 Fall  
Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN TEXTILE AND APPAREL: FASHION STYLIST

Total Credits: 19  
Major Code: 5768

## Description

The Certificate of Completion (CCL) in Textile and Apparel: Fashion Stylist program is designed for students with an interest in visual display and merchandise styling for wholesale or retail trades. It provides students with skills defining target market, historical and current fashions, visual display techniques, color theory, and fashion styling practices. Completers of the certificate will enter the fashion industry at entry-level positions with additional understanding of the styling profession.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 19

ART113	Color	3	
MKT/TEC109	Introduction to Fashion Merchandising		3
MKT/TEC151	Display and Visual Merchandising	3	
TEC106	History of Fashion	3	
TEC150	Fashion Show Production		3
TEC245	Wardrobe Strategies	3	
TEC272AA	Retail Merchandising Internship		1

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=187443>

Starting Term: 2024 Fall

Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN TIME-BASED MEDIA

Total Credits: 40

Major Code: 5170

### Description

The Certificate of Completion (CCL) in Time-Based Media develops knowledge and skills in the area of time-based media, including but not limited to the production of still and time-based media, media production techniques, compositing, motion graphics, and interactive design. The curriculum is designed to provide the student with an understanding of media and photographic techniques, use of production equipment, media production terminology, media and interactivity applications, and industry practices. This certificate prepares students for employment and upgrades the skills of persons employed in occupational areas such as media production, marketing, publishing, motion graphics, photography, freelance artist designer, and web and interactivity design. An Associate in Applied Science (AAS) in Animation and Time-Based Media is also available.

### Program Notes

Students must earn a grade of C or better in all courses within the program. This CCL is designed for individuals who already have a degree or relevant experience in the field or who are currently employed in the field.

### Required Courses

Credits: 28

AVC169	2D Media Design (3) OR	
AVC178	Digital Arts Studies (3)	3
AVC/MMT184	Digital Animation I	3
AVC100	Introduction to Digital Arts	1
AVC142	Introduction to Digital Photography	3
AVC177	Digital Photographic Imaging I	3
ART111	Drawing I (3) OR	
ART116	Life Drawing I (3)	3
AVC150	Multimedia Storytelling (3) OR	
FMT121	Story Theory for Film, Television and Media (3) OR	
JRN213	Writing for Online (3)	3
AVC202	Media Productions I (3) OR	
FMP108	Video Production (3)	3
AVC279	Media Productions II (3) OR	
FMP215	Digital Video Effects (3)	3
MUC122	Sound Design I (3) OR	
MUC191	Electronic Music I (3)	3

## Restricted Electives

Credits: 12

Complete twelve (12) credits from courses not already selected in the Required Courses area. Students may choose from one focus area or from among multiple focus areas according to their occupational needs.

### Photography Focus Area

ART131	Photography I	3
AVC138	Commercial Photography I	3
AVC140	Portrait Photography	3
AVC143	Intermediate Digital Photography	3
AVC270	Digital Photographic Imaging II	3

### Audio Focus Area

FMP114	Audio Production	3
MUC122	Sound Design I	3
MUC191	Electronic Music I	3
MUC192	Electronic Music II	3
MUC195	Studio Music Recording I	3
MUC222	Sound Design II	3

### Media Production Focus Area

ART/COM/STO145	Digital Storybook	1
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AVC/MMT190	Art of Web Site Design	3
AVC192	Advanced Web Presentation Design	3
AVC/THO246	Digital Fabrication	3
CIS133DA	Internet/Web Development Level I	3
FMP204	Advanced Video Production	3
FMP215	Digital Video Effects	3
FMP/FMT151	TV and New Media Production	3

#### Motion Graphics Focus Area

ART116	Life Drawing I	3
AVC/MMT185	3D Modeling for Animation I	3
AVC174	Electronic Color Principles	1
AVC200	Animation and Interactivity	3
AVC240	Cinematography and Directing for 2D/3D Animation	3
AVC273AC	Special Topics: Multimedia Arts	3
AVC287	3D Character Animation	3
FMP215	Digital Video Effects	3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=184079>

Starting Term: 2023 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN VETERINARY ASSISTING**

Total Credits: 18  
Major Code: 5960

### **Description**

The Certificate of Completion (CCL) in Veterinary Assisting prepares students for introductory careers in veterinary medicine and animal health which require basic knowledge and skills involving animal care and management, veterinary medical care, and client communications and service.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 18

COM100	Introduction to Human Communication (3) OR	
COM110	Interpersonal Communication (3) OR	
COM225	Public Speaking (3) OR	
COM230	Small Group Communication (3)	3

ENG101	First-year Composition (3) OR	
ENG107	First-year Composition for ESL(3)	3
VET101	Introduction to Veterinary Technology	3
VET101LL	Animal Care Skills I Laboratory	2
VET103	Veterinary Assisting I	3
VET104	Veterinary Assisting II	3
VET109	Veterinary Assisting Internship	1

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=184298>

Starting Term: 2024 Fall  
Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN VICTIMOLOGY

Total Credits: 15  
Major Code: 5392N

### Description

The Certificate of Completion (CCL) in Victimology is designed for students who are interested in pursuing a course of study specifically focused on crisis intervention, community services, and victim rights. It is one pathway to the Associate in Applied Science (AAS) in Administration of Justice.

### Program Notes

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program.

### Required Courses

Credits: 15

AJS101	Introduction to Criminal Justice	3
AJS162	Domestic Violence	3
AJS225	Criminology	3
AJS255	The Criminal Justice System Handling of the Mentally Ill	3
AJS/EMT/FSC258	Victimology and Crisis Management in Public Safety	3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=182612>

Starting Term: 2023 Fall  
Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN VIDEO GAME PRODUCTION: AUDIO AND SOUND

Total Credits: 30-31  
Major Code: 5130

## Description

The Certificate of Completion (CCL) in Video Game Production: Audio and Sound provides students with the introductory skills in audio and sound for video games. Coursework focuses on the music aspects of Video Game Production. An Associate in Applied Science (AAS) in Video Game Production is available. Certificates of Completion (CCL) are also available in Video Game Production: Game Art, Video Game Production: Coding and Scripting, and Video Game Production: Narrative.

## Program Notes

Students must earn a grade of C or better in all courses within the program. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 30-31

Students must complete the following courses for a total of 13 credits that apply to the core of the Associate in Applied Science (AAS) in Video Game Production.

AVC100	Introduction to Digital Arts	1
CIS105	Survey of Computer Information Systems	3
CIS151	Computer Game Development Level I	3
MUC122	Sound Design I	3
CRW176	Writing Narrative for Video Games	3

Students must complete the following courses for a total of 17 to 18 credits that apply to the Video Game Production: Audio and Sound Emphasis of the Associate in Applied Science (AAS) in Video Game Production.

MUC191	Electronic Music (3) OR	
MUC194	Audio Mixing Techniques (3)	3
MUC111	Digital Audio Workstation I (DAW I)	3
MUC192	Electronic Music II (3) OR	
MUC196	Studio Recording II (3)	3
MUC195	Studio Music Recording I	3
MUC222	Sound Design II	3
MUC292	Sound Design III (3) OR	



<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=184810>

Starting Term: 2023 Fall

Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN VIDEO GAME PRODUCTION: CODING AND SCRIPTING**

Total Credits: 33

Major Code: 5129

### **Description**

The Certificate of Completion (CCL) in Video Game Production: Coding and Scripting provides students with the introductory skills to code and write script for video games. Coursework focuses on the coding and scripting aspects of Video Game Production. An Associate in Applied Science (AAS) in Video Game Production is also available. Certificates of Completion (CCL) are also available in Video Game Production: Game Art, Video Game Production: Audio and Sound and Video Game Production: Narrative.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

### **Required Courses**

Credits: 33

Students must complete the following courses for a total of 13 credits that apply to the core of the Associate in Applied Science (AAS) in Video Game Production.

AVC100	Introduction to Digital Arts	1
CIS105	Survey of Computer Information Systems	3
CIS151	Computer Game Development Level I	3
MUC122	Sound Design I	3
CRW176	Writing Narrative for Video Games	3

Students must complete the following courses for a total of 20 credits that apply to the Video Game Production: Coding and Scripting Emphasis of the Associate in Applied Science (AAS) in Video Game Production.

CIS107	The Electronic Game Industry	3
CIS120DC	Introduction to Adobe Animate	3
CIS130DB	3D Studio Max: Animation	3

CIS150AB	Object-Oriented Programming Fundamentals	3
CIS156	Python Programming: Level I	3
CIS163AA	Java Programming: Level I	3
CIS298AB	Special Projects	2

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=187447>

Starting Term: 2024 Fall

Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN VIDEO GAME PRODUCTION: GAME ART**

Total Credits: 39

Major Code: 5123

### **Description**

The Certificate of Completion (CCL) in Video Game Production: Game Art provides students with the introductory skills to design Art for video games. Coursework focuses on the artistic aspect of Video Game Production. An Associate in Applied Science (AAS) in Video Game Production is available. Certificates of Completion (CCL) are also available in Video Game Production: Audio and Sound, Video Game Production: Coding and Scripting, and Video Game Production: Narrative.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

### **Required Courses**

Credits: 39

Students must complete the following courses for a total of 13 credits that apply to the core of the Associate in Applied Science (AAS) in Video Game Production.

AVC100	Introduction to Digital Arts	1
CIS105	Survey of Computer Information Systems	3
CIS151	Computer Game Development -Level I	3
CRW176	Writing Narrative for Video Games	3
MUC122	Sound Design I	3

Students must complete the following courses for a total of 26 credits that apply to the Video Game Production: Game Art Emphasis of the Associate in Applied Science (AAS) in Video Game Production.

ART116 Life Drawing I 3  
AVC/MMT184 Digital Animation I 3

AVC/MMT185 3D Modeling for Animation I (3) OR  
CIS130DA 3D Studio Max: Modeling (3) 3

AVC150 Multimedia Storytelling 3  
AVC200 Animation and Interactivity 3

AVC240 Cinematography and Directing for 2D/3D Animation (3) OR  
CIS230DB 3D Studio Max: Lighting and Rendering (3) 3

AVC/MMT285 3D Modeling and Animation II (3) OR  
CIS130DB 3D Studio Max: Animation (3) 3

AVC287 3D Character Animation 3  
AVC298AB Special Projects 2

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=184809>

Starting Term: 2023 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN VIDEO GAME PRODUCTION: GAME NARRATIVE**

Total Credits: 27  
Major Code: 5125

### **Description**

The Certificate of Completion (CCL) in Video Game Production: Game Narrative provides students with the introductory skills to write narrative for video games. Coursework focuses on the narrative aspect of Video Game Production. An Associate in Applied Science (AAS) in Video Game Production is also available. Certificates of Completion (CCL) are available in Video Game Production: Game Art, Video Game Production: Audio and Sound and Video Game Production: Coding and Scripting.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

### **Required Courses**

Credits: 27

Students must complete the following courses for a total of 13 credits that apply to the core of the Associate in Applied Science (AAS) in Video Game Production.

AVC100	Introduction to Digital Arts	1
CIS105	Survey of Computer Information Systems	3
CIS151	Computer Game Development Level I	3
MUC122	Sound Design I	3
CRW176	Writing Narrative for Video Games	3

Students must complete the following courses for a total of 14 credits that apply to the Video Game Production: Game Narrative Emphasis of the Associate in Applied Science (AAS) in Video Game Production.

CRW160	Introduction to Writing Poetry	3
CRW170	Introduction to Writing Fiction	3
CRW190	Introduction to Screenwriting	3
CRW270	Intermediate Fiction Writing	3
CRW298AB	Special Projects	2

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=183164>

Starting Term: 2024 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN VMWARE FOUNDATIONS**

Total Credits: 4  
Major Code: 5035N

### **Description**

The Certificate of Completion (CCL) in VMware Foundations program is designed to help students prepare for VMware industry certifications and work in a variety of information technology environments including software defined data centers. The program introduces vSphere and VMware ESXi server in the enterprise and covers many aspects of virtualization for VMware ESXi server administration. It is designed to help prepare students for the VMware Certified Technical Associate (VCTA) certification exam. Students can also pursue additional Certificates of Completion (CCLs) in a variety of specializations within the information technology field to deepen their knowledge and skills and to help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

### **Program Notes**

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program. Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: BPC, CIS, CNT, and MST.

## Admission Criteria

This Certificate of Completion (CCL) is intended for industry professionals with the requisite experience. To pursue this CCL, students must complete the prerequisites to the courses within the Required Courses area as follows OR receive permission of the Program Director: CIS105 Survey of Computer Information Systems 3+ BPC170 A+ Exam Prep: Computer Hardware Configuration and Support (3) AND+ BPC270 A+ Exam Prep: Operating System Configuration and Support (3) ORMST150++ Any Windows Operation Course (3) 3-6 CIS126DL Linux Operating System (3) OR CIS126RH Red Hat System Administration I (3) 3+ CIS190 Introduction to Networking (3) OR CNT140AB Introduction to Networks (3) 3+ Students with no industry experience have the option to complete the full CCL VMware Network Administrator (major code 5032), that includes the courses in Admission Criteria and required courses.

## Required Courses

Credits: 4

CIS293 VMware ESXI Server Enterprise 4

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=183166>

Starting Term: 2024 Fall

Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN VMWARE SYSTEMS ADMINISTRATOR

Total Credits: 12

Major Code: 5033N

## Description

The Certificate of Completion (CCL) in VMware Systems Administrator program is designed to help students prepare for VMware industry certifications and work in a variety of information technology environments including software defined data centers. The program introduces vSphere and VMware ESXi server in the enterprise and covers many aspects of virtualization for VMware ESXi server administration. It includes advanced skills for configuring and maintaining a highly available and scalable virtual infrastructure and is designed to prepare students for the VMware Certified Technical Associate (VCTA) and VMware Certified Professional (VCP) certification exams. Students can also pursue additional Certificates of

Completion (CCLs) in a variety of specializations within the information technology field to deepen their knowledge and skills and to help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

## Program Notes

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: BPC, CIS, CNT and MST.

## Admission Criteria

This Certificate of Completion (CCL) is intended for industry professionals with the requisite experience. To pursue this CCL, students must complete the prerequisites to the courses within the Required Courses area as follows OR receive permission of the Program Director: CIS105 Survey of Computer Information Systems 3+ BPC170 A+ Exam Prep: Computer Hardware Configuration and Support (3) AND+ BPC270 A+ Exam Prep: Operating System Configuration and Support (3) ORMST150++ Any Windows Operation Course (3) 3-6 CIS126DL Linux Operating System (3) OR CIS126RH Red Hat System Administration I (3) 3+ CIS190 Introduction to Networking (3) OR CNT140AB Introduction to Networks (3) 3 Students also have the option to complete the full CCL in this program, VMware Network Administrator (major code 5032), that includes the prerequisites and required courses.

## Required Courses

Credits: 12

CIS293	VMware ESXI Server Enterprise	4	
CIS294	VMware vSphere Operate, Scale and Secure		4
CIS295	VMware NSX: Install, Configure, Manage	4	

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=165448>

Starting Term: 2021 Fall

Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN WEB APP DEVELOPMENT

Total Credits: 9-12

Major Code: 5835N

## Description

The Certificate of Completion (CCL) in Web App Development prepares students for employment in entry-level coding, programming, and software development positions with an

emphasis on web apps. Courses in this certificate can apply toward the Associate in Applied Science (AAS) in Mobile App Development and Certificates of Completion (CCL) in Mobile App Development and Cross-Platform App Development.

## Program Notes

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program. Students should consult with a Department Advisor in arranging their schedules. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 9-12

CIS105 Survey of Computer Information Systems (3) OR  
Permission of Program Director, Department or Division Chair (0) 0-3

CIS133DA Internet/Web Development Level I 3

CIS166AA Introduction to JavaScript 3

CIS233DA Internet/Web Development Level II 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=180344>

Starting Term: 2023 Fall

Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN WEB DESIGN

Total Credits: 38-43

Major Code: 5986

## Description

The Certificate of Completion (CCL) in Web Design provides students with comprehensive and focused studies in web design, including advanced image manipulation, vector graphics, page layout, video editing and design principles. An Associate in Applied Science (AAS) in Web Design/Development and CCLs in Web Foundations and Web Development are also available.

## Program Notes

Students must earn a grade of C or better in all courses within the program. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 36-37

The following courses are required for the CCL in Web Foundations:

CIS105	Survey of Computer Information Systems	3
CIS120DF	Introduction to Adobe Photoshop	3
CIS133DA	Internet/Web Development Level I	3
CIS136	Content Management Systems: WordPress	3
CIS166AA	Introduction to Javascript	3
CIS233DA	Internet/Web Development Level II	3
CIS235	e-Commerce	3

The following courses are required for the CCL in Web Design :

AVC183	Digital Graphic Arts I (3)	OR	
AVC100	Introduction to Digital Arts (1) AND		
AVC181	Graphic Design I (3)	OR	
ART112	Two-Dimensional Design (3)		3-4
CIS120DA	Introduction to Adobe Premiere (3)	OR	
CIS120DK	Introduction to Digital Video Editing (3)		3
CIS120DB	Introduction to Adobe Illustrator	3	OR
CIS120DC	Introduction to Adobe Animate (3)	OR	
CIS220DF	Adobe Photoshop Level II: Advanced Digital Imaging (3)		3
CIS138DA	Desktop Design and Publishing Using Adobe InDesign		3

## Restricted Electives

Credits: 2-6

Select two to six (2-6) credits in consultation with your program advisor to further develop skills in the areas of Adobe, Art, Social Media, Marketing, Business, and/or Multimedia.

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=163998>

Starting Term: 2021 Fall  
Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN WEB DEVELOPMENT

Total Credits: 39  
Major Code: 5988

## Description

The Certificate of Completion (CCL) in Web Development prepares students to create and administer interactive and professional websites. The program provides students with knowledge and skills in developing dynamic websites, client and server side programs, database structures, and object-oriented design. A Certificate of Completion (CCL) in Web Design and an Associate in Applied Science (AAS) in Web Design/Development are also



available. Some of these programs are available at select colleges. Please check with your local college for program availability.

## Program Notes

Students must earn a grade of C or better in each course in the program. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST. This program replaces: CCL/5051 Web Developer, CCL/5060 Web Developer, CCL/5168 Web Development and Graphic Design, CCL/5346 Web Development

## Required Courses

Credits: 36

The following courses are required and included in the CCL in Web Foundations:

CIS105	Survey of Computer Information Systems	3
CIS120DF	Introduction to Adobe Photoshop	3
CIS133DA	Internet/Web Development Level I	3
CIS136	Content Management Systems: WordPress	3
CIS166AA	Introduction to Javascript	3
CIS233DA	Internet/Web Development Level II	3
CIS235	e-Commerce	3

The following courses are required for the CCL in Web Development:

CIS166AE	Web Scripting with PHP: Hypertext Preprocessor (PHP)	3
CIS119DO	Introduction to Oracle: SQL (3) OR	

CIS276++	Any Database Management Systems course (3)	3
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CIS126DL	Linux Operating System (3) OR	
CIS126RH	Red Hat System Administration I (3)	3

Programming Language: Select two courses for a total of 6 credits

CIS150AB	Object-Oriented Programming Fundamentals	3
CIS156	Python Programming: Level I	3
CIS159	Visual Basic Programming I	3
CIS162++	Any C Programming course	3
CIS163AA	Java Programming: Level I	3
CIS165++	Any Mobile Application Development course	3
CIS256	Python Programming: Level II	3
CIS262AD	C# Level II	3
CIS263AA	Java Programming: Level II	3
CIS265++	Any Advanced Application Development course	3

## Restricted Electives

Credits: 3

Students should select any course with a CIS prefix in consultation with their program advisor to further develop skills in the areas of Databases, Information Systems, Programming, and/or Operating Systems. 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=164829>

Starting Term: 2021 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN WEB FOUNDATIONS**

Total Credits: 21  
Major Code: 5984

### **Description**

The Certificate of Completion (CCL) in Web Foundations introduces students to designing and developing web pages. This CCL prepares students for entry level web positions. Certificates of Completion (CCL) in Web Design and Web Development are available. An Associate in Applied Science (AAS) degree in Web Design/Development is also available.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

### **Required Courses**

Credits: 21

CIS105	Survey of Computer Information Systems	3
CIS120DF	Adobe Photoshop Level I: Digital Imaging	3
CIS133DA	Internet/Web Development Level I	3
CIS136	Content Management Systems: WordPress	3
CIS166AA	Introduction to Javascript	3
CIS233DA	Internet/Web Development Level II	3
CIS235	e-Commerce	3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm?id=132997>

Starting Term: 2019 Spring  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN WELDING**

Total Credits: 10-15  
Major Code: 5444N

## Description

The Certificate of Completion (CCL) in Welding develops skills in oxyacetylene (gas) and electric (arc) welding with emphasis on preparing for the American Welding Society Arc certification exam.

## Program Notes

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 10-15

WLD106AA Introduction to SMAW (5) OR  
Permission of instructor 0-5

Students must select one - two (1-2) courses for a total of 5-10 credits from the following courses:

WLD106AB	SMAW 6010 Plate	5
WLD106AC	SMAW 7018 Plate	5
WLD106AD	SMAW Introduction to Pipe	5
WLD206AA	Introduction to GMAW/FCAW and GTAW	5
WLD206AB	Advanced GMAW and FCAW	5
WLD206AC	Advanced GTAW Non-Ferrous	5
WLD206AD	Advanced GTAW Ferrous	5
WLD208AA	SMAW Code Welding	5

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=146932>

Starting Term: 2020 Fall  
Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN WELDING: FUNDAMENTALS

Total Credits: 20-23  
Major Code: 5995

## Description

The Certificate of Completion (CCL) in Welding: Fundamentals prepares students to work in industry using oxy-fuel welding and cutting (OFW) (OFC) and shielded metal arc welding

(SMAW) processes. This certificate provides an introduction to the knowledge and skills required to work with modern industrial welding equipment using advanced welding techniques including gas metal arc welding (GMAW), flux core arc welding (FCAW) and gas tungsten arc welding (GTAW). An Associate in Applied Science (AAS) in Welding as well as certificates in the following areas of specialization are also available: Welding: Gas Metal/Flux Cored Arc Welding (GMAW)/(FCAW), Welding: Gas Tungsten Arc Welding (GTAW) Ferrous, Welding: Gas Tungsten Arc Welding (GTAW) Non-Ferrous, Welding: Shielded Metal Arc welding (SMAW) Plate, and Welding: Shielded Metal Arc Welding (SMAW) Pipe.

## Program Notes

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 10-13

WLD101 Introduction to Welding (3) OR  
Permission of Program Director 0-3

WLD106AA Introduction to SMAW 5  
WLD106AB SMAW 6010 Plate (5) OR  
WLD106AC SMAW 7018 Plate (5) OR  
WLD206AA Introduction to GMAW/FCAW and GTAW (5) 5

## Restricted Electives

Credits: 10

Select 10 credits in consultation with a Program and/or Academic Advisor to further develop skills in the focus areas listed below. WLD106AB, WLD106AC, WLD206AA may be selected as a Restricted Elective if it is not used to satisfy Required Courses.

Focus Area: Gas Metal / Flux Cored Arc Welding (GMAW)/(FCAW) and Gas Tungsten Arc Welding (GTAW):

WLD206AA Introduction to GMAW/FCAW and GTAW 5  
WLD206AB Advanced GMAW and FCAW 5  
WLD206AC Advanced GTAW Non-Ferrous 5  
WLD206AD Advanced GTAW Ferrous 5  
WLD208AB GMAW Code Welding 5  
WLD208AC FCAW Code Welding 5

Focus Area: Shielded Metal Arc Welding (SMAW) Plate:

WLD106AC SMAW 7018 Plate 5  
WLD208AA SMAW Code Welding 5

Focus Area: Shielded Metal Arc Welding (SMAW) Pipe:

WLD106AB SMAW 6010 Plate 5  
WLD106AD SMAW Introduction to Pipe 5  
WLD208AA SMAW Code Welding 5

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=167768>

Starting Term: 2021 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN WELDING: GAS METAL / FLUX CORED ARC WELDING (GMAW)/(FCAW)**

Total Credits: 15  
Major Code: 5851N

### **Description**

The Certificate of Completion (CCL) in Welding: Gas Metal / Flux Cored Arc Welding (GMAW)/(FCAW) prepares students for industry code certification testing. An Associate in Applied Science (AAS) in Welding as well as certificates in the following areas of specialization are also available: Welding: Gas Tungsten Arc Welding (GTAW) Ferrous, Welding: Gas Tungsten Arc Welding (GTAW) Non-Ferrous, Welding: Shielded Metal Arc welding (SMAW) Plate, and Welding: Shielded Metal Arc Welding (SMAW) Pipe.

### **Program Notes**

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

### **Required Courses**

Credits: 15

WLD106AA	Introduction to SMAW5	
WLD206AA	Introduction to GMAW/FCAW and GTAW	5
WLD206AB	Advanced GMAW and FCAW	5

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=146965>

Starting Term: 2020 Fall  
Final Term: 9999

## **CERTIFICATE OF COMPLETION (CCL) IN WELDING: GAS TUNGSTEN ARC WELDING (GTAW) FERROUS**

Total Credits: 15  
Major Code: 5853N

## Description

The Certificate of Completion (CCL) in Welding: Gas Tungsten Arc Welding (GTAW) Ferrous prepares students for aerospace industry code certification testing in the gas tungsten arc welding process in carbon steel and stainless-steel (ferrous metals). An Associate in Applied Science (AAS) in Welding as well as certificates in the following areas of specialization are also available: Welding: Gas Metal / Flux Cored Arc Welding (GMAW)/(FCAW), Welding: Gas Tungsten Arc Welding (GTAW) Non-Ferrous, Welding: Shielded Metal Arc welding (SMAW) Plate, and Welding: Shielded Metal Arc Welding (SMAW) Pipe.

## Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 15

WLD106AA Introduction to SMAW5  
WLD206AA Introduction to GMAW/FCAW and GTAW 5  
WLD206AD Advanced GTAW Ferrous 5

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=146966>

Starting Term: 2020 Fall

Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN WELDING: GAS TUNGSTEN ARC WELDING (GTAW) NON-FERROUS

Total Credits: 15

Major Code: 5855N

## Description

The Certificate of Completion (CCL) in Welding: Gas Tungsten Arc Welding (GTAW) Non-Ferrous prepares students for aerospace industry code certification testing in the gas tungsten arc welding process in aluminum (non-ferrous). An Associate in Applied Science (AAS) in Welding as well as certificates in the following areas of specialization are also available: Welding: Gas Metal / Flux Cored Arc Welding (GMAW)/(FCAW), Welding: Gas Tungsten Arc Welding (GTAW) Ferrous, Welding: Shielded Metal Arc welding (SMAW) Plate, and Welding: Shielded Metal Arc Welding (SMAW) Pipe.

## Program Notes

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 15

WLD106AA	Introduction to SMAW5	
WLD206AA	Introduction to GMAW/FCAW and GTAW	5
WLD206AC	Advanced GTAW Non-Ferrous	5

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=146967>

Starting Term: 2020 Fall  
Final Term: 9999

## CERTIFICATE OF COMPLETION (CCL) IN WELDING: SHIELDED METAL ARC WELDING (SMAW) PIPE

Total Credits: 15  
Major Code: 5863N

### Description

The Certificate of Completion (CCL) in Welding: Shielded Metal Arc Welding (SMAW) Pipe prepares students to complete industry certification on carbon steel pipe. An Associate in Applied Science (AAS) in Welding as well as certificates in the following areas of specialization are also available: Welding: Gas Metal / Flux Cored Arc Welding (GMAW)/(FCAW), Welding: Gas Tungsten Arc Welding (GTAW) Ferrous, Welding: Gas Tungsten Arc Welding (GTAW) Non-Ferrous, and Welding: Shielded Metal Arc Welding (SMAW) Plate.

### Program Notes

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 15

WLD106AA	Introduction to SMAW5	
WLD106AB	SMAW 6010 Plate	5
WLD106AD	SMAW Introduction to Pipe	5

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=167769>

Starting Term: 2021 Fall  
Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN WELDING: SHIELDED METAL ARC WELDING (SMAW) PLATE

Total Credits: 10  
Major Code: 5871N

## Description

The Certificate of Completion (CCL) in Welding: Shielded Metal Arc Welding (SMAW) Plate prepares students to complete industry certification on carbon steel. An Associate in Applied Science (AAS) in Welding as well as certificates in the following areas of specialization are also available: Welding: Gas Metal / Flux Cored Arc Welding (GMAW)/(FCAW), Welding: Gas Tungsten Arc Welding (GTAW) Ferrous, Welding: Gas Tungsten Arc Welding (GTAW) Non-Ferrous, and Welding: Shielded Metal Arc Welding (SMAW) Pipe.

## Program Notes

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 10

WLD106AA Introduction to SMAW5  
WLD106AC SMAW 7018 Plate 5

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=188750>

Starting Term: 2024 Fall  
Final Term: 9999

# CERTIFICATE OF COMPLETION (CCL) IN WINDOWS APP DEVELOPMENT

Total Credits: 9-12  
Major Code: 5833N

## Description

The Certificate of Completion (CCL) in Windows App Development prepares students for employment in entry-level coding, programming, and software development positions with an emphasis on Windows platform and cross-platform apps. This CCL will help prepare students to take the MTA Software Development Fundamentals C# certification. Courses in this certificate can apply toward the Associate in Applied Science (AAS) in Mobile App Development and



Certificates of Completion (CCLs) in Cross-Platform App Development and Mobile App Development.

## Program Notes

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program. Students should consult with a Department Advisor in arranging their schedules. Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

## Required Courses

Credits: 9-12

CIS105 Survey of Computer Information Systems (3) OR  
Permission of Program Director, Department or Division Chair (0) 0-3

CIS162AD C#: Level I 3

CIS165DB C#/VB.NET: Windows 8 App Development (3) OR  
CIS165DC Xamarin/C# Cross Platform Development (3) 3

CIS262AD C# Level II 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm?id=189330>

Starting Term: 2024 Fall

Final Term: 9999

## ACADEMIC CERTIFICATE (AC) IN AFRICAN-AMERICAN STUDIES

Total Credits: 15-18

Major Code: 6226N

### Description

The interdisciplinary Academic Certificate (AC) in African-American Studies enhances students understanding of African-Americans by examining history, social issues, literature, culture, religion, ethnic relations, and gender issues. Through coursework, students develop skills in critical thinking, inquiry, and discourse while becoming more informed.

### Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Courses selected must satisfy the following General Education Requirements

Awareness Area: Cultural Diversity in the United States (C) 3 credits

Historical Awareness (H) 3 credits Core Area:

Humanities (HU) 3 credits Social and Behavioral Sciences (SB) 6 credits

## Required Courses

Credits: 6

AFR110 Introduction to African-American Studies (SB, C) 3

AFR/ASB/CCS202 Ethnic Relations in the United States (SB, C, H) 3

## Restricted Electives

Credits: 9-12

AFR/HIS203 African-American History to 1865 (SB, C, H) 3

AFR/HIS204 African-American History 1865 to Present (SB, C, H) 3

CPD103BC African-American Cultural Pride and Awareness (AFS Department Elective) 2

ENH114 African-American Literature (HU, C) 3

HUM214 African-Americans in Film (HU, C) 3

REL225 African-American Religions (HU, C) 3

SOC143 Sociology of African American Problems (SB, C) 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=141923>

Starting Term: 2020 Fall

Final Term: 9999

# ACADEMIC CERTIFICATE (AC) IN AMERICAN INDIAN STUDIES

Total Credits: 15

Major Code: 6208N

## Description

The Academic Certificate (AC) in American Indian Studies program explores the unique experiences of the American Indian people living in the Southwest and provides students the opportunity to study the cultures, values, histories, and contemporary lives of the indigenous people of North America. The Certificate includes courses that investigate their language, literature, arts, philosophy, religions, and politics.

## Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better for all courses required within the program. Federal Indian policy stipulates tribal preference in hiring, which should be considered in seeking employment with tribal nations and selected federal agencies. Seek advice of the tribal agency for available employment opportunities.

## Required Courses

Credits: 12

ENG101 First-Year Composition (3) OR  
ENG107 First-Year Composition for ESL (3) 3

AIS/SOC105 Introduction to American Indian Studies 3  
AIS/SOC160 American Indian Law 3  
AIS213/REL203 American Indian Religions (3) OR  
AIS/HIS140 American Indian History (3) 3

## Restricted Electives

Credits: 3

Select at total of 3 credits from the following list except those used to satisfy Required Courses area.

AIS+++ Any AIS American Indian Studies course 3  
ARH145 History of American Indian Art 3  
CCS101 Chicano and Chicana Studies 3  
ENH259 American Indian Literature 3  
GCU221 Arizona Geography 3  
HIS+++ Any HIS History course 3  
NAV+++ Any NAV Navajo course 3  
SPH245 Hispanic Heritage in the Southwest 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=182648>

Starting Term: 2023 Fall  
Final Term: 9999

## ACADEMIC CERTIFICATE (AC) IN CERAMICS

Total Credits: 33  
Major Code: 6256N

### Description

The Academic Certificate (AC) in Ceramics is designed for students who wish to develop specialized skills in ceramics beyond the foundational level. The courses in this certificate offer an emphasis in creative problem-solving and portfolio development, as well as the advanced training required for art careers. With the certificate, students may pursue a career as a

practicing artist or continue their education at specialized art schools. An Associate in Arts, Fine Arts (AAFA) is also available.

## Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits:	18	
ARH102	Art from Renaissance to Modernism	3
ART111	Drawing I	3
ART112	Two-Dimensional Design	3
ART113	Color	3
ART115	Three-Dimensional Design	3
ART255	Art Marketing	3

## Restricted Electives

Credits:	15	
ART161	Ceramics I	3
ART162	Ceramics II	3
ART261	Ceramics III	3
ART262	Ceramics IV	3
ART290AC	Studio Art	3
ART290GC	Studio Art: Ceramics	3
ART290KC	Studio Art: Glazing Techniques	3
ART290LC	Studio Art: Clay Bodies	3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm?id=125955>

Starting Term: 2019 Spring

Final Term: 9999

## ACADEMIC CERTIFICATE (AC) IN COMMUNICATION COMPETENCE IN THE WORKPLACE

Total Credits: 30-33

Major Code: 6219N

## Description

The Academic Certificate (AC) in Communication Competence in the Workplace is an interdisciplinary program of study that provides intensive study of written and oral communication skills in different contexts including interpersonal communication, small group interaction, team-building, problem solving, public speaking and presentation skills, conflict

resolution, assertiveness, and leadership. Students develop skills to enhance their professional, social, and personal interactions, and become more competitive and effective in the workforce.

## Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better for all courses within the Required Courses area.

## Required Courses

Credits: 18-21

COM110	Interpersonal Communication	3
COM225	Public Speaking	3
COM230	Small Group Communication	3
COM282AC	Service-Learning Experience in Communication	3
CRE101	College Critical Reading and Critical Thinking (3) OR Equivalent as Indicated by Assessment	0-3
ENG101	First-Year Composition (3) OR	
ENG107	First-Year Composition for ESL (3)	3
ENG102	First-Year Composition (3) OR	
ENG108	First Year Composition for ESL (3)	3

## Restricted Electives

Credits: 9

If choosing BPC110 or CIS105 only one can be applied

BPC110	Computer Usage and Applications	3
CIS105	Survey of Computer Information Systems	3
COM207	Introduction to Communication Inquiry	3
COM222	Argumentation	3
COM/THP241	Oral Interpretation of Literature	3
COM250	Introduction to Organizational Communication	3
COM259	Communication in Business and Professions	3
COM263	Elements of Intercultural Communication	3
ENG111	Technical and Professional Writing	3
GBS233	Business Communication	3
IBS109	Cultural Dimension for International Trade	3
SWU295	Effective Helping in a Diverse World	3

## Free Electives

Credits: 3

Any approved General Education course in the Cultural Awareness (C) value (3) OR  
COM+++++ Any COM communication course (3) except courses used to satisfy Required  
Courses or Restricted Electives areas. 3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm?id=114839>

Starting Term: 2018 Spring  
Final Term: 9999

## **ACADEMIC CERTIFICATE (AC) IN COMMUNICATION SKILLS FOR NON-NATIVE ENGLISH SPEAKERS**

Total Credits: 30  
Major Code: 6222N

### **Description**

The Academic Certificate (AC) in Communication Skills for Non-Native English Speakers is an interdisciplinary program of study designed to extend traditional ESL coursework. It provides Non-Native English Speakers with oral and written communication skills including interpersonal communication, small group interaction, team-building, problem solving, public speaking and presentation skills, conflict resolution, assertiveness, and leadership. Students develop skills to enhance their professional, social, and personal interactions, and become more competitive and effective in the workforce.

### **Program Notes**

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better for all courses within the Required Courses area.

### **Required Courses**

Credits: 21

COM120	Pronunciation of American Speech	3
COM221	Oral Fluency in American Speech	3
COM282AC	Service-Learning Experience in Communication	3
COM100	Introduction to Human Communication (3) OR	
COM110	Interpersonal Communication (3)	3
CRE101	College Critical Reading and Critical Thinking (3) OR	
	Equivalent as Indicated by Assessment	3
ENG101	First Year Composition (3) OR	
ENG107	First-Year Composition for ESL (3)	3
ENG102	First Year Composition (3) OR	
ENG108	First Year Composition for ESL (3)	3

## Restricted Electives

Credits: 9

f choosing BPC110 or CIS105 only one can be applied

BPC110	Computer Usage and Applications	3
CIS105	Survey of Computer Information Systems	3
COM230	Small Group Communication	3
COM259	Communication in Business and Professions	3
ENG111	Technical Writing	3
GBS233	Business Communication	3
IBS109	Cultural Dimension for International Trade	3
SWU295	Effective Helping in a Diverse World	3

Any approved General Education course in the cultural awareness [C] value (3) OR

COM+++ Any COM Communication course (3)3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=172627>

Starting Term: 2022 Spring

Final Term: 9999

## ACADEMIC CERTIFICATE (AC) IN CREATIVE WRITING

Total Credits: 24

Major Code: 6224N

### Description

The Academic Certificate (AC) in Creative Writing program is designed to provide students and professional writers with access to a community of writers and creative writing activities, instruction and guidance from established authors, and ongoing support in improving their writing skills and marketing their work. As students take courses in the program, they will build a portfolio of original work that may be submitted for publication. The program offers classes, workshops, and other activities such as readings and contests, which are accessible to writers of all levels regardless of academic or professional standing. The program aims to serve a diverse community who may be underrepresented in traditional creative writing programs. Completion of the certificate does not lead to a particular degree program, but may aid students in their pursuit of a career in the writing professions and in their continued enjoyment of writing for personal growth.

### Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

## Admission Criteria

Students who wish to enroll in the Creative Writing program must complete a formal application; contact Program Director.

## Required Courses

Required courses

Credits: 21

ENG210 Creative Writing (3) may be substituted for CRW150 with permission of Program Director.

CRW150 Introduction to Creative Writing 3  
CRW200 must be repeated for a total of two (2) credits.  
CRW200 Readings for Writers (1) 2  
CRW201 Portfolio 1

Students must complete six (6) credits from Series I and nine (9) credits from Series II in consultation with a Program Director.

Series I: Credits: 6

Students must complete two (2) of the following courses for a total of six (6) credits.

CRW120 Introduction to Writing Children's Literature 3  
CRW160 Introduction to Writing Poetry 3  
CRW170 Introduction to Writing Fiction 3  
CRW172 Introduction to Comic Book Writing 3  
CRW180 Introduction to Writing Nonfiction 3  
CRW190 Introduction to Screenwriting 3  
THE118 Playwriting 3

Series II: Credits: 9

Students must complete three (3) of the following courses for a total of nine (9) credits.

CRW202 The Writer as Witness 3  
CRW203 Dialogue 3  
CRW204 Journaling 3  
CRW220 Intermediate Writing Children's Literature 3  
CRW251 Topics in Creative Writing 3  
CRW260 Intermediate Poetry Writing 3  
CRW261 Topics in Writing: Poetry 3  
CRW270 Intermediate Fiction Writing 3  
CRW271 Topics in Writing: Fiction 3  
CRW272 Planning and Structuring the Novel 3  
CRW273 Writing the Novel 3  
CRW274 Revising the Novel 3  
CRW281 Topics in Writing: Non-Fiction 3  
CRW290 Intermediate Screenwriting 3  
CRW291 Topics in Writing: Plays 3



## Restricted Electives

Credits: 3

CRW+++++	Any CRW Creative Writing prefixed course not listed under Required Courses area.	1-3	
ENG235	Magazine Article Writing	3	
ENH+++++	Any ENH English Humanities prefixed course		3
HUM/THF210	Contemporary Cinema	3	
THE260	Film Analysis	3	

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=182649>

Starting Term: 2023 Fall

Final Term: 9999

## ACADEMIC CERTIFICATE (AC) IN DRAWING AND PAINTING

Total Credits: 33

Major Code: 6257N

### Description

The Academic Certificate (AC) in Drawing and Painting is designed for students who wish to develop specialized skills in drawing and painting beyond the foundational level. The courses in this certificate offer an emphasis in creative problem-solving and portfolio development, as well as the advanced training required for art careers. With the certificate, students may pursue a career as a practicing artist or continue their education at specialized art schools. An Associate in Arts, Fine Arts (AAFA) is also available.

### Program Notes

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program.

### Required Courses

Credits: 18

ARH102	Art from Renaissance to Modernism	3	
ART111	Drawing I	3	
ART112	Two-Dimensional Design	3	
ART113	Color	3	
ART115	Three-Dimensional Design	3	
ART255	Art Marketing	3	

### Restricted Electives

Credits: 15

Complete 15 credits from the following list of courses.

ART116	Life Drawing I	3
ART117	Life Drawing II	3
ART118	Art Anatomy	3
ART122	Drawing II	3
ART165	Watercolor Painting I	3
ART166	Watercolor Painting II	3
ART167	Painting I	3
ART168	Painting II	3
ART211	Drawing and Composition III	3
ART216	Life Drawing III	3
ART217	Life Drawing IV	3
ART222	Drawing and Composition IV	3
ART263	Figure Painting	3
ART265	Watercolor Painting III	3
ART266	Watercolor Painting IV	3
ART267	Painting III	3
ART268	Painting IV	3
ART290AA	Studio Art	1
ART290AB	Studio Art	2
ART290AC	Studio Art	3
ART290BC	Studio Art: Drawing	3
ART290DC	Studio Art: Life Drawing	3
ART290HC	Studio Art: Watercolor	3
ART290JC	Studio Art: Color	3
ART290PC	Studio Art: Painting	3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=187212>

Starting Term: 2024 Fall  
Final Term: 9999

## **ACADEMIC CERTIFICATE (AC) IN LANGUAGE STUDIES**

Total Credits: 12-18  
Major Code: 6237N

### **Description**

The Academic Certificate (AC) in Language Studies is designed to provide students with a foundation in the study of culture, language, and linguistic structures. Students will have the opportunity to develop oral and written communication skills in a language other than English.

### **Program Notes**

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program. Students may qualify to enter higher level language courses via departmental placement. Students wishing to earn credit for courses in which they placed out of should take the CLEP examination or apply credits earned through Advanced Placement (AP) or International Baccalaureate (IB) exams.

## Program Prerequisites

Program prerequisites  
Credits: 0-5

201-level proficiency in a language other than English as indicated by assessment or coursework.

## Required Courses

Credits: 6-8

SLC201 Introduction to Linguistics 3  
AND

Students must choose 3-5 credits in 202 or higher-level coursework in the language used to satisfy the program prerequisites.

## Restricted Electives

Credits: 6-10

Students must choose two (2) courses from the list below. Prerequisites may not be used to satisfy the Restricted Electives:

AFR/ASB/CCS202 Ethnic Relations in the United States (3) OR  
SOC241 Race and Ethnic Relations (3) 3

COM163 Intercultural Communication in Everyday Life 3

COM263 Elements of Intercultural Communication 3

JPH245 Traditional and Modern Japanese Culture 3

PSY132 Psychology and Culture 3

AHU+++ Any AHU Arabic Humanities course(s)

ARB+++ Any ARB Arabic course(s)

ASL+++ Any ASL American Sign Language course(s)

CHI+++ Any CHI Chinese course(s)

FLA+++ Any FLA Foreign Language Acquisition course(s)

FRE+++ Any FRE French course(s)

GER+++ Any GER German course(s)

GRK+++ Any GRK Greek course(s)

HBR+++ Any HBR Hebrew course(s)

IPP+++ Any IPP Interpreter Preparation Program course(s)

ITA+++ Any ITA Italian course(s)

ITH+++ Any ITA Italian Humanities course(s)

JPN+++ Any JPN Japanese course(s)

LAT+++ Any LAT Latin course(s)

NAV+++ Any NAV Navajo course(s)

NVH+++ Any NVH Navajo Humanities course(s)  
PIM+++ Any PIM Pima course(s)  
POR+++ Any POR Portuguese course(s)  
RUS+++ Any RUS Russian course(s)  
SLC+++ Any SLC Studies in Language and Culture course(s)  
SPA+++ Any SPA Spanish course(s)  
SPH+++ Any SPH Spanish Humanities course(s)  
TRS+++ Any TRS Translation and Interpretation course(s)

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm?id=24580>

Starting Term: 2008 Summer I  
Final Term: 9999

## **ACADEMIC CERTIFICATE (AC) IN ORAL COMMUNICATION FLUENCY FOR NON-NATIVE ENGLISH SPEAKERS**

Total Credits: 15  
Major Code: 6223N

### **Description**

The Academic Certificate (AC) in Oral Communication Fluency for Non-Native English Speakers is a concentrated program of study in communication and oral fluency designed to extend traditional ESL coursework. It provides Non-Native English Speakers with intense practice in pronunciation and fluency of American speech as well as experience in all communication contexts including interpersonal communication, small group interaction, problem solving, and public speaking. Students develop skills to enhance their professional, academic, and social interactions to become more competitive and effective in the academic environment and in the workplace.

### **Program Notes**

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of "C" or better for all courses within the Required Courses area.

### **Required Courses**

Credits: 12

COM110	Interpersonal Communication	3
COM120	Pronunciation of American Speech	3
COM221	Oral Fluency in American Speech	3
COM282AC	Service-Learning Experience in Communication	3

### **Restricted Electives**

Restricted Electives  
Credits: 3

Any approved General Education course in the cultural awareness [C] value

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=187264>

Starting Term: 2024 Fall  
Final Term: 9999

## **ACADEMIC CERTIFICATE (AC) IN SPANISH LANGUAGE AND CULTURE**

Total Credits: 25  
Major Code: 6243N

### **Description**

The Academic Certificate (AC) in Spanish Language and Culture is designed to provide students with the essential language skills and vocabulary to communicate with confidence in diverse communicative situations. Instruction in the diverse cultural context will help students to understand the complex interdependence of language and culture.

### **Program Notes**

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program. Students may qualify to enter higher level Spanish courses by placement or may qualify to exempt out of taking any Spanish courses by assessment. Students wishing to earn credit for any course of which they are exempt by assessment should take the CLEP examination.

### **Required Courses**

Credits: 16

SPA101	Elementary Spanish I	4
SPA102	Elementary Spanish II	4
SPA201	Intermediate Spanish I	4
SPA202	Intermediate Spanish II	4

### **Restricted Electives**

Credits: 9

Select six (6) credits taught in Spanish and three (3) credits taught in English.

ARH217	Mexican Art History	3
FLA240	Foreign Language Teaching Methods	3
GCU223	Geography of Latin America	3

HIS145	History of Mexico	3	
MHL156	Music in Latin America and the Caribbean	3	
SLC201	Introduction to Linguistics	3	
SPA115	Beginning Spanish Conversation I	3	
SPA116	Beginning Spanish Conversation II	3	
SPA117	Health Care Spanish I3		
SPA118	Health Care Spanish II	3	
SPA119	Spanish for Educational Settings I	3	
SPA120	Spanish for Educational Settings II	3	
SPA205	Spanish for Medical Interpretation I	3	
SPA206	Spanish for Medical Interpretation II	3	
SPA217	Spanish for Business Communication		4
SPA225	Intermediate Spanish Conversation I	3	
SPA226	Intermediate Spanish Conversation II		3
SPA235	Advanced Spanish Conversation I	3	
SPA236	Advanced Spanish Conversation II	3	
SPA241	Spanish and Spanish-American Film I		3
SPA242	Spanish and Spanish-American Film II		3
SPA251	Spanish Civilization	3	
SPA265	Advanced Spanish I	3	
SPA266	Advanced Spanish II	3	
SPA282++	Volunteerism for Spanish: A Service Learning Experience (any suffixed course)		
	1-3		
SPA298++	Special Projects (any suffixed course)		1-3
SPH245	Hispanic Heritage in the Southwest	3	
SPH298++	Special Projects (any suffixed course)		1-3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm?id=161857>

Starting Term: 2021 Fall

Final Term: 9999

## ACADEMIC CERTIFICATE (AC) IN SUSTAINABILITY

Total Credits: 15-18

Major Code: 6240N

### Description

The Academic Certificate (AC) in Sustainability is interdisciplinary and builds a strong academic expertise within a student's desired focus area of Sustainability. The focus areas are established within and among the foundational pillars of Sustainability (social - environmental - economic).

### Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better in all courses within the program.

### Required Courses

Credits: 6

SSH111	Sustainable Cities	3
SUS110	Sustainable World	3

### Restricted Electives

Credits: 9-12

Students must select three focus area classes

ASM104	Bones, Stones, and Human Evolution	4
BIO105	Environmental Biology	4
CHM107	Chemistry and Society (3) and	
CHM107LL	Chemistry and Society Laboratory (1)	4
COM263	Elements of Intercultural Communication	3
FON135	Sustainable Cooking	3
ECN212	Microeconomic Principles	3
EPS150	Introduction to Entrepreneurship	3
ENV101	Introduction to Environmental Science	4
GLG110	Geological Disasters and the Environment (3) and	
GLG111	Geological Disasters and the Environment Lab (1)	4
GPH113	Introduction to Physical Geography	4
PHI216	Environmental Ethics	3
PSY132	Psychology and Culture	3
SBU200	Society and Business	3
SUS100	Introduction to Sustainability	3
SCT100	Introduction to Sustainable Built Environments	3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=185219>

Starting Term: 2023 Fall  
Final Term: 9999

## ACADEMIC CERTIFICATE (AC) IN WOMEN AND GENDER STUDIES

Total Credits: 15  
Major Code: 6225N

### Description

The Academic Certificate (AC) in Women and Gender Studies is an intensive interdisciplinary liberal arts certificate program, which provides students with tools and opportunities to discuss and critique historical and contemporary theories and practices of feminism(s) and gender identities. The curriculum enables students to think critically, analyze problems, and communicate effectively. Using women's experiences and perspectives, students explore cultural and global issues by completing a variety of courses focusing on gender, history, culture, class, race, ethnicity, and sexuality to foster equality and understanding.

## Program Notes

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in all courses within the program.

## Required Courses

Credits: 3

WST100 Introduction to Women's and Gender Studies 3

## Restricted Electives

Credits: 12

Students must complete 12 credits from the list below:

ASB211	Women in Other Cultures	3
ENH/WST284	19th Century Women Writers	3
ENH/WST285	Contemporary Women Writers	3
HIS201	History of Women in America	3
WST286	Women and Health: Body/Mind/Spirit/Connection	3
HUM/WST209	Women and Films	3
PSY235	Psychology of Gender	3
REL/WST290	Women and World Religion	3
SOC212	Gender and Society	3
WST120	Gender, Class, and Race	3
WST128	Law and Violence Against Women	3
WST160	Women and the Early American Experience	3
WST161	American Women Since 1920	3
WST200	Essential Feminist Writing	3

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=175640>

Starting Term: 2023 Fall

Final Term: 9999

## BACHELOR OF ARTS (BA) IN EARLY CHILDHOOD EDUCATION - DUAL LANGUAGE

Total Credits: 120

Major Code: 9304



## Description

The Bachelor of Arts (BA) in Early Childhood Education - Dual Language is designed to prepare individuals for employment in early childhood professions in dual language educational settings. The Bachelor's degree includes advanced instruction in child development, curriculum design and development, theory and practice in the education of young children, and the intersections of family, community, and learning and development for dual language learners. Upon completion of the Bachelor's of Arts, students may work as teachers of children from birth to third grade. The BA in Early Childhood Education - Dual Language degree provides a pathway for students seeking Arizona Department of Education Early Childhood Teacher Certification (Birth - Age 8 or Grade 3) with an endorsement in Bilingual Education and/or English as a Second Language. Certificates of Completion (CCL) in Foundation of Early Childhood Education and Early Childhood Education, as well as the Associate of Applied Science (AAS) in Early Childhood Education are also available and embedded within the Bachelor's of Arts.

## Program Notes

Students must earn a grade of C or better in all courses within the program. For some employment and field experiences (including internship courses), students will be required to have a current Identity Verified Print (IVP) Fingerprint Clearance Card and a current TB test. Students currently on a pathway to receive an Associate in Arts with an Emphasis in Early Childhood Education who are interested in pursuing the Bachelor's of Arts in Early Childhood Education - Dual Language should consult with a faculty or academic advisor to determine courses needed to best align with this program.

## Required Courses

Credits: 79-87

- CFS101AH Art Activities for the Young Child (1) AND  
ECH281 Movement/Music for the Young Child (1) OR  
EED210 Creative and Cognitive Play (3) OR  
ECH128 Early Learning: Play and the Arts (3) 2-3
- CFS123 Health and Nutrition In Early Childhood Settings (1) AND  
CFS125 Safety in Early Childhood Settings (1) AND  
ECH280 Food Experiences With Young Children (1) OR  
EED215 Early Learning: Health, Safety, Nutrition and Physical Fitness (3) 3
- CFS/ECH176 Child Development (3) OR  
CFS235 Developing Child: Theory into Practice, Prenatal - Age Eight (3) OR  
EED205 The Developing Child: Prenatal to Age Eight (3) 3
- CFS/ECH269 Child Care Seminar (1) AND  
CFS/ECH287 Professional Development in Early Childhood Education (1) OR  
EED255 Portfolio Development and Writing for the Profession (3) 2-3
- CFS/ECH271 Arranging the Environment (1) AND  
CFS282 Mainstreaming The Young Child with A Disability (1) AND  
ECH282 Discipline/Guidance of Child Groups (1) OR  
EED212 Guidance, Effective Interactions and the Environment (3) 3

CFS/ECH273 Math for the Young Child (1) AND  
 CFS/ECH275 Literacy Development and the Young Child (1) AND  
 ECH272 Science for the Young Child (1) AND  
 ECH279 Early Childhood Curriculum Development (1) OR  
 EED278 Early Learning Curriculum and Instruction - Birth to Age Eight (3) 3-4

CFS/ECH284AB Early Childhood Teaching Internship (3) OR  
 EED260 Early Childhood Infant/Toddler Internship (1) AND  
 CFS/ECH284AA Early Childhood Teaching Internship (1) OR  
 EED261 Early Childhood Preschool Internship (1) 2-3

ECH140 Learning Made Visible Through Documentation (1) AND  
 ECH270 Observing Young Children (1) OR  
 EED280 Standards, Observation and Assessment of Typical/Atypical Behaviors of Young Children Birth Age Eight (3) 2-3

EDU/EED115 Digital Literacy for Teaching and Learning in Education 3  
 EDU220 Introduction to Serving English Language Learners (ELL) 3  
 EDU225 Professionalism and Ethics in Education 1  
 EDU/ENH291 Children`s Literature 3  
 EED200 Foundations of Early Childhood Education 3  
 EED222 Introduction to the Exceptional Young Child: Birth to Age Eight 3  
 EED225 Language and Literacy in the Context of Culture and Relationships 3  
 EEP311 Foundations of Dual Language Learning - Birth to Age Eight 3  
 EEP312 Family, Community, and School Collaboration for Dual Language Learners - Birth to Age Eight 3  
 EEP313 Bilingual and ESL Methods - Birth to Age Eight 3  
 EEP314 Teaching of Reading and Writing for Dual Language Learners - Birth to Age Eight 3  
 EEP315 Social Studies and Arts Methods for Dual Language Learners - Birth to Age Eight 3  
 EEP316 Math and Science Methods for Dual Language Learners - Birth to Age Eight 3  
 EEP411 Sheltered Instruction for Bilingual Settings - Birth to Age Eight 3  
 EEP412 Assessment of Dual Language Learners - Birth to Age Eight 3

EEP413 Reading Instructional Practices, Interventions, and Assessments - Birth through Adolescence 3  
 EEP414 Science of Reading and Systematic Phonics Instruction - Birth through Adolescence 3  
 EEP415 Student Teaching in a Dual Language K-3 Setting 3

ENG213 Introduction to the Study of Language (3) OR  
 SLC201 Introduction to Linguistics (3) 3

FYE101 Introduction to College, Career and Personal Success (1) OR  
 FYE103 Exploration of College, Career and Personal Success (3) 1-3

Select one of the following US History/Government options. These courses satisfy the United States Constitution requirement for state teacher certification.

GCU/POS113 United States and Arizona Social Studies (3) OR  
HIS103 United States History to 1865 (3) AND  
POS221 Arizona Constitution (1) 3-4

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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=175606>

Starting Term: 2023 Fall

Final Term: 9999

## **BACHELOR OF APPLIED SCIENCE (BAS) IN DATA ANALYTICS AND PROGRAMMING**

Total Credits: 120-131

Major Code: 9306

### **Description**

The Bachelor of Applied Science (BAS) in Data Analytics and Programming is an advanced program which brings together data analytics and object-oriented programming in this emerging field. This BAS in Data Analytics and Programming is designed to prepare students to model, synthesize, analyze, and present large data sets for business decision making. Courses will focus on the techniques, programming languages and computer software used in industry to store and extract data from various data sources, model and integrate that data, and visualize this data for business decision making and intelligence gathering. A bachelor's degree in Data Analytics and Programming prepares students for application to professional graduate and post-baccalaureate programs in a variety of disciplines in data analytics, programming, and data science.

### **Program Notes**

Students must earn a grade of C or better in all courses within the program. Courses within any of the following prefixes must be taken within eight (8) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

### **Required Courses**

Required courses

Credits: 100-105

CIS105	Survey of Computer Information Systems	3
CIS114DE	Excel Spreadsheet	3
CIS150AB	Object-Oriented Programming Fundamentals	3
CIS156	Python Programming: Level 1	3
CIS162AD	C# Programming I	3
CIS214DA	Advanced Excel for Data Analytics	3
CIS215	Foundations of Data Analytics and Programming	3
CIS216	Data Governance, Management, and Quality	3
CIS224	Project Management Microsoft Project for Windows	3

CIS250	Management of Information Systems	3
CIS256	Python Programming Level II	3
CIS256DA	Python for Data Analytics	3
CIS260BI	Data Visualization: Power BI	3
CIS260TB	Data Visualization: Tableau	3
CIS262AD	C# Level II	3
CIS276DA	My SQL Database (3) OR	
CIS276DB	SQL Server Database (3)	3
CIS276DC	No SQL	3
CIS314	Data Privacy and Integrity	3
CIS315	Data Protection	3
CIS316	Descriptive Analytics	3
CIS317	Data Complexity	3
CIS318	Predictive Analytics	3
CIS415	Big Data	3
CIS416	Data Analytic Presentations	3
CIS480	Data Analytics and Programming Capstone Project	3
CIS490	Applied Data Analytics and Programming Internship	3
CLD110	Amazon Web Services Cloud Foundations (3) OR	
May be waived by permission of the Program Director, Department or Division Chair (0) 0-3		
CLD120	Amazon Web Services Cloud Architect Associate	3
CLD417	Cloud Analytics	3
COM225	Public Speaking	3
FYE101	Introduction to College, Career and Personal Success (1) OR	
FYE103	Exploration of College, Career and Personal Success (3)	1-3
GBS220	Quantitative Methods in Business	3
PHI103	Introduction to Logic	3
PSY101	Introduction to Psychology	3
SBU200	Society and Business	3

**Maricopa Community Colleges  
Field of Interest Matrix 2024-2025**

**AREAS/PROGRAM**

**INSTITUTION**

**DESCRIPTION**

The Maricopa County Community College Field of Interest Matrix identifies all programs currently available for offering within the ten (10) community colleges and skill centers of the district. The programs are grouped under Field of Interest as requested by the colleges. For specific information regarding individual programs, contact the college(s) listed as participating institutions.

**Applied Technology**

Air Conditioning and Electrical Accessories	GW
Air Conditioning/Refrigeration/Facilities	GW
Aircraft Maintenance Technology	CG
Aircraft Maintenance Technology-Airframe	CG
Aircraft Maintenance Technology-Powerplant	CG
Airway Science Technology, Flight Emphasis	CG
Applied Electrical Technologies	RS
Architectural and Civil CAD Technology	GC
Architectural Technology	SC
Automated Industrial Technology	EM MC
Automated Industrial Technology I	EM MC
Automated Industrial Technology II	EM MC
Automotive Automatic Transmission and Transaxle	GC GW MC
Automotive Brake Systems	GC GW MC
Automotive Chassis	GC GW MC
Automotive Drive Train	GC GW MC
Automotive Electrical, Heating, Ventilation and Air Conditioning Systems	GC GW MC
Automotive Electronic/Electrical Systems	GC GW MC
Automotive Engine and Operations Management	GC GW MC
Automotive Engine Management and Repair	GC GW MC
Automotive Engine Repair	GC GW MC
Automotive Heating, Ventilation and Air Conditioning Systems	GC GW MC
Automotive Maintenance and Light Repair	GC GW MC
Automotive Manual Drive Train and Axles	GC GW MC

**Maricopa Community Colleges  
Field of Interest Matrix 2024-2025**

**AREAS/PROGRAM**
**INSTITUTION**

Automotive Service	GC GW MC
Automotive Steering and Suspension	GC GW MC
Basic Automotive Maintenance	RS
Basic Automotive Repair	GW
Building Inspection	MC
Cable and Wire Harness Assembly	MC
CAD Application	GC
CAD Fundamentals	GC
Carpenter Apprenticeship	GW
Caterpillar Technician Training	MC
Certified Flight Instructor Instrument Airplane Rating	CG
CNC Machine Operator	GW MC
CNC Machine Operator (Day)	GW
CNC Machine Operator (Night)	GW
CNC Machining I	GW MC
CNC Machining I (Day)	GW
CNC Machining I (Night)	GW
CNC Machining II	GW MC
Collision Repair Technician (Day)	GW
Computer Aided Drafting	MC
Construction Building Codes	MC
Construction Management	MC
Construction Safety OSHA 30	MC
Construction Technology	MC SM
Construction Trades - Mechanical Trades: Plumbing	GW
Construction Trades - Mechanical Trades: Sheet Metal	GW
Construction Trades: Carpentry	GW MC SM
Construction Trades: Carpentry, Commercial and Residential	MC SM
Construction Trades: Carpentry, Commercial and Residential (Day)	GW
Construction Trades: Construction Management	MC
Construction Trades: Electrical	MC SM

**Maricopa Community Colleges  
Field of Interest Matrix 2024-2025**

**AREAS/PROGRAM**
**INSTITUTION**

Construction Trades: Electrical (Night)	GW
Construction Trades: Electrical, Commercial and Residential	MC SM
Construction Trades: Electrical, Commercial and Residential (Day)	GW
Construction Trades: Electrical, Commercial and Residential (Night)	GW
Construction Trades: Electricity	GW
Construction Trades: Heat and Frost Insulation	GW
Construction Trades: Ironworking	GW
Construction Trades: Masonry	MC
Construction Trades: Millwrighting	GW
Construction Trades: Painting and Drywalling	GW
Construction Trades: Plumbing	GW MC SM
Construction Trades: Plumbing, Commercial and Residential	GW MC SM
Construction Trades: Pre-Apprenticeship	GW
Construction Trades: Solar Energy	MC
Drafting and Design Technology	MC
Educational Construction Trades Partnership: Carpentry	RS
Educational Construction Trades Partnership: Carpentry, Commercial and Residential	RS
Educational Construction Trades Partnership: Electrical	RS
Educational Construction Trades Partnership: Electrical, Commercial and Residential	RS
Educational Construction Trades Partnership: H.V.A.C.r Residential Service	RS
Educational Construction Trades Partnership: Plumbing	RS
Educational Construction Trades Partnership: Plumbing, Commercial and Residential	RS
Electrical Technology	GW
Electrical Technology - Commercial Wiring	GW
Electrical Technology - Industrial Wiring	GW
Electrical Technology: Residential Wiring	GW
Energy and Industrial Technology	EM
Engine Performance and Diagnosis	GW
Environmental Science and Water Resources Technologies	GW

**Maricopa Community Colleges  
Field of Interest Matrix 2024-2025**

**AREAS/PROGRAM**
**INSTITUTION**

Environmental Science Technology	GW
H.V.A.C.r Residential Service	GW MC
HVAC Commercial Installation and Service Technician	GW
HVAC Residential Installation and Service Technician (Day)	GW
HVAC Residential Installation and Service Technician (Night)	GW
Industrial Control Systems	EM MC
Industrial Design Technology	GW
Industrial Design Technology: Design Specialist	GW
Industrial Electrical Systems	EM MC
Industrial Fluid Systems	EM MC
Industrial Mechanical Systems	EM MC
Industrial Sewing	PC
Industrial Technology for Semiconductor	CG EM MC
International Residential Code	MC
Introduction to Semiconductor Manufacturing	RS
J-STD Soldering Certification	MC
Lineman Technology Level I	RS
Lineman Technology Level II	RS
Lineman Technology Level III	RS
Lineman Technology Level IV	RS
Manufacturing Production Technology	MC
Mechanical Drafting	MC
Nuclear Power Technology	EM
Precision Optics Level I	RS
Precision Optics Level II	RS
Quality Assurance	GW
Robotics Technology	EM MC
Semiconductor Manufacturing	RS
Unmanned Aircraft Systems	CG
Water and Wastewater Treatment	GW
Welding	MC



**Maricopa Community Colleges  
Field of Interest Matrix 2024-2025**

**AREAS/PROGRAM**
**INSTITUTION**

Welding: Fundamentals	MC
Welding: Fundamentals (20 Hours Per Week)	GW
Welding: Fundamentals (Day)	GW
Welding: Gas Metal / Flux Cored Arc Welding (GMAW)/(FCAW)	MC
Welding: Gas Tungsten Arc Welding (GTAW) Ferrous	MC
Welding: Gas Tungsten Arc Welding (GTAW) Ferrous and Non-Ferrous (20 Hours Per Week)	GW
Welding: Gas Tungsten Arc Welding (GTAW) Ferrous and Non-Ferrous (Day)	GW
Welding: Gas Tungsten Arc Welding (GTAW) Non-Ferrous	MC
Welding: Shielded Metal Arc Welding (SMAW) (20 Hours Per Week)	GW
Welding: Shielded Metal Arc Welding (SMAW) (Day)	GW
Welding: Shielded Metal Arc Welding (SMAW) Pipe	MC
Welding: Shielded Metal Arc Welding (SMAW) Pipe (20 Hours Per Week)	GW
Welding: Shielded Metal Arc Welding (SMAW) Pipe (Day)	GW
Welding: Shielded Metal Arc Welding (SMAW) Plate	MC

**Behavioral Science and Human Services**

Addictions and Substance Use Disorders	RS
Addictions and Substance Use Disorders Level I	RS
Addictions and Substance Use Disorders Level II	RS
Administration of Justice	CG EM GC MC PC PV RS SC SM
Administration of Justice Studies	CG EM GC MC PC PV RS SC SM
Adolescent Studies	PC
Advanced Behavioral Sciences	GC SM
Advanced Corrections and Detention	RS
Advanced Juvenile Corrections	RS
Associate in Arts, Emphasis in Counseling and Applied Psychological Science	CG EM GC GW MC PC PV RS SC SM

**Maricopa Community Colleges  
 Field of Interest Matrix 2024-2025**

**AREAS/PROGRAM**
**INSTITUTION**

Associate in Arts, Emphasis in Criminal Justice	CG EM GC MC PC PV RS SC SM
Associate in Arts, Emphasis in Family Life Education	CG EM GC MC PC PV RS SC SM
Associate in Arts, Emphasis in Law and Policy	CG EM GC MC PC PV RS SC SM
Associate in Arts, Emphasis in Political Science	CG EM GC MC PC PV RS SC SM
Associate in Arts, Emphasis in Psychology	CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Social Work	CG EM GC MC PC PV RS SC SM
Basic Corrections	RS
Basic Detention	RS
Behavioral Sciences	GC SM
Child and Family Organizations Management and Administration	GC RS
Community Emergency Response Team (CERT): Level I	PC
Corrections	CG EM GC MC PC PV RS SC SM
Corrections and Detention	RS
Crime Scene Investigation	CG EM GC MC PC SC SM
Developmental Disabilities Specialist	GC
Driver Operator	GC PC PV
Emergency Communications	RS
Emergency Communications and Deployment	PC
Emergency Management	GC PC PV
Fingerprint Identification and Photography	CG EM GC MC PC SC SM
Fire Science	GC MC PC PV
Fire Service Management	GC PC PV
Firearms	RS
Firefighter Operations	GC MC PC PV

**Maricopa Community Colleges  
Field of Interest Matrix 2024-2025**

**AREAS/PROGRAM**
**INSTITUTION**

Forensic Science	CG EM GC MC PC PV RS SC SM
Foundations of Behavioral Sciences	GC PCRS SM
Hazardous Materials Response	PC
Homeland Security	CG GC PC RS SM
Juvenile Corrections	RS
Law Enforcement	CG EM GC MC PC PV RS SC SM
Law Enforcement Field Training	RS
Law Enforcement Investigation	GC RS
Law Enforcement Training	CG GC RS
Law Enforcement Training Academy	CG GC RS
Leadership in Public Safety Organizations	CG GC PC RS
Legal Studies	CG EM GC MC PC PV RS SC SM
Non-Sworn Fire Service Professional	GCPC PV
Paralegal	PV RS
Paralegal Studies	PC
Professional Addictions Counseling	RS
Public Safety Administration	PC RS
Public Safety Leadership	RS
Public Safety Technology	RS
Search Warrant Preparation	RS
Substance Use Prevention and Interventions	RS
Terrorism Liaison Training: Level I	PC
Terrorism Liaison Training: Level II	PC
Victimology	CG GC MC PC PV RS SC SM
Workforce Development and Community Re-Entry	RS
Workforce Development: Foundations in Addictions and Substance Use Disorders	RS

**Maricopa Community Colleges  
Field of Interest Matrix 2024-2025**

**AREAS/PROGRAM**
**INSTITUTION**
**Business, Entrepreneurialism, and Management**

Accounting	CG EM GC GW MC PC PV RS SC SM
Administrative Professional	EM GC GW PC PV SM
Advocate Driven Healthcare: Customer Service	RS
Aesthetician (24 Hours Per Week)	GW
Aesthetician (High School)	GW
Aesthetics Instructor	GW
Airline Operations	RS
Airline Operations: Reservations and Ticketing Services	RS
Apprentice Meat Cutter	GW
Associate in Business, General Requirements (ABUS-GR)	CG EM GC GW MC PC PV RS SC SM
Associate in Business, Special Requirements (ABUS-SR)	CG EM GC GW MC PC PV RS SC SM
Automobile Insurance: Customer Service	RS
Bank Account Management: Customer Service	RS
Banking and Finance	GW PC
Basic Culinary Studies	SC
Beauty and Wellness	GW MC
Broadband Telecommunications	RS
Broadband Telecommunications: Field Operations	RS
Business Administration Fastrack	GC PC SC
Business Technology Specialist	GW
Business Technology: Customer Service	RS
Cannabis Business Administration and Management	SC
Cannabis Business Advanced Entrepreneurship	SC
Cannabis Business Fundamentals	SC
Certified Bookkeeping	GC PC PV RS SC
Commercial Baking and Pastry	EM SC
Commercial Real Estate	GC SC SM
Cosmetologist (32 Hours Per Week)	GW

**Maricopa Community Colleges  
Field of Interest Matrix 2024-2025**

<b><u>AREAS/PROGRAM</u></b>	<b><u>INSTITUTION</u></b>
Cosmetologist (High School)	GW
Cosmetology Instructor	GW
Credit Counseling: Customer Service	RS
Culinary Arts	EM SC
Culinary Arts I	EM
Culinary Arts II	EM
Culinary: Foundations	SC
Culinary: Professional	SC
Debt Resolution: Customer Service	RS
Debt Resolution: Sales	RS
Enrolled Agent	GC PC PV RS SC SM
Entrepreneurial Studies Level I	GC GW MC PC PV RS SC SM
Entrepreneurial Studies Level II	GC GW MC PC RS SM
Esports	GC PC PV RS SM
Fashion Merchandising	MC PC
Financial Industry	GW
Financial Services	GC GW PC PV SC SM
Financial Services Retirement Accounts: Customer Service	RS
Financial Services: Pre-licensure	CG GC GW PC SC
General Business	CG EM GC GW MC PC PV RS SC SM
Hair Stylist (32 Hours Per Week)	GW
Hospitality: Food and Beverage Management	SC
Hospitality: Golf Management	SC
Hospitality: Hotel Management	SC
Hospitality: Meeting and Event Management	SC
Hospitality: Restaurant Management	SC
Hospitality: Spa and Wellness Center Management	SC
Hospitality: Tourism Development and Management	SC
Human Resources Management	GC GW MC PC RS SC SM

**Maricopa Community Colleges  
Field of Interest Matrix 2024-2025**

**AREAS/PROGRAM**
**INSTITUTION**

Human Resources: Compensation and Benefits	GW PC SM
Insurance: Customer Service	RS
Licensed Residential Appraiser	MC
Loan Consolidation: Customer Service	RS
Management	CG GC MC PC PV RS SC SM
Marketing	GC GW MC PC PV SC SM
Marketing and Sales	GC GW MC PC PV SC
Massage Therapy (24 Hours Per Week)	GW
Nail Technician	GW
Nail Technician Instructor	GW
Organizational Leadership	CG EM GC GW MC PC PV RS SC SM
Organizational Management	CG EM GC GW MC PC PV RS SC SM
Pharmacy Prescription Benefits: Customer Service	RS
Prescription Prior Authorization: Customer Service	RS
Project Management	MC
Property Insurance: Customer Service	RS
Public Administration	RS
Quality Customer Service	RS
Real Estate Broker: Prelicense	SC
Real Estate: Prelicense	GC MC RS SC SM
Residential Appraisal Trainee	MC
Retail Management	EM GC GW PC RS SM
Risk Management and Insurance	MC RS
Small Business Management II	GC GW MC PC RS
Small Business Management Level I	CG EM GC GW MC PC RS
Small Business Start-Up	PV
Social Media Marketing	CG EM GC MC PC PV SC SM

**Maricopa Community Colleges  
Field of Interest Matrix 2024-2025**

**AREAS/PROGRAM**
**INSTITUTION**

Utilities: Customer Service	RS
Water Services: Customer Service	RS
Web Hosting: Customer Service	RS

**Computer and Information Technology**

Adobe Foundations: Animation and Graphics Production	CG GC MC PV SM
Adobe Foundations: Audio and Video Production	SM
Amazon Web Services Cloud Associate	CG GC GW MC PC PV SC SM
Amazon Web Services Cloud Practitioner	CG GC GW MC PC PV SC SM
Amazon Web Services Cloud Specialist	CG GC MC PC PV SC SM
Android App Development	GW PC RS SM
AppleCare Hardware Repair Exam Prep	MC
Associate in Science, Emphasis in Computer Science	CG EM GC GW MC PC PV RS SC SM
Blockchain Technology	MC
Cisco Certified Network Professional: Enterprise	CG GC GW MC PV SC SM
Cisco Certified Network Professional: Enterprise Advanced Routing and Services	GC MC PV SC SM
Cisco Certified Network Professional: Enterprise Core	CG GC MC PV SC SM
Cisco Network Administration and Security	CG EM GC GW MC PV SC SM
Cisco Network Administration: CCNA	CG EM GC GW MC PC PV SC SM
Cisco Network Administration: CCNP	CG GC MC PC SC SM
CompTIA A+ Certification Prep	GW
CompTIA Security+ Certification Prep	GW
Computer Information Systems	GW
Computer Support Specialist (Day)	GW

**Maricopa Community Colleges  
Field of Interest Matrix 2024-2025**

**AREAS/PROGRAM**
**INSTITUTION**

Computer Support Specialist (Night)	GW
Computer System Configuration and Support	CG EM GC GW MC PC PV RS SC SM
Computer System Configuration and Support, Linux	CG EM GC GW MC PC PV SC SM
Computer System Configuration and Support, Network	CG EM GC GW MC PC PV RS SC SM
Computer System Configuration and Support, Security	CG EM GC GW MC PC PV RS SC SM
Critical Infrastructure	GC EM
Cross Functional Design and Web Essentials	SC
Cross-Platform App Development	GW PC RS SM
Cyber Defense	EM
Cyber Engineering	CG EM GC MC PC PV RS SC SM
Cyber Operations	CG GC GW MC PV SM
Cybersecurity	CG EM GC GW MC PC PV RS SC SM
Cybersecurity Fundamentals	CG EM GC GW MC PC PV RS SC SM
Data Analytics	CG EM GW MC PV RS SC
Data Analytics and Programming	MC
Database Development	EM MC SC
Desktop Support	CG EM GC GW MC PC PV RS SC SM
Foundations of Mobile App Development	PC RS SM
Information Security	GC
Information Security Technology	GC
Information Technology	CG EM GC GW MC PC PV RS SC SM
iOS App Development	GW PC PV RS SM
IT Fundamentals	GC MC
IT Security Associate	EM



**Maricopa Community Colleges  
Field of Interest Matrix 2024-2025**

<b><u>AREAS/PROGRAM</u></b>	<b><u>INSTITUTION</u></b>
Jamf Training Foundation	MC
Kubernetes Administration	MC
Kubernetes Application Development	MC
Kubernetes Security	MC
Linux Associate	CG EM GC GW MC PC PV SC SM
Linux System Administration	EM GC MC PC PV SC SM
Microsoft Desktop Associate	EM GC GW MC PC PV SC SM
Microsoft Office Professional	CG EM GC MC PC PV RS SC SM
Microsoft Office Specialist	CG GC MC PV RS SC SM
Microsoft System Administration	PC
Mobile App Development	PC PV RS SM
Native Mobile App Development	PC PV RS SM
Network and Cyber Fundamentals	GW
Network and Systems Administration	CG EM GC GW MC PC PV SC SM
Network Support Specialist	GW
Programming	RS SM
Programming and Systems Analysis	CG EM GC MC PC PV RS SC
Programming and Systems Analysis Level I	CG EM GC MC PC PV RS SC
Programming and Systems Analysis Level II	CG EM GC MC PC PV RS SC
Python Applications	CG MC SM
Red Hat Linux Administrator	EM GC GW MC PC SC SM
Red Hat Linux Engineer	EM GC GW MC PC SC SM
Video Game Production	GC MC PV

**Maricopa Community Colleges  
Field of Interest Matrix 2024-2025**

**AREAS/PROGRAM**
**INSTITUTION**

Video Game Production: Audio and Sound	GC MC PV
Video Game Production: Coding and Scripting	GC MC PV
Video Game Production: Game Art	GC MC PV
Video Game Production: Game Narrative	GC MC PV
VMware Foundations	GC GW MC PC SC
VMware Network Administrator	CG GC MC
VMware Systems Administrator	GC MC PC SC
Web App Development	CG GC GW MC PC PV RS SM SC
Web Design	CG EM GC MC PV RS SC SM
Web Design/Development	CG EM GC MC PC PV RS SC SM
Web Development	CG EM GC GW MC PC PV SC SM
Web Foundations	CG EM GC MC PC PV RS SC SM
Windows App Development	MC PC RS SM

**Culture and Society**

African-American Studies	MC
American Indian Studies	MC PC SC
Applied Bilingual Spanish Language Skills	CG GW SM
Applied English Language Skills	MC PC PV SM
Applied Storytelling	EM SM
Associate in Arts, Emphasis in American Indian Studies	CG EM GC MC PC PV SC SM
Associate in Arts, Emphasis in Anthropology	CG EM GC MC PC PV RS SC SM
Associate in Arts, Emphasis in Communication	CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Economics	CG EM GC GW MC PC

**Maricopa Community Colleges  
Field of Interest Matrix 2024-2025**

**AREAS/PROGRAM**
**INSTITUTION**

	PV RS SC SM
Associate in Arts, Emphasis in English (Creative Writing)	CG EM GC MC PC PV RS SC SM
Associate in Arts, Emphasis in English (Literature)	CG EM GC MC PC PV RS SC SM
Associate in Arts, Emphasis in History	CG EM GC MC PC PV RS SC SM
Associate in Arts, Emphasis in Humanities	CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Information Studies and eSociety	CG EM GC MC PC PV RS SC SM
Associate in Arts, Emphasis in Japanese	CG EM GC MC PC PV RS SC SM
Associate in Arts, Emphasis in Journalism and New Media Studies	CG EM GC MC PC PV RS SC SM
Associate in Arts, Emphasis in Philosophy	CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Religious Studies	CG EM GC MC PC PV RS SC SM
Associate in Arts, Emphasis in Sociology	CG EM GC MC PC PV RS SC SM
Associate in Arts, Emphasis in Spanish	CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Women and Gender Studies	CG EM GC MC PC PV RS SC SM
Chicana and Chicano Studies	CG GC PC
Communication Competence in the Workplace	GC MC
Communication Skills for Non-Native English Speakers	GC MC
Creative Writing	CG EM GC MC PC PV RS
Deaf Studies	PC
Foundations of Storytelling	EM SM
International Studies	PC
Interpreter Preparation	PC
Journalism and New Media Studies	MC

**Maricopa Community Colleges  
Field of Interest Matrix 2024-2025**

**AREAS/PROGRAM**
**INSTITUTION**

Language and Literary Culture of the USA	RS
Language Studies	CG GC MC RS
Oral Communication Fluency for Non-Native English Speakers	GC MC
Public Relations	MC
Southwest Studies	PC
Spanish Language and Culture	CG GW MC RS
Sustainability and Ecological Literacy	EM RS SM
Sustaining and Advancing Indigenous Nations	SC
Traditional and Fact-Based Storytelling	EM SM
Women and Gender Studies	CG MC

**Education**

Associate in Arts, Elementary Education (AAEE)	CG EM GC MC PC PV RS SC SM
Associate in Arts, Emphasis in Early Childhood Education	CG EM GC MC PC PV RS SC SM
Associate in Arts, Emphasis in Educational Studies Early Childhood	CG EM GC MC PC PV RS SC SM
Associate in Arts, Emphasis in Secondary Education	CG EM GC MC PC PV RS SC SM
Associate in Science, Emphasis in Secondary Education	CG EM GC MC PC PV RS SC SM
Early Childhood Education	CG GC MC PC PV RS
Early Childhood Education - Dual Language	MC
Early Childhood Education Management and Administration	PV RS
Elementary Education and Special Education	GC PV RS
Foundations of Early Childhood Education	CG GC MC PC PV RS
Infant and Toddler Development	GC PV RS
Instructional Assistance	MC SM
K-12 eLearning Design	RS
K-12 Online Teaching	RS

**Maricopa Community Colleges  
Field of Interest Matrix 2024-2025**

**AREAS/PROGRAM**
**INSTITUTION**
**Health Sciences**

Accelerated Basic Phlebotomy (Day)	GW
Accelerated Basic Phlebotomy (Night)	GW
Accelerated Emergency Medical Technology (EMT)	GW
Accelerated Ophthalmic Medical Assistant	GW
Accelerated Pharmacy Technician	GW
Accelerated Pharmacy Technology	SC
Applied Behavioral Health	MC
Associate in Arts, Emphasis in Community Health	CG EM GC PC PV RS SC SM
Associate in Arts, Emphasis in Exercise Science	CG EM GC MC PC PV RS SC SM
Associate in Arts, Emphasis in Nutritional Science	CG EM GC MC PC PV RS SC SM
Associate in Arts, Emphasis in Speech and Hearing Science	CG EM GC PC PV RS SC SM
Basic Phlebotomy	GW PC
Biomedical Equipment Technology	MC
Clinical Data Coordination	PV
Clinical Medical Assisting	PC
Clinical Phlebotomy	PC
Clinical Phlebotomy (Day)	GW
Clinical Phlebotomy (Night)	GW
Clinical Research Coordination	PV
Community Health Paramedicine	GC PC PV
Community Health Work	PV SC
Computed Tomography	GW
Critical Care Paramedicine	GC MC PC PV
Data Center Operations	EM MC
Dental Assisting	PC

**Maricopa Community Colleges  
Field of Interest Matrix 2024-2025**

**AREAS/PROGRAM**
**INSTITUTION**

Dental Hygiene	MC PC RS
Diagnostic Medical Sonography	GW
Electrocardiogram (ECG) Technician	GW
Electroneurodiagnostic (END) Technology	GW
Emergency Medical Services and Fire Preparatory Academy	GW
Emergency Medical Technology	CG GC MC PC PV RS
Emergency Medical Technology (EMT)	GW
Emergency Medical Technology (EMT) (High School)	GW
Emergency Medical Technology Comprehensive	CG GC MC PC PV
Endoscopy	GW
Exercise Science: Health, Fitness, and Sports Performance	CG GC MC PV SC SM
Fast Track Practical Nursing	GC GW MC
Foundations of Recreation Management	SC
Foundations of Sports Medicine	RS
Hazardous Materials Operations	GW
Health and Wellness Coaching	GC
Health Information Technology	PC
Health Information: Long Term Care Settings	PC
Health Science Education	GW
Health Services Management	GW
Healthcare Regulatory Compliance	GW
Histologic Technology	PC
Hospital Central Service Technology	GW
Laboratory Assisting	PC
Magnetic Resonance Imaging	GW
Massage Therapy	PC
Medical Administrative Assisting	PC
Medical Assisting	GW PC
Medical Billing and Coding: Physician Based (20 Hours/Week)	GW
Medical Billing and Coding: Physician Based (Day)	GW
Medical Billing and Coding: Physician-Based	PC

**Maricopa Community Colleges  
Field of Interest Matrix 2024-2025**

**AREAS/PROGRAM**
**INSTITUTION**

Medical Coding: Hospital-Based	PC
Medical Interpreter - Spanish (12 Hours Per Week)	GW
Medical Interpreter - Spanish (6 Hours Per Week)	GW
Medical Laboratory Science	PC
Musculoskeletal Sonography	GW
Nuclear Medicine Technology	GW
Nuclear Medicine Technology and Computed Tomography	GW
Nurse Assisting	GC GW MC PV SC
Nursing	CG EM GC GW MC PC PV SC
Nursing (RN to BSN)	GW
Nursing Refresher	GW MC
Nutrition and Dietetic Technology	PV
Nutrition for Personal Trainers and Coaches	SC
Occupational Therapy Assistant	GW
Operating Room Nursing	GW
Ophthalmic Medical Administrative Assistant Apprenticeship	GW
Ophthalmic Medical Assistant	GW
Ophthalmic Medical Assistant Apprenticeship	GW
Ophthalmic Medical Assistant Apprenticeship (10 Hours Per Week)	GW
Paramedicine	GC MC PC PV
Personal Training	CG GC MC PV SC SM
Personal Training: Advanced	CG GC MC PV SC SM
Pharmacy Technician	GW
Pharmacy Technician Apprenticeship	GW
Pharmacy Technology	GW PV
Phlebotomy for Healthcare Professionals	GW
Phlebotomy Practicum	GW
Physical Therapist Assisting	GW
Practical Nursing	CG EM GC GW MC PC PV SC
Radiologic Technology	GW

**Maricopa Community Colleges  
Field of Interest Matrix 2024-2025**

**AREAS/PROGRAM**
**INSTITUTION**

Recreation Management	SC
Respiratory Care	GW
Sleep Medicine (Polysomnographic) Technology	GW
Spanish Interpreting for Healthcare Professionals	GW
Spanish Interpreting for Healthcare Professionals (6 hours/week)	GW
Speech Language Pathology Assistant	EM
Surgical Technology	GW
Sustainable Food Systems	RS
Sustainable Food Systems: Food Entrepreneur	RS
Sustainable Food Systems: Food Service	RS
Tactical Emergency Casualty Care	GC PC PV
Wildland Firefighter	GW
Workforce Development: Professional Cooking and Sustainable Practices	RS
Yoga Instruction Level II	SC
Yoga Instruction: Level I	SC

**Science, Technology, Engineering and Mathematics**

Artificial Intelligence and Machine Learning	CG EM
Associate in Arts, Emphasis in Geography	CG EM GC MC PC PV RS SC SM
Associate in Arts, Emphasis in Mathematics	CG EM GC GW MC PC PV RS SC SM
Associate in Arts, Emphasis in Sustainability and Environmental Studies	CG EM GC MC PC PV RS SC SM
Associate in Science, Emphasis in Astronomy	CG EM GC MC PC PV SC SM
Associate in Science, Emphasis in Biochemistry	CG EM GC GW MC PC PV RS SC SM
Associate in Science, Emphasis in Biological Sciences	CG EM GC GW MC PC PV RS SC SM
Associate in Science, Emphasis in Chemistry	CG EM GC GW MC PC PV RS SC SM



**Maricopa Community Colleges  
Field of Interest Matrix 2024-2025**

**AREAS/PROGRAM**
**INSTITUTION**

Associate in Science, Emphasis in Engineering	CG EM GC GW MC PC PV SC SM
Associate in Science, Emphasis in Geography - Meteorology	CG EM GC MC PC PV SC SM
Associate in Science, Emphasis in Geology	CG EM GC MC PC PV RS SC SM
Associate in Science, Emphasis in Physics	CG EM GC GW MC PC PV RS SC SM
Biotechnology and Molecular Biosciences	GC
Electronics Engineering Technology	MC
Electronics Technology	MC
Engineering Technology	CG EM GC PV SM
Environmental and Natural Resource Stewardship	PC
Equine Massage Therapy	SC
Equine Science	SC
Geographic Information Science	PC
Geospatial Technologies	MC
Landscape Aide	MC
Landscape Horticulture	MC
Landscape Specialist	MC
Mortuary Science	CG
Sustainability	CG GC MC PV RS SC SM
Sustainable Agriculture	MC
Veterinary Assisting	MC
Veterinary Technology	MC

**Visual and Performing Arts**

Alteration Specialist	MC PC
Animation	GC MC PC
Animation and Time-Based Media	GC MC PC
Apparel Construction	PC

**Maricopa Community Colleges  
Field of Interest Matrix 2024-2025**

<b><u>AREAS/PROGRAM</u></b>	<b><u>INSTITUTION</u></b>
Associate in Arts, Fine Arts	CG EM GC GW MC PC PV SC SM
Associate in Arts, Fine Arts, Emphasis in Art	CG EM GC GW MC PC PV SC SM
Associate in Arts, Fine Arts, Emphasis in Dance	CG GC MC PC PV SC SM
Associate in Arts, Fine Arts, Emphasis in Music	CG EM GC MC PC PV SC SM
Associate in Arts, Fine Arts, Emphasis in Musical Theatre	CG EM GC MC PC PV SC SM
Associate in Arts, Fine Arts, Emphasis in Theatre	CG EM GC MC PC PV SC SM
Audio Production Technologies	GC MC PC PV
Beginning Piano Pedagogy	MC
Ceramics	GC MC
Commercial and Freelance Photography	GC PC
Commercial Interior Design	SC
Costume Design and Production, Level I	MC PC
Costume Design and Production, Level II	PC
Dance Performance and Technology	SC
Digital Arts: Digital Photography	CG MC
Digital Media Arts	GC PC
Disc Jockey Techniques	MC
Disc Jockey Techniques I	MC
Disc Jockey Techniques II	MC
Documentary Film Production	GC
Drawing and Painting	MC
Editing	SC
Fashion Design	MC PC
Fashion Design: Entrepreneur	PC
Fashion Design: Level I	PC
Fashion Design: Level II	PC
Fashion Illustration	PC

**Maricopa Community Colleges  
Field of Interest Matrix 2024-2025**

**AREAS/PROGRAM**
**INSTITUTION**

Film and Media Production	GC
Graphic Design	MC PC
Illustration	CG MC PC
Illustration and Sequential Art	CG MC PC
Interior Design	PC SC
Interior Design Kitchen and Bath	PC SC
Interior Design Technology	PC SC
Interior Design Upholstery and Soft Goods Production	PC
Interior Merchandising and Home Staging	PC SC
Intermediate Piano Pedagogy	MC
Motion Picture Production	SC
Motion Picture, Television, and New Media Production	SC
Music Business I	GC MC PC PV SM
Music Business II	GC MC PC PV SM
Music Industries: Music Business	GC MC PC PV SM
Pattern Design, Level I	PC
Pattern Design, Level II	PC
Photography	CG GC MC PC
Residential Interior Design	PC SC
Screenwriting	SC
Sequential Art	CG MC PC
Stage Combat	PV
Technical Theatre	MC PC SC
Technical Theatre: Audio Technician	GC MC PC PV
Technical Theatre: Cosplay I	MC
Technical Theatre: Cosplay II	MC
Technical Theatre: Costuming	GC MC PC PV
Technical Theatre: Hair and Makeup	MC
Technical Theatre: Lighting	MC PC PV
Technical Theatre: Properties	MC PC PV SC
Technical Theatre: Puppetry	MC PC PV

**Maricopa Community Colleges  
 Field of Interest Matrix 2024-2025**

**AREAS/PROGRAM**

**INSTITUTION**

Technical Theatre: Set/Scenic Construction	MC PC
Technical Theatre: Stage Crew Technician	EM GC MC PC PV SC
Textile and Apparel: Fashion Stylist	MC
Time-Based Media	MC PC
Visual Communication	SC
Visual Communication: Creative Branding	SC
Visual Communication: Design	SC
Visual Communication: Digital Process Management	SC

# Faculty and Administration

## Governing Board Members

Susan Bitter Smith	President.
Tom Nerini	Secretary.
Marie Sullivan	Board Member
Donna Davis	Board Member
Jacqueline Smith	Board Member
Linda Thor	Board Member
Kelli Butler	Board Member
Lynn Burnett	Student Board Member

## Mesa Community College Administrators

Danial, Richard Ph.D.	College President
Budach, Robert, MBA, PMP, CASP	Vice President, Administrative Services
Russell, Joanne, Ph.D	Vise President, Academic Affairs
Hollins, Jeannetta, Ph.D	Vise President, Student Affairs
Snitzer, Marcy	Associate Vice President, Marketing, Communications and Advancement
Mitchell, Dennis, M.P.A	Associate Vice President, Institutional Electiveness
Achs, Carol, B.S., M.A.	Dean of Instruction
Boyce, Mary, B.S., M.S.N, CCRN, CNE	Dean of Instruction
Voss, Michael	Dean of Instruction
Leanna Hall	Dean of Instruction
Pelaez, Indra, Ed.D	Dean of Student Affairs
Voller, Julie, Ed.D.	Dean of Student Affairs
Perales, Kathleen, M.Ed.	Associate Dean, Career & Community Connections

## Mesa Community College Residential Faculty

Adams, Christa B.S., M.S., Ed.D.	Counseling
Afnan Manns, Sheila B.A., M.S., M.L.I.S.	Library
Ahles, Christina B.S., M.A.	Psychology
Ahn, Emi B.A., M.A., Ph.D.	Languages
Al Hashimi, Basil B.A., M.A.	Social & Behavioral Sciences
Aldridge, Mary B.A., B.A., M.A., Ph.D.	English
Allen, Carrie B.A., J.D.	Business
Allen, Elizabeth B.S.B., B.S.N., M.S.N.	Nursing
Alsen, Beth B.A., M.Ed., Ed.D.	Education
Alvrus, Annalisa B.A., M.A., Ph.D.	Anthropology
Anderson, Cody A., B.S., M.S.	Mathematics
Anderson, Keith B.A., M.F.A., Ph.D.	English
Araujo, Melissa, A. B.S., M.A.	Counseling
Archer, Mace, B.A., M.F.A	Theatre
Arreguin, Alex B.A., M.Ed., M.A.	English
Atencia-Oliden, Elizabeth B.A., M.A., Ph.D.	Languages
Avilez, Adam B.S., M.S.	Mathematics
Baba, Lisa B.S., M.S.	Nursing
Baldwin, Andy B.S., M.S., Ph.D.	Life Sciences
Bannon, Brenden A.S., B.A.	Art
Barnhart, Malena, B.A, M.F.A	photography
Baron, Robert B.A., M.L.S., M.A.H., Ph.D.	English
Barto, Michelle B.A., M.Ed.	Languages
Bartreau, Nicole B.S.N., M.S.N.	Nursing
Beckman, Christine B.S., M.A., Ed.D.	Speech-Theatre
Besaw-McGavre, Christine B.S., M.C.	Counseling
Beshk, John B.S., M.B.A.	Business
Bond, Bryce A.A.S.	Automotives
Bonura, Robert	Applied Sciences
Boorse, Graham B.S., Ph.D.	Life Sciences
Booth, Dexter, B.F.A. M.A, Ph.D.	English
Borlongan, Burton B.F.A.	Computer Information Systems
Borman, Derek B.S., M.A., Ph.D.	Social & Behavioral Sciences
Bowling, Evonne B.S., M.S.	Business

Branch Moore, Angel B.A., M.A.  
 Brause, Dawn A.S., B.S.  
 Breed, Diana B.S.N., M.S.N.  
 Brewer, Paul B.M.E., M.M.E.  
 Brown, Daniel B.A.Ed., M.A.  
 Brown, Peter B.S., M.S., Ph.D.  
 Broxham, Kimberly A.A.  
 Broyles, Jeremy B.A., M.A., M.F.A.  
 Budge, Steven B.A., M.A., Ed.D.  
 Bunte, Melissa B.S., B.S., M.S., Ph.D.

Burliss, Dawn

Cain, David, B.S, M.S., Ed.D  
 Caldwell, Jennifer B.A., M.Ed.  
 Callaway, Micheal B.A., MA., Ph.D.  
 Cameron, Preston B.S., M.A.  
 Casey, Curtis A.A.S.  
 Cavalcant, Sylwia B.A., M.A., M.Ed  
 Ceinaturaga, Shelley B.A., M.A.  
 Cerveny, Niccole B.S., M.A., Ph.D.  
 Chavez, Lilian B.S., M.A., Ph.D.  
 Cheroske, Alexander B.A., M.S., Ph.D.  
 Chowdhury, Madeleine B.S., M.S.  
 Cole, George B.S., M.S., Ph.D.  
 Conden, Peter A.A.S., B.S., M.S.

Cordeiro, Suzanne A.A., B.A., B.S.N., M.A.,  
 M.Ed., M.S.N.  
 Corkins, Jim, B.S., M.S., Ed. D.

Costion, Kirk B.A., M.A., Ph.D.  
 Crandall, Elizabeth B.S.N., M.S.N.  
 Crawford, Hazel B.A., M.A., M.A.  
 Crudup, Keith B.A., M.A., Ph.D.  
 Csikar, Elizabeth B.A., B.S., M.S., Ph.D.  
 Cutolo, Diana A.A.S  
 D'Ambrosio, Jon A.A., B.A., M.Ed  
 Danielson, Robert B.A., M.A.  
 Daugherty, Seth B.S., M.S.  
 De Martini, Francesca B.S., M.S., Ph.D.  
 Dille, Brian B.A., M.A., Ph.D.  
 Dipietro, Dori B.S., M.S.W.  
 Dix, Owen B.S., Ph.D.  
 Djariri, Suzanne B.A., M.A.  
 Drobisky, Michael, B.S., M.S.  
 Elson Jr, Timothy B.S.N., M.S.N.  
 Eposito, Sonia B.S., M.Ed., M.Ed.  
 Fabrick, Krista, B.A, M.B.A., D.B.A.  
 Fammartino, Michelle, B.Ed., M.Ed  
 Farley, Michael A.  
 Fay, Jennifer B.A.M., M.S.  
 Figueroa, Mona, B.A., M.A.  
 Files, Jack A.A.S., B.S.  
 Focht, Kimberly B.S., D.V.M.  
 Fogel, Dan B.F.A., M.F.A.  
 Foster, Charles A.A., B.A., M.S.N.  
 Franklin, Cynthia A.A., B.A., M.S.  
 Frantz, Chevelle B.S.E.  
 Fredson, Todd B.A., M.F.A, Ph.D.  
 Fuentes, Viola B.S., M.P.A., Ph.D.  
 Ganesan, Puvana B.A., M.A., Ph.D.  
 Ganesh, Annapurna B.A., M.Ed., Ph.D.  
 Garvy, Megan B.A., M.A.Ed.  
 Garzon-Forero, Jorge B.A., M.A., M.Ed., Ph.D.  
 Gaspar, Jose Miguel, B.S., M.Ed.  
 Gates, Kevin, B.S., M.S.  
 Gaye, Amadou B.S., M.S., Ph.D.  
 Gilcrease, Delaine B.S., M.S.  
 Gilletti, Paul B.A., M.S., Ph.D  
 Goodman, Layne B.A., M.A.  
 Green, Amber B.A., M.A.  
 Green, Brian J., A.S., A.S  
 Griffith, Anthony B.S., M.S., Ph.D.  
 Griffith, John B.S., M.S., Ph.D.  
 Guerin, Aimee B.A., M.A., Ed.D.  
 Hackler, Ken, A.A., B.A., M.B.A.  
 Haleem, Dilshad B.C.S., M.S.  
 Hall, Leanna B.A., M.A., Ph.D.

Counseling  
 Dental Programs  
 Nursing  
 Music  
 Mathematics  
 Life Sciences  
 Business  
 English  
 World Languages  
 Physical Sciences

Business

Construction Management  
 Mathematics  
 English  
 Business  
 Welding  
 Social & Behavioral Sciences  
 Mathematics  
 Cultural Science  
 Cultural Science  
 Life Sciences  
 Mathematics  
 Mathematics  
 Applied Sciences

Nursing Physical Sciences

Cultural Science  
 Nursing  
 English  
 Religious Studies  
 Life Sciences  
 Applied Sciences  
 Applied Sciences  
 Network Academy  
 Mathematics  
 Life Sciences  
 Social & Behavioral Sciences  
 Cultural Science  
 Physical Sciences  
 Mathematics  
 Applied Sciences  
 Nursing  
 Counseling  
 Business  
 Mathematics  
 Applied Sciences  
 Physical Education  
 Sociology  
 Network Academy  
 Applied Sciences  
 Art and Photography  
 Nursing  
 Mathematics  
 Applied Sciences  
 English  
 Social & Behavioral Sciences  
 Speech-Theatre  
 Education  
 Center for Teaching and Learning  
 Languages  
 Agriculture  
 Business  
 Mathematics  
 Life Sciences  
 Physical Sciences  
 Speech-Theatre  
 Speech-Theatre  
 Mathematics  
 Applied Sciences  
 Reading  
 Physical Sciences

2498  
 Applied Sciences  
 Mathematics  
 English

Hamilton, Andrew B.A., B.S., M.B.A.	Business
Hamilton, Lori, B.S., M.S., Ed.D	Exercise Science
Hansen, Jerilyn A.A., A.A.S, B.S.N., M.S.N.	Nursing
Harasha, Paul B.S.E.E., M.A.	Cultural Science
Harrison, Pamela B.A., Ph.D.	Life Sciences
Hauptli, Tawn B.A., M.Ed., Ed.D.	Education
Healy, Kevin B.S., M.S., Ph.D.	Physical Sciences
Held, Christine B.S., M.S.Ed., Ed.D.	Computer
Henley, Mijolae B.A., M.Ed.	InformationSystems Reading
Henney, Debra A.A., B.A., M.A.	Social & Behavioral Sciences
Hester, Janice, B.S., M.S., Ph.D	Physical Sciences
Hietter, Paul B.S., M.A., Ph.D.	Social & Behavioral Sciences
Hocutt, Gregory B.A., Ph.D.	Life Sciences
Hoke-Harvey, Marcel J., A.S., B.S., M.S.	Nursing
Horton, Suzy B.S., M.A., Ph.D.	Social & Behavioral Sciences
Huber, Judy, B.S., M.A	Mathematics
Hussein, Lut i B.A., M.A., Ph.D.	English
Jacobsen, Craig B.A., M.A., Ph.D.	English
Jesse, Jacquelyn B.S., M.Ed., Ed.D.	Mathematics
Johnson, Kimberly B.S., M.Ed.	Mathematics
Jones, Tara B.S.E., M.Ed.	Mathematics
Jung, Michelle, B.S., M.S.	Exercise Science
Kalison, Bonnie B.S., M.S.	Life Sciences
Kane, Asmita B.S., B.Ed., M.S., Ph.D.	Physical Sciences
Keithley, Hank B.S., B.A., M.A., Ph.D.	English
Keone, Robert, B.A., M.B.A.	psychology
Kibbe, Dennis	Network Academy
Killbrew, Theresa, B.S., M.S., M.S.	Mathematics
Kim, Kai B.F.A., M.F.A.	Art and Photography
King, Alexa E., A.S., M.L.I.S	Library
Kirby, Lisa M., A.A., A.S.N., B.S., B.S.N., M.S.N.	Nursing
Klassen, Roxanne B.S., M.A.E.D.	Mathematics
Kohlenberg, Brian	Applied Sciences
Leighty, Robert B.S., M.S., Ph.D.	Physical Sciences
Lerman, Amy B.A., M.A., Ph.D	English
Leta, Marjorie B.A., M.L.I.S.	Library
Levine, Charles A.A., B.A., M.A., Ed.D.	Social & Behavioral Sciences
Levine, Theresa A.A., B.A., M.Ed., Ed.D.	Mathematics
Lewis, Denise A.D.N., B.S.N., M.S.N.	Nursing
Leyendecker, Jennifer B.F.A., M.F.A., Ph.D.	Art and Photography
Lierley, Miriam, B.S., M.B.A	Computer Information System
Lopez, Jamie, B.A. M.A., Ph.D.	Education
Luna, Angel, B.S., M.F.A.	Art and Photography
Luter, Zoe B.S., M.A.	Library
Luther, Todd B.S, M.Ed., M.S.	Physical Sciences
Mackey, Linda A.A.S., B.A., B.S.N., M.S.N.,	Nursing
Mancic, igor, A.S.	Applied Sciences
Marino, Alice B.A., M.Ed.	Languages
Marschall, Ron A.A. B.S.	Music
Martell, Maria B.A., M.A., Ph.D.	Languages
Martinez, Joseph	Transportation-Industrial
Martinez, Sam B.A., M.A., Ph.D.	English
Matus McDonald, Elena A.A., A.G.S., B.S., M.C.	Counseling
Mazzucco, Palmerino B.S.E.E., M.S.E.	Applied Sciences
McGuire, Megan A.A., B.A., M.A.	Library
McLaughlin, Sharon B.S., M.S.A.T.	Exercise Science
McMahon, Annah B.S., M.A.	Reading
McWhirter, Anna B.A.E., M.Ed.	Reading
McMahon, Tammy	Applied Sciences
Mead, Kathleen A.A., B.S.N., M.S.N.	Nursing
Metz, Gwen, A.S., B.S., M.S.	Nursing
Minger, Timothy B.A., B.A., Ph.D.	Physical Sciences
Mohler, Kathryn B.A., M.F.A.	English
Morales-Jones, Sonia A.A.S., B.S., M.Ed.	psychology
Morgan, Janet B.A., M.Ed.	Mathematics
Morley, Erica B.A., M.S., Ph.D.	Life Sciences
Muehlenbeck, Kerry B.S., LL.M., J.D., Ph.D.	Administration of Justice
Mumaw, Luke B.S., M.S.	Life Sciences
Myers, CeAnn B.S., M.A.	English
Nedelkova, Valentina B.S., M.S.	Physical Sciences
Neeley, Mark B.S., M.A.	Mathematics

Neglia, Joseph B.S.E.E., M.B.A.  
 Negri, Crissy, B.S., M.Ed  
 Neibel, Katy, B.S., M.S.  
 Neucramz, Doug, B.F.A., M.A.  
 Newcomer, Kelly A.A.S, B.S.N., M.S.N.  
 Newhouse, Brenda, A.A.S., B.S.N., M.S.N.  
 Norris, Kimberly B.S., M.Ed.  
 Obermiller, Lewis B.S., M.S., Ph.D.  
 O'Brien, Safiya, B.A., M.A.  
 Osteen, Andrea B.A., M.A.  
 Ouderkirk, Bert B.S., M.F.S., M.O.M.  
 Palmer, Mia B.S., M.A.  
 Partin, Bethann B.S., M.A.Ed.  
 Pedersen, Lindsey B.A., M.A.  
 Pennington, Michael  
 Perdue, Alexandra B.A., M.F.A.  
 Peterson, Bruce B.A., M.A., M.A.  
 Peterson, Craig B.M., M.M., D.M.A.  
 Piper, Shakira, A.A., B.S.W, M.S.W.  
 Pitts, Jan, B.S., M.S.  
 Plowes, Nicola B.S., Ph.D.  
 Priewe, Melina B.A., M.A., Ph.D.  
 Rathkamp, Joshua B.A., M.F.A., M.F.A.  
 Rawson, Erin B.A., M.A.  
 Raymond, Jill B.S., Ph.D.  
 Reeves, Daniel B.A., B.S., M.Ed., M.S.  
 Richardson, Ann, B.S., M.S.  
 Richardson-Delgado, Jodi B.M., M.Ed., Ph.D.  
 Rodriguez, Amelia B.A., M.S.  
 Rodriguez, Nadine B.A., M.Ed.  
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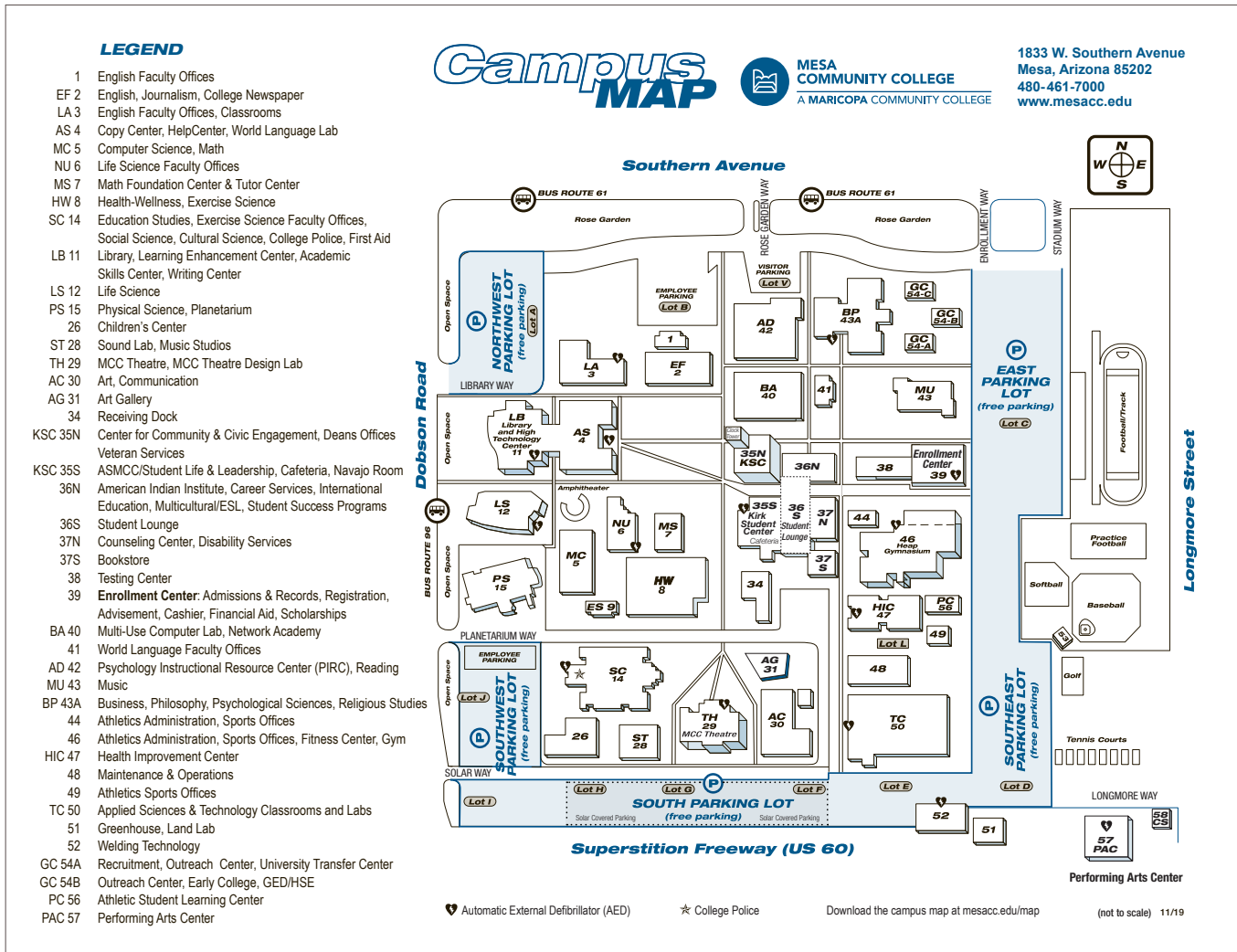


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Ursic, Elizabeth B.S., M.A., M.B.A., M.Div., Ph.D.	Philosophy and Religious Study
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Yong, Promise	Physical Science
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Yount, David B.A., M.A., Ph.D.	Philosophy and Religious Study
Zitek, Kimberlee A., A.A., B.A.	Dental Hygiene

# Locations & Maps

## Southern and Dobson Campus

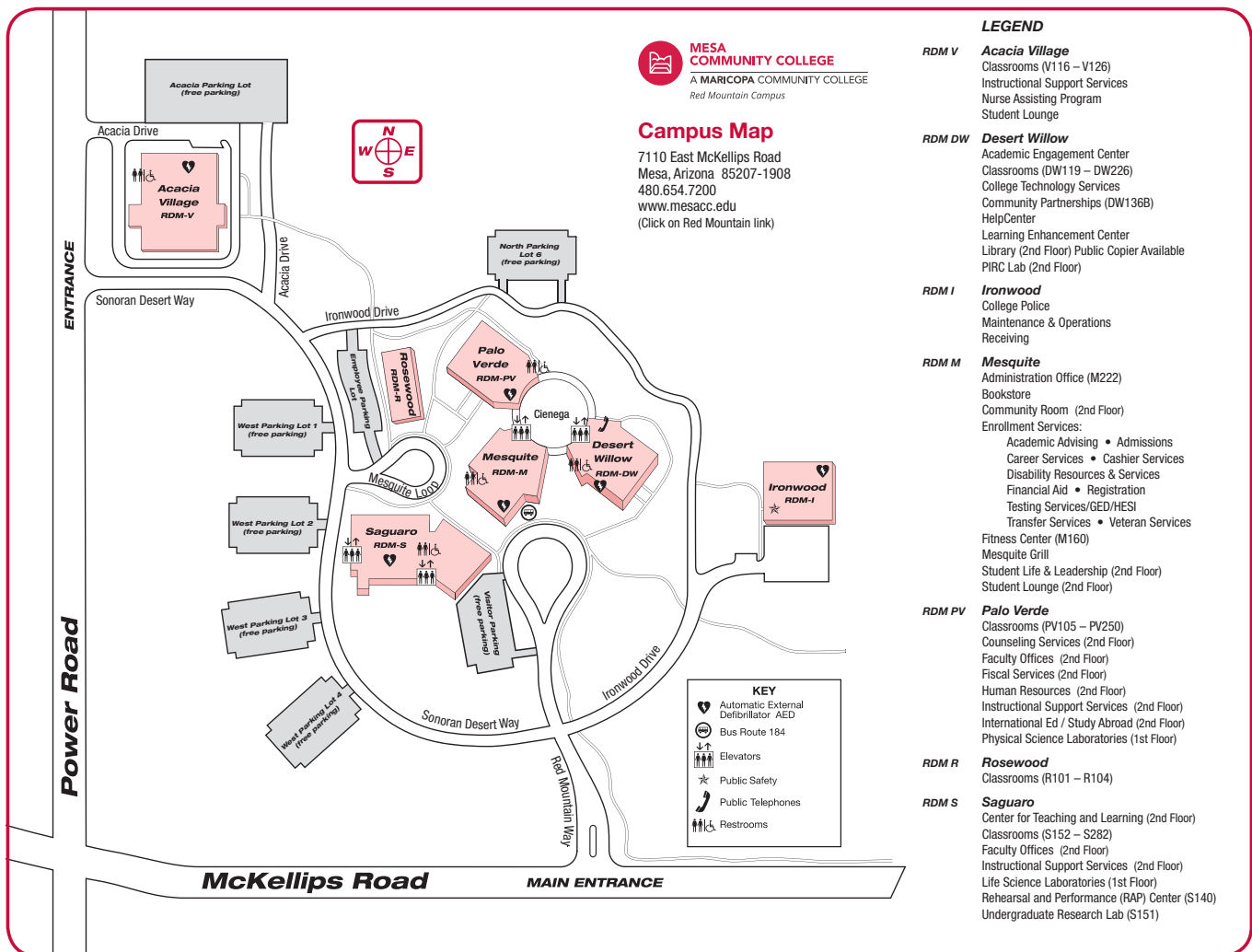
1833 West South Avenue  
Mesa, AZ 85202  
480-461-7000



# Locations & Maps

## Red Mountain Campus

7110 East McKellips Road  
 Mesa, AZ 85207  
 480-654-7200



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# Locations & Maps

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## Downtown Center

### Primary Location

145 North Centennial Way  
Mesa, AZ 85201

### Phone:

**Main: 480-461-6300**

**Public Safety: 480-461-6116**

## MCC Online

### Location

[mesacc.edu/online](https://mesacc.edu/online)

1833 W. Southern Avenue  
Mesa, AZ 85202

**480-461-7217**

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