

2023 2024 Catalog



MESA
COMMUNITY COLLEGE

A MARICOPA COMMUNITY COLLEGE

mesacc.edu

**MARICOPA COUNTY COMMUNITY COLLEGE DISTRICT
2023-2024 ACADEMIC CALENDAR**

*Dates are subject to change**

The most up to date calendar information can be found at

<https://district.maricopa.edu/regulations/admin-regs/section-2/academic-calendars>

Colleges may modify start dates in order to meet special needs. Dates listed below which are directly related to instruction refer to the traditional academic year model. Some courses may be offered over time-periods for which these dates are not applicable. **Links to ASU, GCU, NAU, and U of A calendars incorporated on last page for reference only and are subject to change without notice.**

SUMMER SEMESTER – 2023 **Note: Subject to the 2023-2024 Catalog**

Mon	May 15	Final Grades Due for Spring 2023 Semester
Mon	May 22	Tuition Due for Summer 2023 Semester
Mon	May 29	Memorial Day (Colleges Closed)
Tues	May 30	Summer Semester Begins
Mon	Jun 19	Juneteenth National Independence Day (Colleges Closed)
Mon-Sat	Jul 3-8	Summer Break for Clock Hour Programs Only
Tues	Jul 4	Independence Day (Colleges Closed)
Thu	Aug 3	Summer Semester Ends
Mon	Aug 7	Final Grades Due for Summer 2023 Semester

FALL SEMESTER – 2023

Wed	Aug 9	Tuition Due for Fall 2023 Semester
Fri	Aug 11	First Day of Faculty Accountability
Sat	Aug 19	Classes Begin
Mon	Sep 4	Labor Day (Colleges Closed)
Mon	Sep 18	Find a Class Opens for Spring 2024
Mon	Oct 2	Spring 2024 Priority Registration for Currently Enrolled Students
Sat+	Oct 7	Last Day for Withdrawal without Instructor's Signature
Mon++	Oct 9	Student Withdrawal with Instructor's Signature Begins
Mon	Oct 9	Spring 2024 Open Registration Begins
*		Application for December 2023 Graduation
Fri	Nov 10	Observance of Veterans Day (Colleges Closed)
Thu-Sun	Nov 23-26	Thanksgiving Day Holiday (Colleges Closed)
Sun	Dec 10	Last Day of Regular Classes
Mon-Fri**	Dec 11-15	Final Exams Week
Fri	Dec 15	Fall Semester Ends (Last day of Faculty Accountability)
Sat	Dec 16	Mid-Year Recess Begins for Students
Mon	Dec 18	Final Grades Due for Fall 2023 Semester
Sat-Mon	Dec 23-Jan 1	Mid-Year Recess (Colleges Closed)

SPRING SEMESTER – 2024

Tues	Jan 2	Employees Return
Wed	Jan 3	Tuition Due for Spring 2024 Semester
Mon	Jan 8	First day of Faculty Accountability
Mon	Jan 8	Clock Hour Student Classes Begin
Sat	Jan 13	Classes Begin
Mon	Jan 15	Martin Luther King, Jr. Day (Colleges Closed)
Mon	Feb 19	Presidents' Day (Colleges Closed)
Tue	Feb 20	Find a Class Opens for Summer/Fall 2024
Sat+	Mar 2	Last Day for Withdrawal without Instructor's Signature
Mon++	Mar 4	Student Withdrawal with Instructor's Signature Begins
Mon	Mar 4	Summer/Fall 2024 Priority Registration for Currently Enrolled Students
*		Application for May 2024 Graduation
Mon-Sun	Mar 11-17	Spring Break (Colleges Closed)
Mon	Mar 18	Summer/Fall 2024 Open Registration Begins
Sun	May 5	Last Day of Regular Classes
Mon-Fri**	May 6-10	Final Exams Week
Fri	May 10	Commencement

* For specific information concerning the last day to apply for graduation, individual class start dates, and final exams, consult the college of enrollment.

** Any classes meeting on Friday, Saturday or Sunday will have final examinations during their regular class time.

+ Through the 7th week, student may initiate an official withdrawal from course(s) without instructor signature (see Appendix S-7 in [Catalog Common Pages](#)).

++ After the 7th week, student must initiate an official withdrawal request from instructor and obtain their signature (see Appendix S-7 in [Catalog Common Pages](#)).

Fri	May 10	Spring Semester Ends (Last day of Faculty Accountability)
Mon	May 13	Final Grades Due for Spring 2024 Semester

SUMMER SEMESTER – 2024 **Note: Subject to the 2024-2025 Catalog**

Mon	May 20	Tuition Due for Summer 2024 Semester
Mon	May 27	Memorial Day (Colleges Closed)
Tues	May 28	Summer Semester Begins
Wed	Jun 19	Juneteenth National Independence Day (Colleges Closed)
Mon-Sat	Jul 1-6	Summer Break for Clock Hour Programs Only
Thu	Jul 4	Independence Day (Colleges Closed)
Thu	Aug 1	Summer Semester Ends
Mon	Aug 5	Final Grades Due for Summer 2024 Semester

FALL SEMESTER – 2023 **Note: Subject to the 2023-2024 Catalog**

	S	M	T	W	TH	F	S	
							1	
J	2	3	4	5	6	7	8	Jul 4 Independence Day (Colleges Closed)
U	9	10	11	12	13	14	15	Jul 3-8 Summer Break for Clock Hour Programs
L	16	17	18	19	20	21	22	
	23	24	25	26	27	28	29	
	30	31	1	2	3	4	5	Aug 3 Summer Semester Ends
A	6	7	8	9	10	11	12	Aug 7 Final Grades Due Summer 2023 Semester
U	13	14	15	16	17	18	19	Aug 9 Tuition Due for Fall 2023 Semester
G	20	21	22	23	24	25	26	Aug 11 (1) Day of Faculty Accountability
	27	28	29	30	31	1	2	Aug 14-18 Five (5) Days of Faculty Accountability
S	3	4	5	6	7	8	9	Aug 19 Classes Begin
E	10	11	12	13	14	15	16	
P	17	18	19	20	21	22	23	Sep 4 Labor Day (Colleges Closed)
	24	25	26	27	28	29	30	Sept 18 – Find A Class Opens for Spring 2024
O	1	2	3	4	5	6	7	Oct 2 - 45 th Day
C	8	9	10	11	12	13	14	
T	15	16	17	18	19	20	21	
	22	23	24	25	26	27	28	
	29	30	31	1	2	3	4	
N	5	6	7	8	9	10	11	Nov 10 Observance of Veterans Day (Colleges Closed)
O	12	13	14	15	16	17	18	
V	19	20	21	22	23	24	25	Nov 23-26 Thanksgiving Day (Colleges Closed)
	26	27	28	29	30	1	2	
D	3	4	5	6	7	8	9	Dec 10 Last Day of Regular Classes
E	10	11	12	13	14	15	16	Dec 11-15 Final Exams Week**
C	17	18	19	20	21	22	23	Dec 15 Fall Semester Ends (Last day of Faculty Accountability)
	24	25	26	27	28	29	30	Dec 16 Mid-Year Recess Begins for Students
	31							Dec 18 Final Grades Due Fall 2023 Semester
								Dec 23 - Jan 1 Mid-Year Recess (Colleges Closed)

SPRING SEMESTER – 2024 **Note: Subject to the 2023-2024 Catalog**

	S	M	T	W	TH	F	S	
J		1	2	3	4	5	6	Jan 1 New Year's Day (Colleges Closed)
A	7	8	9	10	11	12	13	Jan 2 Employees Return
N	14	15	16	17	18	19	20	Jan 3 Tuition Due for Spring 2024 Semester
	21	22	23	24	25	26	27	Jan 8 Clock Hour Student Classes Begin
	28	29	30	31	1	2	3	Jan 8-12 Five (5) Days of Faculty Accountability
F	4	5	6	7	8	9	10	Jan 13 Classes Begin
E	11	12	13	14	15	16	17	Jan 15 Martin Luther King Jr. Day (Colleges Closed)
B	18	19	20	21	22	23	24	Feb 19 Presidents' Day (Colleges Closed)
	25	26	27	28	29	1	2	Feb 26 - 45 th Day

* For specific information concerning the last day to apply for graduation, individual class start dates, and final exams, consult the college of enrollment.
 ** Any classes meeting on Friday, Saturday or Sunday will have final examinations during their regular class time.
 + Through the 7th week, student may initiate an official withdrawal from course(s) without instructor signature (see Appendix S-7 in [Catalog Common Pages](#)).
 ++ After the 7th week, student must initiate an official withdrawal request from instructor and obtain their signature (see Appendix S-7 in [Catalog Common Pages](#)).

M	3	4	5	6	7	8	9
A	10	11	12	13	14	15	16
R	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
A	31	1	2	3	4	5	6
P	7	8	9	10	11	12	13
R	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
	28	29	30	1	2	3	4
M	5	6	7	8	9	10	11
A	12	13	14	15	16	17	18
Y	19	20	21	22	23	24	25
	26	27	28	29	30	31	1

Mar 11-17 Spring Break (Colleges Closed)

May 5 Last Day of Regular Classes
 May 6-10 Final Exams Week**
 May 10 Commencement
 May 10 Spring Semester Ends (Last day of Faculty Accountability)
 May 13 Final Grades Due Spring 2024 Semester
 May 20 Tuition Due for Summer 2024 Semester
May 27 Memorial Day (Colleges Closed)
 May 28 Summer Semester Begins

SUMMER SEMESTER – 2024

Note: Subject to the 2024-2025 Catalog

	<u>S</u>	<u>M</u>	<u>T</u>	<u>W</u>	<u>TH</u>	<u>F</u>	<u>S</u>
J	2	3	4	5	6	7	8
U	9	10	11	12	13	14	15
N	16	17	18	19	20	21	22
	23	24	25	26	27	28	29
J	30	1	2	3	4	5	6
U	7	8	9	10	11	12	13
L	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
A	28	29	30	31	1	2	3
U	4	5	6	7	8	9	10
G	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	31

Jun 19 Juneteenth National Independence Day (Colleges Closed)

Jul 1-6 Summer Break for Clock Hour Programs
Jul 4 Independence Day (Colleges Closed)

Aug 1 Summer Semester Ends
 Aug 5 Final Grades are Due Summer 2024 Semester
 Aug 9 One (1) Day of Faculty Accountability
 Aug 12-16 Five (5) Days of Faculty Accountability
 Aug 17 Classes Begin

Instructional Days

Fall	Spring
15 M	13 M
16 T	15 T
16 W	15 W
15 TH	15 TH
14 F	15 F
76	73 = 149 Total

Proposed Class Start Dates

	<u>MCCCD</u>	<u>ASU</u>
Fall 2023	Sat., Aug 19	Thur., Aug 17
Spring 2024	Sat., Jan 13	Mon., Jan 8

Calendar for less than 12-month regular employees

9 month employees	August 14, 2023– May 10, 2024
9.5 month employees	August 7, 2023 – May 17, 2024
10 month employees	July 31, 2023– May 24, 2024

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+ Through the 7th week, student may initiate an official withdrawal from course(s) without instructor signature (see Appendix S-7 in [Catalog Common Pages](#)).

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About MCC

Accreditation

Mesa Community College is accredited by The Higher Learning Commission and is a member of the North Central Association: www.ncahigherlearningcommission.org 800-621-7440 or 312-263-0456.

The Automotive Service program is accredited through ASE Education Foundation (ASEEF) 101 Blue Seal Drive, SE, Suite 101 Leesburg, VA 20175 <https://www.aseeducationfoundation.org>.

The Dental Hygiene program has accreditation through the American Dental Association's Commission on Dental Accreditation (CODA), 211 E. Chicago Ave., Suite 1900, Chicago, IL 60611 <https://coda.ada.org/>.

The MCC Early Childhood Education Center is accredited by the National Association for the Education of Young Children (NAEYC), 1313 L St. NW, Suite 500, Washington, DC 20005 www.naeyc.org. The Associate in Applied Science (AAS) program in Early Childhood Education is also accredited through December 2024 by NAEYC.

Accreditation Commission for Education in Nursing (ACEN) at 3390 Peachtree Road NE, Suite 1400. Atlanta, GA 30326 <https://www.acenursing.org/>. State approval for the Nursing Programs is provided by the Arizona State Board of Nursing (AZBN) at 1740 W Adams Streets, Suite 2000 Phoenix, AZ 85007

MCC is approved as a Paramedic Education Program under the Commission on Accreditation of Allied Health Education Programs / Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions LoR Program and certified by the Arizona Department of Health Services Bureau of Trauma and Emergency Medical Services ALS Training Program.

The Associate in Applied Science (AAS) degree program in Veterinary Technology at MCC has Full Accreditation from the American Veterinary Medical Association's Committee on Veterinary Technician Education and Activities. 1931 North Meacham Road, Suite 100, Schaumburg, IL 60173-4360: www.avma.org.

Assessment of Student Learning Outcomes

Student **learning** outcomes assessment is a term used to describe the measurement and documentation of what Mesa Community College (MCC) students are achieving in their studies at the college. Faculty members across the Maricopa County Community Colleges District (MCCCD) have defined the **intended learning** outcomes of college programs and courses competencies and have developed measures to assess them. At MCC, faculty have also developed Institutional Student Learning Outcomes that are embedded and assessed in courses, curricular programs, co-curricular and extra-curricular programs, and student service areas. These learning outcomes, known as MCC's 4Cs, are consistent with the Vision, Mission, and Values of MCC and MCCCD, and reflect our commitment to Individuals and Community, Innovation, Integrity, Learning, and Service Excellence. **The 4Cs are Communi-cation, Critical Thinking, Civic Engagement, and Cultural and Global Engagement.**

AC4 Complaints

Distance Education students outside of Arizona, after completion of the institution's internal complaint process, may appeal SARA-related complaints to the [Arizona Community College Coordinating Council](#) (AC4).

Arizona SARA Council Complaints

Mesa Community College is a State Authorization Reciprocity Agreement (SARA) participating institution. The Arizona SARA Council has jurisdiction over Arizona SARA participating institutions in relation to non-instructional complaints for out-of-state distance education students. Instructional complaints, such as grade grievances, are not reviewed by the Council and should not be submitted for review. Upon completion of the institution's and AC4's complaint process, a student may register a complaint with the [Arizona SARA Council](#).

Starting Term: 2022 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 in the program. Consultation with an Academic Advisor is recommended for course selection. This program replaces: AAS/3130 Accounting-Specialized Para-Professional AAS/3131 Accounting Paraprofessional

Admission Criteria

None

Required Courses

Required courses
Course # Course Title Credits

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

CIS114 DE 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

Course # Course Title Credits

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

Course # Course Title Credits

None

General Education Requirements

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. 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 from the Natural Sciences area.

<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 for all courses required within the program. This program replaces: AAS/3012 Administration of Justice Studies, AAS/3057 Administration of Justice, AAS/3137 Administration of Justice, AAS/3396 Administration of Justice Studies, AAS/3397 Administration of Justice, and AAS/3398 Administration of Justice Studies.

Required Courses

Required courses

Course # Course Title Credits

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

Course # Course Title Credits

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

Course # Course Title Credits

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=180978>

Starting Term: 2023 Fall

Final Term: 9999

ASSOCIATE IN APPLIED SCIENCE (AAS) IN ADMINISTRATIVE PROFESSIONAL

Total Credits: 62-70

Major Code: 3680

Description

The Associate in Applied Science (AAS) in the Administrative Professional degree is designed to provide training for various office positions. The curriculum incorporates people and technological skills essential for job success. Includes instruction in business communications, office procedures, public relations, accounting, records management, and report preparation. A Certificate of Completion (CCL) in Administrative Professional is also available.

Program Notes

Students must earn a grade of C or better in all courses required within the program. This program replaces: AAS/3237 Administrative Technology AAS/3238 Administrative Specialist

Program Prerequisites

Program prerequisites

Course # Course Title Credits

None

Required Courses

Required courses

Course # Course Title Credits

Credits: 25-27

ACC115 Computerized Accounting 3

BPC110 Computer Usage and Applications (3) OR

CIS105 Survey of Computer Information Systems (3) 3

CIS113DE Microsoft Word: Word Processing 3

CIS114DE Excel Spreadsheet 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

GBS131 Business Calculations 3

GBS151 Introduction to Business 3

Select three (3) of the following courses:

BPC101AA Introduction to Computers I 1

BPC/OAS111AA Computer Keyboarding I 1

CIS121AE	Windows Operating System: Level I	1
CIS121AI	Mac Operating System	1
CIS122AE	Windows Operating System: Level II	1
CIS133AA	Internet/Web Development Level I-A	1

Restricted Electives

Restricted Electives

Course # Course Title Credits

Credits: 15

Students should select fifteen (15) credits from the following courses, except courses used to satisfy the Required Courses area, in consultation with a program advisor:

ACC+++	Any ACC Accounting prefixed course (except ACC115)	3
MGT251	Human Relations in Business	3
MGT126	Customer Service Skills and Strategies	3
CIS133DA	Internet/Web Development: Level I	3
CIS214DE	Advanced Excel Spreadsheet: Level II	3
CIS103	Introduction to Social Media	3
MKT110	Marketing and Social Networking	3
CIS117DM	Microsoft Access: Database Management	3
GBS205	Legal, Ethical, and Regulatory Issues in Business	3
MKT271	Principles of Marketing	3

General Education Requirements

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)

Critical Reading Credits: 0-3

Any approved general education course from the Critical Reading area OR

Equivalent as indicated by assessment.

Mathematics Credits: 3-6

Any approved general education course from the Mathematics area OR

Equivalent as indicated by assessment.

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.

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=182617>

Starting Term: 2023 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 for all courses required within the program. This program replaces: AAS/3046 Media Arts: Digital Animation

Required Courses

Required courses

Course # Course Title Credits

Credits: 17-19

ADA/ART169 2D Media Design (3) OR

ART178 Digital Arts Studies (3) 3

ADA/ART177 Digital Photographic Imaging I 3

ADA/ART/MMT184 Digital Animation I 3

ART100 Introduction to Digital Arts 1

ADA/ART248 Design Self Promotion (3) OR

ART255 Art Marketing (3) 3

ART280AC Digital Media Arts and Design Capstone 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: 30

Specialization 1: Digital Animation

ART111 Drawing I 3

ART116 Life Drawing I 3

ART/COM/STO150 Digital 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

ART/THP246 Digital Fabrication (3) 3

ART/MMT185 3D Modeling for Animation I 3

ART200 Animation and Interactivity 3

ART240 Cinematography and Directing for 2D/3D Animation 3

ART284 Digital Animation II 3

ART/MMT285 3D Modeling and Animation II 3

ART287 3D Character Animation 3

Specialization 2: Time-Based Media

ART111 Drawing I (3) OR

ART116Life Drawing I (3) 3

ART142Introduction to Digital Photography 3

ART/COM/STO150 Digital Storytelling (3) OR

FMT121Story Theory for Film, Television and Media (3) OR

JRN213 Writing for Online (3) 3

ART202Media Productions I (3) OR

FMP108Video Production (3) 3

ART279Media Productions II (3) OR

FMP215Digital 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

ART131Photography I 3

ART138Commercial Photography I 3

ART140Portrait Photography 3

ART143Intermediate Digital Photography 3

ART270Digital Photographic Imaging II 3

Audio Emphasis

FMP114Audio 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

ART/MMT190 Art of Web Site Design 3

ART192Advanced Web Presentation Design 3

ART/THP246 Digital Fabrication3

CIS133DA Internet/Web Development Level I 3

FMP204Advanced Video Production3

FMP215Digital Video Effects 3

FMT151TV and New Media Production 3

Motion Graphics Emphasis

ART116Life Drawing I 3

ART174Electronic Color Principles 1

ART/MMT185 3D Modeling for Animation I 3

ART200Animation and Interactivity 3

ART240Cinematography and Directing for 2D/3D Animation 3

ART273AC Special Topics: Multimedia Arts 3

ART2873D Character Animation 3

FMP215Digital Video Effects 3

General Education Requirements

General education requirements

General Education Requirement Credits: 22-28

General Education Core Credits: 12-18

First-Year Composition Credits: 6

ENG101First-Year Composition (3) OR

ENG107First-Year Composition for ESL (3) AND

ENG102First-Year Composition (3) OR

ENG108First-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.

<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

Required courses

Course #Course TitleCredits

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

Restricted Electives

Course # Course Title Credits

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: MUC289, MUC291, 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

MUC289 Live Sound Reinforcement III 3

MUC291 Electronic Music III 3

MUC292 Sound Design III 3

MUC295 Studio Music Recording III 3

General Education Requirements

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.

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=173124>

Starting Term: 2022 Fall

Final Term: 9999

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 are also available.

Program Notes

Students must earn a grade of C or better in all courses in the program. This program may require students to be able to lift objects as heavy as 50 pounds. This program replaces: AAS/3000 Industrial Robotics and Automation Technology

Required Courses

Required courses

Course # Course Title Credits

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

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

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

Restricted Electives

Course # Course Title Credits

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
DFT254AA	Integrated Circuit Design - CMOS IA	3
DFT255	3D Printing/Additive Manufacturing	4
MPT150	Introduction to SolidWorks	3
WLD106++	Arc Welding (any suffixed course)	5

Electrical/Electronic Focus Area

AIT123	J-STD Soldering Certification	3
AIT128	A-620 Cable and Wire Harness Assembly Certification	3
ELE131	Digital Logic and Circuits	3
ELE173	Fabrication Techniques	3

ELE241 Microprocessor Concepts 4

General Education Requirements

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 [HU] area.

Social and Behavioral Sciences Credits: 3

Any approved general education course in 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

<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

Course #Course TitleCredits

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

ASE280AU Engine Management (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

Restricted Electives

Course # Course Title Credits

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 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)

MAT146 College Mathematics with Review (6)

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

<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
Course # Course Title Credits

Credits: 12-30

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.

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 Licensure 2

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

Required courses

Course # Course Title Credits

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
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GBS/HEC132	Personal and Family Financial Security	3
MGT253	Owning and Operating a Small Business	3
MKT110	Marketing and Social Networking	3

Free Electives

Free Electives

Course # Course Title Credits

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 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

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:

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) OR

WED110 Principles of Physical Fitness and Wellness (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

<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 for all courses required 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

Required courses

Course # Course Title Credits

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 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

<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 AGEC-A and Associate in Arts Degrees.

Program Notes

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

Program Prerequisites

Program prerequisites

Course # Course Title Credits

Credits: 0

None

Required Courses

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

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

Free Electives

Free Electives

Course # Course Title Credits

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

General Education Requirements

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=176801>

Starting Term: 2022 Fall

Final Term: 9999

ASSOCIATE IN APPLIED SCIENCE (AAS) IN CONSTRUCTION TECHNOLOGY

Total Credits: 61-63

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.

Required Courses

Required courses

Course # Course Title Credits

Credits: 6-8

CON103	Foundation of Construction Safety	1
CON104	Hand and Power Tools, Equipment, and Workspace	1.5
CON105	Construction Calculations	1.5
CON107	Construction Drawings Introduction	1

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: 21-23

Specialization 1: Carpentry

CON110	Carpentry: Floor Systems	3.5
CON111	Carpentry: Wall Systems	3.5
CON112	Carpentry Ceiling Joist and Roof Framing	4
CON213	Carpentry: Steel Framing	1
CON214	Carpentry: Roof Systems and Building Envelopes	3
CON215	Carpentry: Interior Finishes	4
CON216	Carpentry: Concrete Forms	3

Specialization 2: Electrical

CON/HVA131	Electrical Systems	3.5
CON132	Distribution Panels, Wiring, and Circuit Protection in Electrical Systems	3.5
CON133	Conduit, Raceways, and Termination in Electrical Systems	4
CON234	Electric Power Distribution	3
CON235	Motors: Theory and Application	4
CON236	Industrial Wiring Applications	3

Specialization 3: Plumbing

CON124	Plumbing: Pipes and Fittings	3.5
CON125	Plumbing: Fixtures	2
CON126	Plumbing: Drain, Waste, and Vent	3.5
CON127	Plumbing: Water Distribution Systems	2
CON224	Plumbing: Pipe Systems and Controls	3
CON225	Plumbing: Water Disposal Systems	4

CON226 Plumbing: Fixtures and Appliances 3

CON227 Plumbing: Water Resource Solutions 2

Free Electives

Free Electives

Course # Course Title Credits

Credits: 4-12

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.

The following courses are recommended:

CON244 Working Drawing Analysis: Blueprint Reading 3

CON271 Construction Safety 3

General Education Requirements

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 in the Mathematical Applications [MA] 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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=173116>

Starting Term: 2022 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.

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: AAS/3097 Information Technology: Network and Cyber Security, AAS/3160 IT and Power Systems Security

Required Courses

Required courses

Course # Course Title Credits

Credits: 25-31

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

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

(CNT140AB required for Cisco Network Administration and Security specialization and Critical Infrastructure specialization)

CIS271DB Information Security Essentials (3) AND

CIS272DB Information Security Principles (3) OR

CIS270 Essentials of Network and Information Security (3) OR

ITS110 Information Security Fundamentals (3) 3-6

(ITS110 required for Cyber Operations specialization; CIS271DB AND CIS272DB 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

ITS240 Ethical Hacking and Network Defense 3

Restricted Electives

Restricted Electives

Course # Course Title Credits

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

Free Electives

Course # Course Title Credits

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 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.

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=155160>

Starting Term: 2020 Summer

Final Term: 2023 Summer

ASSOCIATE IN APPLIED SCIENCE (AAS) IN DENTAL HYGIENE

Total Credits: 92-102.5

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 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, and attention to detail. Students in an MCCCDC Dental Hygiene program will be exposed to blood-borne 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.

Program Notes

Students must earn a grade of C or better in all courses in 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 Program Director. 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, 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 MCCCDCD 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

Program prerequisites
Course # Course Title Credits

Credits: 34-44.5

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

Students who have completed CHM138 and CHM138LL, or CHM230 and CHM230LL prior to Fall 2019 have fulfilled the CHM requirement for acceptance into the MCCC Dental Hygiene program.

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) 0-3

MAT206 or PSY230 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 to meet the [CS] designation, complete PSY101 to meet the [SB] designation and to fulfill the prerequisite for PSY230.

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

Required courses

Course # Course Title Credits

Credits: 58

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

DHE132Dental Hygiene Theory I	3
DHE133Dental Hygiene Clinic I	3
DHE201Dental Materials	2
DHE202Dental Materials Laboratory I	
DHE212Dental Hygiene Theory II	2
DHE213Dental Hygiene Clinic II	5
DHE219Practice Management	2
DHE225Periodontics	3
DHE227Dental Anesthesia	2
DHE229Community Oral Health	3
DHE232Dental Hygiene Theory III	2
DHE233Dental Hygiene Clinic III	5

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=182615>

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 for all courses required within the program.

Required Courses

Required courses

Course # Course Title Credits

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

Restricted Electives

Course #Course TitleCredits

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

Free Electives

Course #Course TitleCredits

Credits: 0

None

General Education Requirements

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=176814>

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

Required courses

Course # Course Title Credits

Credits: 42-47

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 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 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.

<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.

Program Notes

Students must earn a grade of C or better in all courses in 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. This program replaces: AAS/3007 Early Childhood Education, AAS/3109 Early Childhood Administration and Management, AAS/3124 Early Learning and Development, AAS/3356 Early Childhood Education and Administration: Birth through Age Five, and AAS/3836 Early Childhood Education.

Required Courses

Required courses

Course # Course Title Credits

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 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, Management 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

Restricted Electives
 Course # Course Title Credits

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

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 for all courses within the program.

Required Courses

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

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 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.

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=176640>

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 for all courses required within the program.

Required Courses

Required courses

Course # Course Title Credits

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 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.

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=178664>

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 required for all courses within the program.

Required Courses

Required courses

Course # Course Title Credits

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

HES106 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

Restricted Electives

Course # Course Title Credits

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

Free Electives

Free Electives

Course #Course TitleCredits

Credits: 0

None

General Education Requirements

General education requirements

General Education Requirement Credits: 15-21

General Education Core Credits: 12-18

First-Year Composition Credits: 6

ENG101First-Year Composition (3) OR

ENG107First-Year Composition for ESL (3) AND

ENG102First-Year Composition (3) OR

ENG108First-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.

<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

Required courses

Course # Course Title Credits

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

Restricted Electives

Course #Course TitleCredits

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.

ART113Color 3

TEC+++++ Any TEC Textiles and Clothing course 1-6

General Education Requirements

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=176644>

Starting Term: 2022 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. This program replaces: AAS/3260 Fashion Merchandising and Design

Admission Criteria

None

Program Prerequisites

Program prerequisites
Course # Course Title Credits

None

Required Courses

Required courses
Course # Course Title Credits

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

Restricted Electives

Course #Course TitleCredits

Credits: 0-12

Students should select a total of 0-12 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

Free Electives

Free Electives

Course #Course TitleCredits

None

General Education Requirements

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.

<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 for all courses required 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. This program replaces: AAS/3112 Emergency Response and Operations

Admission Criteria

Admission to program is required. See Program Director for details.

Required Courses

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

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 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.

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=176646>

Starting Term: 2022 Fall

Final Term: 9999

ASSOCIATE IN APPLIED SCIENCE (AAS) IN FIRE SERVICE MANAGEMENT

Total Credits: 61-63

Major Code: 3207

Description

The Associate in Applied Science (AAS) in Fire Service Management can be used by professional firefighters for promotional opportunities within the Fire Services. The program provides courses for experienced professional firefighters who desire to learn advanced fireground tactics and strategy, building construction, practical incident command, supervisory training of personnel, public administration, basic finance, and human resource management. Students can select from a variety of fire science electives to meet their professional goals. A Certificate of Completion (CCL) in Fire Service Management is also available.

Program Notes

Students must earn a grade of C or better in all courses within the program. This program replaces: AAS/3064 Fire Service Professional

Admission Criteria

Current employment as a firefighter and/or Firefighter I and II Certification and/or related experience as determined by the Program Director.

Required Courses

Required courses

Course # Course Title Credits

Credits: 30-32

ENG111 Technical and Professional Writing 3

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

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

FSC119 Introduction Fire Service Ethics 3

FSC167 Fire Captain Academy 6

FSC202 Supervisory Training for Firefighters 3

FSC204 Firefighting Tactics and Strategy 3

FSC208 Firefighter Safety and Building Construction 3

FSC214 Human Resources Management in Fire Service 3

FSC220 Fire Officer 5

Restricted Electives

Restricted Electives

Course # Course Title Credits

Credits: 3-9

Students should select 3-9 credit hours from the following courses in consultation with a Program Director.

FSC+++++ Any Fire Science Technology course(s)

General Education Requirements

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. 0-3

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 [HU] area.

Social and Behavioral Sciences Credits: 3

Any approved general education course from the Social and Behavioral Sciences [SB] area.

SOC101 is recommended.

Natural Sciences Credits: 4

Any approved general education course from the Natural Sciences [SG/SQ] area.

BIO100, or BIO160, or (CHM130 AND CHM130LL) is recommended.

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=176666>

Starting Term: 2022 Fall

Final Term: 2023 Summer

ASSOCIATE IN APPLIED SCIENCE (AAS) IN FORENSIC SCIENCE

Total Credits: 61-68

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. This program replaces: AAS/3041 Forensic Science: Crime Lab/AAS/3404 Forensic Technology

Required Courses

Required courses

Course # Course Title Credits

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)

ASM/FOR275	Forensic Anthropology	4
CHM151	General Chemistry I	3
CHM151LL	General Chemistry I Laboratory	1
CHM152	General Chemistry II	3
CHM152LL	General Chemistry II Laboratory	1
PHY111	General Physics I	4
PHY112	General Physics II	4
Any course with the HU, C and G general education designations (3) OR		
Any course with the HU, C and H general education designations (3)		3

Restricted Electives

Restricted Electives

Course #Course TitleCredits

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

Free Electives

Course #Course TitleCredits

Credits: 0-14

Students must choose zero 0-14 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: 12-24

General Education Core Credits: 12-20

First-Year Composition Credits: 6

ENG101First-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

Mathematics Credits: 3-8

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) AND

MAT182 Plane Trigonometry (3) OR

MAT187 Precalculus (5)

OR higher course with an [MA] general education designation 3-8

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

Recommended for Specialization 1 Crime Scene:

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) 0-4

For Specialization 2 Lab Science: met by CHM151 and CHM151LL

<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 in the program. This program replaces:
AAS/3051 General Business Specialized

Required Courses

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

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 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.

<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 for 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

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

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 Database 3

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

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

Free Electives

Course # Course Title Credits

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 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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=182645>

Starting Term: 2023 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 for all courses required within the program. This program replaces: AAS/3081 Digital Arts AAS/3684 Media Arts: Graphic Design

Required Courses

Required courses

Course # Course Title Credits

Credits: 33-37

ADA/ART169 2D Media Design 3

ADA/ART177 Digital Photographic Imaging I 3

ADA/ART183 Digital Graphic Arts I 3

ADA/ART248 Design Self Promotion (3) OR

ART255 Art Marketing (3) 3

ADA/ART283 Digital Graphic Arts II 3

ART100 Introduction to Digital Arts 1

ART111 Drawing I (3) OR

ART116 Life Drawing I (3) 3

ART113Color (3) OR

ART114Digital Color (3) 3

ART142Introduction to Digital Photography 3

ART178Digital Arts Studies 3

ART/MMT190 Art of Web Site Design (3) OR

CIS133DA Internet/Web Development Level I (3) 3

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

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

Capstone/Internship Course:

ART280AA Digital Media Arts and Design Capstone (1) OR

ART280AB Digital Media Arts and Design Capstone (2) OR

ART280AC Digital Media Arts and Design Capstone (3) 1-3

Restricted Electives

Restricted Electives

Course #Course TitleCredits

Credits: 3

Students must select three (3) credits from the following list of courses:

ADA/ART175 Electronic Publishing Design I 3

ADA/ART289	Computer Illustration	3
ART103	Typography in the Digital Age	3
ART/COM/STO150	Digital Storytelling	3
ART192	Advanced Web Presentation Design	3
ART200	Animation and Interactivity	3
ART210	Design Tools for Imagery, Production, and Publishing	3
ART/THP246	Digital Fabrication	3

Free Electives

Free Electives

Course #	Course Title	Credits
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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 requirements

General Education Requirement	Credits: 22-28
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General Education Core	Credits: 12-18
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First-Year Composition	Credits: 6
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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.

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=182646>

Starting Term: 2023 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 for all courses required within the program. This program replaces: AAS/3081 Digital Arts AAS/3129 Comic and Sequential Art AAS/3822 Media Arts: Computer Art/Illustration

Required Courses

Required courses

Course # Course Title Credits

Credits: 24-28

ADA/ART169 2D Media Design 3

ADA/ART177 Digital Photographic Imaging I 3

ADA/ART289 Computer Illustration 3

ART100 Introduction to Digital Arts 1

ART111 Drawing I 3

ART113 Color (3) OR

ART114 Digital Color (3) 3

ART116 Life Drawing I 3

ART178 Digital Arts Studies 3

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

Capstone/Internship Course:

ART280AA Digital Media Arts and Design Capstone (1) OR
ART280AB Digital Media Arts and Design Capstone (2) OR
ART280AC Digital Media Arts and Design Capstone (3) 1-3

Restricted Electives

Restricted Electives
Course # Course Title Credits

Credits: 9-18

Specialization 1: Sequential Art

ART119 Penciling for Sequential Art 3
ART120 Inking for Sequential Art 3
ART219 Coloring, Toning and Lettering for Sequential Art 3
ART220 Publishing for the Comic Industry 3
ART221 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

ADA/ART248 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

ADA/ART/MMT184 Digital Animation I 3

ART/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

Free Electives

Course # Course Title Credits

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 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.

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=176668>

Starting Term: 2022 Fall
Final Term: 2023 Summer

ASSOCIATE IN APPLIED SCIENCE (AAS) IN INFORMATION TECHNOLOGY

Total Credits: 61-68
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. Students will earn one or more of the following Certificates of Completion (CCLs):

CCL/5154 Cybersecurity Fundamentals
CCL/5083 Database Development
CCL/5043 Desktop Support
CCL/5793 Foundations of Mobile App Development
CCL/5132 Microsoft Office Professional
CCL/5031 Microsoft System Administration
CCL/5048 Programming and Systems Analysis Level I
CCL/5183N Oracle Database Operations
CCL/5050N Red Hat Linux Engineer
CCL/5984 Web Foundations

Program Notes

Students must earn a grade of C or better in all courses required 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: AAS/3023 Information Technology AAS/3098 Information Technology: Computer Applications Specialist AAS/3152 Computer Information Systems AAS/3162 Computer Information Systems Technologies AAS/3167 Computer and Information Technologies AAS/3217 Computer Technology AAS/3546 Business Office Computer Applications AAS/3547 Computer Applications Technology AAS/3548 Business Applications AAS/3786 Computer Information Technology

Required Courses

Required courses

Course #Course TitleCredits

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: 33-38

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

Students taking CIS271DB would be required to take CIS250.

Cybersecurity Fundamentals Credits: 9-12

CIS111 Ethics in Information Technology (3) OR

ITS120 Legal, Ethical and Regulatory Issues (3) 3

CIS270 Essentials of Network and Information Security (3) OR

CIS271DB Information Security Essentials (3) AND

CIS272DB Information Security Principles (3) OR

ITS110 Information Security Fundamentals (3) 3-6

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 Server4

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 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 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 [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: 4

Any approved general education course from the Natural Science [SG] or [SQ] area. 4

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm3?id=182568>

Starting Term: 2023 Fall

Final Term: 9999

ASSOCIATE IN APPLIED SCIENCE (AAS) IN INSTRUCTIONAL ASSISTANCE

Total Credits: 61-63

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

Required courses

Course # Course Title Credits

Credits: 17-21

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) OR

ETL102 Educational Application of Technology (1) 1-3

Restricted Electives

Restricted Electives

Course # Course Title Credits

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, Management and the Environment 3

EED215 Early Learning: Health, Safety, Nutrition and 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 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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=174679>

Starting Term: 2022 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 for 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

Required courses

Course # Course Title Credits

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

Free Electives

Course #Course TitleCredits

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 requirements

General Education Requirement Credits: 22-28

General Education Core Credits: 12-18

First-Year Composition Credits: 6

ENG101First-Year Composition (3) OR

ENG107First-Year Composition for ESL (3) AND

ENG102First-Year Composition (3) OR

ENG108First-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

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.

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=172885>

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

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

Credits: 6

Students must select one (1) of the following two (2) specializations:

Specialization I: Residential Landscape Design

DFT105AA Computer Aided Drafting I: AutoCAD 3

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 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.

SSH111 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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm3?id=176671>

Starting Term: 2022 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 for all courses required within the program.

Program Prerequisites

Program prerequisites

Course #Course TitleCredits

Credits: 0

None

Required Courses

Required courses

Course #Course TitleCredits

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 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.

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=174681>

Starting Term: 2022 Fall

Final Term: 9999

ASSOCIATE IN APPLIED SCIENCE (AAS) IN MANAGEMENT

Total Credits: 62-69

Major Code: 3070

Description

The Associate in Applied Science (AAS) in Management program 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. The Certificate of Completion (CCL) in Management is fully embedded in this AAS. The following Certificates of Completion (CCL) are also available based on chosen restricted electives: Human Resources Management, Project Management, Business Administration, Supervision and Management, and Organizational Leadership.

Program Notes

Students must earn a grade of C or better for all courses required in the program. This program replaces: AAS/3054 Business Management AAS/3780 Business Administration Fastrack

Admission Criteria

None

Program Prerequisites

Program prerequisites

Course # Course Title Credits

Credits: 0

None

Required Courses

Required courses

Course # Course Title Credits

Credits: 22-24

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

GBS120 Workplace Communication Skills 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

Restricted Electives

Course # Course Title Credits

Credits: 18

Students should select eighteen (18) credits from the following courses in consultation with a Department Advisor. Courses cannot be shared with Required Courses.

ACC110 Understanding and Using Accounting Systems (3) OR

ACC112 Accounting Principles II (3) 3

CIS114DE Excel Spreadsheet 3

CIS224 Project Management Microsoft Project for Windows 3

GBS131 Business Calculations 3

IBS101 Introduction to International Business 3

MKT271 Principles of Marketing 3

MGT+++ Any MGT Management course(s) (except courses used to satisfy Required Courses area) 3

TQM230 Teamwork Dynamics 2

TQM240 Project Management in Quality Organizations 3

Free Electives

Free Electives

Course # Course Title Credits

Credits: 0

None

General Education Requirements

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

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 [MA] 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 [HU] area. 3

Social and Behavioral Sciences Credits: 3

SBU200 Society and Business 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

<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 for all courses required within the program. This program replaces: AAS/3255 Production Technology AAS/3616 Manufacturing Technology

Required Courses

Required courses

Course # Course Title Credits

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

MPT110Inspection Techniques (3) OR

MPT110MP Inspection Techniques (3) 3

MPT111Geometric Dimensioning and Tolerance (GDT) (3) OR

MPT111MP Geometric Dimensioning and Tolerance (GDT) (3)

MPT113Coordinate Measuring Machines I (CMM) (3) OR

MPT140Manual CNC Programming (3) 3

MPT120Introduction to Manual Machining (4) OR

MPT120MP Introduction to Manual Machining (4) 4

MPT130CNC Machine Operator (6) OR

MPT130MP CNC Machine Operator (6) OR

MPT131CNC Machining Level I (6) OR

MPT131MP CNC Machining Level I (6) 6

MPT132CNC 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

Restricted Electives

Course # Course Title Credits

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 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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=176659>

Starting Term: 2022 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 for all courses in the program.

Admission Criteria

None

Program Prerequisites

Program prerequisites

Course #Course TitleCredits

None

Required Courses

Required courses

Course #Course TitleCredits

Credits: 25-27

ACC111Accounting 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

Restricted Electives

Course # Course Title Credits

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

Free Electives

Free Electives

Course # Course Title Credits

None

General Education Requirements

General 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

Natural Sciences Credits: 4

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=174691>

Starting Term: 2022 Fall

Final Term: 2023 Summer

ASSOCIATE IN APPLIED SCIENCE (AAS) IN MOBILE APP DEVELOPMENT

Total Credits: 61-67

Major Code: 3099

Description

The Associate in Applied Science (AAS) in Mobile App Development provides students with the design and programming skills necessary for entry-level coding, programming, and software development positions with an emphasis on mobile apps. Students will be prepared for transfer to selected BAS programs. Students will be prepared to take the App Developer with Swift Certification Level 1, Microsoft C# Software Essentials, and Associate Android Developer certifications. A Certificate of Completion (CCL) in iOS Application Development, Android Application Development, Windows Application Development, Web App Development, Native Mobile App Development, Cross-Platform App Development, Foundations of Mobile App Development and Mobile App Development are also available.

Program Notes

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. Program requirements for CCL 5193 Mobile App Development and CCL 5914N iOS Application Development may be taken in the AAS 3099 Mobile App Development. An additional CCL within mobile apps may also be earned based on 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. This program replaces: AAS/3139 Mobile Apps Programming

Required Courses

Required courses

Course #Course TitleCredits

Credits: 25-30

CIS105 Survey of Computer Information Systems (3) OR

Permission of Program Director, Department or Division Chair (0) 0-3

CIS120DF Introduction to Adobe Photoshop 3

CIS133DA Internet/Web Development Level I 3

CIS150AB Object-Oriented Programming Fundamentals 3

CIS156 Python Programming: Level I (3) OR

CIS159 Visual Basic Programming I (3) OR

CIS163AA Java Programming: Level I (3) 3

CIS162AD C#: Level I 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

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 TitleCredits

Credits: 9

Students must select one additional course from the following. Course may not apply to both Required Courses and Restricted Electives areas.

CIS156 Python Programming: Level I 3

CIS159 Visual Basic Programming I3

CIS166AA Introduction to JavaScript 3

CIS166AE Web Scripting with PHP: Hypertext Preprocessor (PHP) 3

Students must select two additional courses from the following. Courses may not apply to both Required Courses and Restricted Electives areas.

CIS225 Business Systems Analysis and Design 3

CIS233DA Internet/Web Development Level II 3

CIS262AD C# Level II 3

CIS265 Advanced iOS Application Development 3

CIS265DA Advanced Android Application Development 3

CIS276DA MySQL Database 3

CIS276DB SQL Server Database 3

Free Electives

Free Electives

Course #Course TitleCredits

Credits: 0-5

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 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. 0-3

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 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.

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=175845>

Starting Term: 2022 Fall
Final Term: 2023 Summer

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 for all courses required within the program.

Required Courses

Required courses

Course # Course Title Credits

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

Restricted Electives

Course #Course TitleCredits

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

Free Electives

Course # Course Title Credits

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 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.

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=173178>

Starting Term: 2022 Fall

Final Term: 2023 Summer

**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: AIM, BPC, CIS, CLD, CNT, CSC, 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

Required courses

Course # Course Title Credits

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

CIS189 Virtualization and IT Solutions for Digital Businesses 3

CIS197 VMware ESXI Server Enterprise 3

CIS198 VMware vSphere: Optimize and Scale 3

CIS200 VMware NSX: Install, Configure, Manage 3

Restricted Electives

Restricted Electives

Course # Course Title Credits

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
CIS271DB	Information Security Essentials	3
CIS272DB	Information Security Principles	3
ITS110	Information Security Fundamentals	3

VMware Electives

CIS189	Virtualization and IT Solutions for Digital Businesses	3
CIS197	VMware ESXI Server Enterprise	3
CIS198	VMware vSphere: Optimize and Scale	3
CIS200	VMware NSX: Install, Configure, Manage	3

Other Information Technology Electives

BPC171	Recycling Used Computer Technology	1-3
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 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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm3?id=178841>

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.

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 MCCCDC 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 MCCCDC 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.

Program Notes

Students must earn a grade of C or better in all courses required 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

Required courses

Course # Course Title Credits

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

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 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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=176620>

Starting Term: 2022 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 for all courses required within the program.

Required Courses

Required courses

Course # Course Title Credits

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	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

Restricted Electives

Restricted Electives

Course # Course Title Credits

Credits: 20

Students must choose 20 industry/job related course credits from any MCCCCD 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 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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=143221>

Starting Term: 2020 Fall

Final Term: 9999

ASSOCIATE IN APPLIED SCIENCE (AAS) IN PARAMEDICINE

Total Credits: 63-75

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 B or better in all PME courses required within the program. This program replaces: AAS/3065 Advanced Emergency Medical Technology AAS/3112 Emergency Response and Operations

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

Required courses

Course # Course Title Credits

Credits: 45-51

BIO160 Introduction to Human Anatomy and Physiology 4

PME190Introduction to ECG Rhythm Analysis and Interpretation for EMS Professionals (3)
OR

Permission of Program Director (0) 0-3

PME191Introduction to Pharmacology for EMS Professionals (3) OR

Permission of Program Director (0) 0-3

PME201Advanced Cardiac Life Support (ACLS) Initial Provider in Paramedicine 1

PME202Pediatric Advanced Life Support (PALS) Initial Provider in Paramedicine 1

PME203Pediatric Emergencies for Prehospital Professionals (PEPP) Initial Provider in
Paramedicine 1

PME204Neonatal Resuscitation Provider (NRP) in Paramedicine 0.5

PME205Advanced Medical Life Support (AMLS) Initial Provider in Paramedicine 1

PME206International Trauma Life Support (ITLS) Provider/Pre-Hospital Trauma Life Support
(PHTLS) 1

PME240Pharmacology in Paramedicine 3

PME245Airway and Ventilatory Management in Paramedicine 3

PME250Comprehensive Patient Assessment in Paramedicine 1

PME251Medical Emergencies in Paramedicine I 4

PME252Medical Emergencies in Paramedicine II 4

PME253Medical Emergencies in Paramedicine III 4

PME254Technical Operations in Paramedicine 2.5

PME260Trauma 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 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.

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=182647>

Starting Term: 2023 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 for all courses required within the program. There will be costs for supplies and equipment in this program. This program replaces: AAS/3080 Digital Photography, AAS/3784 Media Arts: Digital Imaging, AAS/3081 Digital Arts

Required Courses

Required courses

Course # Course Title Credits

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

ART100 Introduction to Digital Arts 1

ART112 Two-Dimensional Design 3

ART113 Color 3

ART131 Photography I 3

ART132 Photography II 3

ART142 Introduction to Digital Photography 3

ART143 Intermediate Digital Photography 3

ART255 Art Marketing (3) OR

ART255AB The Portfolio (1) 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

Course # Course Title Credits

Credits: 8-20

Complete all courses in the specialization below that best aligns with your academic and professional goals.

Specialization I: Commercial Photography

ART138 Commercial Photography I 3

ART139 Commercial Photography II 3

ART140 Portrait Photography (3) OR

ART237 Fashion Photography (3) 3

SBS200 Small Business Operations 2

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

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.

ADA/ART169 2D Media Design 3

ADA/ART177 Digital Photographic Imaging I 3

ART111 Drawing I 3

ART116 Life Drawing I 3

ART137 Alternative Photographic Processes 3

ART178 Digital Arts Studies 3

ART181 Graphic Design I 3

ART234Color Photography I 3
ART270Digital Photographic Imaging II 3
ART290AC Studio Art 3
ART290EC Studio Art: Photography 3
ART290MC Studio Art: Digital Photography 3
ART295DA Art Workshop/Seminar: Photography 1
ART295DB Art Workshop/Seminar: Photography 2
ART295DC Art Workshop/Seminar: Photography 3
ART297AA Commercial Art Internship (1) OR
ART297AB Commercial Art Internship (2) 1-2
FMP108Video Production 3

Specialization II: Fine Art Photography

ART133Photography III 3
ART137Alternative Photographic Processes 3

Select 2-9 credits from the following:

ADA/ART169 2D Media Design 3
ADA/ART177 Digital Photographic Imaging I 3
ART111Drawing I 3
ART116Life Drawing I 3
ART134Photography IV 3
ART178Digital Arts Studies 3

ART234	Color Photography I	3
ART250	Introduction to Printmaking	3
ART270	Digital Photographic Imaging II	3
ART274	Digital Photographic Imaging III	3
ART290AC	Studio Art	3
ART290EC	Studio Art: Photography	3
ART290MC	Studio Art: Digital Photography	3
ART295DA	Art Workshop/Seminar: Photography	1
ART295DB	Art Workshop/Seminar: Photography	2
ART295DC	Art Workshop/Seminar: Photography	3
ART297AA	Commercial Art Internship	1
SBS200	Small Business Operations	2
SBS204	Small Business Marketing and Advertising	2

Free Electives

Free Electives

Course # Course Title Credits

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 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 approved general education course in the Mathematical Applications [MA] 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 [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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=176675>

Starting Term: 2022 Fall
Final Term: 2023 Summer

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 for all courses required 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. This program replaces: AAS/3164 Computer Programming

Program Prerequisites

Program prerequisites

Course # Course Title Credits

Credits: 0

None

Required Courses

Required courses

Course # Course Title Credits

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

MST140Microsoft 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

Restricted Electives

Course #Course TitleCredits

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 I3	
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 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.

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

<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 for all courses required within the program.

Required Courses

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

Credits: 6

COM222 Argumentation 3

COM225 Public Speaking 3

JRN205 Copyediting 3

MKT111 Applied Marketing and Social Networking 3

General Education Requirements

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

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=167597>

Starting Term: 2022 Fall

Final Term: 9999

ASSOCIATE IN APPLIED SCIENCE (AAS) IN RETAIL MANAGEMENT

Total Credits: 62-67

Major Code: 3048

Description

The Associate in Applied Science (AAS) in Retail Management degree is designed to prepare individuals working in the retail management, food industry, and related fields, for the mid-level management position challenges of the future. The curriculum encompasses business essentials

and also emphasizes the skill sets needed for effective management and communication in the work environment. Instruction will provide the background and knowledge necessary for students to develop the judgment skills they must exercise as business managers. A Certificate of Completion (CCL) in Retail Management is also available.

Program Notes

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

Required Courses

Required courses

Course # Course Title Credits

Credits: 28-33

Choose one of the following three accounting sequences:

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

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

MGT101 Techniques of Supervision (3) OR

MGT229 Management and Leadership I (3) 3

MGT180 Retail Management 3

MGT251 Human Relations in Business 3

MGT276 Human Resources Management 3

MKT271 Principles of Marketing 3

SBU200 Society and Business 3

Restricted Electives

Restricted Electives

Course # Course Title Credits

Credits: 9-15

Student must complete an additional nine (9) to fifteen (15) credits from GBS, MGT, and/or MKT prefixed courses (except courses used to satisfy Required Courses area) to complete the minimum total program credits required for this degree. Must include at least one MKT course.

GBS+++ Any GBS General Business course(s)

MGT+++ Any MGT Management course(s)

MKT+++ Any MKT Marketing 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) OR

ENG111 Technical and Professional Writing (3) 6

ENG102 or ENG108 recommended for students considering pursuing a bachelors degree at an Arizona university.

Oral Communication Credits: 3

COM100 Introduction to Human Communication 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.

General Education Distribution Credits: 7

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 SBU200 in Required Courses area.

Natural Sciences Credits: 4

Any approved general education course from the Natural Sciences area.

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=183424>

Starting Term: 2023 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 for all courses within the program.

Required Courses

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

Credits: 24

Students must choose twenty-four (24) industry/job related credits from the list of Restricted Electives below.

Students must choose 6-9 credits from:

Any INS Insurance Studies course except courses used to satisfy the Required Courses area. 6-9

AND

Students must choose a total of 15-18 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 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.

<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

Required courses

Course # Course Title Credits

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

Free Electives

Course # Course Title Credits

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 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.

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=172206>

Starting Term: 2022 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.

Program Prerequisites

Program prerequisites

Course # Course Title Credits

Credits: 0

None.

Required Courses

Required courses

Course # Course Title Credits

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	3
VET201	Animal Care Skills III (2)	4

Note: VET201 must be repeated for 4 credits

VET210 Animal Nursing II 2

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 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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=182613>

Starting Term: 2023 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 for all courses required 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. This program replaces: AAS/3145 Game Technology

Required Courses

Required courses

Course # Course Title Credits

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.

ART100 Introduction to Digital Arts 1

ADA/ART177 Digital Photographic Imaging I (3) OR

CIS120DF Introduction to Adobe Photoshop (3) 3

ART/MMT185 3D Modeling for Animation I (3) OR

CIS130DA 3D Studio Max: Modeling (3) 3

Note: ART/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

Restricted Electives

Course # Course Title Credits

Credits: 14-23

Students must select 1 of the following 4 specializations.

Specialization I Game Art

ADA/ART/MMT184 Digital Animation I 3

ART116Life Drawing 3

ART/COM/STO150 Digital Storytelling 3

ART200Animation and Interactivity 3

ART240Cinematography and Directing for 2D/3D Animation (3) OR

CIS230DB 3D Studio Max: Lighting and Rendering (3) 3

ART/MMT285 3D Modeling and Animation II (3) OR

CIS130DB 3D Studio Max: Animation (3) 3

ART2873D Character Animation 3

ART298AB Special Projects 2

Specialization II Game Narrative

ART/COM/STO150 Digital 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 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 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.

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm13?id=176679>

Starting Term: 2022 Fall

Final Term: 2023 Summer

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.

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: AAS/3029 Web Design Technologies AAS/3031 Web Development AAS/3084 Web Developer AAS/3085 Web Designer AAS/3100 Web Development and Graphic Design AAS/3147 Digital Media/Multimedia Technology AAS/3824 Media Arts: Web Design

Required Courses

Required courses

Course #Course TitleCredits

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

Course #Course TitleCredits

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

ADA/ART183 Digital Graphic Arts I (3)

OR

ART100 Introduction to Digital Arts (1) AND

ART181 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

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 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

<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 for all courses required within the program.

Program Prerequisites

Program prerequisites

Course # Course Title Credits

None

Required Courses

Required courses

Course # Course Title Credits

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 SMAW 5

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

Restricted Electives

Course #Course TitleCredits

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 Plate5
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 Plate5
WLD106AD SMAW Introduction to Pipe5
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

MPT150Introduction to SolidWorks 3

DFT105AA Computer Aided Drafting I: AutoCAD 3

Free Electives

Free Electives

Course #Course TitleCredits

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 requirements

General Education Requirement Credits: 22-28

General Education Core Credits: 12-18

First-Year Composition Credits: 6

ENG101First-Year Composition (3) OR

ENG107First-Year Composition for ESL (3) AND

ENG102First-Year Composition (3) OR

ENG108First-Year Composition for ESL (3) OR

ENG111Technical 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

<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

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 AGEC-A 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 AGEC 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 AGEC requirements. See the AGEC matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

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 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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176479>

Starting Term: 2022 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 in 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

Required courses

Course # Course Title Credits

Credits: 18-20

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 4

Restricted Electives

Restricted Electives

Course # Course Title Credits

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 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 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 Childrens 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 Prehistoric through Gothic Art (3) OR

ARH102 Renaissance Through Contemporary Art (3) OR

DAH100 Introduction to Dance (3) OR

DAH201 World Dance Studies (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 AGEC requirements. See the AGEC 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.

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 AGEC requirements. See the AGEC matrix on 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 Critical Reading and Critical Thinking (3) OR

Equivalent as indicated by assessment (0) 0-3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176461>

Starting Term: 2022 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 each course in 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

Required courses

Course # Course Title Credits

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 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 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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176495>

Starting Term: 2022 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 each course in the program.

Required Courses

Required courses

Course # Course Title Credits

Credits: 14-16

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

SWU225 Statistics for Social Research/Justice and Government (3) 3

Note: MAT206 is required for NAU, MAT206 OR PSY230 is required for U of A

Restricted Electives

Restricted Electives

Course # Course Title Credits

Credits: 0-29

Transfer Plan 1: Arizona State University (College of Liberal Arts and Sciences), Anthropology, Bachelor of Arts

Foreign Language Credits: 0-20

Completion of a language course at the intermediate level (202 or equivalent), including American Sign Language IV 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)

Transfer Plan 2: Arizona State University (College of Liberal Arts and Sciences), Anthropology, Bachelor of Science

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

Additional Anthropology Coursework Credits: 0-9

Complete zero to nine (0-9) credits of coursework that transfers to NAU as 200-level ANT courses.

Foreign Language Credits: 0-20

Completion of a language course at the intermediate level (202 or equivalent), including American Sign Language IV 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)

Transfer Plan 4: University of Arizona, Anthropology, Bachelor of Arts

Foreign Language Credits: 0-20

Completion of a language course at the intermediate level (202 or equivalent), including American Sign Language IV 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)

Transfer Plan 5: University of Arizona, Anthropology (Archaeological Sciences Emphasis), Bachelor of Science

ASB230 Principles of Archaeology 3

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 (4) 4-5

Foreign Language Credits: 0-10

Complete a language course at the elementary level (102 or equivalent), including American Sign Language II 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)

Transfer Plan 6: University of Arizona, Anthropology (Human Biology Emphasis), Bachelor of Science

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 (4)	4-5
CHM152	General Chemistry II (3) AND	
CHM152LL	General Chemistry II Laboratory (1) OR	
CHM152AA	General Chemistry II (4)	4

Foreign Language Credits: 0-10

Complete a language course at the elementary level (102 or equivalent), including American Sign Language II 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)

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 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 AGEC requirements. See the AGEC matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

0-3

Historical/Global Awareness [H]/[G] Credits: 0

Met by ASB102, ASB222, or ASB223 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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176521>

Starting Term: 2022 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 in the program.

Required Courses

Required courses

Course # Course Title Credits

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 TitleCredits

Credits: 0-27

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

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)

RUS+++ Any RUS Russian course(s)

SPA+++ Any SPA Spanish course(s)

Transfer Plan 2: Arizona State University (College of Integrative Sciences and Arts), Bachelor of Arts, Communication

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)

RUS+++ Any RUS Russian course(s)

SPA+++ Any SPA Spanish course(s)

Transfer Plan 3: Arizona State University (New College of Interdisciplinary Arts and Sciences), Bachelor of Arts, Communication Studies

Language and Cultures 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. This requirement may also be satisfied after transfer to ASU through various upper division course options. Recommend students satisfy this requirement after transfer to ASU unless proficient at the elementary level (102 or equivalent).

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)

RUS+++ Any RUS Russian course(s)

SPA+++ Any SPA Spanish course(s)

Transfer Plan 4: Arizona State University (College of Liberal Arts and Sciences), Bachelor of Science, Communication

No additional coursework needed.

Transfer Plan 5: Arizona State University (New College of Interdisciplinary Arts and Sciences), Bachelor of Science, Communication

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

(Recommended: GBS221, MAT206, or SWU225)

Language and Cultures 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. This requirement may also be satisfied after transfer to ASU through various upper division course options. Recommend students satisfy this requirement after transfer to ASU unless proficient at the elementary level (102 or equivalent).

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)

RUS+++ Any RUS Russian course(s)

SPA+++ Any SPA Spanish course(s)

Transfer Plan 6: Northern Arizona University, Bachelor of Arts, Communication

MKT101 Introduction to Public Relations 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)

RUS+++ Any RUS Russian course(s)

SPA+++ Any SPA Spanish course(s)

Transfer Plan 7: Northern Arizona University, Bachelor of Science, Communication

MKT101 Introduction to Public Relations 3

Transfer Plan 8: University of Arizona, Bachelor of Arts, Communication

MAT206 Elements of Statistics (3) OR

PSY230 Introduction to Statistics (3) 3

PSY290AB Research Methods (4) OR

PSY290AC Research Methods (4) 4

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)

RUS+++ Any RUS Russian course(s)

SPA+++ Any SPA Spanish course(s)

Transfer Plan 9: Grand Canyon University, Bachelor of Arts, Communication

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 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 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 AGEC requirements. See the AGEC 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 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

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

Starting Term: 2022 Fall

Final Term: 9999

ASSOCIATE IN ARTS (AA) IN ASSOCIATE IN ARTS, EMPHASIS IN COMMUNITY HEALTH

Total Credits: 60-64

Major Code: 8145

Description

The Associate in Arts (AA), Emphasis in Community Health provides the first two years of a four-year curriculum for students who wish to specialize in community health, integrative health, health care coordination, and related health systems fields. Students planning to apply to a Bachelor of Science in Nursing program should consult with a transfer specialist. Students seeking employment in the area of Community Health upon completion of a certificate or associate degree should refer to the Certificate of Completion (CCL) in Integrated Public Health: Community Health Work or the Associate in Applied Science (AAS) in Integrated Public Health.

Program Notes

Students must earn a grade of C or better in each course in the program.

Required Courses

Required courses

Course # Course Title Credits

Credits: 48-55

BIO156 Introductory Biology for Allied Health (4) OR

BIO156XT Introductory Biology for Allied Health (4) OR

BIO181 General Biology (Majors) I (4) OR

BIO181XT General Biology (Majors) I (4) 4 OR

One year of high school biology 0-4

BIO201 Human Anatomy and Physiology I (4) OR

BIO201XT Human Anatomy and Physiology I (4) 4

BIO202 Human Anatomy and Physiology II 4

BIO205 Microbiology 4

CFS205 Human Development (3) OR

PSY240 Developmental Psychology (3) 3

CHM130 Fundamental Chemistry (3) AND

CHM130LL Fundamental Chemistry Laboratory (1) OR

CHM130AA Fundamental Chemistry with Lab (4) 4

COM225 Public Speaking 3

FON241 Principles of Human Nutrition (3) OR

FON241 Principles of Human Nutrition (3) AND

FON241LL Principles of Human Nutrition Laboratory (1) 3-4

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

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

HCR210 Clinical Health Care Ethics 3

HCR220 Introduction to Nursing and Health Care Systems 3

HCR230 Culture and Health 3

HCR240 Human Pathophysiology (4) OR

HCR240AA Human Pathophysiology I (2) AND

HCR240AB Human Pathophysiology II (2) 4

MAT206 Elements of Statistics (3) OR

PSY230 Introduction to Statistics (3) OR

SWU225 Statistics for Social Research/Justice and Government (3) 3

PSY101 Introduction to Psychology 3

SOC101 Introduction to Sociology 3

Restricted Electives

Restricted Electives

Course # Course Title Credits

Credits: 0-3

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 (typically 64).

Transfer Plan 1: Arizona State University (College of Nursing and Health Innovation), Bachelor of Science, Community Health

No additional coursework needed.

Transfer Plan 2: Arizona State University (College of Nursing and Health Innovation), Bachelor of Science, Health Care Coordination

No additional coursework needed.

Transfer Plan 3: Arizona State University (College of Nursing and Health Innovation), Bachelor of Science, Integrative Health

MGT246 Principles of Project Management (3) OR

TQM240 Project Management In Quality Organizations (3) 3

General Education Requirements

Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 12-15

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 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 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 level course in the Mathematical Applications [MA] area (3-6) 3-6

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 courses in the Humanities, Arts and Design [HU] area. 3

AND

Met by HCR210 in the Required Courses area.

Social-Behavioral Sciences [SB] Credits: 0

Met by PSY101 and (CFS205 or PSY240) in the Required Courses area.

Natural Sciences [SG]/[SQ]Credits: 0

Met by BIO201 and [(CHM130 and CHM130LL) or CHM130AA] in the Required Courses area.

Awareness Areas Credits: 0

These requirements may be shared with Core Requirements.

Cultural Diversity in the US [C] Credits: 0

Historical/Global Awareness [H]/[G] Credits: 0

Met by HCR220 in the Required Courses area.

MCCCD Additional Requirements

MCCCD Additional Requirements Credits: 0-3

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

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176460>

Starting Term: 2022 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 each course in the program. This program aligns with the requirements of the Counseling and Applied Psychological Science (BS) Maricopa-ASU Pathways Program (MAPP) 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

Required courses

Course # Course Title Credits

Credits: 13-15

CAP120 Introduction to Counseling 3

CAP220 The Counselor in a Multicultural Society 3

CAP240 Introduction to Counseling Skills 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 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) 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 AGEC requirements. See the AGEC 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 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

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176494>

Starting Term: 2022 Fall

Final Term: 9999

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 each course in the program.

Required Courses

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

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

Select two of the following courses:

AJS109 Substantive Criminal Law 3

AJS212 Juvenile Justice Procedures 3

AJS270 Community Relations 3

REC120 Leisure and the Quality of Life 3

PSY101 Introduction to Psychology (3) OR

SOC101 Introduction to Sociology (3) 3

SWU171 Introduction to Social Welfare 3

Criminal Justice Elective - 3 credits:

Select one course (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

Foreign Language Credits: 0-20

Completion of a language course at the intermediate level (202 or equivalent), including American Sign Language IV 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)

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

MAT206 Elements of Statistics 3

PAD100 21st Century Public Policy and Service 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:6

Students must choose two 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:

AJS109 Substantive Criminal Law 3

AJS212 Juvenile Justice Procedures 3

AJS270 Community Relations 3

Interdisciplinary Requirement Track Two:

HRM160 Tourism Principles and Practices 3

REC120 Leisure and the Quality of Life 3

Interdisciplinary Requirement Track Three:

SWU171 Introduction to Social Welfare 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.

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/FSC/SWU258 Victimology and Crisis Management

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

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 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

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=175659>

Starting Term: 2023 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 in 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

Required courses

Course # Course Title Credits

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 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 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 MCCC CD 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 AGEC requirements. See the AGEC 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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176459>

Starting Term: 2022 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 each course in 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

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

Credits: 0-20

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) 3-4

Transfer Plan 2: University of Arizona, Bachelor of Arts, Economics

Second Language Credits: 0-20

Complete a language course at the elementary 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)

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 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 for course designations.

Cultural Diversity in the US [C] Credits: 0-3

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 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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=175660>

Starting Term: 2023 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 each course in 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

Required courses

Course # Course Title Credits

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 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

Restricted Electives

Course # Course Title Credits

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 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 AGEC requirements. See the AGEC 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 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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176472>

Starting Term: 2022 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 each course in the program.

Required Courses

Required courses

Course # Course Title Credits

Credits: 10-12

CRW150	Introduction to Creative Writing	3
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

Restricted Electives

Course # Course Title Credits

Credits: 3-26

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

Select one (1) of the following American Literature courses for a total of three (3) credits. This course may be used to fulfill any outstanding AGEC requirements simultaneously.

- ENH190 Introduction to US Ethnic Literature 3
- ENH241 American Literature Before 1860 3
- ENH242 American Literature After 1860 3
- ENH255 Contemporary U.S. Literature and Film 3
- ENH259 American Indian Literature 3
- ENH260 Literature of the Southwest 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)

Transfer Plan 2: Northern Arizona University, English (Creative Writing Emphasis), Bachelor of Arts

Select one (1) of the following literature courses for a total of three (3) credits:

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

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

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)

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 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, ENH255, ENH259, ENH260, 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 AGEC requirements. See the AGEC matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

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) 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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176519>

Starting Term: 2022 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 each course in the program.

Required Courses

Required courses

Course # Course Title Credits

Credits: 10-12

ENG200 Reading and Writing about Literature 3

ENH222 Survey of English Literature After 1800 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

Restricted Electives

Course #Course TitleCredits

Credits: 3-38

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

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)

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

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).

Language and Cultures 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. This requirement may also be satisfied after transfer to ASU through various upper division course options. Recommend students satisfy this requirement after transfer to ASU unless proficient at the elementary level (102 or equivalent).

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)

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

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)

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 AGEC 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 AGEC requirements. See the AGEC matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

0-3

Historical/Global Awareness [H]/[G] Credits: 0

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 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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176478>

Starting Term: 2022 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 each course in the program.

Required Courses

Required courses

Course # Course Title Credits

Credits: 13-15

EXS101 Introduction to Exercise Science 3

EXS290 Introduction to Evidence-Based Practice 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

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

Restricted Electives

Course #Course TitleCredits

Credits: 14-47

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

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)

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) OR

EXS217 Cardiorespiratory and Flexibility Training (3) 3

FON241 Principles of Human Nutrition 3

Transfer Plan 2: Arizona State University (College of Health Solutions), Sports Science and Performance Programming, Bachelor of Science

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 (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

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 (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

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 (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 Science, Bachelor of Science

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 (4) 4-5

CHM152 General Chemistry II (3) AND

CHM152LL General Chemistry II Laboratory (1) OR

CHM152AA General Chemistry II (4) 4

FON241 Principles of Human Nutrition 3

HES100 Healthful Living 3

PHY111 General Physics I 4

Transfer Plan 6: Northern Arizona University, Fitness and Wellness, Bachelor of Science

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 (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
PED101 LD 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
PED101ST	Strength Training	1

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 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) and Northern Arizona University Bachelor of Science in Fitness and Wellness

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

Arizona State University Bachelor of Science in Sports Science and Performance Programming

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

Arizona State University Bachelor of Science in Clinical Exercise Science, Arizona State University Bachelor of Science in Kinesiology, and Northern Arizona University Bachelor of Science in 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)

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 AGEC requirements. See the AGEC matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

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) 3

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR

Equivalent as indicated by assessment (0) 0-3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176458>

Starting Term: 2022 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 each course in 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. This program replaces: AAS/3044 Family Life Education

Required Courses

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

Credits: 9-30

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

GBS221 Business Statistics (3) OR

MAT206 Elements of Statistics (3) OR

SWU225 Statistics for Social Research/Justice and Government (3) 3

Complete six (6) 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

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

Foreign Language Credits: 0-10

Complete a language course at the elementary level (102 or equivalent), including American Sign Language II 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)

Transfer Plan 3: Northern Arizona University, Bachelor of Interdisciplinary Studies in Applied Human Behavior - Language Track (90/30 Program)

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

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)

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)

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

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

Foreign Language Credits: 0-10

Complete a language course at the elementary level (102 or equivalent), including American Sign Language II 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)

Transfer Plan 6: Arizona Christian University, Bachelor of Arts in Family Studies - Emphasis in Marriage and Family

CFS177 Parent-Child Interaction	3
CFS243 Cross-Cultural Parenting	3

CFS250 Social Policy and Families 3

CFS259 Sexuality over the Lifespan 3

COM225 Public Speaking 3

PSY101 Introduction to Psychology 3

Foreign Language Credits: 0-10

Complete a language course at the elementary level (102 or equivalent), including American Sign Language II 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)

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 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 AGEC requirements. See the AGEC matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176493>

Starting Term: 2022 Fall

Final Term: 2023 Summer

ASSOCIATE IN ARTS (AA) IN ASSOCIATE IN ARTS, EMPHASIS IN FOOD SCIENCE AND TECHNOLOGY

Total Credits: 60-64

Major Code: 8136

Description

The Associate in Arts (AA), Emphasis in Food Science and Technology covers many specializations within the realm of food science. The coursework for this program is interdisciplinary and provides students a choice of food science courses from the food science specializations of food biochemistry, fermentation, protein science, the analysis of foods using analytical techniques, and research and product development. Academic food science certificates aid students in chemistry, biology, and engineering fields to gain enough academic knowledge to enter the workforce in food science. Certificates of Completion (CCLs) in Food Science Technology I and II are also available.

Program Notes

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

Required Courses

Required courses

Course #Course TitleCredits

Credits: 29-35

BIO156++ Introductory Biology for Allied Health (4) OR

BIO181++ General Biology (Majors) I (4) 4

CHM130 Fundamental Chemistry (3) AND

CHM130LL Fundamental Chemistry Laboratory (1) AND

CHM230 Fundamental Organic Chemistry (3) AND

CHM230LL Fundamental Organic Chemistry Laboratory (1)

OR

CHM151 General Chemistry I (3) AND

CHM151LL General Chemistry I Laboratory (1) AND

CHM230 Fundamental Organic Chemistry (3) AND

CHM230LL Fundamental Organic Chemistry Laboratory (1)

OR

CHM151 General Chemistry I (3) AND

CHM151LL General Chemistry I Laboratory (1) AND

CHM152 General Chemistry II (3) AND

CHM152LL General Chemistry II Laboratory (1) AND

CHM235 General Organic Chemistry I (3) AND

CHM235LL General Organic Chemistry I Laboratory (1) 8-12

CUL101 Culinary Basics (3) OR

FST175 Food Science Product Development I (3) 3

FON104 Certification in Food Service Safety and Sanitation 1

FST263 Principles of Food Science 4

FST264 Protein Science 4

FST265 Microbiology of Foods 4

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: 1-4

FON241 Principles of Human Nutrition (3) AND

FON241LL Principles of Human Nutrition Laboratory (1)

OR

FST266 Fermentation in Food Science (4) OR

FST267 Analysis of Food (4) OR

FST275 Food Science Product Development II (3) OR

FST298AA Special Projects (1) OR

FST298AB Special Projects (2) OR

FST298AC Special Projects (3) 1-4

General Education Requirements

Arizona General Education Curriculum (AGEC)

AGEC-A Credits: 27-35

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 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. (3-5) 3-5

Computer/Statistics/Quantitative Applications [CS] Credits: 3

Any approved general education course 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: 0

Met by (CHM130 and CHM130LL) and (CHM230 and CHM230LL) or (CHM151 and CHM151LL) and (CHM230 and CHM230LL) or (CHM151 and CHM151LL) and (CHM152 and CHM152LL) in the Required Courses area.

Subject Options Credits: 0

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

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176518>

Starting Term: 2022 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 each course in the program.

Required Courses

Required courses

Course # Course Title Credits

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 Technology 3

GPH111 Introduction to Physical Geography (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

Restricted Electives

Course # Course Title Credits

Credits: 0-20

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)

Select 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

Credit 0-20

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)

RUS+++ Any RUS Russian course(s)

SPA+++ Any SPA Spanish course(s)

Transfer Plan 3: Northern Arizona University, Bachelor of Science, Geographic Science and Community Planning

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

Foreign Language Credits: 0-10

Complete a language course at the elementary level (102 or equivalent), including American Sign Language II 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)

HBR+++ Any HBR Hebrew course(s)

ITA+++ Any ITA Italian course(s)

JPN+++ Any JPN Japanese course(s)

RUS+++ Any RUS Russian course(s)

SPA+++ Any SPA Spanish course(s)

Transfer Plan 5: University of Arizona, Bachelor of Arts, Geography

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)

RUS+++ Any RUS Russian course(s)

SPA+++ Any SPA Spanish course(s)

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 AGEC requirements. See the AGEC matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

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 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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176457>

Starting Term: 2022 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 each course in the program.

Required Courses

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

Credits: 0-32

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

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.

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)

RUS+++ Any RUS Russian course(s)

SPA+++ Any SPA Spanish course(s)

Transfer Plan 2: Arizona State University (College of Integrative Sciences and Arts), History, Bachelor of Arts

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

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

Language and Cultures 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. This requirement may also be satisfied after transfer to ASU through various upper division course options. Recommend students satisfy this requirement after transfer to ASU unless proficient at the elementary level (102 or equivalent).

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)

RUS+++ Any RUS Russian course(s)

SPA+++ Any SPA Spanish course(s)

Transfer Plan 4: Grand Canyon University: History, Bachelor of Arts

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

Transfer Plan 5: Northern Arizona University: History, Bachelor of Arts

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

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)

RUS+++ Any RUS Russian course(s)

SPA+++ Any SPA Spanish course(s)

Transfer Plan 6: Northern Arizona University: History, Bachelor of Science

Complete one (1) course from the following except courses used to satisfy Required Courses area:

AIH/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

- HIS101 History of Western Civilization Middle Ages to 1789 (3) OR
- HIS102 History of Western Civilization 1789 to Present (3) 3
- 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) OR
- HIS203 African-American History to 1865 (3) 3

HIS201 History of Women in America 3

HIS251 History of England to 1700 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)

RUS+++ Any RUS Russian course(s)

SPA+++ Any SPA Spanish course(s)

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 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 AGEC requirements. See the AGEC matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

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 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

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

<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 pursue successful 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 each course in the program.

Program Prerequisites

Program prerequisites

Course #Course TitleCredits

None.

Required Courses

Required courses

Course #Course TitleCredits

Credits: 1-43

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

Lower Division Concentration Courses

0-12 Credits

Students should refer to the BIS Concentration Checksheet (<https://cisa.asu.edu/interdisciplinary-studies-concentrations>) 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), Bachelor of Arts

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

ENG200 Reading and Writing About Literature (3) OR
SLC202 Introduction to Literary and Cultural Theory (3) 3

Students may optionally select to complete Latin at the intermediate level (202 or equivalent).

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

ENG213 Introduction to the Study of Language (3) OR

SLC201 Introduction to Linguistics (3) 3

ENG200 Reading and Writing About Literature (3) OR
SLC202 Introduction to Literary and Cultural Theory (3) 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)

Transfer Plan 4: Arizona State University (College of Liberal Arts and Sciences), International Letters and Cultures (Arabic Studies), Bachelor of Arts

ARB101Elementary Arabic I 5

ARB102Elementary Arabic II 5

ARB201Intermediate Arabic I 5

ARB202Intermediate Arabic II 5

ENG213Introduction to the Study of Language (3) OR

SLC201 Introduction to Linguistics (3) 3

ENG200Reading and Writing About Literature (3) OR

SLC202 Introduction to Literary and Cultural Theory (3) 3

Transfer Plan 5: Arizona State University (College of Integrative Sciences and Arts), Liberal Studies, Bachelor of Arts

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.

Transfer Plan 6: Northern Arizona University: Interdisciplinary Studies - Humanities, Bachelor of Arts

Select from either the Foreign Language Option or Science Requirement Option

Foreign Language Option

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)

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)

ASL+++ Any ASL American Sign Language course(s)

Science Requirement Option

Students should complete the following Science Requirement Credits

ASB230 Principles of Archaeology 3

ASM104 Bones, Stones, and Human Evolution 4

GPH111 Introduction to Physical Geography Lecture (3) AND

GPH112 Introduction to Physical Geography Lab (1) OR

GPH113 Introduction to Physical Geography (4) 4

Students should select three to four (3-4) credits from the following Computer Literacy Credits

BPC110 Computer Usage and Applications 3

CIS105 Survey of Computer Information Systems 3

CSC180 Computer Literacy3

CSC180AA Computer Literacy3

CSC180AB Computer Literacy4

Restricted Electives

Restricted Electives

Course #Course TitleCredits

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 AGECE 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), 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 AGEC 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 AGEC 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 AGEC area. Students are encouraged to talk to faculty and/or academic advisors for specific course selections within each area.

Transfer Plan 6: Northern Arizona University: Interdisciplinary Studies - Humanities, 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.

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: 15-38

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). 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

May be met by BPC110, CIS105, CSC180, CSC180AA or CSC180AB in Required Courses. (0)
0-3

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 ASB230, ASM104, 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) OR

May be met by ASM104, (GPH111 and GPH112), OR GPH113 in Required Courses. (0) 0-8

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

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176517>

Starting Term: 2022 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 C or better in all courses within the program.

Required Courses

Required courses

Course # Course Title Credits

Credits: 10-12

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

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

IFS201 Information in a Post-Truth World 3

IFS210 Research in a Global Society 3

IFS213 Hacking and Open Source Culture 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 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 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: 6

Any approved general education courses from the Humanities, Arts and Design [HU] area. 6

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 AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

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 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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176456>

Starting Term: 2022 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 each course in 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

Required courses

Course # Course Title Credits

Credits: 7-29

CPD160 Introduction to Multiculturalism 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

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 AGEC 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 CPD160 in Required Courses

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] area3

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 unless used to meet Social-Behavioral Sciences [SB]

Social-Behavioral Sciences [SB] Credits: 3-6

Any approved general education courses in the Social-Behavioral Sciences [SB] area6

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 AGEC requirements. See the AGEC 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 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 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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=173314>

Starting Term: 2022 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 each course in the program.

Required Courses

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

Credits: 9-32

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

HIS103 United States History to 1865 (3) OR

HIS108 United States History 1945 to the Present (3) OR

HIS203 African-American History to 1865 (3) 3

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.

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)

RUS+++ Any RUS Russian course(s)

SPA+++ Any SPA Spanish course(s)

Transfer Plan 2: Northern Arizona University: Journalism, Bachelor of Science

COM100 Introduction to Human Communication 3

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

JRN225 Photojournalism 3

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

JRN105 Introduction to Journalism 3

JRN208 Media Law 3

JRN125 Photo Editing (3) OR

JRN225 Photojournalism (3) 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)

RUS+++ Any RUS Russian course(s)

SPA+++ Any SPA Spanish course(s)

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 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

PHI102 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:

ECN211 Macroeconomic Principles (3) OR

ECN212 Microeconomic Principles (3) 3

Recommend MCO220.

Cultural Diversity in the US [C] Credits: 0-3

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

Met by HIS103 OR HIS108 OR HIS203 in the Restricted Electives Area for students selecting ASU, Journalism and Mass Communication, BA.

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176491>

Starting Term: 2022 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 each course in the program. The Associate in Arts, Emphasis in Law and Policy aligns with the University of Arizona Bachelor of Arts in Law.

Required Courses

Required courses

Course # Course Title Credits

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

PAD10021st 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

Restricted Electives

Course #Course TitleCredits

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 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 AGEC requirements. See the AGEC matrix on
aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

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 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

Recommend COM225.

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR

Equivalent as indicated by assessment (0) 0-3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176454>

Starting Term: 2022 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 each course in the program.

Required Courses

Required courses

Course # Course Title Credits

Credits: 12-17

CSC100 Introduction to Computer Science (C++) (3) OR

CSC100AA Introduction to Computer Science (C++) (3) 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

For all ASU Tempe and West BS degrees, choose CSC110 OR CSC110AA OR CSC110AB.

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

Restricted Electives

Course # Course Title Credits

Credits: 0-24

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

CSC205 Object Oriented Programming and Data Structures (3) OR

CSC205++ Object Oriented Programming and Data Structures (3-4) 3-4

MAT227 Discrete Mathematical Structures 3

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)

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 3: Arizona State University (College of Liberal Arts and Sciences), Bachelor of Science, Computational Mathematical Sciences

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: Biology

BIO181++ General Biology (Majors) I 4

BIO182++ General Biology (Majors) II 4

Option 3: 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 4: 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 5: 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

MAT276 Modern Differential Equations (4) OR

MAT277 Modern Differential Equations (3) 3-4

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)

Transfer Plan 5: Arizona State University (College of Integrative Sciences and Arts), Bachelor of Science, Applied Mathematics

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

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

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)

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)

Transfer Plan 9: University of Arizona, Bachelor of Science, Mathematics (Any Emphasis)

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

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 AGEN 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: 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 CSC100, CSC100AA, 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.

Recommend PHY115 and PHY116 for students intending to transfer to U of A to earn a BA or
BS in Mathematics.

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

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176473>

Starting Term: 2022 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 each course in the program.

Required Courses

Required courses

Course # Course Title Credits

Credits: 32-39

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) 3

Restricted Electives

Restricted Electives

Course # Course Title Credits

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 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 or PSY230 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 AGEC requirements. See the AGEC matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

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

<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 each course in the program.

Required Courses

Required courses

Course #Course TitleCredits

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

Restricted Electives

Course # Course Title Credits

Credits: 0-41

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)

PHI103 Introduction to Logic 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)

Transfer Plan 2: Arizona State University (College of Liberal Arts and Sciences), Bachelor of Arts, Philosophy (Morality, Politics and Law)

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)

Transfer Plan 3: Arizona State University (New College of Interdisciplinary Arts and Sciences), Bachelor of Arts, Philosophy, Religion and Society

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.

Language and Cultures 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. This requirement may also be satisfied after transfer to ASU through various upper division course options. Recommend students satisfy this requirement after transfer to ASU unless proficient at the elementary level (102 or equivalent).

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)

Transfer Plan 4: Northern Arizona University, Bachelor of Arts, Philosophy (no emphasis)

PHI201 History of Ancient Philosophy 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)

Transfer Plan 5: Northern Arizona University, Bachelor of Arts, Philosophy, Politics and Law

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

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

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

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)

Transfer Plan 6: University of Arizona, Bachelor of Arts, Philosophy (General Emphasis and Ethics Emphasis)

PHI103 Introduction to Logic 3

PHI105 Introduction to Ethics 3

PHI201 History of Ancient Philosophy 3

PHI/REL244 Philosophy of Religion 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)

Transfer Plan 7: Grand Canyon University, Bachelor of Arts, Christian Studies (Philosophy emphasis)

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 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] area3

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 AGEC requirements. See the AGEC matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176490>

Starting Term: 2022 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 each course in the program.

Required Courses

Required courses

Course # Course Title Credits

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

Restricted Electives

Course #Course TitleCredits

Credits: 0-35

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

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

Political Science Elective Course Credits: 3

Complete three (3) 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)

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)

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 AGECE requirements simultaneously.

Transfer Plan 3: Arizona State University (New College of Interdisciplinary Arts and Sciences), Political Science, Bachelor of Arts

Language and Cultures 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. This requirement may also be satisfied after transfer to ASU through various upper division course options. Recommend students satisfy this requirement after transfer to ASU unless proficient at the elementary level (102 or equivalent).

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)

Transfer Plan 4: Arizona State University (New College of Interdisciplinary Arts and Sciences), Political Science, Bachelor of Science

Language and Cultures 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. This requirement may also be satisfied after transfer to ASU through various upper division course options. Recommend students satisfy this requirement after transfer to ASU unless proficient at the elementary level (102 or equivalent).

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)

Transfer Plan 5: Northern Arizona University: Political Science, Bachelor of Science

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

Complete zero to fifteen (0-15) credits of coursework that transfer to NAU as POS electives.

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)

Transfer Plan 7: University of Arizona: Political Science (any emphasis), Bachelor of Arts

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)

Transfer Plan 8: Grand Canyon University: Government (State and Local Public Policy Emphasis), Bachelor of Arts

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

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 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 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 AGEC requirements. See the AGEC matrix on
aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

0-3

Historical/Global Awareness [H]/[G] Credits: 0

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 AGEC requirements. See the AGEC 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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176477>

Starting Term: 2022 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 in the program.

Required Courses

Required courses

Course # Course Title Credits

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) 3-4

PSY290AB Research Methods (4) OR

PSY290AC Research Methods (4) 4

Restricted Electives

Restricted Electives

Course # Course Title Credits

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). 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

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 AGEC requirements simultaneously.

Transfer Plan 2: Arizona State University (College of Integrative Sciences and Arts),
Psychology, Bachelor of Science

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

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).

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)

Transfer Plan 4: Arizona State University (College of Liberal Arts and Sciences), Psychology,
Bachelor of Science

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.

Transfer Plan 5: Arizona State University (New College of Interdisciplinary Arts and Sciences),
Psychology, Bachelor of Arts

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.

Language and Cultures 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. This requirement may also be satisfied after transfer to ASU through various upper division course options. Recommend students satisfy this requirement after transfer to ASU unless proficient at the elementary level (102 or equivalent).

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)

Transfer Plan 6: Arizona State University (New College of Interdisciplinary Arts and Sciences), Psychology, Bachelor of Science

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 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.

Language and Cultures 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. This requirement may also be satisfied after transfer to ASU through various upper division course options. Recommend students satisfy this requirement after transfer to ASU unless proficient at the elementary level (102 or equivalent).

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)

Transfer Plan 7: Arizona State University (New College of Interdisciplinary Arts and Sciences), Psychology (Forensic Psychology), Bachelor of Arts

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: 0-6

Complete up to two (2) courses for zero to six (0-6) credits that transfer as a direct equivalent or departmental elective credit in the following ASU prefixes: ASM, COM, POS, PSY, SBS, SOC. These courses may be used to fulfill any outstanding AGEC requirements simultaneously.

Language and Cultures 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. This requirement may also be satisfied after transfer to ASU through various

upper division course options. Recommend students satisfy this requirement after transfer to ASU unless proficient at the elementary level (102 or equivalent).

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)

Transfer Plan 8: Arizona State University (New College of Interdisciplinary Arts and Sciences), Psychology (Forensic Psychology), Bachelor of Science

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.

Language and Cultures 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. This requirement may also be satisfied after transfer to ASU through various upper division course options. Recommend students satisfy this requirement after transfer to ASU unless proficient at the elementary level (102 or equivalent).

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)

Transfer Plan 9: Northern Arizona University, Psychological Sciences, Bachelor of Science

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 3

PSY277 Psychology of Human Sexuality 3

Transfer Plan 10: University of Arizona, Psychological Sciences, Bachelor of Science

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)

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

Foreign Language Credits: 0-10

Complete a language course at the elementary level (102 or equivalent), including American Sign Language II 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)

Transfer Plan 11: University of Arizona, Psychology, Bachelor of Arts

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)

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 AGEC 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 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

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:

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-

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 AGEC requirements. See the AGEC matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

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 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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176515>

Starting Term: 2022 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

Students must earn a grade of C or better in each course in the program.

Required Courses

Required courses

Course # Course Title Credits

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), including American Sign Language IV 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

Course # Course Title Credits

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

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

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 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 AGEC requirements. See the AGEC matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

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 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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176446>

Starting Term: 2022 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

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

Credits: 6-9

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

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

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.

GLG105 Introduction to Planetary Science 4

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)

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.

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

Note that this course may be used to satisfy the [L] requirement.

Select three (3) courses from the following list for a total of nine (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) 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)

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.

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.

ENH221 Survey of English Literature Before 1800 3

Note that this course may be used to satisfy the [HU] requirement.

ENH222 Survey of English Literature After 1800 3

Note that this course may be used to satisfy the [HU] requirement.

ENH241 American Literature Before 1860 3

ENH242 American Literature After 1860 3

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

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)

Transfer Plan 4: Arizona State University (New College of Interdisciplinary Arts and Sciences), Bachelor of Arts, English (Secondary Education)

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.

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

ENG200 Reading and Writing about Literature 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

Note that GCU/POS113 or HIS103 may be used to satisfy outstanding AGEC requirements.

ENH221 Survey of English Literature Before 1800 (3) OR

ENH241 American Literature Before 1860 (3) 3

Note that this course may be used to satisfy the [HU] requirement.

ENH222 Survey of English Literature After 1800 (3) OR

ENH242 American Literature After 1860 (3) 3

Note that this course may be used to satisfy the [HU] requirement.

English Electives Credits: 0-6

Complete up to six (6) credits of coursework that transfer to ASU as 200-level direct equivalents or departmental electives with the ENG prefix. Courses may be used to simultaneously fulfill any outstanding AGECE requirements.

Transfer Plan 5: Northern Arizona University, Bachelor of Science in Education, Secondary Education - English

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.

Foreign Language Credits: 0-10

Complete a language course at the elementary level (102 or equivalent), including American Sign Language II 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)

Transfer Plan 6: Arizona State University (Mary Lou Fulton Teachers College), Bachelor of Arts in Education, Secondary Education (History)

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.

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.

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)

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.

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.

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

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)

Transfer Plan 8: Arizona State University (New College of Interdisciplinary Arts and Sciences), Bachelor of Arts, History (Secondary Education)

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.

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] and [H] requirements.

HIS110 World History to 1500 3

Note that this course may be used to satisfy the [HU] requirement.

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

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 AGECE requirements simultaneously.

Transfer Plan 9: Northern Arizona University, Bachelor of Science in Education, Secondary Education - History and Social Studies

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)

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.

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.

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 (College of Liberal Arts and Sciences), Bachelor of Science, Mathematics (Secondary Education)

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.

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)

OR

POS220 U.S. and Arizona Constitution (3)

OR

POS221 Arizona Constitution (1) AND

POS222 U.S. Constitution (2) 3-4

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 12: Northern Arizona University, Bachelor of Science in Education, Secondary Education - Mathematics

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.

CSC120	Digital Design Fundamentals	4
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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	
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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

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 AGEC 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

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 AGEC 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 (AGEC)

AGEC-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 AGEC 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); Arizona State University (College of Liberal Arts and Sciences), Bachelor of Science, Mathematics (Secondary Education); 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

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176453>

Starting Term: 2022 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 each course in the program.

Required Courses

Required courses

Course # Course Title Credits

Credits: 22-24

ECN211 Macroeconomic Principles (3) OR

SWU181 Economics: A Social Issues Perspective (3) 3

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) OR

PHI105 Introduction to Ethics (3) OR

SWU183 Introductory Ethics: A Social Service Perspective (3) 3

POS110 American National Government (3) OR

SWU182 A Social Services Perspective of Government (3) 3

PSY101 Introduction to Psychology (3) OR

SOC101 Introduction to Sociology (3) 3

SWU171 Introduction to Social Work 3

SWU291 Social Service Delivery Systems 3

SWU295 Effective Helping in a Diverse World 3

Restricted Electives

Restricted Electives

Course #Course TitleCredits

Credits: 6-26

Arizona State University Interdisciplinary Requirement

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

AJS225 Criminology 3 OR

AJS270 Community Relations 3

Interdisciplinary Requirement Track Two (2):

PAD10021st Century Public Policy and Service 3 OR

PAD200Public Affairs Economics 3

Interdisciplinary Requirement Track Three (3):

REC120Leisure and the Quality of Life 3

Arizona State University Culture or Language Requirement

Complete three (3) courses in Cultural Diversity OR completion of language courses at intermediate level (202 or equivalent). College Level Examination Program (CLEP) will satisfy language requirement if 202 level language proficiency is met. Credits must be transferred to ASU Admissions. Cultural Diversity courses can be found in the Course Equivalency Guide. Courses completed for Culture or Language cannot be used to meet other requirements.

Complete nine (9) approved general education credits in the Cultural Diversity in the US [C] area. (9)

OR

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. (0-20) 0-20

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.

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 AGEC 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 AGEC requirements. See the AGEC 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 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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176489>

Starting Term: 2022 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 each course in the program.

Required Courses

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

Credits: 6-35

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 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: 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 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.

Complete one of the following options before transferring to ASU: Non-English language course at the intermediate level (202 or equivalent), including American Sign Language IV OR two (2) semesters of a current computer language (CSC110 and [CSC200 or CSC205]). Alternatively, students can meet ASU's Languages and Cultures Requirement after transferring by completing an additional 6 credits of upper-division Global or Cultural courses once at ASU.

0-20

Transfer Plan 3: Arizona State University (New College of Interdisciplinary Arts and Sciences), Sociology, Bachelor of Arts

Complete five (5) courses for a total of fifteen (15) 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.

Complete one of the following options before transferring to ASU: Non-English language course at the intermediate level (202 or equivalent), including American Sign Language IV OR two (2) semesters of a current computer language (CSC110 and [CSC200 or CSC205]). Alternatively, students can meet ASU's Languages and Cultures Requirement after transferring by completing an additional 6 credits of upper-division Global or Cultural courses once at ASU.

0-20

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 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 AGEC requirements. See the AGEC 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 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

<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 each course in 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

Required courses
Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

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.

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.

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

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 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 AGEC requirements. See the AGEC matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

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 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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176452>

Starting Term: 2022 Fall

Final Term: 9999

ASSOCIATE IN ARTS (AA) IN ASSOCIATE IN ARTS, EMPHASIS IN SPEECH AND HEARING SCIENCE

Total Credits: 60-64

Major Code: 8142

Description

The Associate in Arts (AA), Emphasis in Speech and Hearing Science provides the first two years of a four-year curriculum for students who wish to specialize in speech and hearing sciences and/or are preparing for application to professional graduate programs in speech-language pathology, audiology, or auditory and language neuroscience. With a graduate degree, students may pursue a number of careers, including but not limited to, speech language pathologist, audiologist, speech scientist, and researcher. Students interested in becoming a Speech Language Pathology Assistant should refer to the Certificate of Completion (CCL) and Associate in Applied Science (AAS) in Speech Pathology Assistant.

Program Notes

Students must earn a grade of C or better in each course in the program. Students intending to transfer to ASU to pursue a Bachelor of Science in Speech and Hearing Science will need a 2.8 GPA in the following courses: BIO160 or BIO201, MAT15+, MAT206 or PSY230, PHY101, PSY101, SLP214. Department consent by Speech Language Pathology (SLP) program director at Estrella Mountain Community College is required for enrollment in SLP Courses.

Required Courses

Required courses

Course # Course Title Credits

Credits: 7-9

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

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

SLP205 Introduction to Communication Disorders 3

SLP214 Speech Sound Disorders and Phonetics 3

Restricted Electives

Restricted Electives

Course #Course TitleCredits

Credits: 3

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), Bachelor of Science, Speech and Hearing Science

COM263 Elements of Intercultural Communication (3) OR

EDU/ENH291 Children`s Literature (3) OR

ENG213Introduction to the Study of Language (3) OR

PSY240 Developmental Psychology (3) OR

SLP104 Speech, Language, and Hearing Development (3) OR

SLP210 Speech and Hearing Anatomy and Physiology (3) OR

SOC101 Introduction to Sociology (3) 3

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 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

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: 3

MAT206 Elements of Statistics (3) OR

PSY230 Introduction to Statistics (3) 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: 6

COM110 Interpersonal Communication 3

PSY101 Introduction to Psychology 3

Natural Sciences [SG]/[SQ]Credits: 8

BIO160 Introduction to Human Anatomy and Physiology (4) OR

BIO201 Human Anatomy and Physiology I (4) OR

BIO201XT Human Anatomy and Physiology I (4) 4

PHY101 Introduction to Physics 4

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

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

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 COM110 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) 0-3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176510>

Starting Term: 2022 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 in 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 in Sustainability are noted.

Required Courses

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

Credits: 7-7

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), Bachelor of Science, Sustainability

SUS110 Sustainable World 3

SUS231 Careers in Sustainability 1

SUS232 Professional Skills in Sustainability Practice 3

Foreign Language Credits: 0-10

Complete a language course at the elementary level (102 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)

Transfer Plan 2: Arizona State University (College of Global Futures), Bachelor of Arts, Sustainability

MAT206 Elements of Statistics (3) OR

PSY230 Introduction to 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

SUS231 Careers in Sustainability 1

SUS232 Professional Skills in Sustainability Practice 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)

Transfer Plan 3: Arizona State University (New College of Interdisciplinary Arts and Sciences), Environmental Science, Bachelor of Arts

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) OR

CHM154 General Chemistry II with Qualitative Analysis (3) AND

CHM154LL General Chemistry II with Qualitative Laboratory (2) 4-5

CHM230 Fundamental Organic Chemistry 3

CHM230LL Fundamental Organic Chemistry Laboratory 1

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

GPH210 Society and Environment 3

PHY101 Introduction to Physics (4) OR

PHY101AA Introduction to Physics (5) 4-5

Social Science Elective Credits: 0-6

Complete up to two (2) options below for a total of zero to six (0-6) credits to fulfill part of ASU's Social Science Elective requirement. May also be completed after transferring to not go over the maximum of 64 total transfer credits.

ECN211 Macroeconomic Principles 3

HON201 Leadership Development: Historical Contemporary Perspectives (3) OR

MGT229 Management and Leadership I (3) 3

MGT246 Principles of Project Management (3) OR

TQM240 Project Management in Quality Organizations (3) 3

POS110 American National Government 3

Note: ECN211, (HON201 or MGT229), or POS110 may be used to meet any outstanding AGEC Social-Behavioral Sciences [SB] requirements simultaneously.

Transfer Plan 4: Arizona State University (New College of Interdisciplinary Arts and Sciences),
Environmental Science, Bachelor of Science

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
CHM235	General Organic Chemistry I (3)	AND
CHM235LL	General Organic Chemistry I Laboratory (1)	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

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

Track Focus Elective Course Credits: 1-4

Complete one to four (1-4) credits of coursework from the Focus Areas below to fulfill ASU's Track Focus Elective Course requirement. These courses may be used to fulfill any outstanding AGEC requirements simultaneously.

Business/Leadership Focus Area:

HON201 Leadership Development: Historical Contemporary Perspectives 3

MGT229 Management and Leadership I 3

MGT246 Principles of Project Management 3

SUS230 Practical Skills for Sustainability Problem Solving 1

TQM240 Project Management in Quality Organizations 3

Ecosystem/Global Change Focus Area:

SUS110 Sustainable World 3

Chemistry/Toxicology Focus Area:

CHM236 General Organic Chemistry IIA (3) AND

CHM236LL General Organic Chemistry IIA Laboratory (1) 4

Transfer Plan 5: Northern Arizona University, Environmental Sciences (Environmental Geology), Bachelor of Science

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

GIS205 Geographic Information Technologies 3

GIS211 Geographic Information Science I 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

MAT206 Elements of Statistics 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

Transfer Plan 6: Northern Arizona University, Environmental Sciences (Applied Statistics),
Bachelor of Science

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
CSC110AB	Introduction to Computer Science (Java)	4
GIS205	Geographic Information Technologies	3
GIS211	Geographic Information Science I	4
MAT206	Elements of Statistics	3
MAT230	Calculus with Analytic Geometry II (5) OR	
MAT231	Calculus with Analytic Geometry II (4)	4-5

Transfer Plan 7: Northern Arizona University, Environmental Sciences (Biology), Bachelor of Science

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

Complete zero to seven (0-7) additional credits from the list below with the exception of BIO100, BIO101, BIO102, BIO108, BIO156++, or CHM130

BIO+++++	Any BIO Biology course(s)
CHM+++++	Any CHM Chemistry course(s)
GLG+++++	Any GLG Geology course(s)

Transfer Plan 8: Northern Arizona University, Environmental Sciences (Chemistry), Bachelor of Science

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
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 9: Northern Arizona University, Environmental Sciences (Environmental Administration and Policy), Bachelor of Science

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

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

POS140 Comparative Government 3

This course may be used to fulfill any outstanding AGEC requirements simultaneously.

POS285 Political Issues and Public Policy 3

Transfer Plan 10: Northern Arizona University, Environmental Sciences (Environmental Communication), Bachelor of Science

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

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) OR

JRN232 Community Reporting (3) 3

MAT206 Elements of Statistics 3

Complete up to one (1) of the following courses for a total of zero to four (0-4) credits:

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

Transfer Plan 11: Northern Arizona University, Environmental Sciences (Environmental Management), Bachelor of Science

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

Complete up to three (3) of the following courses for a total of zero to nine (0-9) credits. These courses may be used to fulfill any outstanding AGEC requirements credits simultaneously.

COM230 Small Group Communication 3

ECN211 Macroeconomic Principles 3
PHI105 Introduction to Ethics 3
POS285 Political Issues and Public Policy 3

Transfer Plan 12: University of Arizona, Natural Resources, Bachelor of Science: Ecology,
Management, and Restoration of Rangelands Emphasis

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) OR

ECN212 Microeconomic Principles (3) 3

MAT206 Elements of Statistics (3) OR

PSY230 Introduction to Statistics (3) 3

Foreign Language Credits: 0-10

Complete a language course at the elementary level (102 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)

Transfer Plan 13: University of Arizona, Natural Resources, Bachelor of Science: Fisheries Conservation and Management Emphasis or Wildlife Conservation and Management Emphasis

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

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) OR

ECN212 Microeconomic Principles (3) 3

MAT206 Elements of Statistics (3) OR

PSY230 Introduction to Statistics (3) 3

Foreign Language Credits: 0-10

Complete a language course at the elementary level (102 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)

Transfer Plan 14: University of Arizona, Natural Resources, Bachelor of Science: Global Change Ecology and Management Emphasis

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) OR

ECN212 Microeconomic Principles (3) 3

MAT206 Elements of Statistics (3) OR

PSY230 Introduction to Statistics (3) 3

Foreign Language Credits: 0-10

Complete a language course at the elementary level (102 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)

Transfer Plan 15: University of Arizona, Natural Resources, Bachelor of Science: Watershed Hydrology and Management Emphasis

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) OR

ECN212 Microeconomic Principles (3) 3

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

Foreign Language Credits: 0-10

Complete a language course at the elementary level (102 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)

Transfer Plan 16: University of Arizona, Natural Resources, Bachelor of Science: Conservation Biology Emphasis

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) OR
ECN212 Microeconomic Principles (3) 3

MAT206 Elements of Statistics (3) OR
PSY230 Introduction to Statistics (3) 3

Foreign Language Credits: 0-10

Complete a language course at the elementary level (102 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)

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 AGEC matrix on aztransfer.com for course designat

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: 3-9

Required for 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 ASU, BS Sustainability; ASU, BA Sustainability; U of A, BS Natural Resources (Ecology, Management, and Restoration of Rangelands) emphasis; 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) 5-9

OR

Required for ASU, BS Environmental Science; U of A, BS Natural Resources (Conservation Biology), (Fisheries Conservation and Management), (Global Change Ecology and Management), and (Wildlife Conservation and Management) emphases:

- 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 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, HON201, MGT229, POS110, 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 AGEC requirements. See the AGEC matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

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 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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176509>

Starting Term: 2022 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 each course in the program.

Required Courses

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

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 (The College of Liberal Arts and Sciences), Bachelor of Arts, Women and Gender Studies

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 WST prefix. Check the Course Equivalency Guide on 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
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
WST+++	Any WST Women`s studies course	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)

Transfer Plan 2: Arizona State University (New College of Interdisciplinary Arts & Sciences),
Bachelor of Arts, Social and Cultural Analysis (Women and Gender Studies)

Language and Cultures Credits: 0-20

Complete one of the following options before transferring to ASU: Non-English language course at the intermediate level (202 or equivalent), including American Sign Language IV OR two (2) semesters of a current computer language (CSC110 and [CSC200 or CSC205]). Alternatively, students can meet ASU's Languages and Cultures Requirement after transferring by completing an additional six (6) credits of upper-division Global or Cultural courses once at ASU.

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)

Transfer Plan 3: Arizona State University (New College of Interdisciplinary Arts & Sciences),
Bachelor of Science, Women and Gender Studies

PSY101 Introduction to Psychology 3

PSY230 Introduction to Statistics 3

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 to ensure course transfers as WST prefix at ASU the semester it is taken.

Language and Cultures Credits: 0-20

Complete one of the following options before transferring to ASU: Non-English language course at the intermediate level (202 or equivalent), including American Sign Language IV OR two (2) semesters of a current computer language (CSC110 and [CSC200 or CSC205]). Alternatively, students can meet ASU's Languages and Cultures Requirement after transferring by completing an additional six (6) credits of upper-division Global or Cultural courses once at ASU.

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)

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

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

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

HLR/WST286	Women and Health: Body/Mind/Spirit/Connection (3) OR	
WST160	Women and the Early American Experience (3) OR	
WST161	American Women Since 1920 (3) OR	
WST206	La Mujer (3)	3

Recommended for students intending to earn an Academic Certificate (AC) in Women and Gender Studies: HIS201, HLR/WST286, WST160, or WST161.

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)

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 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 (5) OR

MAT146 College Mathematics (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 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

<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 in the program. Students who wish to transfer to an art school should contact an art faculty member at their institution for more information. This program replaces: AAFA/8105 Associate in Arts, Fine Arts (AAFA) - Art

Required Courses

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

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 any combination from the following list of courses totaling a minimum of twelve (12) 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.

ART116Life Drawing I 3
ART122Drawing and Composition II 3
ART131Photography I 3
ART132Photography II 3
ART151Sculpture I 3
ART161Ceramics I 3
ART165Watercolor Painting I 3
ART167Painting I 3
ART250Introduction to Printmaking 3
ART277Textiles I3

Transfer Plan 1: Arizona State University (Herberger Institute for Design and the Arts),
Bachelor of Fine Arts, Art (Ceramics)

ART161Ceramics I 3

Choose one of the following 2D Art courses:

ART116Life Drawing I 3
ART122Drawing and Composition II 3
ART131Photography I 3
ART132Photography II 3
ART165Watercolor Painting I 3
ART167Painting I 3
ART250Introduction to Printmaking 3

Choose one of the following 3D Art courses:

ART151 Sculpture I 3

ART277 Textiles I3

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

ART151 Sculpture I 3

ART165 Watercolor Painting I 3

ART167 Painting I 3

ART250 Introduction to Printmaking 3

ART277 Textiles I3

Transfer Plan 2: Arizona State University (Herberger Institute for Design and the Arts),
Bachelor of Fine Arts, Art (Painting and Drawing)

ART116 Life Drawing I (3) OR

ART165 Watercolor Painting I (3) 3

ART167 Painting I 3

ART122 Drawing and Composition II 3

Choose one of the following 3D Art courses:

ART151 Sculpture I 3

ART161 Ceramics 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)

ART131 Photography I 3

ART132 Photography II 3

ART234 Color Photography I 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)

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

ART132Photography II 3

ART165Watercolor Painting I 3

ART167Painting I 3

Choose one of the following 3D Art courses:

ART151Sculpture I 3

ART161Ceramics I 3

ART277Textiles I3

Choose one of the following 2D or 3D Art courses:

ART116Life Drawing I 3

ART122Drawing and Composition II 3

ART131Photography I 3

ART132Photography II 3

ART161Ceramics I 3

ART165Watercolor Painting I 3

ART167Painting I 3

ART277Textiles I3

Transfer Plan 5: Arizona State University (Herberger Institute for Design and the Arts),
Bachelor of Fine Arts, Art (Sculpture)

ART151Sculpture I 3

Choose one of the following 2D Art courses:

ART116Life Drawing I 3
ART122Drawing and Composition II 3
ART131Photography I 3
ART132Photography II 3
ART165Watercolor Painting I 3
ART167Painting I 3
ART250Introduction to Printmaking 3

Choose two of the following 2D or 3D Art courses:

ART116Life Drawing I 3
ART122Drawing and Composition II 3
ART131Photography I 3
ART132Photography II 3
ART161Ceramics I 3
ART165Watercolor Painting I 3
ART167Painting I 3
ART250Introduction to Printmaking 3
ART277Textiles I3

Transfer Plan 6: Arizona State University (Herberger Institute for Design and the Arts),
Bachelor of Fine Arts, Art (Textiles)

ART277Textiles I3

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
- ART161 Ceramics 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
- ART151 Sculpture I 3
- ART161 Ceramics I 3
- ART165 Watercolor Painting I 3
- ART167 Painting I 3
- ART250 Introduction to Printmaking 3

Transfer Plan 7: Northern Arizona University, Bachelor of Fine Arts, Studio Art

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 8: University of Arizona, Bachelor of Fine Arts, Studio Art (All Emphases)

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 AGEC requirements. See the AGEC matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=182695>

Starting Term: 2023 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, dance studio instruction, and fitness instruction. Upon completion of a bachelor's degree, students may pursue a career in several areas including a dance education at the secondary level, artistic direction, and stage management. Upon completion of a graduate degree, students may pursue a career in dance education at the post-secondary level.

Program Notes

Students must earn a grade of C or better in each course in the program. Students should meet with a residential dance faculty member each semester prior to enrollment for the following semester. Students must attain a level III competency in Ballet (DAN 231++) and Modern (DAN 232++) before they can graduate. Placement into these classes and Level III competency is determined by the Dance Residential Faculty. Students should enroll in two DAN technique courses each semester. Enrollment in some courses may require an audition and/or permission of instructor. All DAN technique courses can be repeated for credit. This program replaces: AAFA/8103 Associate in Arts, Fine Arts (AAFA) - Dance

Required Courses

Required courses

Course # Course Title Credits

Credits: 20-37

Fine Arts Requirements - Dance

DAN150	Dance Performance I	1
DAN210	Dance Production I	3
DAN221	Rhythmic Awareness I	3
DAN264	Choreography I	3
DAN280	Dance Practicum	2

Select from the following options to complete a minimum of three (3) and a maximum of eight (8) semester credits. Students must attain Level III competency in Ballet (DAN231 or DAN231AA). 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 from the following options to complete a minimum of three (3) and a maximum of eight (8) semester credits. Students must attain Level III competency in Modern (DAN232 or DAN232AA). 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 from the following options to complete a minimum of one (1) and a maximum of six (6) semester 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

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: 8-14

Select a minimum of two (2) and a maximum of five (5) semester credits of coursework from the following:

DAN102++	Any Hip Hop Course	1
DAN104++	Any Ballroom Course	1
DAN105++	Any Swing Course	1
DAN106++	Any Latin Course	1
DAN108++	Any Tango Course	1
DAN120++	Any World Dance Course	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
DAN141	Dance Workshop	1
DAN145	Tap Dance II	1
DAN146	Tap Dance Ensemble	1
DAN150	Dance Performance I	1
DAN155	Dance Performance II	1
DAN164	Improvisation	1
DAN201++	Special Topics: Dance	1-3
DAN202++	Any Hip Hop Course	1
DAN204++	Any Ballroom Course	1
DAN229	Musical Theatre Dance III	1
DAN230	Musical Theatre Dance IV	1
DAN231	Ballet III	1
DAN231AA	Ballet III: Intensive	2
DAN232	Modern Dance III	1
DAN232AA	Modern Dance III: Intensive	2
DAN233	Jazz Dance III	1
DAN233AA	Jazz Dance III: Intensive	2
DAN234	Ballet IV	1
DAN234AA	Ballet IV: Intensive	2

DAN235	Modern Dance IV	1
DAN235AA	Modern Dance IV: Intensive	2
DAN236	Jazz Dance IV	1
DAN236AA	Jazz Dance IV: Intensive	2
DAN237	Ballet Pointe I	1
DAN240	Tap Dance III	1
DAN245	Tap Dance IV	1
DAN250	Dance Performance III	1
DAN255	Dance Performance IV	1
DAN290++	Dance Conservatory I	1-3
DAN291++	Dance Conservatory II	1-3
DAN292++	Dance Conservatory III	1-3
DAN298++	Special Projects	1-3

Dance Theory Electives

Consult with Residential Dance Faculty to select a minimum of six (6) and a maximum of nine (9) semester credits of coursework from the following except those courses used to fulfill a requirement in the Humanities, Arts and Design [HU] area.

DAH100	Introduction to Dance	3
DAH110	Dance in Film	3
DAH190	Discovering Dance Careers	1
DAH201	World Dance Studies	3
DAH250	Dance in Popular Culture	3

DAH255	Hip Hop Arts, Aesthetic and Culture	3
DAN170	Dance Kinesiology	3
DAN201++	Special Topics: Dance	1-3
DAN220	Dance Career Preparation	3
DAN222	Rhythmic Awareness II	3
DAN265	Choreography II	3
DAN272	Dance Technology	3
DAN282++	Service-Learning Experience in Dance	1-3
DAN293	Teaching Dance in Elementary Education	3
DAN294	Teaching Dance in Secondary Education	3
DAN295	Teaching and Management of Studio Dance	3
DAN298++	Special Projects	1-3

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 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.

Humanities, Arts and Design [HU] Credits: 6

DAH100 Introduction to Dance (3) OR

DAH201 World Dance Studies (3)

AND

Any approved general education course in the Humanities, Arts and Design [HU] area. (3) 6

The following courses are recommended:

DAH100	Introduction to Dance	3
DAH201	World Dance Studies	3
DAH250	Dance in Popular Culture	3
DAH255	Hip Hop: Arts, Aesthetic and Culture	3

Social-Behavioral Sciences [SB] Credits: 6

Any approved general education courses in the Social-Behavioral Sciences [SB] area. 6

Students are encouraged to choose coursework from more than one discipline.

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].

See Course Equivalency Guide on AZtransfer.com for [SQ/SG] designations of BIO course options.

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

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 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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176467>

Starting Term: 2022 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 for all courses required within the program. This program replaces: AA/8104 Associate in Arts, Emphasis in Music

Required Courses

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

Credits: 23-28

Transfer Plan 1: Classical Music Performance and Music Education

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

MTC140 Songwriting (3) OR

MTC191 Electronic Music I (3) 3

MTC181 Popular Music Orchestration and Arranging (3) OR

MTC192 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

MTC193 Computer-Based Sound Synthesis (3) OR

MTC291 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

MTC130	Jazz Theory	2
MTC181	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 AGEC Requirements.

Cultural Diversity in the US [C] Credits: 0-3

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 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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176464>

Starting Term: 2022 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 each course in 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. This program replaces: AA/8127 Associate in Arts, Emphasis in Musical Theatre

Required Courses

Required courses

Course # Course Title Credits

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/THP270 Musical Theatre Workshop (2) OR

MUP/THP270AA 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

THP202AA 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

DAN204++ Any Ballroom Course 1

DAN106AA Latin I 1

DAN106AB Latin II 1

DAN206AA Latin III 1

DAN206AB Latin IV 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

Restricted Electives

Course # Course Title Credits

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

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

Any approved general education course in the Natural Sciences (Quantitative) [SQ] area or the Natural Sciences (General) [SG] area 4

Subject Options Credits: 0

Awareness Areas Credits: 0-6

Recommend sharing these requirements with other AGEC Requirements.

Cultural Diversity in the US [C] Credits: 0-3

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 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

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

Starting Term: 2022 Fall

Final Term: 9999

**ASSOCIATE IN ARTS, FINE ARTS (AAFA) IN ASSOCIATE IN ARTS, FINE ARTS,
EMPHASIS IN THEATRE**

Total Credits: 60-99

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 in 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. This program replaces: AAFA/8107 Associate in Arts, Fine Arts (AAFA) - Theatre

Required Courses

Required courses

Course # Course Title Credits

Credits: 15-18

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

THP112 Acting I 3

THP201++ any Theatre Production course (1-2) OR

THP202++ any Theatre Production course (1) 1-2

Note that students intending to transfer to the University of Arizona should take THP201AA.

THP213 Introduction to Technical Theatre 4

THP214 Directing Techniques 3

Restricted Electives

Restricted Electives

Course # Course Title Credits

Credits: 0-37

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 (typically 64).

Transfer Plan 1: Arizona State University (Herberger Institute for Design and the Arts), Theatre, Bachelor of Arts (BA)

Complete zero to six (0-6) credits of coursework that transfer to ASU as direct equivalents or departmental electives in the following ASU prefixes: FMP, THE, THF, THP.

Transfer Plan 2: Arizona State University (Herberger Institute for Design and the Arts), Theatre (Acting), Bachelor of Arts (BA)

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)

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)

THF260 Theatrical Design: Rendering 2

THP102 Theatre Service Practicum (1) OR

THP203 Technical Theatre Production (3) 1-3

THP206 Introduction to Costume Construction for Theatre 4

THP212 Acting II 3

THP261 Previsualization Modeling 2

For students transferring to NAU to earn a BA in Theatre, 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.

Foreign Language Credits: 0-20

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)

Transfer Plan 5: Northern Arizona University (NAU), Theatre (Performance Emphasis),
Bachelor of Arts or Bachelor (BA) of Science (BS)

COM/THP271 Voice and Diction 3

THP102 Theatre Service Practicum (1) OR

THP203 Technical Theatre Production (3) 1-3

THP206 Introduction to Costume Construction for Theatre 4

THP212 Acting II 3

For students transferring to NAU to earn a BA in Theatre, 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.

Foreign Language Credits: 0-20

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)

Transfer Plan 6: Northern Arizona University (NAU), Theatre (Theatre Studies Emphasis), Bachelor of Arts (BA) or Bachelor of Science (BS)

THP102 Theatre Service Practicum (1) OR

THP203 Technical Theatre Production (3) 1-3

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

THF260 Theatrical Design: Rendering 2

THP261 Previsualization Modeling 2

For students transferring to NAU to earn a BA in Theatre, 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.

Foreign Language Credits: 0-20

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)

Transfer Plan 7: University of Arizona (UA), Theatre Arts, Bachelor of Arts (BA)

THP212 Acting II 3

For students transferring to UA to earn a BA in Theatre Arts, 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.

Foreign Language Credits: 0-20

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)

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), including American Sign Language II with a C or better OR demonstrate proficiency through this level as indicated by assessment.

Foreign Language Credits: 0-10

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)

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] area3

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] area3

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.

Cultural Diversity in the US [C] Credits: 0-3

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 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

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176487>

Starting Term: 2022 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 each course in the program.

Required Courses

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

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 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

PAD10021st Century Public Policy and Service 3

REA179Real Estate Principles I 3

REA180Real Estate Principles II 3

REA201Real Estate Principles I and II 6

SBU200Society 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 for course designations.

First-Year Composition [FYC] Credits: 6

ENG101First-Year Composition (3) OR

ENG107First-Year Composition for ESL (3) AND

ENG102First-Year Composition (3) OR

ENG108First-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

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

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176481>

Starting Term: 2022 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 each course in the program.

Required Courses

Required courses

Course # Course Title Credits

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 AGEC 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 AGEC requirements. See the AGEC matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

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

<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) ORFYE103 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) OR COM225 Public Speaking (3) OR COM230 Small Group Communication (3) OR COM100AA Introduction to Human Communication Part I (1) AND COM100AB Introduction to Human Communication Part II (1) AND COM100AC Introduction to Human Communication Part III (1) OR COM110AA Interpersonal Communication Part I (1) AND COM110AB Interpersonal Communication Part II (1) AND COM110AC Interpersonal Communication Part III (1) 3 Critical Reading Credits: 0-3+ CRE101 College Critical Reading and Critical Thinking (3) OR Equivalent as indicated by assessment (0) 0-3 DISTRIBUTION AREAS (require a grade of D or better) Credits: 22-29 Humanities, Arts and Design Credits: 9 Students 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: 6-9 Students 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: 7-8 Two 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: 0-3 Select 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.

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

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 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 (except BIO174), CHM, ECE, EEE, ENV, GLG, GPH, and/or PHY)

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

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 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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176512>

Starting Term: 2022 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 in the program.

Required Courses

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

Credits: 0

The requirements for the transfer plan below are fulfilled upon completion of Required Courses, AGEC Curriculum, and MCCC CD 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 AGEC 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

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 AGEC requirements. See the AGEC matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176463>

Starting Term: 2022 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 each course in the program.

Required Courses

Required courses

Course #Course TitleCredits

Credits: 29-33

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

CHM235 General Organic Chemistry I (3) AND

CHM235LL General Organic Chemistry I Laboratory (1) 4

CHM236 General Organic Chemistry IIA (3) AND

CHM236LL General Organic Chemistry IIA Laboratory (1) 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

Restricted Electives

Restricted Electives

Course # Course Title Credits

Credits: 4-28

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). 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

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

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.

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)

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 AGEC 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

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 for course designations.

Cultural Diversity in the US [C] Credits: 0-3

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176448>

Starting Term: 2022 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 each course in 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

Required courses

Course # Course Title Credits

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 (5)

OR

CHM151 General Chemistry I (3) AND

CHM151LL General Chemistry I Laboratory (1)

OR

CHM151AA General Chemistry (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

Restricted Electives

Course #Course TitleCredits

Credits: 6-31

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

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 II (3) AND

CHM236LL General Organic Chemistry II 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

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

ASB100 Introduction to Global Health 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)

AND

CHM236 General Organic Chemistry II (3) AND

CHM236LL General Organic Chemistry II 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

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 3: Arizona State University (College of Liberal Arts and Sciences), Biological Sciences (Conservation Biology and Ecology), Bachelor of Science

MAT206 Elements of Statistics (3)

OR

PSY230 Introduction to Statistics (3)

OR

PSY230 Introduction to Statistics (3) AND

PSY231 Laboratory for Statistics (1)

OR

SWU225 Statistics for Social Research/Justice and Government (3) 3-4

Note: Concurrent enrollment in PSY231 lab required with PSY230 enrollment at some MCCCCD 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 - Physical (4)

OR

GLG101 Introduction to Geology I - Physical Lecture (3) AND

GLG103 Introduction to Geology I - Physical Laboratory (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

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 II (3) AND

CHM236LL General Organic Chemistry II 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

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 5: Arizona State University (College of Liberal Arts and Sciences), Biological Sciences (Neurobiology, Physiology and Behavior), Bachelor of Science

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 II (3) AND

CHM236LL General Organic Chemistry II 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

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 6: Arizona State University (College of Liberal Arts and Sciences), Molecular Biosciences and Biotechnology, Bachelor of Science

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 II (3) AND

CHM236LL General Organic Chemistry II 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

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: 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

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 II (3) AND

CHM236LL General Organic Chemistry II 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

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: 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

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 II (3) AND

CHM236LL General Organic Chemistry II 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

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 II (3) AND

CHM236LL General Organic Chemistry II Laboratory (1) OR

CHM236AA General Organic Chemistry IIA with Lab (4) 4

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

CHM235 General Organic Chemistry I (3) AND

CHM235LL General Organic Chemistry I Laboratory (1) OR

CHM235AA General Organic Chemistry I with Lab (4) 4

MAT206 Elements of Statistics 3

PHY111 General Physics I (4) OR

PHY111AA General Physics I (5) 4-5

PHY112 General Physics II 4

CHM236 General Organic Chemistry II (3) AND

CHM236LL General Organic Chemistry II 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

Language and Cultures Credits: 0-10

This requirement may be met by any of the following:

Complete a language course at the elementary level (102 or equivalent), including American Sign Language II 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) (0-10)

OR

Two (2) semesters of a current computer programming language

CIS+++ Any CIS Computer Information Systems computer programming language course Levels I and II (6)

CSC+++ Any CSC Computer Science computer programming language course Levels I and II (6-8)

OR

Two (2) semesters of upper division courses (300 and/or 400-level) that have Global Awareness [G] or Cultural Diversity [C] designations taken at ASU after transfer (0) 0-10

Transfer Plan 11: Arizona State University (New College of Interdisciplinary Arts and Sciences), Biology (Pharmacology/Toxicology), Bachelor of Science

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 II (3) AND

CHM236LL General Organic Chemistry II Laboratory (1) OR

CHM236AA General Organic Chemistry IIA with Lab (4) 4

MAT206 Elements of Statistics (3) 0-3

Note: Students considering medical school, graduate school, or research are encouraged to complete a 2-semester sequence of statistics after transferring to ASU instead of MAT206.

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

BIO205 Microbiology 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)

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

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 II (3) AND

CHM236LL General Organic Chemistry II Laboratory (1) OR

CHM236AA General Organic Chemistry IIA with Lab (4) 4

PHY111 General Physics I (4) OR

PHY111AA General Physics I (5) 4-5

PHY112 General Physics II 4

Foreign Language Credits: 0-10

Complete a language course at the elementary level (102 or equivalent), including American Sign Language II 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)

Transfer Plan 14: Grand Canyon University, Biological Sciences, Bachelor of Science

MAT206 Elements of Statistics (3)

OR

PSY230 Introduction to Statistics (3)

OR

PSY230 Introduction to Statistics (3) AND

PSY231 Laboratory for Statistics (1)

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 AGEC

General Education Requirements

Arizona General Education Curriculum (AGEC)

AGEC-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 AGEC 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

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 ASB100 or 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 AGEC requirements. See the AGEC matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

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 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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176450>

Starting Term: 2022 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 each course in the program.

Required Courses

Required courses

Course # Course Title Credits

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 (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

Restricted Electives

Course # Course Title Credits

Credits: 0-3

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

MAT225 Elementary Linear Algebra 3

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 AGEC 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

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 AGEC requirements. See the AGEC matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

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 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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176507>

Starting Term: 2022 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 each course in the program.

Required Courses

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

Credits: 0-13

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).

Transfer Plan 1: Arizona State University (Ira A. Fulton Schools of Engineering), Computer Science, Bachelor of Science (any emphasis)

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

Transfer Plan 2: Northern Arizona University, Computer Science, Bachelor of Science in Computer Science

MAT206 Elements of Statistics 3

Transfer Plan 3: University of Arizona, Computer Science, Bachelor of Science

Foreign Language Credits: 0-10

Complete a language course at the elementary level (102 or equivalent), including American Sign Language II 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)

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 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.

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 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: 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 AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

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

Critical Reading Credits: 0-3

CRE101 College Critical Reading and Critical Thinking (3) OR

Equivalent as indicated by assessment (0) 0-3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176474>

Starting Term: 2022 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 each course in 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

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

Credits: 11-30

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)

ECE105 MATLAB Programming (1) OR

CSC110 Introduction to Computer Science (Java) (3) 1-3

ECE211 Engineering Mechanics-Statics 3

ECE212 Engineering Mechanics-Dynamics 3

ECE215 Mechanics of Materials 3

ECE216 Computer-Aided Engineering 2

ECE216LL Computer-Aided Engineering Laboratory 1

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)

ECE105 MATLAB Programming (1) OR

CSC110 Introduction to Computer Science (Java) (3) 1-3

ECE211 Engineering Mechanics-Statics 3

ECE212 Engineering Mechanics-Dynamics 3

ECE215 Mechanics of Materials 3

ECE216 Computer-Aided Engineering 2

ECE216LL Computer-Aided Engineering Laboratory 1

EEE202 Circuits and Devices 5

MAT225 Elementary Linear Algebra 3

Transfer Plan 3: Arizona State University (Ira A. Fulton Schools of Engineering), BSE,
Aerospace Engineering (Autonomous Vehicle Systems)

ECE105 MATLAB Programming (1) OR

CSC110 Introduction to Computer Science (Java) (3) 1-3

ECE211 Engineering Mechanics-Statics 3

ECE212 Engineering Mechanics-Dynamics 3

ECE215 Mechanics of Materials 3

ECE216 Computer-Aided Engineering 2

ECE216LL Computer-Aided Engineering Laboratory 1

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

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 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) OR

ECN212 Microeconomic Principles (3) 3

EEE202 Circuits and Devices 5

Transfer Plan 5: Arizona State University (Ira A. Fulton Schools of Engineering), BSE,
Chemical Engineering

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

BIO205 Microbiology (4) OR

BIO220 Biology of Microorganisms (4) OR

ECE111 Bioengineering Systems (3) 3-4

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

CHM235LL General Organic Chemistry I Laboratory 1

CHM236 General Organic Chemistry IIA 3

MAT225 Elementary Linear Algebra 3

Transfer Plan 6: Arizona State University (Ira A. Fulton Schools of Engineering), BSE, Civil Engineering

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
GLG101 Introduction to Geology I - Physical Lecture (3) 3-4

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)

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
GLG101 Introduction to Geology I - Physical Lecture (3) 3-4

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

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) 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)

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) 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

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

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

CSC/EEE230 Computer Organization and Assembly Language 4

ECN211 Macroeconomic Principles (3) OR

ECN212 Microeconomic Principles (3) 3

EEE202 Circuits and Devices 5

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)

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

CSC/EEE230 Computer Organization and Assembly Language 4

ECN211 Macroeconomic Principles (3) OR

ECN212 Microeconomic Principles (3) 3

EEE202 Circuits and Devices 5

PHY241 University Physics III: Thermodynamics, Optics, and Wave Phenomena 4

Transfer Plan 13: Arizona State University (Ira A. Fulton Schools of Engineering), BSE, Engineering

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

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

ECE201 Introduction to Engineering Statics (2) AND

ECE202 Introduction to Engineering Dynamics (2) AND

ECE203 Applications of Engineering Mechanics (2)

OR

ECE211 Engineering Mechanics-Statics (3) AND

ECE212 Engineering Mechanics-Dynamics (3)

OR

ECE214 Engineering Mechanics (4) 4-6

EEE202 Circuits and Devices 5

Lower Division Secondary Focus Area Credits: 0-6

The secondary focus area includes up to six (6) lower division credits that form a coherent theme. Students must take two courses from the same or similar subjects, as students will take two upper division classes of the same subject at ASU. Recommended Maricopa prefixes: AEN, AMS, CAD, CNS, ECE, EEE, MET, MIT, MNT, or SMT.

AEN+++ Any AEN Alternative Energy course(s)

AMS+++ Any AMS Automated Manufacturing Systems course(s)

CAD+++ Any CAD Computer-Aided Drafting course(s)

CNS+++ Any CNS Construction course(s)

ECE+++ Any ECE Engineering Science course(s)

EEE+++ Any EEE Electrical Engineering course(s)

MET+++ Any MET Manufacturing Technology course(s)

MIT+++ Any MIT Manufacturing Industrial Technology course(s)

MNT+++ Any MNT Micro and Nanotechnology course(s)

SMT+++ Any SMT Semi-Conductor Manufacturing Technology course(s)

Transfer Plan 14: Arizona State University (Ira A. Fulton Schools of Engineering), BSE,
Engineering (Automotive Systems)

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

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

ECE201 Introduction to Engineering Statics (2) AND

ECE202 Introduction to Engineering Dynamics (2) AND

ECE203 Applications of Engineering Mechanics (2)

OR

ECE211 Engineering Mechanics-Statics (3) AND

ECE212 Engineering Mechanics-Dynamics (3)

OR

ECE214 Engineering Mechanics (4) 4-6

EEE202 Circuits and Devices 5

Lower Division Secondary Focus Area Credits: 0-6

The secondary focus area includes up to six (6) lower division credits that form a coherent theme. Students must take two courses from the same or similar subjects, as students will take two upper division classes of the same subject at ASU. Recommended Maricopa prefixes: AEN, AMS, CAD, CNS, ECE, EEE, MET, MIT, MNT, or SMT.

AEN+++ Any AEN Alternative Energy course(s)

AMS+++ Any AMS Automated Manufacturing Systems course(s)

CAD+++ Any CAD Computer-Aided Drafting course(s)

CNS+++ Any CNS Construction course(s)

ECE+++ Any ECE Engineering Science course(s)

EEE+++ Any EEE Electrical Engineering course(s)

MET+++ Any MET Manufacturing Technology course(s)

MIT+++ Any MIT Manufacturing Industrial Technology course(s)

MNT+++ Any MNT Micro and Nanotechnology course(s)

SMT+++ Any SMT Semi-Conductor Manufacturing Technology course(s)

Transfer Plan 15: Arizona State University (Ira A. Fulton Schools of Engineering), BSE,
Engineering (Electrical Systems)

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

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

ECE201 Introduction to Engineering Statics (2) AND

ECE202 Introduction to Engineering Dynamics (2) AND

ECE203 Applications of Engineering Mechanics (2)

OR

ECE211 Engineering Mechanics-Statics (3) AND

ECE212 Engineering Mechanics-Dynamics (3)

OR

ECE214 Engineering Mechanics (4) 4-6

EEE202 Circuits and Devices 5

Lower Division Secondary Focus Area Credits: 0-6

The secondary focus area includes up to six (6) lower division credits that form a coherent theme. Students must take two courses from the same or similar subjects, as students will take two upper division classes of the same subject at ASU. Recommended Maricopa prefixes: AEN, AMS, CAD, CNS, ECE, EEE, MET, MIT, MNT, or SMT.

AEN+++ Any AEN Alternative Energy course(s)

AMS+++ Any AMS Automated Manufacturing Systems course(s)

CAD+++ Any CAD Computer-Aided Drafting course(s)

CNS+++ Any CNS Construction course(s)

ECE+++ Any ECE Engineering Science course(s)

EEE+++ Any EEE Electrical Engineering course(s)

MET+++ Any MET Manufacturing Technology course(s)

MIT+++ Any MIT Manufacturing Industrial Technology course(s)

MNT+++ Any MNT Micro and Nanotechnology course(s)

SMT+++ Any SMT Semi-Conductor Manufacturing Technology course(s)

Transfer Plan 16: Arizona State University (Ira A. Fulton Schools of Engineering), BSE,
Engineering (Mechanical Engineering Systems)

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

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

ECE201 Introduction to Engineering Statics (2) AND

ECE202 Introduction to Engineering Dynamics (2) AND

ECE203 Applications of Engineering Mechanics (2)

OR

ECE211 Engineering Mechanics-Statics (3) AND

ECE212 Engineering Mechanics-Dynamics (3)

OR

ECE214 Engineering Mechanics (4) 4-6

EEE202 Circuits and Devices 5

Lower Division Secondary Focus Area Credits: 0-6

The secondary focus area includes up to six (6) lower division credits that form a coherent theme. Students must take two courses from the same or similar subjects, as students will take two upper division classes of the same subject at ASU. Recommended Maricopa prefixes: AEN, AMS, CAD, CNS, ECE, EEE, MET, MIT, MNT, or SMT.

AEN+++ Any AEN Alternative Energy course(s)

AMS+++ Any AMS Automated Manufacturing Systems course(s)

CAD+++ Any CAD Computer-Aided Drafting course(s)

CNS+++ Any CNS Construction course(s)

ECE+++ Any ECE Engineering Science course(s)

EEE+++ Any EEE Electrical Engineering course(s)

MET+++ Any MET Manufacturing Technology course(s)

MIT+++ Any MIT Manufacturing Industrial Technology course(s)

MNT+++ Any MNT Micro and Nanotechnology course(s)

SMT+++ Any SMT Semi-Conductor Manufacturing Technology course(s)

Transfer Plan 17: Arizona State University (Ira A. Fulton Schools of Engineering), BSE,
Engineering (Robotics)

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

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

ECE201 Introduction to Engineering Statics (2) AND

ECE202 Introduction to Engineering Dynamics (2) AND

ECE203 Applications of Engineering Mechanics (2)

OR

ECE211 Engineering Mechanics-Statics (3) AND

ECE212 Engineering Mechanics-Dynamics (3)

OR

ECE214 Engineering Mechanics (4) 4-6

EEE202 Circuits and Devices 5

Lower Division Secondary Focus Area Credits: 0-6

The secondary focus area includes up to six (6) lower division credits that form a coherent theme. Students must take two courses from the same or similar subjects, as students will take two upper division classes of the same subject at ASU. Recommended Maricopa prefixes: AEN, AMS, CAD, CNS, ECE, EEE, MET, MIT, MNT, or SMT.

AEN+++ Any AEN Alternative Energy course(s)

AMS+++ Any AMS Automated Manufacturing Systems course(s)

CAD+++ Any CAD Computer-Aided Drafting course(s)

CNS+++ Any CNS Construction course(s)

ECE+++ Any ECE Engineering Science course(s)

EEE+++ Any EEE Electrical Engineering course(s)

MET+++ Any MET Manufacturing Technology course(s)

MIT+++ Any MIT Manufacturing Industrial Technology course(s)

MNT+++ Any MNT Micro and Nanotechnology course(s)

SMT+++ Any SMT Semi-Conductor Manufacturing Technology course(s)

Transfer Plan 18: Arizona State University (Ira A. Fulton Schools of Engineering), BSE,
Industrial Engineering

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

CSC240 Introduction to Different Programming Languages (3) OR

ECE215 Mechanics of Materials (3) OR

EEE202 Circuits and Devices (5) 3-5

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) 3-4

ECE211 Engineering Mechanics-Statics 3

ECN211 Macroeconomic Principles 3

Transfer Plan 19: Arizona State University (Ira A. Fulton Schools of Engineering), BSE,
Materials Science and Engineering

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

ECE211 Engineering Mechanics-Statics (3) OR

ECE214 Engineering Mechanics (4) 3-4

ECE215 Mechanics of Materials 3

MAT225 Elementary Linear Algebra 3

Transfer Plan 20: Arizona State University (Ira A. Fulton Schools of Engineering), BSE,
Mechanical Engineering

ECE105 MATLAB Programming (1) OR

CSC110 Introduction to Computer Science (Java) (3) OR

CSC110AA Introduction to Computer Science (Java) (3) OR

CSC110AB Introduction to Computer Science (Java) (4) 1-4

ECE211 Engineering Mechanics-Statics 3

ECE212 Engineering Mechanics-Dynamics 3

ECE215 Mechanics of Materials 3

ECE216 Computer-Aided Engineering 2

ECE216LL Computer-Aided Engineering Laboratory 1

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)

ECE105 MATLAB Programming 1

ECE211 Engineering Mechanics-Statics 3

ECE212 Engineering Mechanics-Dynamics 3

ECE215 Mechanics of Materials 3

ECE216 Computer-Aided Engineering 2

ECE216LL Computer-Aided Engineering Laboratory 1

EEE202 Circuits and Devices 5

MAT225 Elementary Linear Algebra 3

PHI103 Introduction to Logic 3

Transfer Plan 22: Arizona State University (Ira A. Fulton Schools of Engineering), BSE,
Mechanical Engineering (Energy and Environment)

ECE105 MATLAB Programming (1) OR

CSC110 Introduction to Computer Science (Java) (3) OR

CSC110AA Introduction to Computer Science (Java) (3) OR

CSC110AB Introduction to Computer Science (Java) (4) 1-4

ECE211 Engineering Mechanics-Statics 3

ECE212 Engineering Mechanics-Dynamics 3

ECE215 Mechanics of Materials 3

ECE216 Computer-Aided Engineering 2

ECE216LL Computer-Aided Engineering Laboratory 1

EEE202 Circuits and Devices 5

MAT225 Elementary Linear Algebra 3

SSH111 Sustainable Cities 3

Transfer Plan 23: Northern Arizona University, BS, Civil Engineering

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) 4

PHI105 Introduction to Ethics 3

Transfer Plan 24: Northern Arizona University, BS, Computer Engineering

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
EEE202	Circuits and Devices	5
MAT227	Discrete Mathematical Structures	3

Transfer Plan 25: Northern Arizona University, BS, Electrical Engineering

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

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

EEE202 Circuits and Devices 5

PHY241 University Physics III: Thermodynamics, Optics, and Wave Phenomena 4

Transfer Plan 26: Northern Arizona University, BS, Mechanical Engineering

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

ECE216 Computer-Aided Engineering 2

ECE216LL Computer-Aided Engineering Laboratory 1

EEE202 Circuits and Devices 5

Transfer Plan 27: University of Arizona, BS, Aerospace Engineering

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

ECE105 MATLAB Programming 1

ECE211 Engineering Mechanics-Statics 3

ECE212 Engineering Mechanics-Dynamics 3

Transfer Plan 28: University of Arizona, BS, Biomedical Engineering

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 (5) 4-5

ECE211 Engineering Mechanics-Statics 3

Transfer Plan 29: University of Arizona, BS, Chemical Engineering

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

CHM235 General Organic Chemistry I 3
CHM235LL General Organic Chemistry I Laboratory 1
CHM236 General Organic Chemistry IIA 3

Transfer Plan 30: University of Arizona, BS, Civil Engineering

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

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

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

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 (5) 4-5

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

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

ECE105 MATLAB Programming 1

ECE211 Engineering Mechanics-Statics 3

ECE212 Engineering Mechanics-Dynamics 3

EEE202 Circuits and Devices 5

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 AGEC 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. 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

Recommended: 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: AIS213 or ARH145 or CCS101 or DAH250 or DAH255 or EDU/HUM/STO292 or EDU/ENH/STO294 or ENH110 or ENH112 or ENH114 or ENH190 or ENH241 or ENH255 or ENH259 or ENH260 or ENH280 or ENH/WST284 or ENH/WST285 or ENH295 or HIS203 or HUM209 or HUM214 or HUM260 or MHL145 or MHL155 or MHL204 or REL203 or REL225 or SPH245 or WST209 or any course with the [HU] and [C] designations.

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

Recommended: AFR/ASB/CCS202 or AFR203 or AFR204 or AIS/HIS140 or AIS/SOC141 or ASB100 or ASB102 or ASB211 or ASB222 or ASB223 or ASB226 or ASB235 or ASB252 or BHS150 or COM163 or COM263 or ECN160 or ECN213 or ECN250 or GCU102 or GCU/POS113 or GCU121 or GCU122 or GCU141 or GCU221 or HIS100 or HIS101 or HIS102 or HIS103 or HIS104 or HIS105 or HIS106 or HIS109 or HIS113 or HIS114 or HIS145 or HIS173 or HIS201 or HIS203 or HIS204 or HIS209 or HIS241 or HIS242 or HIS273 or HIS277 or IBS109 or IFS210 or POS114 or POS120 or POS125 or POS140 or PSY132 or PSY225 or

SBU200 or SOC241 or SOC270 or SSH111 or SWU271 or WST161 or any course with the [SB] and ([G] or [H]) designations.

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 AGECE requirements. See the AGECE matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176511>

Starting Term: 2022 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 in the program.

Required Courses

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

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 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 for course designations.

Cultural Diversity in the US [C] Credits: 0-3

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 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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176449>

Starting Term: 2022 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 each course in the program.

Required Courses

Required courses

Course # Course Title Credits

Credits: 33-40

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

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

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

Restricted Electives

Course # Course Title Credits

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 Sciences), Bachelor of Science

No additional coursework needed.

Transfer Plan 2: University of Arizona, Geosciences (Geology Emphasis), Bachelor of Science

Complete a language course at the elementary level (102 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)

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 AGEC 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

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 [(GLG101 and GLG103) or GLG101IN] AND [(GLG102 and GLG104) or GLG102IN] 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 for course designations.

Cultural Diversity in the US [C] Credits: 0-3

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176488>

Starting Term: 2022 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 each course in the program.

Required Courses

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

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

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

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

No additional required coursework for this transfer plan.

Transfer Plan 4: Arizona State University (College of Liberal Arts and Sciences), Bachelor of Arts, 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

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

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)

Transfer Plan 5: Northern Arizona University, Bachelor of Science, Physics

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

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

Foreign Language Credits: 0-10

Complete a language course at the elementary level (102 or equivalent), including American Sign Language II 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)

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 AGEC 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.

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 AGEC requirements. See the AGEC matrix on aztransfer.com for course designations.

Cultural Diversity in the US [C] Credits: 0-3

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=176447>

Starting Term: 2022 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

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

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)

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

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.

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.

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)

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 Analysis 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

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 AGEC 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

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
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MAT230 Calculus with Analytic Geometry II (5) OR

MAT231	Calculus with Analytic Geometry II (4)	4-5
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PHY115 University Physics I (5) OR

PHY121	University Physics I: Mechanics (4)	4-5
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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

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 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 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

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 for course designations.

Cultural Diversity in the US [C] Credits: 0-3

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

<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 in the program. Consultation with an Academic Advisor is recommended for course selection. This program replaces: CCL/5156 Accounting Specialized Para-Professional CCL/5157 Bookkeeping

Admission Criteria

None

Program Prerequisites

Program prerequisites

Course # Course Title Credits

None

Required Courses

Required courses

Course # Course Title Credits

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

CIS114 DE Excel Spreadsheet 3

CIS105 Survey of Computer Information Systems 3

GBS151 Introduction to Business 3

Restricted Electives

Restricted Electives

Course # Course Title Credits

None

Free Electives

Free Electives

Course # Course Title Credits

None

<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 for all courses required within the program. This program replaces: CCL/5008 Administration of Justice - Comprehensive CCL/5327 Justice Studies CCL/5837 Administration of Justice CCL/5861N Justice Studies

Admission Criteria

None

Program Prerequisites

Program prerequisites

Course # Course Title Credits

None

Required Courses

Required courses

Course # Course Title Credits

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=164813>

Starting Term: 2021 Fall

Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN ADMINISTRATIVE PROFESSIONAL

Total Credits: 18

Major Code: 5677

Description

The Certificate of Completion (CCL) in the Administrative Professional program is designed to provide students with basic office skills. This program is recommended for students with little or no office-related work experience or college experience. Includes instruction in business communications, office procedures, and report preparation. An Associate in Applied Science (AAS) in Administrative Professional is available.

Program Notes

Students must earn a grade of C or better in all courses required within the program. This program replaces: CCL/5234 Administrative Professional CCL/5238 Business Office Assistant

Admission Criteria

None

Required Courses

Required courses

Course # Course Title Credits

Credits: 18

BPC110 Computer Usage and Applications (3) OR

CIS105 Survey of Computer Information Systems (3) 3

CIS113DE Microsoft Word: Word Processing 3

GBS120 Workplace Communication Skills 3

GBS131 Business Calculations 3

GBS151 Introduction to Business 3

Select three (3) of the following courses:

BPC101AA Introduction to Computers I 1

BPC/OAS111AA Computer Keyboarding I 1

CIS121AE Windows Operating System: Level I 1

CIS121AI Mac Operating System 1

CIS122AE Windows Operating System: Level II 1

CIS133AA Internet/Web Development Level I-A 1

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 required 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/5807N Adobe Foundations

Required Courses

Required courses

Course # Course Title Credits

Credits: 9

CIS120DB	Introduction to Adobe Illustrator	3
CIS120DC	Introduction to Adobe Animate	3
CIS120DF	Introduction to Adobe Photoshop	3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=165305>

Starting Term: 2021 Fall
Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN ADOBE FOUNDATIONS: AUDIO AND VIDEO PRODUCTION

Total Credits: 9
Major Code: 5166N

Description

The Certificate of Completion (CCL) in Adobe Foundations: Audio and Video Production program helps prepare students to edit and enhance video, sound, and special effects for online and broadcast delivery. A Certificate of Completion in Adobe Foundations: Animation and Graphics 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 required 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

Required courses
Course # Course Title Credits

Credits: 9

CIS120DA Introduction to Adobe Premiere 3 OR

CIS120DK Introduction to Digital Video Editing 3

CIS120DL Introduction to Adobe After Effects 3

CIS120DO Introduction to Adobe Audition 3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=167121>

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 for all courses required within the program.

Required Courses

Required courses

Course # Course Title Credits

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

<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 for all courses required within the program.

Required Courses

Required courses

Course # Course Title Credits

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

<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 for all courses required 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

Required courses

Course # Course Title Credits

Credits: 3

CLD110 Amazon Web Services Cloud Foundations 3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=166256>

Starting Term: 2022 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 for all courses required within the program.

Required Courses

Required courses

Course # Course Title Credits

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=174692>

Starting Term: 2022 Fall

Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN ANDROID APP DEVELOPMENT

Total Credits: 9-12

Major Code: 5834N

Description

The Certificate of Completion (CCL) in Android App Development prepares students for employment in entry-level coding, programming, and software development positions with an emphasis on Android mobile apps. This CCL will help prepare students to take the Associate Android Developer industry certification. Courses in this certificate can apply toward the Associate in Applied Science (AAS) in Mobile App Development and Certificate of Completion (CCL) in Mobile App Development, and Certificate of Completion (CCL) in Native 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

Required courses

Course # Course Title Credits

Credits: 9-12

CIS105 Survey of Computer Information Systems (3) OR

Permission of Program Director, Department or Division Chair (0) 0-3

CIS150 Programming Fundamentals (3) OR

CIS150AB Object-Oriented Programming Fundamentals (3) OR

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

CIS150 or CIS150AB recommended for students with no programming experience or who plan to complete the AAS 3099 or CCL 5193 in Mobile App Development.

CIS165DA Introduction to Android Application Development 3

CIS265DA Advanced Android Application Development 3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=166115>

Starting Term: 2021 Spring
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.

Program Notes

Students must earn a grade of C or better for all courses required 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. This program replaces: CCL/5408 Media Arts: Digital Animation

Required Courses

Required courses
Course # Course Title Credits

Credits: 40

ADA/ART169 2D Media Design (3) OR

ART178 Digital Arts Studies (3) 3

ADA/ART177 Digital Photographic Imaging I 3

ADA/ART/MMT184 Digital Animation I 3

ART100 Introduction to Digital Arts 1

ART111 Drawing I 3

ART116 Life Drawing I 3

ART/COM/STO150 Digital 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

ART/THP246 Digital Fabrication (3) 3

ART/MMT185 3D Modeling for Animation I 3

ART200 Animation and Interactivity 3

ART240 Cinematography and Directing for 2D/3D Animation 3

ART284 Digital Animation II 3

ART/MMT285 3D Modeling and Animation II 3

ART287 3D Character Animation 3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=146627>

Starting Term: 2020 Fall
Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN APPAREL CONSTRUCTION

Total Credits: 29-32
Major Code: 5953

Description

The Certificate of Completion (CCL) in Apparel Construction is designed for students to learn advanced sewing techniques appropriate for custom apparel. Students will develop abilities to select appropriate materials and notions for specific items of apparel.

Program Notes

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

Required Courses

Required courses

Course # Course Title Credits

Credits: 26-32

TEC110 Beginning Apparel Construction (3) OR

Permission of Program Director (0) 0-3

TEC111 Intermediate Apparel Construction (3) OR

Permission of Program Director (0) 0-3

TEC112AQ Pattern Alteration and Fit 2

TEC116 Textiles: Stitchery and Embellishment 1

TEC120 Specialty Apparel Construction 3

TEC122 Sewing with Knits 3

TEC124 Advanced Apparel Construction 3

TEC129 Sewing with a Serger 3

TEC143 Industrial Sewing I 2

TEC222 Textiles 3

TEC223 Tailoring3

TEC227 Couture Sewing 3

<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

Required courses

Course #Course TitleCredits

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

Restricted Electives
 Course # Course Title Credits

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: MUC289, MUC291, 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
MUC289	Live Sound Reinforcement III	3
MUC291	Electronic Music III	3
MUC292	Sound Design III	3
MUC295	Studio Music Recording III	3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=172198>

Starting Term: 2021 Fall
Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN AUTOMATED INDUSTRIAL TECHNOLOGY I

Total Credits: 16
Major Code: 5922

Description

The Certificate of Completion (CCL) in Automated Industrial Technology I prepares students to troubleshoot, maintain and repair a variety of automated electro-mechanical, product assembly and product distribution systems that use other methodologies to accomplish system management. These systems include mechanical, hydraulic, pneumatic, electrical and electronic devices. Through this certificate, graduates will gain the skills to define, install, and maintain

complex production systems. Includes preparation for National Institutes of Metalworking Skills (NIMS) certification exams.

Program Notes

Students must earn a grade of C or better in all courses in the program. This program may require students to be able to lift objects as heavy as 50 pounds. This program replaces: CCL/5000N Industrial Technology

Required Courses

Required courses

Course # Course Title Credits

Credits: 16

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

<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. Includes preparation for National Institutes of Metalworking Skills (NIMS) certification exams.

Program Notes

Students must earn a grade of C or better in all courses in the program. This program may require students to be able to lift objects as heavy as 50 pounds. This program replaces: CCL/5630 Industrial Technology IICCL/5848 Mechatronics Level I

Required Courses

Required courses

Course # Course Title Credits

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

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

Required courses
Course # Course Title Credits

Credits: 4

ASE120 Automatic Transmission and Transaxle (4) OR

ASE120AU Automatic Transmission and Transaxle (4) 4

<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

Required courses

Course # Course Title Credits

Credits: 4

ASE150 Automotive Brake Systems (4) OR

ASE150AU Automotive Brake Systems (4) 4

<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

Required courses

Course # Course Title Credits

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

<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

Required courses

Course # Course Title Credits

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

<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

Required courses

Course # Course Title Credits

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

<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

Required courses

Course # Course Title Credits

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

<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

Required courses

Course # Course Title Credits

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

<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

Required courses

Course # Course Title Credits

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

<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

Required courses
Course # Course Title Credits

Credits: 6

ASE100 Introduction to Automotive Service 2

ASE110 Engine Fundamentals 4

<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

Required courses

Course # Course Title Credits

Credits: 4

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

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

<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

Required courses

Course # Course Title Credits

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

Required courses

Course # Course Title Credits

Credits: 4

ASE130 Manual Drive Trains and Axles (4) OR

ASE130AU Manual Drive Trains and Axles (4) 4

<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

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

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

<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

Required courses

Course # Course Title Credits

Credits: 4

ASE140 Automotive Steering, Suspension and Alignment (4) OR

ASE140AU Automotive Steering, Suspension and Alignment (4) 4

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm?id=125903>

Starting Term: 2018 Fall

Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN BEGINNING PIANO PEDAGOGY

Total Credits: 15

Major Code: 5743N

Description

The Certificate of Completion (CCL) in Beginning Piano Pedagogy program is for pianists who want to teach beginning piano students. Classes offered include learning various methods, techniques, repertoire, skills, style and musicianship necessary to teach piano effectively.

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Admission Criteria

None

Program Prerequisites

Program prerequisites

Course # Course Title Credits

Credits: 0

Acceptance into the program and permission of Program Director is required.

Required Courses

Required courses

Course # Course Title Credits

Credits: 15

MTC105 Music Theory I 3

MTC106 Aural Perception I 1

MUP102AD Private Instruction: Piano 2

MUP123AA Studio Class/Piano (.5) 1

(Two (2) semesters of course is required)

MUP140 Elementary Piano Pedagogy 2

MUP152AD Private Instruction: Piano 2

MUP181 Chamber Music Ensembles (1) 2

(Two (2) semesters of course is required)

MUP240 Piano Literature 2

<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.

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 for all courses required 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

Required courses

Course # Course Title Credits

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=161180>

Starting Term: 2021 Spring

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 each course in the program.

Required Courses

Required courses

Course # Course Title Credits

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/freeForm?id=125884>

Starting Term: 2018 Fall

Final Term: 9999

**CERTIFICATE OF COMPLETION (CCL) IN BRAKES, ALIGNMENT, SUSPENSION
AND STEERING**

Total Credits: 19

Major Code: 5459

Description

The Certificate of Completion (CCL) in Brakes, Alignment, Suspension and Steering program provides students the opportunity to learn the theory and practical skills necessary to service automotive vehicles. This CCL will introduce students to the theory, diagnosis, service and repair of automotive brake systems, powertrain systems, steering, and suspensions systems in vehicles. It also introduces students to vehicle alignment techniques and procedures. Courses in the CCL may include lecture and lab components to provide suitable classroom related material/theory, combined with hands-on learning experiences. Courses in the CCL are National Automotive Technicians Education Foundation (NATEF) accredited and aligned with the professional certification standards from National Institute for Automotive Service Excellence (ASE). This alignment can help prepare for ASE professional certification exams. Courses in this CCL are designed to help students gain insight into specific aspects of the automotive service industry. The courses contained in the CCL can be combined with courses in other CCLs and can be directly applied to the Associate in Applied Science (AAS) degree in Automotive Performance Technology.

Program Notes

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

Required Courses

Required courses

Course # Course Title Credits

Credits: 19

APT101 Automotive Service Operations 3

APT131 Automotive Manual Power Trains 6

APT141 Alignment, Steering, and Suspension 6

APT151 Automotive Brake Systems 4

<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 for all courses within the program.

Required Courses

Required courses

Course # Course Title Credits

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm?id=178032>

Starting Term: 2022 Fall

Final Term: 9999

**CERTIFICATE OF COMPLETION (CCL) IN BUSINESS ADMINISTRATION
FASTRACK**

Total Credits: 27
Major Code: 5152

Description

The Certificate of Completion (CCL) in Business Administration Fastrack program provides opportunities for individuals to update, upgrade, or develop essential business skills. The program's focus is preparing students for job advancement and career opportunities in today's business environment as defined by industry practitioners. Each course includes learning activities and projects which may be offered in an accelerated five-week or eight-week format. Additional features of the program include: student directed learning stressing the dynamic business environment, communication skills, leadership development, and performing effectively within a team environment.

Program Notes

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

Admission Criteria

None

Program Prerequisites

Program prerequisites
Course #Course TitleCredits

Credits: 0

None

Required Courses

Required courses
Course #Course TitleCredits

Credits: 27

ACC110Understanding and Using Accounting Systems (3) OR

ACC111Accounting Principles I (3) 3

BPC110 Computer Usage and Applications (3) OR

CIS105 Survey of Computer Information Systems (3) 3

GBS120 Workplace Communication Skills 3

GBS151 Introduction to Business 3

GBS205 Legal, Ethical, and Regulatory Issues in Business 3

MGT126 Customer Service Skills and Strategies 3

MGT175 Business Organization and Management 3

MGT251 Human Relations in Business 3

MKT271 Principles of Marketing 3

Restricted Electives

Restricted Electives

Course #Course TitleCredits

Credits: 0

None

Free Electives

Free Electives

Course #Course TitleCredits

Credits: 0

None

<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 each course in the program.

Program Prerequisites

Program prerequisites
Course # Course Title Credits

Credits: 0

None

Required Courses

Required courses
Course # Course Title Credits

Credits: 3

AIT128 A-620 Cable and Wire Harness Assembly Certification 3

Restricted Electives

Restricted Electives

Course #Course TitleCredits

Credits: 0

None

Free Electives

Free Electives

Course #Course TitleCredits

Credits: 0

None

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=173501>

Starting Term: 2022 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.

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 for all courses required 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

Required courses

Course # Course Title Credits

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=173502>

Starting Term: 2022 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.

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 for all courses required 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

Required courses

Course # Course Title Credits

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

<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.

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

Required courses

Course # Course Title Credits

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

<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 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/5967 Networking Technology: Cisco

Required Courses

Required courses

Course # Course Title Credits

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=174359>

Starting Term: 2022 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. This program replaces: CCL/5328 Network Administration: Cisco Network Professional CCL/5526 Information Technology: Cisco Networking

Required Courses

Required courses

Course # Course Title Credits

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

<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

Required courses

Course # Course Title Credits

Credits: 6

MPT130 CNC Machine Operator (6) OR

MPT130MP CNC Machine Operator (6) 6

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=154922>

Starting Term: 2020 Fall

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

Required courses

Course # Course Title Credits

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) 6

MPT131MP CNC Machining Level I (6) 6

MPT132CNC Machining Level II (3) OR

MPT132MP CNC Machining Level II (3) 3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=154923>

Starting Term: 2020 Fall

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 II CCL/5795 CAM Systems Programming

Required Courses

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

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=180105>

Starting Term: 2023 Fall

Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN COMMERCIAL REAL ESTATE

Total Credits: 7-8

Major Code: 5229N

Description

The Certificate of Completion (CCL) in Commercial Real Estate is designed for additional preparation for the new agent or broker and to provide specialized professional development for the experienced professional agent or broker. The CCL includes a core of classes in the foundations of commercial real estate, ethics, and the required research and computational skills in the field. The program also offers the opportunity to explore specializations within the industry. A CCL in Real Estate: Prelicense (5139N) 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 each course in the program.

Program Prerequisites

Program prerequisites

Course # Course Title Credits

Students should have:

- an AZ real estate license OR
- completion of MCCCD's CCL Real Estate: Prelicense (5139N) or its equivalent OR
- a real estate license from another state OR
- have completed pre licensure coursework from another approved Arizona real estate school

Required Courses

Required courses

Course # Course Title Credits

Credits: 5

REA205	Introduction to Commercial Real Estate	2
REA208	Ethics in Commercial Real Estate	1
REA211	Compliance in Commercial Real Estate	1
REA214	Finances in Commercial Real Estate	1

Restricted Electives

Restricted Electives

Course #Course TitleCredits

Credits: 2-3

Students must select two of the following options:

REA220	Multiunit Properties in Commercial Real Estate	1
REA225	Industrial Properties in Commercial Real Estate	1
REA230	Land Properties in Commercial Real Estate	1
REA235	Commercial Real Estate Essential Tools	1
REA240	Introduction to Commercial Property Management	2

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=144938>

Starting Term: 2020 Fall

Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN COMMUNITY HEALTH PARAMEDICINE

Total Credits: 8

Major Code: 5017N

Description

The Certificate of Completion (CCL) in Community Health 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 community setting. This certificate prepares students for a community health 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 required within the program.

Admission Criteria

Current state Paramedic certification.

Required Courses

Required courses

Course # Course Title Credits

Credits: 8

PME291 Community Health Paramedicine 8

<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 for all courses required within the program.

Required Courses

Required courses

Course # Course Title Credits

Credits: 19

DFT105AA Computer Aided Drafting I: AutoCAD 3

DFT110 Introduction to Drafting 3

DFT111 Intermediate Drafting 3

DFT254AA Computer Aided Drafting II: AutoCAD 3

DFT255 3D Printing/Additive Manufacturing 4

MPT150 Introduction to SolidWorks 3

<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.

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

Required courses

Course # Course Title Credits

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

BPC270 A+ Exam Prep: Operating System 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

Required courses

Course # Course Title Credits

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

<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

Required courses

Course # Course Title Credits

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=143804>

Starting Term: 2020 Fall

Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN COMPUTER SYSTEM CONFIGURATION AND SUPPORT, SECURITY

Total Credits: 9-19

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. 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/5841 Microsoft Technical Specialist

Required Courses

Required courses

Course # Course Title Credits

Credits: 9-19

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 9-10

CNT140AB Introduction to Networks (4) OR

CIS190 Introduction to Networking (3) 3-4

CIS250 Management of Information Systems 3

CIS271DB Information Security Essentials 3

<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 for all courses required within the program.

Required Courses

Required courses

Course #Course TitleCredits

Credits: 3

CON263 Building Codes 3

<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 for all courses required within the program.

Required Courses

Required courses

Course #Course TitleCredits

Credits: 3

CON271 Construction Safety 3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=159128>

Starting Term: 2020 Fall
Final Term: 9999

**CERTIFICATE OF COMPLETION (CCL) IN CONSTRUCTION TRADES:
ELECTRICAL**

Total Credits: 16
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

Course # Course Title Credits

Credits: 16

CON103	Foundation of Construction Safety	1
CON104	Hand and Power Tools, Equipment, and Workspace	1.5
CON105	Construction Calculations	1.5
CON107	Construction Drawings Introduction	1
CON/HVA131	Electrical Systems	3.5
CON132	Distribution Panels, Wiring, and Circuit Protection in Electrical Systems	3.5
CON133	Conduit, Raceways, and Termination in Electrical Systems	4

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=161949>

Starting Term: 2021 Fall

Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN CONSTRUCTION TRADES: CARPENTRY

Total Credits: 16

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

Required courses

Course # Course Title Credits

Credits: 16

CON103	Foundation of Construction Safety	1
CON104	Hand and Power Tools, Equipment, and Workspace	1.5
CON105	Construction Calculations	1.5
CON107	Construction Drawings Introduction	1
CON110	Carpentry: Floor Systems	3.5
CON111	Carpentry: Wall Systems	3.5

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=161950>

Starting Term: 2021 Fall

Final Term: 9999

**CERTIFICATE OF COMPLETION (CCL) IN CONSTRUCTION TRADES:
CARPENTRY, COMMERCIAL AND RESIDENTIAL**

Total Credits: 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

Required courses

Course #Course TitleCredits

Credits: 27

CON103 Foundation of Construction Safety 1

CON104 Hand and Power Tools, Equipment, and Workspace 1.5

CON105 Construction Calculations 1.5

CON107	Construction Drawings Introduction	1
CON110	Carpentry: Floor Systems	3.5
CON111	Carpentry: Wall Systems	3.5
CON112	Carpentry Ceiling Joist and Roof Framing	4
CON213	Carpentry: Steel Framing	1
CON214	Carpentry: Roof Systems and Building Envelopes	3
CON215	Carpentry: Interior Finishes	4
CON216	Carpentry: Concrete Forms	3

<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

Required courses

Course # Course Title Credits

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=159123>

Starting Term: 2020 Fall
Final Term: 9999

**CERTIFICATE OF COMPLETION (CCL) IN CONSTRUCTION TRADES:
ELECTRICAL, COMMERCIAL AND RESIDENTIAL**

Total Credits: 26
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

Required courses

Course # Course Title Credits

Credits: 26

CON103	Foundation of Construction Safety	1
CON104	Hand and Power Tools, Equipment, and Workspace	1.5
CON105	Construction Calculations	1.5
CON107	Construction Drawings Introduction	1
CON/HVA131	Electrical Systems	3.5
CON132	Distribution Panels, Wiring, and Circuit Protection in Electrical Systems	3.5
CON133	Conduit, Raceways, and Termination in Electrical Systems	4
CON234	Electric Power Distribution	3
CON235	Motors: Theory and Application	4
CON236	Industrial Wiring Applications	3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=159121>

Starting Term: 2020 Fall

Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN CONSTRUCTION TRADES: PLUMBING

Total Credits: 16

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

Required courses

Course # Course Title Credits

Credits: 16

CON103	Foundation of Construction Safety	1
CON104	Hand and Power Tools, Equipment, and Workspace	1.5
CON105	Construction Calculations	1.5
CON107	Construction Drawings Introduction	1
CON124	Plumbing: Pipes and Fittings	3.5
CON125	Plumbing: Fixtures	2
CON126	Plumbing: Drain, Waste, and Vent	3.5
CON127	Plumbing: Water Distribution Systems	2

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=159117>

Starting Term: 2020 Fall

Final Term: 9999

**CERTIFICATE OF COMPLETION (CCL) IN CONSTRUCTION TRADES:
PLUMBING, COMMERCIAL AND RESIDENTIAL**

Total Credits: 28
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

Required courses

Course # Course Title Credits

Credits: 28

CON103	Foundation of Construction Safety	1
CON104	Hand and Power Tools, Equipment, and Workspace	1.5
CON105	Construction Calculations	1.5
CON107	Construction Drawings Introduction	1
CON124	Plumbing: Pipes and Fittings	3.5
CON125	Plumbing: Fixtures	2
CON126	Plumbing: Drain, Waste, and Vent	3.5
CON127	Plumbing: Water Distribution Systems	2
CON224	Plumbing: Pipe Systems and Controls	3
CON225	Plumbing: Water Disposal Systems	4

CON226	Plumbing: Fixtures and Appliances	3
CON227	Plumbing: Water Resource Solutions	2

<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

Required courses
 Course # Course Title Credits

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

<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 for all courses required within the program.

Required Courses

Required courses

Course # Course Title Credits

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

THP202AC Theatre Production I Costume Shop (1) 1-3

Restricted Electives

Restricted Electives

Course #Course TitleCredits

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.

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=183082>

Starting Term: 2023 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. This program replaces: CCL/5490 Crime Scene Investigation

Admission Criteria

None

Program Prerequisites

Program prerequisites

Course # Course Title Credits

Credits: 0

None

Required Courses

Required courses

Course # Course Title Credits

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

<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 required within the program.

Admission Criteria

Current state Paramedic certification.

Required Courses

Required courses

Course #	Course Title	Credits
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Credits: 8

PME292	Critical Care Paramedicine	8
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<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=174698>

Starting Term: 2022 Fall
Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN CROSS-PLATFORM APP DEVELOPMENT

Total Credits: 18-21
Major Code: 5067

Description

The Certificate of Completion (CCL) in Cross-Platform App Development prepares students for employment in entry-level coding, programming, and software development positions with an emphasis on Windows Mobile apps and web apps. This CCL will help students prepare to take the Microsoft Technology Associate (MTA) Software Development Fundamentals C# certification. Courses in this certificate can apply toward the Associate in Applied Science (AAS) in Mobile App Development and Certificate of Completion (CCL) in Mobile App Development.

Program Notes

Students must earn a grade of C or better in all courses within the program. Program requirements for CCL/5833N Windows App Development and CCL/5835N Web App Development may be taken in the CCL/5067 Cross-Platform App Development. 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

Required courses

Course # Course Title Credits

Credits: 18-21

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

CIS162AD C#: Level I 3

CIS165DB C#/VB.NET: Windows 8 App Development (3) OR

CIS165DC Xamarin/C# Cross Platform Development (3) 3

CIS166AA Introduction to JavaScripting 3

CIS233DA Internet/Web Development Level II 3

CIS262AD C# Level II 3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=162485>

Starting Term: 2021 Fall

Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN CYBER ENGINEERING

Total Credits: 42-46

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. 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

Required courses

Course #Course TitleCredits

Credits: 42-46

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

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

CIS271DB Information Security Essentials (3) AND

CIS272DB Information Security Principles (3)

OR

ITS110 Information Security Fundamentals (3) 3-6

ITS240 Ethical 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

<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

Required courses

Course # Course Title Credits

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

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

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=162487>

Starting Term: 2021 Fall
 Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN CYBERSECURITY FUNDAMENTALS

Total Credits: 24-31
 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. 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. This program replaces: CCL/5530 Information Technology: Network and Cyber Security

Required Courses

Required courses
 Course # Course Title Credits

Credits: 24-31

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

CIS250 Management of Information Systems (3) 0-3

Only students taking CIS271DB would be required to take CIS250.

CIS270 Essentials of Network and Information Security (3)

OR

CIS271DB Information Security Essentials (3) AND

CIS272DB Information Security Principles (3)

OR

ITS110 Information Security Fundamentals (3) 3-6

<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 MCCC.

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

Required courses

Course # Course Title Credits

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.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

Required courses

Course # Course Title Credits

Credits: 24

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

<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

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm?id=181224>

Starting Term: 2023 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 for all courses required within the program.

Required Courses

Required courses

Course # Course Title Credits

Credits: 22

ADA/ART177 Digital Photographic Imaging I 3

ART100 Introduction to Digital Arts 1

ART131 Photography I 3

ART132 Photography II 3

ART142 Introduction to Digital Photography 3

ART143 Intermediate Digital Photography 3

ART270 Digital Photographic Imaging II 3

ART274 Digital Photographic Imaging III 3

<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 for all courses required within the program.

Required Courses

Required courses

Course # Course Title Credits

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

<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 for all courses required within the program.

Program Prerequisites

Program prerequisites

Course #Course TitleCredits

Credits: 0

None

Required Courses

Required courses

Course #Course TitleCredits

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 I3	
MUC293	Self Promotion for Music	1

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm?id=125811>

Starting Term: 2018 Fall

Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN DRIVER OPERATOR

Total Credits: 8
Major Code: 5418N

Description

The Certificate of Completion (CCL) in Driver Operator program is designed for students who need (1) advanced training as professional firefighters, (2) preparation courses for career advancement opportunities in fire services, and/or (3) more comprehensive information about the role and function of an emergency vehicle driver/operator.

Program Notes

Students must earn a grade of C or better for all courses required within the program. This program is not eligible for Title IV Federal Financial Aid.

Admission Criteria

Acceptance into the program and permission of Program Director is required.

Program Prerequisites

Program prerequisites
Course # Course Title Credits

Credits: 0

None

Required Courses

Required courses
Course # Course Title Credits

Credits: 8

FSC111 Emergency Vehicle Driver Operator 2

FSC117 Fire Apparatus 3

FSC118 Fire Hydraulics 3

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 in 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. This program replaces: CCL/5016 Early Childhood Education CCL/5356 Early Childhood Education and Administration: Birth through Age Five CCL/5358 Early Care Specialist CCL/5374 Early Childhood Education

Required Courses

Required courses

Course # Course Title Credits

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 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, Management 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

EED280 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

Restricted Electives

Course # Course Title Credits

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)

<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 for all courses required within the program

Required Courses

Required courses

Course # Course Title Credits

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=166130>

Starting Term: 2021 Spring
Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN EMERGENCY MANAGEMENT

Total Credits: 18
Major Code: 5304

Description

The Certification of Completion (CCL) in Emergency Management provides the student with knowledge and skills required to conduct a comprehensive emergency management program. The program prepares students to manage emergency operations, hazardous materials incidents, tactics, strategy, and safety of firefighting activities, and customer service in the public sector. The student will be prepared for positions such as Emergency Manager, Emergency Management Planner, Emergency Operations Coordinator, Environmental Compliance Planner, and Emergency Management Specialist, working in state, local, federal, and international governments, business and industry, military installations, and health care facilities.

Program Notes

Students must earn a grade of C or better in all courses within the program. This program replaces: CCL/5774N Domestic Preparedness and Homeland Security

Required Courses

Required courses
Course # Course Title Credits

Credits: 18

AJS/FSC139 Emergency Response to Terrorism 3

AJS/FSC146	Disaster Recovery Operations	3
AJS/FSC147	Emergency Preparedness	3
AJS/FSC148	Fundamentals of Emergency Management	3
AJS/FSC149	Hazard Mitigation	3
FSC224	Incident Command Systems	3

<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.

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.

Program Prerequisites

Program prerequisites

Course #Course TitleCredits

Credits: 0

None.

Required Courses

Required courses

Course #Course TitleCredits

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

Restricted Electives

Restricted Electives

Course #Course TitleCredits

Credits: 0

None

Free Electives

Free Electives

Course #Course TitleCredits

Credits: 0

None

<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.

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

Required courses

Course # Course Title Credits

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

EMT104 Emergency Medical Technology 10

EMT104LL Emergency Medical Technology Practicum 2

Restricted Electives

Restricted Electives

Course # Course Title Credits

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=174680>

Starting Term: 2022 Fall

Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN ENROLLED AGENT

Total Credits: 17-18

Major Code: 5958

Description

The Certificate of Completion (CCL) in Enrolled Agent program helps to prepare students for the Enrolled Agent Examination. The Internal Revenue Service (IRS) Enrolled Agent credential allows tax practitioners to represent taxpayers before the IRS when it comes to collections, audits, and appeals. Enrolled Agents' expertise in the continually changing field of taxation enables them to effectively represent taxpayers at all administrative levels within the IRS. Students who successfully complete this CCL may also seek employment as tax preparers.

Program Notes

Students must earn a grade of C or better in all courses in the program. Consultation with an Academic Advisor is recommended for course selection. The Volunteer Income Tax Assistance (VITA) program internship is only available in the spring semester- Contact a program adviser for more information.

Required Courses

Required courses

Course #	Course Title	Credits
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Credits: 15

ACC111 Accounting Principles I (3) OR

ACC211Financial Accounting (3) 3

ACC121Individual Tax Preparation 3

ACC221Tax Accounting 3

ACC224Tax Practice Administration and Business Entity Analysis 3

CIS105 Survey of Computer Information Systems 3

Restricted Electives

Restricted Electives

Course #Course TitleCredits

Credits: 2-3

Students should select 2-3 credits from the list below:

ACC105Payroll, Sales and Property Taxes 3

ACC112Accounting Principles II 3

ACC115Computerized Accounting 3

ACC222Payroll Accounting 3

ACC230Uses of Accounting Information I 3

ACC270AB Accounting Internship 2

ACC270AC Accounting Internship 3

<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 for all courses within the program. This program replaces: CCL/5192N Small Business Entrepreneurship, CCL/5706N Small Business Start-Up, CCL/5892 Business Micro Finance

Required Courses

Required courses

Course # Course Title Credits

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

GBS/HEC132 Personal and Family Financial Security 3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=174697>

Starting Term: 2022 Fall
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 for all courses within the program. This program replaces: CCL/5892 Business Micro Finance

Required Courses

Required courses

Course # Course Title Credits

Credits: 18-19

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

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=146603>

Starting Term: 2020 Fall

Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN FASHION DESIGN: LEVEL I

Total Credits: 27-30

Major Code: 5355

Description

The Certificate of Completion (CCL) in Fashion Design: Level I includes training in design, fashion illustration, patternmaking, and draping, and supports students in building inspirational sources through analysis of cultural, historical, and contemporary fashion and design. Students student completing this certificate will enter the fashion industry at entry-level positions. A Certificate of Completion (CCL) in Fashion Design: 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

Required courses

Course #Course TitleCredits

Credits: 27-30

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

TEC125 Fashion Design 3

TEC134 Fashion Illustration I 3

TEC221 Computer-Assisted Fashion Design 3

TEC222 Textiles 3

TEC225 Pattern Design I 3

TEC226 Draping for Fashion Design 3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=183083>

Starting Term: 2023 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 for all courses required within the program. This program is not eligible for Title IV Federal Financial Aid. This program replaces: CCL/5012N Crime and Accident Scene Photography, CCL/5655 Evidence Technology, CCL/5753 Crime Scene Technology, CCL/5877 Evidence Technology

Required Courses

Required courses

Course # Course Title Credits

Credits: 10

AJS101	Introduction to Criminal Justice	3
AJS213	Evidence Technology/Fingerprints	3
AJS214	Evidence Technology/Photography	3
AJS290BN	Courtroom Testimony Seminar	1

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=164891>

Starting Term: 2021 Spring

Final Term: 2024 Summer

CERTIFICATE OF COMPLETION (CCL) IN FIRE SERVICE MANAGEMENT

Total Credits: 21

Major Code: 5420

Description

The Certificate of Completion (CCL) in Fire Service Management can be used by professional firefighters for promotional opportunities within the Fire Services. The program provides courses for experienced professional firefighters who desire to learn advanced fireground tactics and strategy, building construction, practical incident command, supervisory training of personnel, public administration, basic finance, and human resource management. An Associate in Applied Science (AAS) in Fire Service Management is also available.

Program Notes

Students must earn a grade of C or better in all courses within the program. This program replaces: CCL/5514 Fire Service Professional

Admission Criteria

Current employment as a firefighter and/or Firefighter I and II Certification and/or related experience as determined by the Program Director.

Required Courses

Required courses

Course # Course Title Credits

Credits: 21

FSC119 Introduction Fire Service Ethics 3

FSC167 Fire Captain Academy 6

FSC202 Supervisory Training for Firefighters 3

FSC204 Firefighting Tactics and Strategy 3

FSC208 Firefighter Safety and Building Construction 3

FSC214 Human Resources Management in Fire Service 3

<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 for all courses required within the program.

Admission Criteria

Formal application and admission to the program is required.

Required Courses

Required courses

Course # Course Title Credits

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm?id=175642>

Starting Term: 2023 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 in 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. This program replaces: CCL/5016 Early Childhood Education CCL/5019N Early Childhood Classroom Management CCL/5356 Early Childhood Education and Administration: Birth through Age Five CCL/5358 Early Care Specialist CCL/5374 Early Childhood Education CCL/5710 Foundations of Early Childhood Education CCL/5714 Family Child Care Management CCL/5715 Infant and Toddler Development

Required Courses

Required courses

Course # Course Title Credits

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 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, Management 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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=174696>

Starting Term: 2022 Fall

Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN FOUNDATIONS OF MOBILE APP DEVELOPMENT

Total Credits: 18-21

Major Code: 5793

Description

The Certificate of Completion (CCL) in the Foundations of Mobile App Development prepares students for employment in entry-level coding, programming, and software development positions with foundational experience in a variety of platforms, including iOS, Android, Windows and web app development. Courses in this certificate can apply toward the Associate in Applied Science (AAS) in Mobile App Development and Certificate of Completion (CCL) in Mobile App Development.

Program Notes

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

Required courses

Course # Course Title Credits

Credits: 18-21

CIS105 Survey of Computer Information Systems (3) OR

Permission of Program Director, Department or Division Chair (0) 0-3

CIS120DF Introduction to Adobe Photoshop 3

CIS133DA Internet/Web Development Level I 3

CIS162AD C#: Level I 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

<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 in the program.

Required Courses

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

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)

<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 for all courses required 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

Required courses

Course #Course TitleCredits

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

Restricted Electives

Course #Course TitleCredits

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 Database 3

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=167079>

Starting Term: 2021 Spring

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 for all courses required within the program. This program replaces: CCL/5633 Digital Arts: Graphic Design CCL/5684 Media Arts: Graphic Design

Required Courses

Required courses

Course # Course Title Credits

Credits: 31

ADA/ART169 2D Media Design 3

ADA/ART177	Digital Photographic Imaging I	3
ADA/ART183	Digital Graphic Arts I	3
ADA/ART248	Design Self Promotion (3) OR	
ART255	Art Marketing (3)	3
ADA/ART283	Digital Graphic Arts II	3
ART100	Introduction to Digital Arts	1
ART111	Drawing I (3) OR	
ART116	Life Drawing I (3)	3
ART113	Color (3) OR	
ART114	Digital Color (3)	3
ART142	Introduction to Digital Photography	3
ART178	Digital Arts Studies	3
ART/MMT190	Art of Web Site Design (3) OR	
CIS133DA	Internet/Web Development Level I (3)	3

Restricted Electives

Restricted Electives

Course # Course Title Credits

Credits: 3

Students must select 3 credits from the following list of courses:

ADA/ART175 Electronic Publishing Design I 3

ADA/ART289 Computer Illustration 3

ART103 Typography in the Digital Age 3

ART/COM/STO150 Digital Storytelling 3

ART192 Advanced Web Presentation Design 3

ART200 Animation and Interactivity 3

ART210 Design Tools for Imagery, Production, and Publishing 3

ART/THP246 Digital Fabrication 3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=178033>

Starting Term: 2022 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.

Program Notes

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

Admission Criteria

None

Program Prerequisites

Program prerequisites

Course # Course Title Credits

Credits: 0

None

Required Courses

Required courses

Course # Course Title Credits

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

Restricted Electives

Restricted Electives

Course # Course Title Credits

Credits: 0

None

Free Electives

Free Electives

Course # Course Title Credits

Credits: 0

None

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=167080>

Starting Term: 2021 Spring

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 for all courses required within the program. This program replaces: CCL/5631 Digital Arts: Digital Illustration CCL/5881 Media Arts: Computer Art/Illustration

Program Prerequisites

Program prerequisites

Course # Course Title Credits

Credits: 0

None.

Required Courses

Required courses

Course # Course Title Credits

Credits: 25

ADA/ART169 2D Media Design 3

ADA/ART177 Digital Photographic Imaging I 3

ADA/ART248 Design Self Promotion (3) OR

ART255 Art Marketing (3) 3

ADA/ART289 Computer Illustration 3

ART100 Introduction to Digital Arts 1

ART111 Drawing I 3

ART113 Color (3) OR

ART114 Digital Color (3) 3

ART116 Life Drawing I 3

ART178 Digital Arts Studies 3

Restricted Electives

Restricted Electives

Course # Course Title Credits

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

ADA/ART/MMT184 Digital Animation I 3

ART/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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=146790>

Starting Term: 2020 Fall

Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN IMAGE CONSULTANT

Total Credits: 19-21

Major Code: 5402

Description

The Certificate of Completion (CCL) in Image Consultant is designed for students with an interest in Image Consulting. Students learn clothing strategies for all figure types, appropriate dress for all occasions, nutrition, and interpersonal skills. They develop the ability to advise clients and groups for an acceptable image. Completers of this certificate will have interned with a nationally certified Image Consultant through the Association of Image Consultants, International (AICI), for a minimum of 480 hours. They may then apply for accreditation from AICI.

Program Notes

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

Required Courses

Required courses

Course # Course Title Credits

Credits: 19-21

ART113 Color 3

COM110 Interpersonal Communication 3

HES100 Healthful Living 3

TEC105 Cultural Aspects of Clothing 3

TEC222 Textiles 3

TEC245 Wardrobe Strategies 3

TEC275++ Any Image Consultant Internship course 1-3

<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 for all courses required within the program.

Program Prerequisites

Program prerequisites

Course #Course TitleCredits

None

Required Courses

Required courses

Course #Course TitleCredits

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

Restricted Electives

Course # Course Title Credits

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm?id=125904>

Starting Term: 2018 Fall

Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN INTERMEDIATE PIANO PEDAGOGY

Total Credits: 15

Major Code: 5749N

Description

The Certificate of Completion (CCL) in Intermediate Piano Pedagogy program is for pianists who want to teach intermediate piano students. Classes offered include learning various methods, techniques, repertoire, skills, style and musicianship necessary to teach piano effectively.

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Admission Criteria

None

Program Prerequisites

Program prerequisites

Course # Course Title Credits

Credits: 15

CCL/5743N is not eligible for Title IV Federal Financial Aid.

Certificate of Completion in Beginning Piano Pedagogy (5743N) 15

Required Courses

Required courses

Course # Course Title Credits

Credits: 15

MHL140 Survey of Music History (3) OR

MHL242 Music History and Literature 1750 to present (3) 3

MUP123AA Studio Class/Piano (.5) 1

(Two (2) semesters of course is required)

MUP141 Intermediate Piano Pedagogy 2

MUP166 Jazz Piano I 1

MUP181 Chamber Music Ensembles (1) 2

(Two (2) semesters of course is required)

MUP202AD Private Instruction: Piano 2

MUP241 Piano Artistry 2

MUP252AD Private Instruction: Piano 2

<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 for all courses required within the program.

Required Courses

Required courses

Course # Course Title Credits

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=172921>

Starting Term: 2022 Fall

Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN IOS APP DEVELOPMENT

Total Credits: 9-12
Major Code: 5914N

Description

The Certificate of Completion (CCL) in iOS App Development prepares students for positions in app development for the Apple iPad, iPhone, and Apple Watch series. The program emphasizes knowledge and skills required to design, develop, test, and document structured and object-

oriented programs utilizing Swift and Xcode. Courses in this certificate can apply toward the Associate in Applied Science (AAS) in Mobile App Development and Certificates of Completion (CCLs) in Native 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 for all courses required 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

Required courses

Course # Course Title Credits

Credits: 9-12

CIS105 Survey of Computer Information Systems (3) OR

Permission of Program Director, Department or Division Chair (0) 0-3

CIS150AB Object-Oriented Programming Fundamentals 3

CIS165 Introduction to IOS Application Development 3

CIS265 Advanced iOS Application Development 3

<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 each course in the program.

Required Courses

Required courses

Course # Course Title Credits

Credits: 3

AIT123 J-STD Soldering Certification 3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=180708>

Starting Term: 2023 Fall

Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN KUBERNETES ADMINISTRATION

Total Credits: 4-10

Major Code: 5933N

Description

The Certificate of Completion (CCL) in Kubernetes Administration is designed to provide students with the knowledge and skills to perform the responsibilities of administering cluster architecture, installation, configuration, storage and troubleshooting. This program helps prepare students for the Certified Kubernetes Administrator certification (CKA). Industry professionals in the field of systems administration will benefit from adding a specialization in Kubernetes administration to their skill sets.

Program Notes

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in each course in the program.

Required Courses

Required courses

Course # Course Title Credits

Credits: 4-10

CIS126DL Linux Operating System (3) AND

CIS238DL Linux System Administration (3)

OR

CIS126RH Red Hat System Administration I (3) AND

CIS238RH Red Hat System Administration II (3)

OR

Permission of Instructor or Department (0) 0-6

CIS252 Introduction to Kubernetes Administration 4

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=180709>

Starting Term: 2023 Fall

Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN KUBERNETES APPLICATION DEVELOPMENT

Total Credits: 3-6

Major Code: 5935N

Description

The Certificate of Completion (CCL) in Kubernetes Application Development is designed to provide students with the knowledge and skills to define application resources and use core

primitives to build, monitor and troubleshoot scalable applications and tools in Kubernetes. This program helps prepare students for the Kubernetes Security Specialist (CKAD) certification exam. Industry professionals in the field of application development will enhance their skill set by adding this specialization.

Program Notes

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in each course in the program.

Required Courses

Required courses

Course # Course Title Credits

Credits: 3-6

Knowledge of at least one programming language, such as Python, C++, JavaScript, Ruby, C# (C-Sharp), is recommended.

CIS126DL Linux Operating System (3) OR

CIS126RH Red Hat System Administration I (3) OR

permission of instructor or department (0) 0-3

CIS254 Introduction to Kubernetes Application Development 3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=180711>

Starting Term: 2023 Fall

Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN KUBERNETES SECURITY

Total Credits: 7-13

Major Code: 5937N

Description

The Certificate of Completion (CCL) in Kubernetes Security provides students the knowledge and skills to perform a broad range of best practices for securing container-based applications and Kubernetes platforms during build, deployment and runtime. This program helps prepare students for the Kubernetes Security Specialist (CKS) certification exam. Industry professionals in the field of information technology security will benefit from adding a specialization in Kubernetes security to their skill sets.

Program Notes

This program is not eligible for Title IV Federal Financial Aid. Students must earn a grade of C or better in each course in the program.

Required Courses

Required courses

Course # Course Title Credits

Credits: 7-13

CIS126DL Linux Operating System (3) AND

CIS238DL Linux System Administration (3)

OR

CIS126RH Red Hat System Administration I (3) AND

CIS238RH Red Hat System Administration II (3)

OR

Permission of Instructor or Department (0) 0-6

CIS252 Introduction to Kubernetes Administration 4

CIS255 Introduction to Kubernetes Security 3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=135312>

Starting Term: 2019 Fall

Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN LANDSCAPE AIDE

Total Credits: 13-16

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 for all courses within the program.

Required Courses

Required courses

Course # Course Title Credits

Credits: 13-16

AGL181 Landscape Construction Techniques 3

AGL189 Landscape Design I 3

AGS164 Plant Growth and Development 4

AGS183 Urban Plant Identification and Use 3

CHM130 Fundamental Chemistry (3) OR

Permission of Program Director 0-3

<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 in the program.

Required Courses

Required courses

Course # Course Title Credits

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

<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. This program replaces: CCL/5107 Police Science CCL/5145N Law Enforcement

Required Courses

Required courses

Course # Course Title Credits

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=156938>

Starting Term: 2020 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 for all courses within the program. This program replaces: CCL/5635 Legal Studies

Required Courses

Required courses

Course # Course Title Credits

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

<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

Required courses

Course # Course Title Credits

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=143807>

Starting Term: 2020 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

Required courses

Course # Course Title Credits

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

<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 for all courses required within the program. This program replaces: CCL/5072 Middle Management CCL/5088 Management CCL/5721N Supervision and Management ICCL/5722 Supervision and Management II

Admission Criteria

None

Program Prerequisites

Program prerequisites

Course #	Course Title	Credits
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Credits: 0

None

Required Courses

Required courses

Course #Course TitleCredits

Credits: 18

ACC111Accounting 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

Restricted Electives

Course #Course TitleCredits

Credits: 0

None

Free Electives

Free Electives

Course #Course TitleCredits

Credits: 0

None

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 for all courses required within the program.

Admission Criteria

None

Program Prerequisites

Program prerequisites
Course #Course TitleCredits

None

Required Courses

Required courses
Course #Course TitleCredits

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

Restricted Electives

Course # Course Title Credits

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

Free Electives

Free Electives

Course # Course Title Credits

None

<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 for all courses within the program.

Required Courses

Required courses

Course # Course Title Credits

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

<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.

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

Required courses

Course #Course TitleCredits

Credits: 3

MST150WT Installing and Configuring Microsoft Windows 10 3

<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

Required courses

Course #Course TitleCredits

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=182541>

Starting Term: 2023 Spring

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. This program replaces: CCL/5218 Advanced Computer Usage and Applications

Required Courses

Required courses

Course # Course Title Credits

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

CIS217AM Advanced Microsoft Access: Database Management 3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=182545>

Starting Term: 2023 Spring

Final Term: 9999

**CERTIFICATE OF COMPLETION (CCL) IN MICROSOFT SYSTEM
ADMINISTRATION**

Total Credits: 18-21

Major Code: 5031

Description

The Certificate of Completion (CCL) in Microsoft System Administration program is designed to provide students with background knowledge and skills required for learning the specific tasks and industry recognized standards associated with computer networks and data communications. The program includes a core of Microsoft courses to develop professionals who implement, manage, and troubleshoot existing network and system environments based on current Microsoft operating systems including active directory, messaging services, file and print servers, and firewalls. The courses in the program are also designed to help prepare students for the Microsoft 365 Certified: Modern Desktop Administrator Associate and Microsoft Certified Solutions Associate (MCSA) - Windows Server 2016 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 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

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/5124 Network Administration: Microsoft Windows Server CCL/5852 Microsoft Server Administration

Required Courses

Required courses

Course # Course Title Credits

Credits: 18-21

CIS105 Survey of Computer Information Systems (3) OR

May be waived by permission of the Program Director (0) 0-3

CIS121AH Microsoft PowerShell/Command Line Operations 3

MST150++	Any Microsoft Windows course	3
MST155DC	Installation, Storage, and Compute with Windows Server	4
MST157DC	Networking with Windows Server	4
MST158DB	Installing and Configuring Windows Server	4

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=165407>

Starting Term: 2021 Fall

Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN MOBILE APP DEVELOPMENT

Total Credits: 33-36

Major Code: 5193

Description

The Certificate of Completion (CCL) in Mobile App Development prepares students for employment in entry-level coding, programming, and software development positions with an emphasis on mobile apps. Students will be prepared to take the App Developer with Swift Certification Level 1, Microsoft C# Software Essentials, and Associate Android Developer certifications. An Associate in Applied Science (AAS) in Mobile App Development and Certificates of Completion (CCL) in iOS Application Development, Android Application Development, Windows Application Development, Web App Development, Native Mobile App Development, Cross-Platform App Development and Foundations of Mobile App Development are also available.

Program Notes

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. Program requirements for CCL 5914N iOS Application Development may be taken in the CCL 5193 Mobile App Development. An additional CCL within mobile apps may also be earned based on 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.

Admission Criteria

None

Program Prerequisites

Program prerequisites

Course # Course Title Credits

None

Required Courses

Required courses

Course # Course Title Credits

Credits: 24-27

CIS105 Survey of Computer Information Systems (3) OR

Permission of Program Director, Department or Division Chair (0) 0-3

CIS120DF Introduction to Adobe Photoshop 3

CIS133DA Internet/Web Development Level I 3

CIS150AB Object-Oriented Programming Fundamentals 3

CIS156 Python Programming: Level I (3) OR

CIS159 Visual Basic Programming I (3) OR

CIS163AA Java Programming: Level I (3) 3

CIS162AD C#: Level I 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

Restricted Electives

Restricted Electives

Course #Course TitleCredits

Credits: 9

Students must select one additional course from the following. Course may not apply to both Required Courses and Restricted Electives areas.

CIS156 Python Programming: Level I 3

CIS159 Visual Basic Programming I3

CIS166AA Introduction to JavaScripting 3

CIS166AE Web Scripting with PHP: Hypertext Preprocessor (PHP) 3

Students must select two additional courses from the following. Courses may not apply to both Required Courses and Restricted Electives areas.

CIS225 Business Systems Analysis and Design 3

CIS233DA Internet/Web Development Level II 3

CIS262AD C# Level II 3

CIS265 Advanced iOS Application Development 3

CIS265DA Advanced Android Application Development 3

CIS276DA MySQL Database 3

CIS276DB SQL Server Database 3

Free Electives

Free Electives

Course #Course TitleCredits

Credits: 0

None

<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 for all courses required within the program.

Required Courses

Required courses

Course # Course Title Credits

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

<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 for all courses within the program.

Admission Criteria

None

Program Prerequisites

Program prerequisites

Course # Course Title Credits

Credits: None

None

Required Courses

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=165410>

Starting Term: 2021 Fall

Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN NATIVE MOBILE APP DEVELOPMENT

Total Credits: 18-21

Major Code: 5063

Description

The Certificate of Completion (CCL) in Native Mobile App Development prepares students for employment in entry-level coding, programming, and software development positions with an emphasis on native iOS and Android mobile apps. This CCL will help students prepare to take the App Developer with Swift Certification Level 1 and Associate Android Developer certifications. Courses in this certificate can apply toward the Associate in Applied Science (AAS) in Mobile App Development and Certificate of Completion (CCL) in Mobile App Development.

Program Notes

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. Program requirements for CCL5834 Android Application Development and CCL5914 iOS Application Development CCL may be taken in the CCL 5063 Native Mobile App Development. 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

Required courses

Course # Course Title Credits

Credits: 18-21

CIS105 Survey of Computer Information Systems (3) OR
 Permission of Program Director, Department or Division Chair (0) 0-3

CIS150 Programming Fundamentals (3) OR

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

CIS150AB Object-Oriented Programming Fundamentals 3

CIS165 Introduction to IOS Application Development 3

CIS165DA Introduction to Android Application Development 3

CIS265 Advanced iOS Application Development 3

CIS265DA Advanced Android Application Development 3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=149988>

Starting Term: 2020 Fall
 Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN NON-SWORN FIRE SERVICE PROFESSIONAL

Total Credits: 18
 Major Code: 5486

Description

The Certificate of Completion (CCL) in Non-Sworn Fire Service Professional program is designed for students who need basic preparation courses to pursue a non-sworn career as a fire service professional and/or more comprehensive information about life safety, fire hazards, and

prevention. A unique feature of the program is that the instructors are professional fire service personnel including firefighters.

Program Notes

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

Admission Criteria

None

Required Courses

Required courses

Course # Course Title Credits

Credits: 18

FSC105 Hazardous Materials Awareness and Operations 3

FSC106 Introduction to Fire Protection 3

FSC108 Fundamentals of Fire Prevention 3

FSC113 Introduction to Fire Suppression 3

FSC208 Firefighter Safety and Building Construction 3

FSC215 Customer Service in the Public Sector 3

<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 CD 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 CD 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.

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

Required courses

Course # Course Title Credits

Credits: 2-4.5

NUR158 Nurse Assisting (4.5) OR

Advanced Placement course:

NCE150 Advanced Placement: Nurse Assisting (2) 2-4.5

<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.

Program Notes

Students must earn a grade of "C" or better for all courses within the program. This program is not eligible for Title IV Federal Financial Aid. 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

Required courses

Course #Course TitleCredits

Credits: 10

NUR295 Registered Nurse Refresher 10

<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.

Program Prerequisites

Program prerequisites

Course #Course TitleCredits

Credits: 0

None

Required Courses

Required courses

Course # Course Title Credits

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=164140>

Starting Term: 2021 Spring

Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN PARAMEDICINE

Total Credits: 45
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 B or better in all PME courses required within the program. This program replaces: CCL/5513 Paramedicine

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

Required courses

Course # Course Title Credits

Credits: 45

BIO160 Introduction to Human Anatomy and Physiology 4

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=178661>

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 for all courses required within the program.

Required Courses

Required courses

Course # Course Title Credits

Credits: 17-17.5

EMT101 Basic Life Support/Cardiopulmonary Resuscitation (CPR) for Health Care Providers (0.5) OR

HES106 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

Restricted Electives

Course # Course Title Credits

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

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

Required courses

Course # Course Title Credits

Credits: 29-29.5

EMT101 Basic Life Support/Cardiopulmonary Resuscitation (CPR) for Health Care Providers (0.5) OR

HES106 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

Restricted Electives

Course #Course TitleCredits

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)

<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 for all courses required 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. This program replaces: CCL/5084 Software Development CCL/5207 Computer Programming

Required Courses

Required courses

Course # Course Title Credits

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

<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 for all courses required within the program. Consultation with an Academic Advisor is recommended for course selection. This program replaces: CCL/5084 Software Development CCL/5207 Computer Programming

Required Courses

Required courses

Course # Course Title Credits

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

Restricted Electives
 Course #Course TitleCredits

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 I3
 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

<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

Students must earn a grade of "C" or better for all courses required within the program. This program is not eligible for Title IV Federal Financial Aid.

Program Prerequisites

Program prerequisites

Course # Course Title Credits

Credits: 3

TQM240 Project Management in Quality Organizations (3) OR

department approval 3

Required Courses

Required courses

Course # Course Title Credits

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

<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

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

Credits: 3-7

Specialization 1: Cybersecurity and Networking

CNT140AB Introduction to Networks 4

CIS256CN Python for Cybersecurity and Networking 3

Specialization 2: Data Analytics

<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.

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 program.

Required Courses

Required courses

Course # Course Title Credits

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=143811>

Starting Term: 2020 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

Required courses

Course # Course Title Credits

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=143812>

Starting Term: 2020 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. This program replaces: CCL/5204N Linux Professional

Required Courses

Required courses

Course # Course Title Credits

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

<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 for all courses required within the program.

Required Courses

Required courses

Course #Course TitleCredits

Credits: 6

REA270Basic Appraisal Principles 2

REA271Basic Appraisal Procedures 2

REA272Uniform Standards of Professional Appraisal Practice (USPAP) 1

REA150Supervisory Appraiser/Trainee Appraiser 1

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=167544>

Starting Term: 2022 Fall

Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN RETAIL MANAGEMENT

Total Credits: 24

Major Code: 5286

Description

The Certificate of Completion (CCL) in Retail Management is designed to prepare individuals working in the retail industry, and related fields, for the industry training needs in supervision and management, marketing, financial management, and business planning. The curriculum encompasses several business essentials and also emphasizes the skill sets needed for effective management and communication in the work environment. An Associate in Applied Science (AAS) in Retail Management is also available.

Program Notes

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

Required Courses

Required courses

Course #Course TitleCredits

Credits: 24

ACC111 Accounting Principles I (3) OR

ACC211 Financial Accounting (3) 3

BPC110 Computer Usage and Applications (3) OR

CIS105 Survey of Computer Information Systems (3) 3

COM100 Introduction to Human Communication 3

MGT101 Techniques of Supervision (3) OR

MGT229 Management and Leadership I (3) 3

MGT251 Human Relations in Business 3

MGT180 Retail Management 3

MGT276 Human Resources Management 3

MKT271 Principles of Marketing 3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=147162>

Starting Term: 2020 Fall

Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN RETAIL SALES MANAGER

Total Credits: 22-24

Major Code: 5405

Description

The Certificate of Completion (CCL) in Retail Sales Manager is designed for students with an interest in retail store management. Students learn about apparel and retail store management, merchandising, salesmanship, customer service, basic computer systems, and human resources. They develop the ability to train and manage personnel in a store, display and merchandise their areas or store, effectively train personnel to sell the merchandise, and manage stocks and profitability.

Program Notes

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

Required Courses

Required courses

Course # Course Title Credits

Credits: 22-24

BPC110 Computer Usage and Applications (3) OR

CIS105 Survey of Computer Information Systems (3) 3

MKT/TEC109 Introduction to Fashion Merchandising 3

MKT/TEC151 Display and Visual Merchandising 3

MKT/TEC200 Retail Buying 3

MKT268 Merchandising 3

TEC222 Textiles 3

TEC245 Wardrobe Strategies 3

TEC272++ Any Retail Merchandising Internship course 1-3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=183402>

Starting Term: 2023 Fall

Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN RISK MANAGEMENT AND INSURANCE

Total Credits: 18
Major Code: 5842

Description

The Certificate of Completion (CCL) in Risk Management and Insurance program is designed to provide students with foundational skills in insurance and risk management. 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. An Associate in Applied Science (AAS) in Risk Management and Insurance is also available.

Program Notes

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

Required Courses

Required courses

Course # Course Title Credits

Credits: 12

INS100 Insurance Industry Profession 3

INS200 Principles of Property and Liability Insurance 3

INS205 Personal Insurance 3

INS210 Commercial Insurance 3

Restricted Electives

Restricted Electives

Course # Course Title Credits

Credits: 6

Students must choose six (6) industry/job related credits from the list of Restricted Electives below.

COM+++++ Any COM Communication course(s) 0-6

Recommended: COM110 Interpersonal Communication 3

GBS+++++ Any GBS General Business course(s) 0-6

Recommended:

GBS151 Introduction to Business 3 OR

GBS205 Legal, Ethical, and Regulatory Issues in Business 3

INS+++++ Any INS Insurance Studies course(s) except courses used to satisfy Required
Courses area 0-6

MGT+++++ Any MGT Management course(s) 0-6

Recommended: MGT175 Business Organization and Management 3

MKT+++++ Any MKT Marketing course(s) 0-6

Recommended: MKT271 Principles of Marketing 3

TQM+++++ Any TQM Total Quality Management course(s) 0-6

Recommended: TQM101 Quality Customer Service 3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?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 each course in the program.

Required Courses

Required courses

Course # Course Title Credits

Credits: 7

AIT100 Industrial Safety 1

AIT270 Robotics I 3

AIT275 Robotics II 3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=181513>

Starting Term: 2023 Spring
Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN SECURITIES INDUSTRY ESSENTIALS

Total Credits: 16
Major Code: 5907

Description

The Certificate of Completion (CCL) in Securities Industry Essentials builds the industry knowledge and skills for individuals to prepare for careers in Financial Services. This CCL will introduce students new to or interested in financial services to the fundamental concepts of capital markets, types of products and their risks, trading, customer accounts, prohibited activities, and regulatory agencies and their functions. Students with the requisite experience in the field who complete this CCL can pursue employment in a variety of security industry jobs. This CCL also helps to prepare students for the Financial Industry Regulatory Authority (FINRA) Securities Industry Essentials (SIE). A Certificate of Completion (CCL) and Associate in Applied Science (AAS) in Banking and Finance are also available.

Program Notes

Students must earn a grade of C or better in all courses within the program. This Certificate of Completion (CCL) is intended for current or prospective securities industry professionals who are interested in expanding their knowledge in the area of financial securities to enhance their employment opportunities.

Required Courses

Required courses

Course # Course Title Credits

Credits: 16

GBS120 Workplace Communication Skills 3

GBS151 Introduction to Business 3

GBS261 Investments I 3

GBS261LL Securities Industry Essentials (SIE) Exam Prep 1

MGT126 Customer Service Skills and Strategies 3

MKT267 Principles of Sales (3) OR

MKT271 Principles of Marketing (3) 3

Recommend MKT267 if career goal in the field of finance is sales.

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=167480>

Starting Term: 2021 Spring

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 for all courses required within the program. This program replaces: CCL/5687 Comic and Sequential Art

Required Courses

Required courses

Course # Course Title Credits

Credits: 40

ADA/ART169 2D Media Design 3

ADA/ART177 Digital Photographic Imaging I 3

ADA/ART289 Computer Illustration 3

ART100 Introduction to Digital Arts 1

ART111 Drawing I 3

ART113Color (3) OR

ART114Digital Color (3) 3

ART116Life Drawing I 3

ART119Penciling for Sequential Art 3

ART120Inking for Sequential Art 3

ART178Digital Arts Studies 3

ART219Coloring, Toning and Lettering for Sequential Art 3

ART220Publishing for the Comic Industry 3

ART221Comics Creation 3

CRW172 Introduction to Comic Book Writing (3) OR

CRW176 Writing Narrative for Video Games (3) OR

CRW190 Introduction to Screenwriting (3) 3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm?id=175246>

Starting Term: 2022 Fall

Final Term: 2023 Summer

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 required for all courses within the program.

Required Courses

Required courses

Course # Course Title Credits

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm?id=175237>

Starting Term: 2022 Fall

Final Term: 2023 Summer

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 for all courses within the program.

Required Courses

Required courses

Course #Course TitleCredits

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

Restricted Electives

Course #Course TitleCredits

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

<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 for all courses in the program.

Required Courses

Required courses

Course #	Course Title	Credits
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Credits: 15

CIS103	Introduction to Social Media	3
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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

Restricted Electives

Course # Course Title Credits

Credits: 2-3

MKT101	Introduction to Public Relations	3
MKT280AB	Marketing Internship	2
MKT298AB	Special Projects	2

<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 for all courses required within the program.

Required Courses

Required courses

Course # Course Title Credits

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=145534>

Starting Term: 2020 Fall

Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN TACTICAL EMERGENCY CASUALTY CARE

Total Credits: 2.5

Major Code: 5998N

Description

The Certificate of Completion (CCL) in Tactical Emergency Casualty Care 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 tactical

emergency setting. This certificate prepares students for a tactical emergency casualty 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 required within the program.

Admission Criteria

Current state Paramedic certification.

Required Courses

Required courses

Course # Course Title Credits

Credits: 2.5

PME293 Tactical Emergency Casualty Care (TECC) 2.5

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=151194>

Starting Term: 2020 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 for all courses required 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

Required courses

Course # Course Title Credits

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

THP225 Visual Script Analysis (3) OR

THP291AC Summer Conservatory: Script Analysis (ACT) (1) 1-3

THP201AB Theatre Production II (2) OR

THP203 Technical Theatre Production (3) 2-3

THP213 Introduction to Technical Theatre 4

THP251 Safety Practices in Theatre and Film Production 1

THP266	Production Careers in Technical Theatre	1
THP269	Technical Theatre Portfolio Development	1
THP296++	Cooperative Education	1-4

Restricted Electives

Restricted Electives

Course # Course Title Credits

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	
MUC198	Live Sound Reinforcement II	3
THP201AA	Theatre Production I (1) OR	
THP201AB	Theatre Production II (2) OR	
THP202	Theatre Production Projects (1) OR	
THP202AB	Theatre Production I Electrics (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

THP208 Costume Play Solo Performance Practicum 3

THP250 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

THF215 Advanced Makeup Techniques for Stage and Screen 3

THF216 Wig and Hair Production for Theatre and Film 3

THP208 Costume Play Solo Performance Practicum 3

THP209 Costume Play Group Performance Practicum 3

THP250 Stage Properties 3

Specialization 4: Costuming

THP201AA Theatre Production I (1) OR

THP201AB Theatre Production II (2) OR

THP202AC Theatre Production I Costume Shop (1) 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

THF215 Advanced Makeup Techniques for Stage and Screen 3

THF216 Wig and Hair Production for Theatre and Film 3

THP201AA Theatre Production I (1) OR

THP201AB Theatre Production II (2) OR

THP202AC Theatre Production I Costume Shop (1) 1-2

Specialization 6: Lighting

THP201AA Theatre Production I (1) OR

THP201AB Theatre Production II (2) OR
THP202AB Theatre Production I Electrics (1) 1-2

THP216 Beginning Stage Lighting 3

THP263 Entertainment Industry Drafting I: 2D CAD 3

Specialization 7: Properties

THP201AA Theatre Production I (1) OR
THP201AB Theatre Production II (2) OR
THP202AA Theatre Production I Scene Shop (1) OR
THP202AC Theatre Production I Costume Shop (1) 1-2

THP206 Introduction to Costume Construction for Theatre (4) OR

THP267 Painting Techniques for Film, TV and Theatre (3) 3-4

THP250 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

THP202AA Theatre Production I Scene Shop (1) OR
THP202AC Theatre Production I Costume Shop (1) 1-2

THP206 Introduction to Costume Construction for Theatre 4
THP219 Introduction to Puppetry 3
THP250 Stage Properties 3

Specialization 9: Set/Scenic Construction

ARC141 Architectural CAD I: Introduction (3) OR

CAD100 Fundamentals of 2D AutoCAD (3) 3

THP201AA Theatre Production I OR (1)

THP201AB Theatre Production II (2) OR

THP202AA Theatre Production I Scene Shop (1) 1-2

THP263 Entertainment Industry Drafting I: 2D CAD 3

THP267 Painting Techniques for Film, TV and Theatre (3) OR

WLD102 Basic Welding Metal Sculpture (3) 3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=147496>

Starting Term: 2020 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 for all courses required within the program.

Required Courses

Required courses

Course # Course Title Credits

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

THP202AB Theatre Production I Electrics (1) 1-2

THP251 Safety Practices in Theatre and Film Production 1

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=147505>

Starting Term: 2020 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 for all courses required within the program.

Required Courses

Required courses

Course # Course Title Credits

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

THP208 Costume Play Solo Performance Practicum 3

THP250 Stage Properties 3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=151543>

Starting Term: 2020 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 for all courses required within the program.

Required Courses

Required courses

Course # Course Title Credits

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
THF215 Advanced Makeup Techniques for Stage and Screen	3
THF216 Wig and Hair Production for Theatre and Film	3
THP208 Costume Play Solo Performance Practicum	3
THP209 Costume Play Group Performance Practicum	3
THP250 Stage Properties	3
THP251 Safety Practices in Theatre and Film Production	1

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=151193>

Starting Term: 2020 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.++ indicates that any suffixed course may be selected.Students must earn a grade of C or better for all courses required within the program.

Required Courses

Required courses
Course #Course TitleCredits

Credits: 5-6

THP201AA	Theatre Production I (1) OR	
THP201AB	Theatre Production II (2) OR	
THP202AC	Theatre Production I Costume Shop (1)	1-2
THP206	Introduction to Costume Construction for Theatre	4

Restricted Electives

Restricted Electives

Course #Course TitleCredits

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=147511>

Starting Term: 2020 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 for all courses required within the program.

Required Courses

Required courses

Course # Course Title Credits

Credits: 10-11

THF115 Makeup for Stage and Screen 3

THF215 Advanced Makeup Techniques for Stage and Screen 3

THF216 Wig and Hair Production for Theatre and Film 3

THP201AA Theatre Production I (1) OR

THP201AB Theatre Production II (2) OR

THP202AC Theatre Production I Costume Shop (1) 1-2

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=147513>

Starting Term: 2020 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 for all courses required within the program.

Required Courses

Required courses

Course # Course Title Credits

Credits: 12-13

THP201AA Theatre Production I (1) OR

THP201AB Theatre Production II (2) OR

THP202AB Theatre Production I Electrics (1) 1-2

THP213 Introduction to Technical Theatre 4

THP216 Beginning Stage Lighting 3

THP251 Safety Practices in Theatre and Film Production 1

THP263 Entertainment Industry Drafting I: 2D CAD 3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=147517>

Starting Term: 2020 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 for all courses required within the program.

Required Courses

Required courses

Course # Course Title Credits

Credits: 12-14

THP201AA Theatre Production I (1) OR

THP201AB Theatre Production II (2) OR

THP202AA Theatre Production I Scene Shop (1) OR

THP202AC Theatre Production I Costume Shop (1) 1-2

THP206 Introduction to Costume Construction for Theatre (4) OR

THP267 Painting Techniques for Film, TV and Theatre (3) 3-4

THP213 Introduction to Technical Theatre 4

THP250 Stage Properties 3

THP251 Safety Practices in Theatre and Film Production 1

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=147519>

Starting Term: 2020 Fall

Final Term: 2023 Summer

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 for all courses required within the program.

Required Courses

Required courses

Course # Course Title Credits

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	
THP202AA	Theatre Production I Scene Shop (1) OR	
THP202AC	Theatre Production I Costume Shop (1)	1-2
THP206	Introduction to Costume Construction for Theatre	4
THP219	Introduction to Puppetry	3
THP250	Stage Properties	3
THP251	Safety Practices in Theatre and Film Production	1

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=147515>

Starting Term: 2020 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 for all courses required within the program.

Required Courses

Required courses

Course # Course Title Credits

Credits: 9-10

THP201AA Theatre Production I (1) OR

THP201AB Theatre Production II (2) OR

THP202AA Theatre Production I Scene Shop (1) 1-2

THP213 Introduction to Technical Theatre 4

THP251 Safety Practices in Theatre and Film Production 1

THP267 Painting Techniques for Film, TV and Theatre (3) OR

WLD102 Basic Welding Metal Sculpture (3) 3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=147518>

Starting Term: 2020 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.

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.

Required Courses

Required courses

Course # Course Title Credits

Credits: 6-7

THP201AA Theatre Production I (1) OR

THP201AB Theatre Production II (2) OR

THP202AA Theatre Production I Scene Shop (1) OR

THP202AB Theatre Production I Electrics (1) 1-2

THP213 Introduction to Technical Theatre 4

THP251 Safety Practices in Theatre and Film Production 1

<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 for all courses within the program.

Admission Criteria

None

Program Prerequisites

Program prerequisites

Course # Course Title Credits

None

Required Courses

Required courses

Course # Course Title Credits

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=182614>

Starting Term: 2023 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 for all courses required 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

Required courses

Course # Course Title Credits

Credits: 28

ADA/ART169 2D Media Design (3) OR

ART178 Digital Arts Studies (3) 3

ADA/ART177 Digital Photographic Imaging I 3

ADA/ART/MMT184 Digital Animation I 3

ART100 Introduction to Digital Arts 1

ART142 Introduction to Digital Photography 3

ART111 Drawing I (3) OR

ART116 Life Drawing I (3) 3

ART/COM/STO150 Digital Storytelling (3) OR

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

JRN213 Writing for Online (3) 3

ART202 Media Productions I (3) OR

FMP108 Video Production (3) 3

ART279 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

Restricted Electives

Course # Course Title Credits

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
ART138 Commercial Photography I 3
ART140 Portrait Photography 3
ART143 Intermediate Digital Photography 3
ART270 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
ART/MMT190 Art of Web Site Design 3
ART192 Advanced Web Presentation Design 3
ART/THP246 Digital Fabrication 3
CIS133DA Internet/Web Development Level I 3
FMP204 Advanced Video Production 3
FMP215 Digital Video Effects 3
FMT151 TV and New Media Production 3

Motion Graphics Focus Area

ART116Life Drawing I 3

ART174Electronic Color Principles 1

ART/MMT185 3D Modeling for Animation I 3

ART200Animation and Interactivity 3

ART240Cinematography and Directing for 2D/3D Animation 3

ART273AC Special Topics: Multimedia Arts 3

ART2873D Character Animation 3

FMP215Digital Video Effects 3

<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 for all courses required within the program.

Required Courses

Required courses

Course #Course TitleCredits

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

ENG101First-year Composition (3) OR

ENG107First-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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=167790>

Starting Term: 2021 Fall

Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN VETERINARY ASSISTING

Total Credits: 18

Major Code: 5960N

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

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.

Required Courses

Required courses

Course # Course Title Credits

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=180707>

Starting Term: 2023 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 for all courses required within the program.

Required Courses

Required courses

Course # Course Title Credits

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

<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 for all courses required 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

Required courses

Course # Course Title Credits

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.

ART100	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	
MUC298AB	Special Projects (2)	2-3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=165442>

Starting Term: 2021 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 for all courses required 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

Required courses

Course # Course Title Credits

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.

ART100	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
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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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=165444>

Starting Term: 2021 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 for all courses required 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

Required courses

Course # Course Title Credits

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.

ART100	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.

ADA/ART/MMT184	Digital Animation I	3
ART116	Life Drawing	3
ART/COM/STO150	Digital Storytelling	3
ART/MMT185	3D Modeling for Animation I (3) OR	
CIS130DA	3D Studio Max: Modeling (3)	3

ART200 Animation and Interactivity 3

ART240 Cinematography and Directing for 2D/3D Animation (3) OR

CIS230DB 3D Studio Max: Lighting and Rendering (3) 3

ART/MMT285 3D Modeling and Animation II (3) OR

CIS130DB 3D Studio Max: Animation (3) 3

ART2873D Character Animation 3

ART298AB Special Projects 2

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=165446>

Starting Term: 2021 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 for all courses required 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

Required courses

Course # Course Title Credits

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.

ART100	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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=174690>

Starting Term: 2022 Fall

Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN VMWARE FOUNDATIONS

Total Credits: 3
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 prepare students for the VMware Foundations (VCA) 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: 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 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

Required courses

Course # Course Title Credits

Credits: 3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=174700>

Starting Term: 2022 Fall

Final Term: 9999

CERTIFICATE OF COMPLETION (CCL) IN VMWARE NETWORK ADMINISTRATOR

Total Credits: 24-28

Major Code: 5032

Description

The Certificate of Completion (CCL) in VMware Network 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. Courses will build the knowledge and skills for students to design, install, configure, troubleshoot, and manage virtual environments and help prepare students for the CompTIA A+, CompTIA Linux +, CompTIA Network +; VMware VCA, VCP, and/or VCAP-NV Deploy 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

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

Required courses

Course # Course Title Credits

Credits: 24-28

BPC170 A+ Exam Prep: Computer Hardware Configuration and Support 3

BPC270 A+ Exam Prep: Operating System Configuration and Support 3

CIS105 Survey of Computer Information Systems (3) OR

Permission of Program Director (0) 0-3

CIS126DL Linux Operating System (3) OR

CIS126RH Red Hat System Administration I (3) 3

CIS189 Virtualization and IT Solutions for Digital Businesses 3

CIS190 Introduction to Networking (3) OR

CNT140AB Introduction to Networks (4) 3-4

CIS197 VMware ESXI Server Enterprise 3

CIS198 VMware vSphere: Optimize and Scale 3

CIS200 VMware NSX: Install, Configure, Manage 3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=174688>

Starting Term: 2022 Fall

Final Term: 9999

**CERTIFICATE OF COMPLETION (CCL) IN VMWARE SYSTEMS
ADMINISTRATOR**

Total Credits: 6
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 VCA and 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: 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 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

Required courses
Course # Course Title Credits

Credits: 6

CIS197 VMware ESXI Server Enterprise 3

CIS198 VMware vSphere: Optimize and Scale 3

<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 for 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

Required courses

Course # Course Title Credits

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

<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 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.

Required Courses

Required courses

Course # Course Title Credits

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

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

Restricted Electives

Course # Course Title Credits

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.

<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.

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

Required courses

Course # Course Title Credits

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
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

Restricted Electives

Course # Course Title Credits

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

<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 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.

Required Courses

Required courses

Course # Course Title Credits

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

<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 for all courses within the program.

Program Prerequisites

Program prerequisites

Course # Course Title Credits

Credits: 0

None

Required Courses

Required courses

Course # Course Title Credits

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

<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 for all courses required within the program.

Required Courses

Required courses

Course #Course TitleCredits

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

Restricted Electives

Course #Course TitleCredits

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 Plate5
WLD208AA SMAW Code Welding 5

Focus Area: Shielded Metal Arc Welding (SMAW) Pipe:

WLD106AB SMAW 6010 Plate5
WLD106AD SMAW Introduction to Pipe5
WLD208AA SMAW Code Welding 5
WLD208AD SMAW Code Welding Pipe 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 for all courses required within the program.

Required Courses

Required courses

Course #Course TitleCredits

Credits: 15

WLD106AA	Introduction to SMAW	5
WLD206AA	Introduction to GMAW/FCAW and GTAW	5
WLD206AB	Advanced GMAW and FCAW	5

<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 for all courses required within the program.

Required Courses

Required courses

Course #Course TitleCredits

Credits: 15

WLD106AA	Introduction to SMAW	5
WLD206AA	Introduction to GMAW/FCAW and GTAW	5
WLD206AD	Advanced GTAW Ferrous	5

<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 for all courses required within the program.

Required Courses

Required courses

Course # Course Title Credits

Credits: 15

WLD106AA	Introduction to SMAW	5
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WLD206AA	Introduction to GMAW/FCAW and GTAW	5
WLD206AC	Advanced GTAW Non-Ferrous	5

<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 for all courses required within the program.

Required Courses

Required courses

Course # Course Title Credits

Credits: 15

WLD106AA	Introduction to SMAW	5
WLD106AB	SMAW 6010 Plate	5
WLD106AD	SMAW Introduction to Pipe	5

<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 for all courses required within the program.

Required Courses

Required courses

Course # Course Title Credits

Credits: 10

WLD106AA Introduction to SMAW 5

WLD106AC SMAW 7018 Plate 5

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=174684>

Starting Term: 2022 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

Required courses

Course # Course Title Credits

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

Restricted Electives

Restricted Electives

Course #Course TitleCredits

Credits: 0

None

Free Electives

Free Electives

Course #Course TitleCredits

Credits: 0

None

<https://district.maricopa.edu/stewardship/maricopa-governance/common-pages/student-regulations/academic-policies>

Starting Term:

Final Term: 9999

ARIZONA GENERAL EDUCATION CURRICULUM - A (AGEC-A) IN ARIZONA GENERAL EDUCATION CURRICULUM - A

Total Credits:

Major Code: 8001

Description

<https://district.maricopa.edu/stewardship/maricopa-governance/common-pages/student-regulations/academic-policies>

Starting Term:

Final Term: 9999

ARIZONA GENERAL EDUCATION CURRICULUM - B (AGEC-B) IN ARIZONA GENERAL EDUCATION CURRICULUM - B

Total Credits:
Major Code: 8002

Description

<https://district.maricopa.edu/stewardship/maricopa-governance/common-pages/student-regulations/academic-policies>

Starting Term:
Final Term: 9999

ARIZONA GENERAL EDUCATION CURRICULUM - S (AGEC-S) IN ARIZONA GENERAL EDUCATION CURRICULUM - S

Total Credits:
Major Code: 8003

Description

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm?id=182633>

Starting Term: 2023 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

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

Credits: 9-12

AFR203 African-American History: The Slavery Experience (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

HIS203 African-American History I (SB, C, H) 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

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.

Admission Criteria

None

Required Courses

Required courses
Course # Course Title Credits

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

Restricted Electives

Course #Course TitleCredits

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

<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 for all courses required within the program.

Required Courses

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

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

<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

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

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

Free Electives

Course # Course Title Credits

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

<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

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

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

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

<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 for all courses required within the program.

Admission Criteria

Students who wish to enroll in the Creative Writing program must complete a formal application; contact Program Director.

Program Prerequisites

Program prerequisites
Course # Course Title Credits

Credits: None

None

Required Courses

Required courses
Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

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

Free Electives

Free Electives

Course #Course TitleCredits

Credits: None

None

<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 for all courses required within the program.

Required Courses

Required courses

Course #Course TitleCredits

Credits: 18

ARH102 Art from Renaissance to Modernism 3

ART111 Drawing I 3

ART112Two-Dimensional Design 3

ART113Color 3

ART115Three-Dimensional Design 3

ART255 Art Marketing 3

Restricted Electives

Restricted Electives

Course #Course TitleCredits

Credits: 15

Complete 15 credits from the following list of courses.

ART116Life Drawing I 3

ART117Life Drawing II 3

ART118Art Anatomy 3

ART122Drawing II 3

ART165Watercolor Painting I 3

ART166Watercolor Painting II 3

ART167Painting I 3

ART168Painting II 3

ART211Drawing and Composition III 3

ART216Life Drawing III 3

ART217Life Drawing IV 3

ART222Drawing and Composition IV 3

ART263Figure 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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=149318>

Starting Term: 2020 Fall

Final Term: 9999

ACADEMIC CERTIFICATE (AC) IN GLOBAL CITIZENSHIP

Total Credits: 15-16

Major Code: 6212N

Description

The Academic Certificate (AC) in Global Citizenship is an interdisciplinary program intended to assist students in understanding the interconnectedness of peoples and societies, have them develop a general knowledge of history and world events, and accept and celebrate the richness of human diversity and different cultural values and attitudes. The certificate is designed to enhance students' understanding of the world around them and current social and cultural issues such as economic and social justice, human and civil rights, endangered indigenous populations, world and regional conflicts, environmental degradation and its impact on cultures, political change, and cultural diversity.

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

Required courses

Course # Course Title Credits

Credits: 7

GLO298AA Special Projects 1

Students can select two of the following courses (6 credit hours). These courses are broad survey classes. Classes with more specificity of topics will be in the elective category. The courses must have a Global Awareness (G) general education designation.

ASB100 Introduction to Global Health 3

ASB102 Introduction to Cultural Anthropology 3

COM263 Elements of Intercultural Communication 3

GCU102 Introduction to Human Geography 3

POS120 World Politics 3

PSY132 Psychology and Culture 3

REL100 World Religions 3

HES210 Cultural Aspects of Health and Illness 3

HIS102 History of Western Civilization 1789 to Present 3

MHL143 Music in World Cultures 3

SUS100 Introduction to Sustainability 3

Restricted Electives

Restricted Electives

Course # Course Title Credits

Credits: 8-9

In addition to the two Required Courses, students must choose 8-9 Restricted Elective credits. Students should focus their selection on the following areas, and take their electives within these areas.

Focus Area: Impact of Diverse Cultures on American Life

Issues to be studied in this area include, but are not limited to immigration, communication, education, pluralism, cultural diversity, popular culture.

Courses that qualify in this area must have a Cultural Diversity [C] general education designation.

Focus Area: Global Study of Cultures, Religions, Economics, and Politics

Issues to be studied in this area include, but are not limited to, women's rights, family planning, migration, religious diversity, human rights, origin and development of civilizations.

Courses that qualify in this area must have a Global Awareness [G] general education designation.

Focus Area: Science, Technology, and the World

Issues to be studied in this area include, but are not limited to, climate change, sustainability, environmental degradation, use of natural resources.

Courses that qualify in this area must have a Natural Science [SG] or [SQ] general education designation and include the following:

ASM104 Bones, Stones, and Human Evolution 4

BIO105 Environmental Biology 4

BIO107	Introduction to Biotechnology	4
CHM107	Chemistry and Society	3
GLG110	Geological Disasters and the Environment	3
GPH213	Climate and Weather	3

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=167189>

Starting Term: 2022 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 each course in 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 or apply credits earned through the Advanced Placement (AP) or International Baccalaureate (IB) exams.

Program Prerequisites

Program prerequisites

Course # Course Title Credits

Credits: 0-4

201-level proficiency in a language other than English as indicated by assessment or coursework.

Required Courses

Required courses

Course # Course Title Credits

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

Restricted Electives

Course # Course Title Credits

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

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)

<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

Required courses

Course # Course Title Credits

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

Course # Course Title Credits

Credits: 3

Any approved General Education course in the cultural awareness [C] value

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=167188>

Starting Term: 2022 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 each course in 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

Required courses

Course # Course Title Credits

Credits: 16

SPA101 Elementary Spanish I 4

SPA102 Elementary Spanish II 4

SPA201 Intermediate Spanish I 4

SPA202 Intermediate Spanish II 4

Restricted Electives

Restricted Electives

Course # Course Title Credits

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 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
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 for all courses required within the program.

Required Courses

Required courses

Course # Course Title Credits

Credits: 6

SSH111 Sustainable Cities 3

SUS110 Sustainable World 3

Restricted Electives

Restricted Electives

Course # Course Title Credits

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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm11?id=143358>

Starting Term: 2020 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 for all courses required within the program.

Required Courses

Required courses

Course #Course TitleCredits

Credits: 3

WST100 Introduction to Women's and Gender Studies 3

Restricted Electives

Restricted Electives

Course #Course TitleCredits

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

HLR/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

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm12?id=178955>

Starting Term: 2023 Fall

Final Term: 9999

CERTIFICATE OF COMPETENCY (CCT) IN WELDING: SHIELDED METAL ARC WELDING (SMAW) PIPE (DAY)

Total Credits: 720

Major Code: 1130

Description

The Certificate of Competency (CCT) in Shielded Metal Arc Welding (SMAW) Plate & Pipe prepares students to complete industry certification on carbon steel plate and pipe. An 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.

Program Notes

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

Required Courses

Required courses

Course # Course Title Clock Hours

Clock Hours: 720

WTO106AA Introduction to SMAW 180

WTO106AB SMAW 6010 Plate 180

WTO106AD SMAW Introduction to Pipe 180

WTO208AD SMAW Code Welding Pipe 180

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/MCCCD.woa/wa/freeForm10?id=175640>



EDUCATION

Early Childhood Education - Dual Language

Major: 9304	Program Availability: MC
Catalog Year: 2023-2024	Field of Interest: Education
Effective Term: 2023 Fall	Instructional Council: Early Childhood Education (62)
Award Type: BA	Total Credits: 120
	GPA: 2.00

CIP Code: **13.1210**SOC Code: **Upon completion of a bachelor's degree, students may pursue a career as:****25-2011.00 Preschool Teachers, Except Special Education****11-9031.00 Education and Childcare Administrators, Preschool and Daycare****25-9042.00 Teaching Assistants, Preschool, Elementary, Middle, and Secondary School, Except Special Education****25-2012.00 Kindergarten Teachers, Except Special Education****25-2021.00 Elementary School Teachers, Except Special Education****Upon completion of a graduate degree, students may pursue a career as:****11-9032.00 Education Administrators, Kindergarten through Secondary****21-1021.00 Child, Family, and School Social Workers**

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 Learning Outcomes

1. Create relevant, culturally responsive, and developmentally appropriate learning experiences that celebrate, respect, and develop the heritage language and English language proficiencies of children from infancy to age eight. (CFS101AH, CFS/ECH176, CFS235, CFS/ECH269, CFS/ECH271, CFS/ECH273, CFS/ECH275, CFS282, CFS/ECH284AA, CFS/ECH284AB, CFS/ECH287, ECH128, ECH140, ECH270, ECH272, ECH279, ECH281, ECH282, EDU/EED115, EDU220, EDU/ENH291, EED200, EED205, EED210, EED212, EED222, EED225, EED255, EED260, EED261, EED278, EED280, EEP311, EEP312, EEP313, EEP314, EEP315, EEP316, EEP411, EEP412, EEP413, EEP414, EEP415, ENG213, FYE101, FYE103, GCU/POS113, HIS103, POS221, SLC201, (COM), [FYC])
2. Cultivate reciprocal, respectful, culturally responsive relationships with diverse and multilingual families and communities that promote children's awareness of and belief about self in multiple

contexts. (CFS101AH, CFS123, CFS125, CFS/ECH176, CFS235, CFS/ECH269, CFS/ECH271, CFS/ECH273, CFS/ECH275, CFS282, CFS/ECH284AB, CFS/ECH287, ECH128, ECH140, ECH270, ECH272, ECH279, ECH280, ECH281, ECH282, EDU/EED115, EDU220, EDU/ENH291, EED200, EED205, EED210, EED212, EED215, EED222, EED225, EED255, EED260, EED261, EED278, EED280, EEP311, EEP312, EEP313, EEP314, EEP315, EEP316, EEP411, EEP412, EEP413, EEP414, EEP415, ENG213, FYE101, FYE103, GCU/POS113, HIS103, POS221, SLC201, (COM), [FYC])

3. Synthesize current early childhood education standards, professional codes of ethics, reflective practices, and research in order to advocate for an equitable, diverse, and effective early childhood education profession. (CFS101AH, CFS123, CFS125, CFS/ECH176, CFS235, CFS/ECH269, CFS/ECH271, CFS/ECH273, CFS/ECH275, CFS282, CFS/ECH284AA, CFS/ECH284AB, CFS/ECH287, ECH128, ECH140, ECH270, ECH272, ECH279, ECH280, ECH281, ECH282, EDU/EED115, EDU220, EDU225, EDU/ENH291, EED200, EED205, EED210, EED212, EED215, EED222, EED225, EED255, EED260, EED261, EED278, EED280, EEP311, EEP312, EEP313, EEP314, EEP315, EEP316, EEP411, EEP412, EEP413, EEP414, EEP415, ENG213, SLC201, (COM), [FYC])

4. Design developmentally appropriate learning experiences that promote growth and development in multiple domains (physical, cognitive, socioemotional, language) with typically and atypically developing children. (CFS101AH, CFS123, CFS125, CFS/ECH176, CFS235, CFS/ECH269, CFS/ECH271, CFS/ECH273, CFS/ECH275, CFS282, CFS/ECH284AB, CFS/ECH284AA, CFS/ECH287, ECH128, ECH140, ECH270, ECH272, ECH279, ECH280, ECH281, ECH282, EDU/EED115, EDU220, EED200, EDU/ENH291, EED205, EED210, EED212, EED215, EED222, EED225, EED255, EED260, EED261, EED278, EED280, EEP311, EEP312, EEP313, EEP314, EEP315, EEP316, EEP411, EEP412, EEP413, EEP414, EEP415, ENG213, SLC201, (COM), [FYC])

5. Employ interpersonal skills and practices to create a professional identity focused on curiosity as well as innovative and collaborative problem solving that elevates the belief all children can learn. (CFS101AH, CFS123, CFS125, CFS/ECH176, CFS235, CFS/ECH269, CFS/ECH271, CFS/ECH273, CFS/ECH275, CFS282, CFS/ECH284AA, CFS/ECH284AB, CFS/ECH287, ECH128, ECH140, ECH270, ECH272, ECH279, ECH280, ECH281, ECH282, EDU/EED115, EDU220, EDU225, EDU/ENH291, EED200, EED205, EED210, EED212, EED215, EED222, EED225, EED255, EED260, EED261, EED278, EED280, EEP311, EEP312, EEP313, EEP314, EEP315, EEP316, EEP411, EEP412, EEP413, EEP414, EEP415, ENG213, FYE101, FYE103, GCU/POS113, HIS103, POS221, SLC201, (COM), [FYC], [MA], [SG], [SQ])

6. Implement evidence-based strategies of language development and assessment in early childhood dual language settings that encourage the development of language skills and proficiencies in more than one language. (CFS101AH, CFS123, CFS125, CFS/ECH176, CFS235, CFS/ECH269, CFS/ECH271, CFS/ECH273, CFS/ECH275, CFS282, CFS/ECH284AB, CFS/ECH287, ECH128, ECH140, ECH270, ECH272, ECH279, ECH280, ECH281, ECH282, EDU/EED115, EDU/ENH291, EDU220, EED200, EED205, EED210, EED212, EED215, EED222, EED225, EED255, EED260, EED261, EED278, EED280, EEP311, EEP312, EEP313, EEP314, EEP315, EEP316, EEP411, EEP412, EEP413, EEP414, EEP415, ENG213, FYE101, FYE103, GCU/POS113, HIS103, POS221, SLC201, (COM), [FYC], [MA], [SG], [SQ])

7. Design meaningful developmentally-appropriate learning experiences that include structured language immersion strategies based on differentiated instruction to meet the diverse needs of students and families. (CFS101AH, CFS123, CFS125, CFS/ECH176, CFS235, CFS/ECH269, CFS/ECH271, CFS/ECH273, CFS/ECH275, CFS282, CFS/ECH284AA, CFS/ECH284AB, CFS/ECH287, ECH128, ECH140, ECH270, ECH272, ECH279, ECH280, ECH281, ECH282, EDU/EED115, EDU220, EDU/ENH291, EED200, EED205, EED210, EED212, EED215, EED222, EED225, EED255, EED260, EED261, EED278, EED280, EEP311, EEP312, EEP313, EEP314, EEP315, EEP316, EEP411, EEP412, EEP413, EEP414, EEP415, ENG213, FYE101, FYE103, GCU/POS113, HIS103, POS221, SLC201, (COM), [FYC], [MA], [SG], [SQ])

Program Notes

Students must earn a grade of C or better in each course in 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.

Program Prerequisites

None

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 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, Management 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

Arizona General Education Curriculum (AGEC)

AGEC-A

Credits: 17-20

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: 0

Met by EDU220 in Required Courses.

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

Met by EDU/EED115 in Required Courses.

Humanities, Arts and Design [HU]

Credits: 0

Met by EDU/ENH291 AND ENG213 OR SLC201 in Required Courses.

Social-Behavioral Sciences [SB]

Credits: 0

Met by EED200 AND EED222 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 Core Requirements.

Cultural Diversity in the US [C]

Credits: 0

Met by EED222 in Required Courses.

Historical/Global Awareness [H]/[G]

Credits: 0

Met by GCU/POS113 OR HIS103 in Required Courses.

MCCCD Additional Requirements

MCCCD Additional Requirements

Credits: 3

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 (COM)

Credits: 3

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR
+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) OR
+ COM259 Communication in Business and Professions (3) OR
COM263 Elements of Intercultural Communication (3) 3

Critical Reading (CRE)

Credits: N/A

This area is not required for Bachelor programs

Select courses 100-level or higher to complete a minimum of 120 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:

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)

NAV+++ Any NAV Navajo course(s)

SPA+++ Any SPA Spanish course(s)

SPA115 Beginning Spanish Conversation I 3

+ SPA116 Beginning Spanish Conversation II 3

+ indicates course has prerequisites and/or corequisites.

++ indicates that any suffixed course may be selected.

MCCCD Governing Board Approval Date: August 23, 2022

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MARICOPA
COMMUNITY COLLEGES



**COMPUTER AND
INFORMATION
TECHNOLOGY**

Data Analytics and Programming

Major: **9306**
 Catalog Year: **2023-2024**
 Effective Term: **2023 Fall**
 Award Type: **BAS**
 Program Availability: **MC**
 Field of Interest: **Computer and Information Technology**
 Instructional Council: **Computer Information Systems (12)**
 Total Credits: **120-131**
 GPA: **2.00**

CIP Code: **30.7101**

SOC Code: **Upon completion of a bachelor's degree, students may pursue a career as:**

15-1211.00 Computer Systems Analysts

15-1251.00 Computer Programmers

15-1252.00 Software Developers

15-2051.00 Data Scientist

15-2051.01 Business Intelligence Analysts

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 Learning Outcomes

1. Apply ethical considerations in dataset preparation, program development, modeling, intellectual property, data protection, copyright protection, and decision making while using data analytics and programming concepts and terminology, in preparation for professional use. (CIS105, CIS215, CIS216, CIS314, CIS315, CIS416, CIS480, CIS490, FYE101, FYE103, PHI103, PSY101, SBU200, [HU], [SG], [SQ])
2. Test algorithms from mathematics, statistics, data mining and machine learning to solve problems. (CIS316, CIS318, CIS415, GBS220, SBU200, [MA], [SG], [SQ])
3. Design scalable systems capturing, processing and interpreting large and complex data sets. (CLD110, CLD120, CIS317, CIS415, CLD417, [MA])
4. Set-up software and services to install and configure scalable systems that capture and process large and complex data sets. (CLD110, CLD120, CIS317, CIS415, CLD417)
5. Synthesize and analyze datasets after transforming and cleansing data. (CIS260BI, CIS260TB, CIS276DA, CIS276DB, CIS316, CIS318, [MA])
6. Demonstrate the results of the data analysis process to effectively communicate to a variety of audiences. (CIS214DA, CIS260BI, CIS260TB, CIS416, PHI103, PSY101, SBU200, (COM225), [FYC], [MA], [SG], [SQ])
7. Perform data analysis to answer stakeholder questions using current programming languages, data mining, and machine learning models. (CIS114DE, CIS214DA, CIS256DA, CIS276DA, CIS276DB, CIS276DC, CIS316, CIS318)

CIS270DB, CIS270DC, CIS310, CIS310J

8. Develop a project scope while considering factors such as customer requirements, project costs, return on investment, and internal/external business objectives. (CIS224, CIS480, SBU200, [MA])

9. Develop and implement well-structured computer programs in various object-oriented programming languages that solve business problems. (CIS150AB, CIS156, CIS162AD, CIS256, CIS262AD)

10. Communicate professionally in formal and informal team situations with diverse audiences. (CIS250, CIS260BI, CIS260TB, CIS224, CIS416, CIS490, COM225, FYE101, FYE103, PSY101, SBU200, [FYC])

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 eight (8) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Program Prerequisites

None

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

Arizona General Education Curriculum (AGEC)

AGEC-A

Credits: 20-26

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: 0

Met by COM225 in Required Courses.

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 level course in the Mathematical Applications [MA] area (3-6) 3-6

Computer/Statistics/Quantitative Applications [CS] Credits: 0

Met by CIS105 in Required Courses.

Humanities, Arts and Design [HU] Credits: 3

Any approved general education courses in the Humanities, Arts and Design [HU] area 3
AND

Met by PHI103 in Required Courses.

Social-Behavioral Sciences [SB] Credits: 0

Met by PSY101 and SBU200 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: 0-3

These requirements may be shared with Core Requirements.

Cultural Diversity in the US [C] Credits: 0-3

Any approved general education course with the Cultural Diversity with the U.S. [C] awareness area
designation. 3

Historical/Global Awareness [H]/[G] Credits: 0

Met by SBU220 in Required Courses.

MCCCD Additional Requirements

MCCCD Additional Requirements Credits: 0

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 (COM) Credits: 0

Met by COM225 in Required Courses.

Critical Reading (CRE) Credits: 0

Not required for Bachelor program.

General Electives

Select courses 100-level or higher to complete a minimum of 120 semester credits. Consult with a faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.

+ indicates course has prerequisites and/or corequisites.

++ indicates that any suffixed course may be selected.

MCCCD Governing Board Approval Date: August 23, 2022

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Course	Effective Term	Course Title	Cross References	Description	Requisite	Course Note	Subject Type	Credits Periods Load	Load Formula
AAA104	2013 Spring	Visualization in Activated Learning		Techniques for using mental imagery in the activated learning process. Processes include mental rehearsal, relaxation, and affirmation during self-instruction, test taking, interpersonal relationships, and sports	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
AAA105	2013 Spring	Peak Performance in Activated Learning		Techniques which enable the individual to achieve levels of peak performance using the activated learning process. Includes methods for developing a high level of motivation and self-discipline to achieve peak performance in areas such as sports, public speaking, and job productivity	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
AAA115	2007 Fall	Creating College Success	CPD115	Strategies to create success in college. Methods for selecting and developing effective academic strategies, increasing self-awareness and developing self-management strategies. Elements of college resources and relationships with others explored in support of students' educational experience	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
AAA150	2017 Spring	Strategies for College Success	CPD150	Focus on increasing student success through college orientation and personal growth, study skills development, and educational and career planning.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
AAA150AC	2019 Fall	Educational and Career Planning	CPD150AC	Emphasis on increasing student success through educational and career planning.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
AAA298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured	Prerequisites: Permission of Program Director or Instructor.	Course Attribute(s): COMMON COMPETENCY COURSE	Acad	LAB 1.0 1.0 0.0	Z

				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.					
AAA298AB	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.	Course Attribute(s): COMMON COMPETENCY COURSE	Acad	LAB 2.0 2.0 0.0	Z
AAA298AC	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.	Course Attribute(s): COMMON COMPETENCY COURSE	Acad	LAB 3.0 3.0 0.0	Z
ABA101	2018 Fall	Hand and Power Tools		Selection, use, maintenance and safety procedures for common hand and power	Prerequisites: Registered apprentice status or permission of		Occ	L+L 1.0 1.0 1.0	T

				tools used in the construction industry.	the Apprenticeship Coordinator.				
ABA102	2004 Fall	Electrical Fundamentals		Fundamentals of electricity including electrical hazards, Occupational Safety and Health Administration (OSHA) regulations, units of measurements and using Ohm's law. Circuit characteristics and the use of Kirchoff's voltage and current laws to calculate voltage drop, current and resistance. Operation and use of specific meters. Includes an introduction to the National Electrical Code (NEC)	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
ABA103	2004 Fall	Hand Bending of Electrical Conduit		Conduit bending and installation. Techniques for using hand operated and step conduit benders. Cutting, reaming and threading conduit	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5	S
ABA104	2003 Summer I	Raceways, Boxes, Fittings, Anchors/Supports		Types and applications of conduit, raceways, wireways and ducts. Types, applications and wiring techniques for conductors. Hardware and systems used to mount and support boxes, receptacles and other electrical components	Prerequisites: Registered Apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.5 1.5 1.5	S
ABA106	2012 Spring	Introduction to Materials Handling		Introduction to materials handling equipment and appropriate use for common job-site tasks. Recognize hazards associated with materials handling and proper techniques and procedures.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 0.5 0.5 0.5	S
ABA112	2018 Fall	Electrical I		Theories and concepts in electrical safety basics and OSHA 10 certification. Introductory concepts in construction math, hand and power tools, drawings, rigging, and materials handling.	Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator.		Occ	L+L 6.0 6.0 6.0	T

				Emphasis on communication and employability skills.					
ABA114	2018 Fall	Electrical II		Fundamentals of the electrical trade, residential electrical services and test equipment. Emphasis on safety, electrical circuits, theory, National Electrical Code, device boxes. Use and selection of hand bending, raceways, fittings, conductors, cables. Interpretation of electrical drawings.	Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator.		Occ	L+L 6.0 6.0 6.0	T
ABA120	2005 Spring	Carpentry Fundamentals		Overview of the carpentry trade. Apprenticeship programs and responsibilities of the apprentice. Types and uses of nails, fasteners and adhesives. Types of wood, lumber and manufactured wood products	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0	S
ABA121	2005 Spring	Floor and Wall Systems		Framing systems, floor construction, center beam and post support systems. Construction of sills, joists and bridging. Subflooring, mechanical connectors and the use of prefabricated joists. Wall construction, stud walls, panelized walls, masonry walls, post and beam walls, use of metal studs and drywall construction.	Prerequisites: (Registered apprentice status and a grade of C or better in ABA120) or permission of the Apprenticeship Coordinator.		Occ	LEC 2.0 2.0 2.0	S
ABA122	2018 Fall	Electrical III		Theory and application of alternating current, lighting, conduit bending, pull and junction boxes.	Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator.		Occ	L+L 6.0 6.0 6.0	T
ABA124	2018 Fall	Electrical IV		Principles of conductor installations, cable trays, conductor terminations and splices. Emphasis on grounding, bonding, circuit breakers, and fuses.	Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator.		Occ	L+L 6.0 6.0 6.0	T

				Fundamental concepts of control systems.					
ABA130	2003 Summer I	Installation of Electric Services		Electric services for commercial and industrial installations. Blueprints, diagrams and electrical calculations. Grounding, connecting three phase services and the installation of panelboards, switches and load centers	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0	S
ABA135	2010 Spring	Cast-In-Place Stairs		Cast-In-Place and Precast stair installation techniques, forming, erecting and safety procedures. Review American Concrete Institute (ACI) Codes and standard specifications.	Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0	S
ABA136	2010 Spring	Communications in Construction	IND136	Communication in the construction industry. Positive direct communication, written communication, active listening, understanding, negotiation, and dealing with difficult people. Communication skills at all organizational levels, with groups, combining oral and written communication for maximum effectiveness.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
ABA150	2004 Spring	Advanced Calculations for Electricians		Advanced mathematical calculations in the electrical industry. Powers and roots in watts, voltage, current and resistance. Metric and engineering units. English and metric systems for length, area, volume and mass, and energy and temperature measurements. Ratios, proportions, formulas, symbols and representation. Trigonometry and the Pythagorean theory. Plane and rotating vectors. Basic	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.5 1.5 1.5	S

				functions of the scientific calculator for electricians					
ABA179	2009 Spring	Installing and Sizing Water Supply Piping		Connecting piping to a water main. Plumbing connections to buildings and air and hydrostatic testing of water supply piping. Operation and installation of water heaters. Types, operation and installation of water meters. Installation of water supply systems to given structures. Effects of valves, fittings and piping on water pressure. Calculations of pressure drop and sizing procedures for water supply piping. Principles of back siphonage and backflow prevention	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 3.0 3.0 3.0	S
ABA192	2018 Fall	Plumbing Level I		History of plumbing, modern plumbing, safety, human relations, and construction career opportunities. Hand and power tool safety, use, and maintenance. Plumbing drawings, components, and symbols. Materials, schedules for plastic, copper, and cast-iron. Fittings, valves, hangers, and supports. Measuring, cutting, reaming, and joining pipe. Safety precautions for installation, operation and maintenance. Fixtures and faucets. Drain, waste, and vent systems. Water distribution systems.	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0	T
ABA204	1999 Fall	Contactors and Relays		Operating principals of contactors and relays. Function in an electrical system. Operation and installation of specific contactors and relays. Interpretation of wiring diagrams. Connect and test a simple control circuit	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S

ABA207	2010 Spring	Construction Trades: Green Environment		Daily activities at work and at home that affect green environment. Leadership in Energy and Environmental Design (LEED) rating process. Carbon footprint and ways to reduce it. Construction of buildings that affect green environment. Application of principles of green building rating system.	Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0	S
ABA222	2018 Fall	Introduction to Welding, Brazing and Cutting		Arc welding theory and safety hazards. AC, DC and AC-DC welding machines. Use of electrodes and safety requirements for arc-welding. Basic welding techniques and gas metal-arc and gas tungsten-arc welding processes. Brazing and cutting using an oxyacetylene torch.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 2.0 3.0 3.0	T
ABA232	2018 Fall	Electrical V		The course content includes Load Calculations - Branch and Feeder Circuits, Conductor Selection and Calculations, Overcurrent Protection, Raceways/Wiring/Devices and Boxes, Voice/Data and Video.	Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator.		Occ	L+L 6.0 6.0 6.0	T
ABA234	2018 Fall	Electrical VI		Theories and concepts in distribution equipment, transformers, and commercial electrical services. Emphasis on motor calculations and voice/data and video. Operation of motor controls.	Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator.		Occ	L+L 6.0 6.0 6.0	T
ABA242	2018 Fall	Electrical VII		Principles of course load calculations, feeder and services and specialty transformers. Selection of standby and emergency systems. Emphasis on basic electronic theory, fire alarm systems and health care facilities.	Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator.		Occ	L+L 6.0 6.0 6.0	T

ABA244	2018 Fall	Electrical VIII		Principles of heating, ventilation, and air conditioning (HVAC) controls and heat tracing. Use and control of freeze protection. Basics in motor operation and maintenance. Focus on medium-voltage terminations/splices and special locations. Fundamentals of Crew Leadership.	Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator.		Occ	L+L 6.0 6.0 6.0	T
ABA251	2003 Summer I	High Voltage Termination and Splicing		Terminations and splices in high voltage systems (600+ volts). Identifying and splicing specific types of cables and making terminations. Includes using splicing kits and following manufacturer's specifications. Testing techniques and calculations	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0	S
ABA255	2004 Fall	Commercial, Industrial and Special Lighting		Operating characteristics of incandescent, fluorescent and high intensity discharge lamps. Lighting controls and fixture installations. Blueprint reading exercise for commercial and industrial installations. Lighting requirement calculations. National Electrical Code (NEC) requirements for specialty lighting fixtures	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 0.5 0.5 0.5	S
ABA298AA	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.	Course Attribute(s): COMMON COMPETENCY COURSE	Occ	LAB 1.0 1.0 0.0	Z

				combined to maximize student development.					
ABA298AB	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.	Course Attribute(s): COMMON COMPETENCY COURSE	Occ	LAB 2.0 2.0 0.0	Z
ABA298AC	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.	Course Attribute(s): COMMON COMPETENCY COURSE	Occ	LAB 3.0 3.0 0.0	Z
ABC118	2018 Fall	OSHA Standards and Regulations	PNT118	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

ABC119	2003 Spring	Basic Safety	MEC119	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
ABC120	2020 Fall	Basic Calculations for Construction	MEC120 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
ABC121	2014 Fall	Introduction to Hand and Power Tools	MEC121 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
ABC122	2022 Fall	Rigging Safety and Equipment	MEC122	Rigging safety, equipment and inspection. Includes crane hand signals, common rope knots, types of derricks and cranes and safety procedures for rigging and moving materials and equipment.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0	S
ABC123	2018 Fall	Introduction to Construction Drawings		Basic concepts of construction drawings, including terms and symbols. Drawing interpretation, use of drawing dimensions and recognition of drawing classifications.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 0.5 0.5 0.5	T
ABC124	2003 Summer I	Conduit Bending		Types of conduit benders and bends. Conduit bending procedures and use of bends in conduit systems	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0	S
ABC126	2009 Spring	Electrical Test Equipment		Selection, inspection, use and maintenance of common electrical test equipment	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0	S

ABC130	2018 Fall	Conductor Installation/Termination		Transportation, storage and setup of cable reels, methods of rigging and procedures for installing conductors using cable pulls in raceways and cable trays. Also methods of terminating and splicing conductors	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 1.0 1.0 1.0	T
ABC131	2018 Fall	Cable Tray Installation		National Electrical Manufacturer's Association (NEMA) and National Electrical Code (NEC) requirements for cable tray modified installation and cable installation procedures.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 0.5 0.5 0.5	T
ABC132	2018 Fall	Circuit Breakers and Fuses		National Electrical Code (NEC) requirements, Ground Fault Circuit Interrupters (GFCI), overcurrents, fuse sizing, safety techniques and short-circuit calculations.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 1.0 1.0 1.0	T
ABC133	2018 Fall	Basic Lighting		Principles of illumination and specific light sources. Includes practical applications for residential, commercial and industrial installations	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 1.0 1.0 1.0	T
ABC135	2005 Spring	Fundamentals of Concrete		Materials used to make concrete, including specific types of cement, aggregate, admixtures and reinforcing materials. Handling procedures for concrete, conveying and placing concrete and finishing techniques for concrete slab. Construction of foundations and formwork	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0	S
ABC136	2014 Fall	Roof Systems		Defining roof terminology. Identifying and understanding specific roof systems. Using the framing square and essex scale to calculate and measure specific types of rafters. Transcribing and transferring measurements onto rafters. Using "speed	Prerequisites: (Registered apprentice status and a grade of C or better in ABC/MEC/PNT120) or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0	S

				square" to determine measurements for specific types of rafters. Defining unequal roof pitch. Identifying specific types of plank and beam roofs and roof trusses used in the industry today.					
ABC142	2014 Fall	Alternating Current		Production of electricity, including; current, voltage, induction, mutual inductance and capacitance. Calculations using Ohms Law. Operation of a three phase system.	Prerequisites: (Registered apprentice status and a grade of C or better in ABC/MEC/PED120) or permission of the Apprenticeship Director.		Occ	LEC 1.0 1.0 1.0	S
ABC143	2004 Fall	Motors: Theory and Application		Overview of electric motors including types, operation, and applications. Assembly and disassembly. Mounting and connections according to National Electrical Code (NEC). Also troubleshooting, installation and handling	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 2.0 2.0 2.0	S
ABC144	2003 Summer I	Grounding		Types of grounding and proper installation of grounds and grounding. OSHA and National Electrical Code (NEC) requirements specific to grounding. Purpose and operation of Ground Fault Circuit Interrupters (GFCI). Effects of soils and environment. Selection of grounds and grounding material for specific situations. Testing grounds with a "megger"	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0	S
ABC221	2018 Fall	Motors and Motor Controls		Electrical symbols, line diagrams and logic. Contactors and starters, control devices, reversing circuits and power distribution systems. Electronic control devices, programmable controllers, reduced voltage starters, accelerating and decelerating methods and	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	L+L 3.0 3.0 3.0	T

				circuits. Preventive maintenance and trouble shooting					
ABC222	2004 Fall	Hazardous Locations-Electrical		Hazardous location classifications. Equipment approved for use in specific hazardous locations. Wiring methods	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0	S
ABC226	2004 Fall	Raceways, Wiring Devices, Boxes and Fittings		Sizing, selecting, and installing raceways, junction boxes, outlet boxes and wiring devices. Calculating fill requirements according to National Electrical Code (NEC) regulations. Calculating bending radii in boxes and cabinets. Types and purpose of wiring devices and calculating maximum loads on such devices	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 1.5 1.5 1.5	S
ABC230	2014 Fall	Stair Construction		Stair parts, materials and types. Stair dimensions and practical techniques for stair layout. Rough forming methods.	Prerequisites: (Registered apprentice status and a grade of C or better in ABC/MEC/PNT120) or permission of the Apprenticeship Coordinator.		Occ	LEC 1.0 1.0 1.0	S
ABC231	2005 Spring	Exterior Wall Finishes		Exterior wall finish work; placement and hanging of windows, siding and flashing for walls. Installation of floors, chimneys and insulation included	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 3.0 3.0 3.0	S
ABC256	2018 Fall	Basic Plumbing		Plumbing fixtures, drainage fixture unit ratings, and installation procedures. Includes procedures for installing fixtures, water heaters, shower and bath units, and dishwashers. Safety stressed.	Prerequisites: None.		Occ	L+L 4.0 4.0 4.0	T
ABC298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of	Prerequisites: Permission of Program Director or Instructor.	Course Attribute(s): COMMON COMPETENCY COURSE	Occ	LAB 1.0 1.0 0.0	Z

				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.					
ABC298AB	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.	Course Attribute(s): COMMON COMPETENCY COURSE	Occ	LAB 2.0 2.0 0.0	Z
ABC298AC	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.	Course Attribute(s): COMMON COMPETENCY COURSE	Occ	LAB 3.0 3.0 0.0	Z
ABO103	2022 Fall	Introduction to Auto Body Repair		An introduction to basic auto body repair skills in dent removal. This course includes body filler application and sanding, plastic repair, metal	Prerequisites: None.		CLK	156	

				repair, welding, plasma cutting, collision estimating, and air conditioning refrigerant recovery.					
ABO104	2022 Fall	Introduction to Automotive Refinishing		An introduction to basic refinishing skills with dual and single stage paints. This course includes spray equipment setup, panel prep and tape, paint correction with cut and buffing, scratch repair and proper blending techniques, basic knowledge of toners and paint mixing.	Prerequisites: None.		CLK	156	
ABO203	2022 Fall	Advanced Automotive Body Repair		An advanced course in non-structural auto body repair. This course includes disassembly of a vehicle, development of a collision repair plan, and repair. Includes body filler application and sanding, plastic repair, metal repair, and welding.	Prerequisites: None.		CLK	156	
ABO204	2022 Fall	Advanced Refinishing Fundamentals		An advanced course in vehicle refinishing and reassembly. This course includes spray equipment setup, vehicle prep and tape, paint correction with cut and buffing, scratch repair and proper blending techniques, knowledge of toners and paint mixing.	Prerequisites: None.		CLK	156	
ABS171	2023 Fall	Introduction to Good Manufacturing Practices(GMP)-Regulated Manufacturing		Course is designed to provide individuals with an overview of Good Manufacturing Practices (GMP), their application in a variety of industries and the opportunities for in such fields.	Prerequisites: None.	ABS/BIO171 may include required field trips. ABS/BIO171 may be repeated for a total of six (6) credits.	Occ	LEC 3.0 3.0 3.0	S
ABS173	2023 Fall	Basic Instrumentation and Lab Math		Introductory course covering basic equipment, measurements, and calculations used in biotechnology laboratories.	Prerequisites: None. BIO156 or BIO181 recommended.		Occ	LEC 1.0 1.0 1.0	S
ABS174	2023 Fall	BioSafety		General laboratory safety, hazardous chemical use and disposal, biohazardous	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S

				material use and disposal, biosafety procedures, and radiation safety.					
ABS175	2023 Fall	Research Methods in Biology		Fundamentals of planning and conducting biological experiments, including ones that simultaneously vary multiple experimental variables. Subsequent analysis, interpretation, and reporting of results.	Prerequisites: None. BIO156 or BIO181 recommended.		Occ	L+L 1.0 2.0 2.0	T
ABS194AA	2024 Spring	Special Topics in Applied Biological Sciences		Exploration of the foundation and application of a current topic in biosciences.	Prerequisites: Permission of Instructor.		Occ	LEC 1.0 1.0 1.0	S
ABS194AB	2024 Spring	Special Topics in Applied Biological Sciences		Exploration of the foundation and application of a current topic in biosciences.	Prerequisites: Permission of Instructor.		Occ	LEC 2.0 2.0 2.0	S
ABS194AC	2024 Spring	Special Topics in Applied Biological Sciences		Exploration of the foundation and application of a current topic in biosciences.	Prerequisites: Permission of Instructor.		Occ	LEC 3.0 3.0 3.0	S
ABS274	2023 Fall	Introduction to Wildlife Management		Introduction to the field of wildlife biology/management and the legal, cultural, ecological, and population dynamics of wildlife biology and management. Covers wildlife management objectives, management techniques, research techniques, and the organizational environment that wildlife biologists work in; provides an overview of careers in the field and guidance in planning a career.	Prerequisites: High school biology with a grade of C or better or a grade of C or better in BIO100 or BIO181 or permission of Instructor.		Occ	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0	T
ABS294AA	2024 Spring	Special Topics in Applied Biological Sciences-Advanced		Exploration of a current topic in the biosciences and its advanced applications.	Prerequisites: Permission of Instructor.		Occ	LEC 1.0 1.0 1.0	S
ABS294AB	2024 Spring	Special Topics in Applied Biological Sciences-Advanced		Exploration of a current topic in the biosciences and its advanced applications.	Prerequisites: Permission of Instructor.		Occ	LEC 2.0 2.0 2.0	S
ABS294AC	2024 Spring	Special Topics in Applied Biological Sciences-Advanced		Exploration of a current topic in the biosciences and its advanced applications.	Prerequisites: Permission of Instructor.		Occ	LEC 3.0 3.0 3.0	S
ACC105	1990 Spring	Payroll, Sales and Property Taxes		Tax reporting for payroll, sales, and personal property	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S

ACC107	2018 Fall	Bookkeeping Theory and Practice		Fundamental accounting practices; application to retail stores, professional firms, and personal service operations.	Prerequisites: None.		Occ	L+L 4.0 5.0 5.0	T
ACC109	2020 Fall	Accounting Concepts		Introduction to accounting with emphasis on analysis and applications of financial information.	Prerequisites: None. GBS151 and reading ability equivalent to RDG100 or RDG100LL suggested but not required.		Occ	LEC 3.0 3.0 3.0	S
ACC110	2018 Fall	Understanding and Using Accounting Systems		Develops basic comprehension of the balance sheet, income statement, and equity and cash flow statements. Explores usage of specialized journals and subsidiary ledgers in a computerized system. Studies the impact of various transactions on an enterprise, including payroll, receivables, payables, inventory, cash and credit card receipts	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0	T
ACC111	1994 Fall	Accounting Principles I		Fundamental theory of accounting principles and procedures	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
ACC112	1994 Fall	Accounting Principles II		Continuation of the fundamental theory of accounting principles and procedures, including interpretation of general purpose financial statements.	Prerequisites: A grade of C or better in ACC111 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0	S
ACC115	2020 Fall	Computerized Accounting		Understanding of fundamental accounting principles and mastery of an accounting information systems including the general ledger, accounts receivable, accounts payable and payroll.	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0	T
ACC121	2022 Spring	Individual Tax Preparation		Theory and practice of accounting for individual taxation.	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0	T
ACC211	2016 Summer	Financial Accounting		Introduction to theory and practice in the preparation and interpretation of general purpose financial statements.	Prerequisites: None.	Course Attribute(s): Arizona Shared Unique Number SUN#: ACC 2201	Occ	LEC 3.0 3.0 3.0	S

ACC212	2011 Fall	Managerial Accounting		Development and analysis of accounting information for managerial planning and control	Prerequisites: A grade of C or better in (ACC111 and ACC112) or ACC211 and (CIS105 or permission of Department or Division).	Course Attribute(s): Arizona Shared Unique Number SUN#: ACC 2202	Occ	LEC 3.0 3.0 3.0	S
ACC215	2019 Fall	Governmental and Not-For-Profit Accounting		Theories and procedures of accounting for governmental and not-for-profit organizations.	Prerequisites: A grade of C or better in ACC112 or ACC211, or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0	S
ACC216	2009 Fall	Fraud Examination		Fundamental theory of fraud examination methodology to detect and prevent accounting fraud.	Prerequisites: A grade of C or better in (ACC230 or ACC112 or ACC211) or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0	S
ACC219	2022 Spring	Intermediate Accounting I		Continuation of the theory and practice of financial accounting, applicable to assets, liabilities, equity related problems of income determination and financial reporting.	Prerequisites: A grade of C or better in ACC212 or ACC240 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0	S
ACC220	2022 Spring	Intermediate Accounting II		Continuation of the theory and practice of financial accounting, applicable to assets, liabilities, equity determination of asset values, liabilities, and related problems of income determination, special topics and financial reporting.	Prerequisites: A grade of C or better in ACC219 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0	S
ACC221	2022 Fall	Tax Accounting		Theory and practice of accounting for personal, corporate, and non-corporate taxation.	Prerequisites: A grade of C or better in ACC111 or ACC211 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0	S
ACC222	1995 Fall	Payroll Accounting		Payroll records for businesses required by federal and state laws	Prerequisites: A grade of C or better in ACC111 or ACC211 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0	S

ACC224	2022 Spring	Tax Practice Administration and Business Entity Analysis		Federal income tax representation, practices, and procedures, including trust and estate income tax, exempt organizations, and retirement plans.	Prerequisites: A grade of C or better in ACC121 or ACC221.		Occ	LEC 3.0 3.0 3.0	S
ACC230	2016 Summer	Uses of Accounting Information I		Introduction to the uses of accounting information for internal and external purposes with emphasis on financial statement analysis.	Prerequisites: A grade of C or better in ACC111 or ACC211 or (ENG101 and MAT151 and CRE101) or appropriate test scores on the District English, Reading and Math placement exams.		Occ	LEC 3.0 3.0 3.0	S
ACC240	2016 Summer	Uses of Accounting Information II		Introduction to the uses of accounting information for internal and external purposes with emphasis on analysis for use by management.	Prerequisites: A grade of C or better in ACC230.		Occ	LEC 3.0 3.0 3.0	S
ACC250	2018 Fall	Introductory Accounting Lab		Procedural details of accounting for the accumulation of information and generation of reports for internal and external users.	Prerequisites: None.		Occ	LAB 1.0 3.0 3.0	T
ACC260	2017 Summer	Certified Bookkeeper (CB) Preparation		Fundamental accounting practices including accrual and deferral adjustments, correcting common transaction recording errors, bank reconciliations and adjusting entries. Includes payroll accounting and related Federal and State payroll law requirements. Accounting for depreciation for financial and tax accounting purposes covered. Inventory valuation methods. Includes calculating, recording, and reporting under generally accepted accounting principles (GAAP). Preventive internal control procedures to detect organizational fraud, theft, and embezzlement covered.	Prerequisites: A grade of C or better in ACC111 or ACC211 or (bookkeeping experience and permission of Instructor).		Occ	LEC 3.0 3.0 3.0	S

ACC270AA	2016 Spring	Accounting Internship		Accounting work experience in a business or industry. Eighty hours of designated work per credit per semester.	Prerequisites: Permission of Department or Division.	ACC270AA may be repeated for a total of four (4) credits.	Occ	LAB 1.0 1.0 0.0	C
ACC270AB	2016 Spring	Accounting Internship		Accounting work experience in a business or industry. Eighty hours of designated work per credit totaling 160 hours per semester.	Prerequisites: Permission of Department or Division.	ACC270AB may be repeated for a total of four (4) credits.	Occ	LAB 2.0 2.0 0.0	C
ACC270AC	2016 Spring	Accounting Internship		Accounting work experience in a business or industry. Eighty hours of designated work per credit totaling 240 hours per semester.	Prerequisites: Permission of Department or Division.	ACC270AC may be repeated for a total of six (6) credits	Occ	LAB 3.0 3.0 0.0	C
ACC282AA	2016 Summer	Volunteerism Accounting: Service Learning Experience		Service learning field experience within private/public agencies, educational institution, and citizen volunteer groups.	Prerequisites: A grade of C or better in ACC111 or (ACC230 and ACC250) and permission of Instructor.	ACC282AA may be repeated for a total of six (6) ACC282 credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 1.0 1.0 0.0	L
ACC282AB	2016 Summer	Volunteerism Accounting: Service Learning Experience		Service learning field experience within private/public agencies, educational institution, and citizen volunteer groups.	Prerequisites: A grade of C or better in ACC111 or (ACC230 and ACC250) and permission of Instructor.	ACC282AB 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
ACC282AC	2016 Summer	Volunteerism Accounting: Service Learning Experience		Service learning field experience within private/public agencies, educational institution, and citizen volunteer groups.	Prerequisites: A grade of C or better in ACC111 or (ACC230 and ACC250) and permission of Instructor.	ACC282AC 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
ACC296WA	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. COMMON COMPETENCY COURSE	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 1.0 5.0 0.0	Z

					career interest or with permission of Instructor.				
ACC296WB	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. COMMON COMPETENCY COURSE	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 5.0 0.0	Z
ACC296WC	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. COMMON COMPETENCY COURSE	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
ACC296WD	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. COMMON COMPETENCY COURSE	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 4.0 20.0 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.				
ACC298AA	2016 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 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
ACC298AB	2016 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 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
ACC298AC	2016 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	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z

				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.					
ACT298AA	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z
ACT298AB	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z
ACT298AC	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	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z

				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. COMMON COMPETENCY COURSE					
AEN102	2017 Summer	Fundamentals of Facility Energy Management		Process of evaluation of types of energy use. Evaluation of the structure, energy transfer, lighting, heating, and cooling systems. Introduction to basic thermal process, including thermal capacity, heat transfer modes, psychometric charts, fan and pump laws, energy storage, and other factors related to HVAC and occupant comfort in commercial facilities. Includes an introduction to energy generation, construction and equipment, and the impact of these factors on cost and economic justification.	Prerequisites: None.		Occ	LEC 4.0 4.0 4.0	S
AEN103	2018 Fall	Hand Tools and Basic Maintenance for Building Energy Technicians		Basic tools and equipment for the building energy technician. Includes an overview of electrical theory and procedures for measurement and evaluation of common electric circuits, specific heating, ventilation, and air conditioning (HVAC) mechanical hardware devices, analysis of building environmental conditions, and safe procedures for starting and stopping equipment and systems. Also addresses basic repair and replacement of electric outlets, fuses,	Prerequisites: None.		Occ	L+L 4.0 4.0 4.0	T

				breakers, filters, and necessary diagnostics on related electrical and mechanical items.					
AEN142	2018 Fall	Introduction to Energy Management		Introduction to building energy management concepts and procedures. Includes the carbon cycle, building envelope and materials of construction in their relation to energy management, occupant comfort, and indoor air quality. Major emphasis on identification of building system components, relations, interactions and basic operation, evaluation and reporting of energy trending and consumption, and efficiency.	Prerequisites: A grade of C or better in AEN102, AEN103 and CNS182.		Occ	L+L 3.0 3.0 3.0	T
AEN190	2018 Fall	Device Interface and Selection		Overview of building management systems, components, and controls. Includes energy consumption basics and measurement in addition to building systems evaluation. Also covers the process for evaluation and documentation of systems as well as recommendations for potential energy conservation.	Prerequisites: A grade of C or better in AEN142 and (MAT112 or MAT122).		Occ	L+L 3.0 5.0 5.0	T
AES101	2023 Fall	Heritage and Values I		Survey course designed to introduce students and cadets to the Department of the Air Force (DAF) and the Air Force Reserve Officer Training Corps (AFROTC). The course allows students and cadets to examine general aspects of the DAF, leadership fundamentals, service benefits, and opportunities for officers. The course also lays the foundation for becoming an Airman or Guardian by outlining our heritage and	Prerequisites: None.		Acad	LEC 2.0 1.0 0.0 LAB 0.0 1.0 0.0	Z

				values. As a foundational course, this course provides a historical perspective such as lessons on war and US military, DAF operations, principles of war, and airpower.					
AES103	2023 Fall	Heritage and Values II		Survey course designed to introduce students and cadets to the Department of the Air Force (DAF) and the Air Force Reserve Officer Training Corps (AFROTC). The course allows students and cadets to examine general aspects of the DAF, leadership fundamentals, service benefits, and opportunities for officers. The course also lays the foundation for becoming an Airman or Guardian by outlining our heritage and values. As a foundational course, this course provides a historical perspective such as lessons on war and US military, DAF operations, principles of war, and airpower.	Prerequisites: None.		Acad	LEC 2.0 1.0 0.0 LAB 0.0 1.0 0.0	Z
AES201	2023 Fall	Team and Leadership Fundamentals I		A survey course designed to provide a fundamental understanding of both leadership and team building. Students and cadets will learn that there are many layers to leadership, including aspects that do not always come to mind. Such things include listening, understanding themselves, being a good follower, and problem solving efficiently. Students and cadets will apply these leadership perspectives when completing team building activities and discussing	Prerequisites: None.		Acad	LEC 2.0 1.0 0.0 LAB 0.0 1.0 0.0	Z

				things like conflict management. Students and cadets should demonstrate basic verbal and written communication skills.					
AES203	2023 Fall	Team and Leadership Fundamentals II		A survey course designed to provide a fundamental understanding of both leadership and team building. Students and cadets will learn that there are many layers to leadership, including aspects that do not always come to mind. Such things include listening, understanding themselves, being a good follower, and problem solving efficiently. Students and cadets will apply these leadership perspectives when completing team building activities and discussing things like conflict management. Students and cadets should demonstrate basic verbal and written communication skills.	Prerequisites: None.		Acad	LEC 2.0 1.0 0.0 LAB 0.0 1.0 0.0	Z
AES294	2016 Fall	Air Force Physical Fitness		Physical training component of Air Force ROTC. Covers topics of immediate or special interest to a faculty member and students.	Prerequisites: None.	AES294 may be repeated for credit. AES294 must be taken concurrently with AES101, AES103, AES201 and AES203.	Acad	L+L 1.0 3.0 0.0	Z
AES298AA	2008 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	Prerequisites: None.		Acad	LAB 1.0 1.0 0.0	Z

				development. COMMON COMPETENCY COURSE					
AES298AB	2008 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. COMMON COMPETENCY COURSE	Prerequisites: None.		Acad	LAB 2.0 2.0 0.0	Z
AES298AC	2008 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. COMMON COMPETENCY COURSE	Prerequisites: None.		Acad	LAB 3.0 3.0 0.0	Z
AET107	2022 Fall	Private Pilot Ground School		Ground school in preparation for the Federal Aviation Administration (FAA) Private Pilot Certificate written examination. Includes aerodynamics, airplane systems, airports, airspace, communications, Federal Air Regulations, navigation, airplane performance, flight planning, and flight physiology. Requires passing	Prerequisites: None. Corequisites: AET110 or AET112.		Occ	LEC 5.0 5.0 5.0	S

				a written exam similar to the FAA Private Pilot written exam.					
AET107HH	2012 Summer II	Private Pilot Ground School: Helicopter		Ground school in preparation for the Federal Aviation Administration (FAA) Private Pilot Certificate written examination. Includes aerodynamics, helicopter systems, airports, airspace, communications, Federal Air Regulations, navigation, helicopter performance, flight planning, and flight physiology. Requires passing a written exam similar to the FAA Private Pilot written exam.	Prerequisites: None. Corequisites: AET110HH.		Occ	LEC 5.0 5.0 5.0	S
AET110	2020 Fall	Private Pilot Flight		Flight course in preparation for the Federal Aviation Administration (FAA) Private Pilot Certificate practical examination. Includes preflight preparation and planning, ground operations, airport operations, departures, navigation, basic instrument flight, night flight, slow flight, ground reference maneuvers, emergency operations, and arrivals. Approximately 50 hours airplane flight experience at student`s expense required. Requires passing check ride similar to the FAA Private Pilot check ride.	Prerequisites: None. Corequisites: AET107.		Occ	LAB 1.0 5.0 5.0	T
AET110HH	2018 Fall	Private Pilot Flight: Helicopter		Flight course in preparation for the Federal Aviation Administration (FAA) Private Pilot Certificate practical examination. Includes preflight preparation, preflight procedures, airport and heliport operations, hovering maneuvers, takeoffs, landings,	Prerequisites: None. Corequisites: AET107HH.		Occ	LAB 2.0 5.0 5.0	T

				and go-rounds, performance maneuvers, navigation, emergency operations, night operations, and post-flight procedures. Approximately 75-85 hours helicopter flight experience at student's expense required. Requires passing check ride similar to the FAA Private Pilot check ride.					
AET112	2022 Spring	Private Pilot Flight - Test Course		Flight course in preparation for transition into continued AET course work. Includes preflight preparation and planning, ground operations, airport operations, departures, navigation, basic instrument flight, slow flight, ground reference maneuvers, emergency operations, and arrivals. Requires passing check ride similar to the Federal Aviation Administration Private Pilot check ride.	Prerequisites: FAA Private Pilot Airplane Single-Engine Land or advanced certification. Corequisites: AET107.	Flight and ground briefing time at student's expense required.	Occ	LAB 1.0 5.0 5.0	T
AET115	1994 Fall	Aviation Meteorology		Meteorology for professional pilots. Includes atmosphere, air mass circulation, cloud type identification, weather hazards, and high altitude, Arctic, and tropical weather systems. Basic forecasting, use of Direct User Access Terminal (DUAT) systems and reading and interpreting weather charts	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AET203	2022 Summer	Basic Airplane Systems		Beginning commercial pilot ground course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot Certificate and Commercial written examination. Discussions will include, but not be limited to reciprocating engines, engine	Prerequisites: A grade of C or better in (AET207, AET217, and AET210) or permission of Instructor. Corequisites: AET222.		Occ	LEC 3.0 3.0 3.0	S

				systems, airplane systems, altitude systems, and commercial regulations.					
AET203HH	2012 Summer II	Basic Helicopter Systems		Beginning commercial pilot ground course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot Certificate and Commercial written examination Discussions will include, but not be limited to reciprocating engines, engine systems, helicopter systems, altitude systems, and commercial regulations.	Prerequisites: A grade of C or better in AET207HH, AET217HH and AET210HH or permission of Instructor. Corequisites: AET220HH and AET213HH.		Occ	LEC 2.0 2.0 2.0	S
AET205	1994 Fall	Aircraft Structures, Systems, and Maintenance		Survey of airframe structures, systems, and maintenance regulations for pilots. Includes aircraft and airfoil design and construction, and electrical, instrumentation, and automatic flight control systems. Maintenance privileges and limitations, and forms and records	Prerequisites: Private Pilot Certificate or permission of Instructor.		Occ	LEC 4.0 4.0 4.0	S
AET207	2022 Fall	Attitude Instruments and Navigation		Beginning instrument pilot ground course in preparation for the Federal Aviation Administration (FAA) Instrument Pilot Rating and Instrument Rating written examinations. Includes preflight preparation, flight instruments, basic attitude instrument flying, radio navigation systems, and technically advanced aircraft systems.	Prerequisites: A grade of C or better in AET110 or permission of Instructor. Corequisites: AET210, AET217 and AET220		Occ	LEC 3.0 3.0 3.0	S
AET207HH	2012 Summer II	Attitude Instruments and Navigation: Helicopter		Beginning instrument pilot ground course in preparation for the Federal Aviation Administration (FAA) Instrument Pilot Rating and Instrument rating written examinations. Includes preflight preparation, flight	Prerequisites: A grade of C or better in AET110HH or permission of Instructor. Corequisites: AET210HH and AET217HH.		Occ	LEC 2.0 2.0 2.0	S

				instruments, basic attitude instrument flying, radio navigation systems, and technically advanced helicopter systems.					
AET208	2020 Fall	Aviation Safety		Introduction to aviation safety, including aviation safety programs, risk management, pilot psychology, physiology, human factors, and accident review and investigation.	Prerequisites: A grade of C or better in AET107 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0	S
AET210	2022 Fall	Commercial Flight Lab I		Initial flight course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot practical examination. Emphasis on instrument and technically advanced aircraft operations. Student must fly approximately 10 hours at own expense. Requires passing operational stage checks similar to the FAA check rides.	Prerequisites: A grade of C or better in AET110 or permission of Instructor. Corequisites: AET207, AET217 and AET220.		Occ	LAB 1.0 5.0 5.0	T
AET210HH	2018 Fall	Instrument Flight: Helicopter		Initial helicopter flight course in preparation for the Federal Aviation Administration (FAA) Instrument rating practical examination. Emphasis on helicopter instrument operations. Student must fly approximately 75 hours at own expense. Requires passing operational phase checks.	Prerequisites: A grade of C or better in AET110HH or permission of Instructor. Corequisites: AET207HH and AET217HH.		Occ	LAB 2.0 5.0 5.0	T
AET213	2022 Spring	Aerodynamics and Performance		Advanced commercial pilot ground course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot Certificate and Commercial written examinations. Includes discussion of aerodynamic factors including lift, weight, drag, and thrust. Discussions will include, but are not limited	Prerequisites: A grade of C or better in AET207, AET217, and AET210. Corequisites: AET221.		Occ	LEC 3.0 3.0 3.0	S

				to aerodynamics, performance, safe and efficient airplane operations, airplane stability and control, stalls, and spins.					
AET213HH	2012 Summer II	Aerodynamics and Performance: Helicopter		Advance commercial pilot ground course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot Certificate and Commercial written examinations. Includes discussion of aerodynamic factors including lift, weight, drag, and thrust. Discussions will include, but are not limited to aerodynamics, performance, and safe and efficient helicopter operations.	Prerequisites: A grade of C or better in AET207HH, AET217HH, and AET210HH. Corequisites: AET220HH and AET203HH.		Occ	LEC 2.0 2.0 2.0	S
AET215	1994 Fall	Aircraft Powerplants		Survey of engines and engine systems for pilots. Includes theory and analysis of reciprocating and turbine aircraft engines. Lubrication, ignition, fuel control, cooling, exhaust, and propellers.	Prerequisites: A grade of C or better in AET205 or permission of Instructor.		Occ	LEC 4.0 4.0 4.0	S
AET217	2022 Fall	Instrument Procedures		Advanced instrument pilot ground school course in preparation for the Federal Aviation Administration (FAA) Instrument pilot rating and Instrument rating written examinations. Includes Federal Aviation Regulations, instrument approach procedures, and instrument enroute considerations. Requires passing written exam similar to the Instrument pilot rating and Instrument rating written exams.	Prerequisites: A grade of C or better in AET110 or permission of Instructor. Corequisites: AET207, AET210 and AET220.		Occ	LEC 3.0 3.0 3.0	S
AET217HH	2012 Summer II	Instrument Procedures: Helicopter		Advance helicopter instrument pilot ground school course in preparation for the Federal Aviation Administration (FAA) Instrument pilot rating and	Prerequisites: A grade of C or better in AET110HH or permission of Instructor. Corequisites:		Occ	LEC 2.0 2.0 2.0	S

				Instrument rating written examinations. Includes Federal Aviation Regulations, instrument approach procedures, and instrument enroute considerations. Requires passing written exams similar to the Instrument pilot rating and Instrument rating written exams.	AET210HH and AET207HH.				
AET220	2022 Fall	Instrument Flight Lab		Flight course in preparation for the Federal Aviation Administration (FAA) Instrument rating practical examination. Emphasis on instrument operations. Student must fly approximately 40 hours at own expense. Requires passing of stage checks similar to the FAA check ride.	Prerequisites: A grade of C or better in AET110 or permission of Instructor. Corequisites: AET207, AET210 and AET217.		Occ	LAB 1.0 5.0 5.0	T
AET220HH	2018 Fall	Commercial Flight: Helicopter		Advanced flight course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot practical examination. Emphasis on commercial and high performance helicopter operations. Student must fly approximately 60 hours at own expense. Requires passing instrument rating and commercial pilot stage checks similar to the FAA check rides.	Prerequisites: A grade of C or better in AET210HH, AET207HH and AET217HH. Corequisites: AET203HH and AET213HH.		Occ	LAB 2.0 5.0 5.0	T
AET221	2022 Spring	Commercial Flight Lab II		Intermediate flight course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot practical examination. Emphasis on commercial and solo cross-country flight operations. Student must fly approximately 45 hours at their own expense. Maneuvers and procedures	Prerequisites: A grade of C or better in AET207 and AET210 or by permission of Instructor. Corequisites: AET213.		Occ	LAB 1.0 5.0 5.0	T

				during dual instruction are designed to be performed with flight instructor guidance. Requires passing commercial pilot stage checks similar to the FAA check ride.					
AET222	2022 Spring	Commercial Flight Lab III		Advanced flight course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot practical examination. Emphasis on commercial operations. Student must fly approximately 45 hours at their own expense. Maneuvers and procedures are designed to be performed with little flight instructor guidance. Requires commercial pilot stage checks similar to the FAA check ride.	Prerequisites: A grade of C or better in AET221 and AET213. Corequisites: AET203.		Occ	LAB 1.0 5.0 5.0	T
AET225	2020 Fall	Advanced Aircraft Systems		Survey of advanced aircraft systems to include electrical, automatic flight control, pressurization, cabin atmosphere, ice control, rain control, fire detection and extinguishing. Includes theory and analysis of turbine aircraft engines. Introduction to turbine engine systems to include lubrication, ignition, fuel control, cooling, exhaust, and propellers. Includes overview of maintenance publications, forms and records.	Prerequisites: Private Pilot Certificate or permission of Instructor.		Occ	LEC 4.0 4.0 4.0	S
AET227	2017 Fall	Certified Flight Instructor: Airplane, Single Engine Land Ground School		Ground school in preparation for the Federal Aviation Administration (FAA) Certified Flight Instructor and Fundamentals of Instruction written examinations. Includes fundamentals of instruction, aerodynamics, airplane performance, systems,	Prerequisites: A grade of C or better in AET240 or FAA Commercial Pilot Certificate with instrument rating. Corequisites: AET230.		Occ	LEC 5.0 5.0 5.0	S

				operations, weight and balance, weather, federal regulations, navigation, maneuvers, pilot physiology, ethics, and aeronautical decision making. Requires passing written exams similar to the FAA Certified Flight Instructor: Airplane, and Fundamentals of Instruction written exams.					
AET227HH	2012 Summer II	Certified Flight Instructor: Helicopter Ground School		Ground school in preparation for the Federal Aviation Administration (FAA) Certified Flight Instructor and Fundamentals of Instruction written examinations. Includes fundamentals of instruction, aerodynamics, helicopter performance, systems, operations, weight and balance, weather, federal regulations, navigation, maneuvers, pilot physiology, ethics, and aeronautical decision making. Requires passing written exams similar to the FAA Certified Flight Instructor: Helicopter, and Fundamentals of Instruction written exams.	Prerequisites: FAA Commercial Pilot Certificate. Corequisites: AET230HH.		Occ	LEC 4.0 4.0 4.0	S
AET229	2020 Fall	Crew Resource Management		Crew communications, teamwork, leadership, "followership," decision-making, and situational awareness; also the benefits of diversity, and the role diversity plays in the modern aerospace industry. Emphasis on utilization of all available resources in order to conduct a safe and efficient flight.	Prerequisites: A grade of C or better in AET217 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0	S
AET230	2022 Fall	Certified Flight Instructor: Airplane, Single Engine Land Flight Lab		Flight course in preparation for the Federal Aviation Administration (FAA) Certified Flight Instructor: Airplane	Prerequisites: A grade of C or better in AET240 or FAA Commercial Pilot Certificate with		Occ	LAB 1.0 3.0 3.0	T

				practical examination. Emphasis on demonstration and analysis of flight maneuvers. Includes preflight, ground operations, airport operations, takeoffs, climbs, flight fundamentals, stalls, spins, slow flight, basic instrument operations, performance maneuvers, ground reference maneuvers, emergency operations, approaches, landings, and post-flight procedures. Requires approximately 25 hours of flight that includes high performance operations at student's expense. Also requires passing check ride similar to the FAA Certified Flight Instructor check ride.	instrument rating. Corequisites: AET227.				
AET230HH	2018 Fall	Certified Flight Instructor: Helicopter		Flight course in preparation for the Federal Aviation Administration (FAA) Certified Flight Instructor: Helicopter practical examination. Emphasis on demonstration and analysis of flight maneuvers. Includes preflight procedures, airport and heliport operations, hovering maneuvers, takeoffs, landings, and go-arounds, fundamentals of flight, performance maneuvers, emergency operations, special operations, and postflight procedures. Requires approximately 60 hours of flight at student's expense. Also requires passing check ride similar to the FAA Certified Flight Instructor check ride.	Prerequisites: FAA Commercial Pilot Certificate with instrument rating. Corequisites: AET227HH.		Occ	LAB 1.0 3.0 3.0	T
AET237	1995 Fall	Multiengine Airplane Pilot Ground School		Aeronautical knowledge necessary to meet requirements for a multiengine	Prerequisites: A grade of C or better in AET220 or FAA Commercial		Occ	LEC 2.0 2.0 2.0	S

				airplane rating including orientation, aerodynamics, airplane systems, airplane performance, flight planning, and emergency procedures.	Pilot Certificate with instrument rating. Corequisites: AET240.				
AET239	2022 Spring	Commercial Flight Lab IV		Final flight course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot practical examination. Emphasis on commercial operations. Student must fly approximately 20 hours at their own expense. Maneuvers and procedures are designed to be performed without flight instructor guidance. Requires passing commercial pilot stage check similar to the FAA check ride.	Prerequisites: A grade of C or better in (AET203 and AET222), or by permission of Instructor.		Occ	LAB 1.0 5.0 5.0	T
AET240	2022 Fall	Multiengine Airplane Pilot Flight Lab		Flight course in preparation for the Federal Aviation Administration (FAA) Multi-engine Airplane practical examination. Approximately 18 hours of flight experience at the student's expense and passing check ride similar to the FAA Multi-engine check ride are required.	Prerequisites: A grade of C or better in AET239 or FAA Commercial Pilot Certificate with Single Engine Land and Instrument rating. Corequisites: AET237.		Occ	LAB 1.0 1.5 1.5	T
AET257	2018 Fall	Readings in Aviation		Critical inquiry of a particular aviation theme from a wide variety of sources. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. International data communication facilities and equipment made available for student use.	Prerequisites: A grade of C or better in ENG102 or ENG111 and permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
AET258	2013 Summer I	Certified Flight Instructor: Instrument Airplane Ground School		Aeronautical knowledge and practical teaching ability necessary to obtain an Instrument Flight Instructor Certificate with an Airplane-	Prerequisites: Valid FAA Commercial Pilot Certificate or Airline Transport Pilot Certificate with the		Occ	LEC 3.0 3.0 3.0	S

				Single-Engine rating and necessary to satisfactorily pass the Flight Instructor Instrument knowledge test.	appropriate category and class of airplane used in the course, instrument rating, and Flight Instructor Certificate-Airplane. Corequisites: AET270.				
AET270	2018 Fall	Certified Flight Instructor: Instrument Airplane Flight Lab		Flight experience in an airplane to meet flight proficiency and aeronautical experience requirements necessary to add an Instrument Airplane Rating to an existing Flight Instructor-Airplane certificate.	Prerequisites: Valid FAA Commercial Pilot Certificate or Airline Transport Pilot Certificate with the appropriate category and class of airplane used in the course, instrument rating, and Flight Instructor Certificate-Airplane. Corequisites: AET258.		Occ	LAB 1.0 3.0 3.0	T
AET296WA	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. COMMON COMPETENCY COURSE	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
AET296WB	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. COMMON COMPETENCY COURSE	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		Occ	LAB 2.0 10.0 0.0	Z

					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.				
AET296WC	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. COMMON COMPETENCY COURSE	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
AET296WD	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. COMMON COMPETENCY COURSE	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

AET298AA	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z
AET298AB	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z
AET298AC	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	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z

				development. COMMON COMPETENCY COURSE					
AFR110	2009 Summer I	Introduction to African-American Studies		Introduction to the study of the African-American experience. Interdisciplinary approach includes historical underpinnings; population and cultural characteristics; social, economic, and political issues; and implications for the future	Prerequisites: None.	Course Attribute(s): General Education Designation: Cultural Diversity - [C]	Acad	LEC 3.0 3.0 3.0	S
AFR202	2017 Spring	Ethnic Relations in the United States	ASB202 CCS202	Basic concepts and processes, including historic overview, of interethnic relations in the United States: culture, race, ethnicity, ethnocentrism, prejudice, discrimination, racism, assimilation, acculturation, and individual and group responses to interethnic contact. Cultural knowledge and intercultural communication skills and perspectives as fundamental tools for successful management of social relations in a multicultural world.	Prerequisites: None.	Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Historical Awareness - [H] General Education Designation: Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S
AFR203	2019 Spring	African-American History: The Slavery Experience		History and cultural heritage of African-Americans, including arrival in the Americas, chattel slavery experience, emancipation, and participation in the American Civil War. Presented from an Afro-centric perspective.	Prerequisites: A grade of C or better in AFR110 or permission of Instructor.	Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: Social-Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S
AFR204	2023 Fall	African-American History 1865 to Present	HIS204	The multifaceted history and cultural heritage of African-American communities since the Civil War, presented within the broader context of U.S. history. This course explores the social, economic, political, and cultural history of African-American communities, including the historical and	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S

				cultural impacts of slavery and discrimination, and the collective struggle for freedom, equality, and self-determination throughout U.S. history.					
AFR207	2008 Fall	Black Women	WST207	Analysis and discussion of critical issues for Black women in America today	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
AGB130	2004 Fall	Establishing and Running an Agribusiness		Basic principles used in establishing and running an Agribusiness. Emphasis on business requirements to maintain a business enterprise in Arizona	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AGB132	2016 Spring	Agribusiness and Management		Application of management principle skills in day-to-day operations for decision-making techniques base on collection, use and analysis of financial, employee, and customer data to determine and evaluate the daily operations of an agribusiness venture.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AGB139	2018 Fall	Agribusiness Computer Operations		Agribusiness operations for solving, forecasting and projecting agribusiness problems, agribusiness communications, accounting systems and database use.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0	T
AGB140	2018 Fall	Commercial Floral Design		Fundamentals of commercial floral design. Includes instruction and hands-on training in fresh, dried, and silk plants, flowers, and greens; materials; supplies; gift items; and industry conditions, standards, and trends. Covers design principles, identification, selection, care, maintenance, handling, and use of floral design material, ordering, pricing, recordkeeping, computer	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0	T

				usage, and customer relations.					
AGB142	2018 Fall	Floriculture		Principles and species of floriculture. Includes instruction in cultural and production requirements of cut flowers and foliage. Covers general production information and basic plant physiology principles, propagation, production temperatures, plant nutrients, pest management, and greenhouse construction and operations.	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0	T
AGB144	2018 Fall	Agriculture Processing		Agricultural processing and the meat industry as a business enterprise. Carcass evaluation, grading, judging for cut ability and quality, cut identification, meat cutting, wrapping, freezing, and storing.	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0	T
AGB229	2007 Fall	Landscape Management and Leadership		Covers landscape and nursery management concepts and applications for business, industry, and government organizations	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AGB231	2016 Spring	Marketing of Agricultural Products		Principles of agricultural marketing including consumer demand, economic system fundamentals, functions and methods of marketing agricultural commodities, market planning, and promoting and selling in the agricultural domain.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AGB260	2018 Fall	Youth Leadership Development		Characteristics of effective Career and Technical Student Organization (CTSO) officers, leadership styles and strategies for the management and organization of youth groups in agriculture. Includes instruction and hands-on training in speech/workshop development, budget and	Prerequisites: None.		Occ	L+L 4.0 6.0 6.0	T

				activity planning and the use of parliamentary procedure.					
AGB261	2018 Fall	Advanced Youth Leadership Development		Characteristics of effective Career and Technical Student Organization (CTSO) officers, leadership styles and strategies for the management and organization of youth groups in agriculture. Includes instruction and hands-on training in speech/workshop development, budget and activity planning and the use of parliamentary procedure.	Prerequisites: None.		Occ	L+L 4.0 6.0 6.0	T
AGB290	2018 Fall	Internship		Supervised field training for Agribusiness students with local industry businesses.	Prerequisites: Student shall be in final semester before graduation and permission of Department or Division.		Occ	LAB 3.0 6.0 6.0	T
AGB296WA	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. COMMON COMPETENCY COURSE	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
AGB296WB	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. COMMON COMPETENCY COURSE	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 concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor.				
AGB296WC	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. COMMON COMPETENCY COURSE	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
AGB296WD	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. COMMON COMPETENCY COURSE	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

AGB298AA	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z
AGB298AB	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z
AGB298AC	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	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z

				development. COMMON COMPETENCY COURSE					
AGL181	2018 Fall	Landscape Construction Techniques		The methods used in site preparation, installation of edgings, construction of walks, patios and decks, installation of sprinkler systems, rock scapes and the planting of trees, shrubs, ground covers, and lawns.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0	T
AGL184	2018 Fall	Landscape Drafting and Design I		Basic principles of landscape design, including drafting and design techniques commonly used in the field of landscaping. Emphasis on simple working drawings and detailed views, symbols, lettering, and drafting standards.	Prerequisites: None.		Occ	L+L 2.0 4.0 4.0	T
AGL188	2018 Fall	Arizona Landscape Design		Designed for residential homeowner and beginning professional. Emphasis on plant material groupings and basic design principles. History of landscape use, special features of hardscapes, irrigation systems, and lawn-to- desert planting conversion techniques.	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0	T
AGL189	2018 Fall	Landscape Design I		Introduction to landscape design with an emphasis on residential and small scale projects. Application of design processes from inventory and analysis through design and development including program, measured base, study diagrams, rendered and colored plans, and sectional elevations. Architectural communication developed through hand sketch and hand drafting techniques with practice in client interview and design presentation.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0	T

AGL190	2018 Fall	Landscape Design II		Advanced study of the principles, processes, and practice of Landscape Design, with an emphasis on residential and small scale design. Design problem-solving, use of landscape elements such as paving, fencing, small structures, low voltage lighting, plants, water and fire features. Construction documents will be produced including plans, estimates, details, and specifications. Regulatory agencies and other affective influences will be explained. Development of personal design philosophy and career exploration.	Prerequisites: A grade of C or better in AGL189 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T
AGL269	2018 Fall	Computer Aided Landscape Design	CAD269	Using AutoCAD to create landscape design drawings and wire frames in Sketchup for elevations, sections and perspective sketches.	Prerequisites: A grade of C or better in (AGB139 or CAD100 or CAD101) and AGL189 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T
AGL296WA	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. COMMON COMPETENCY COURSE	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
AGL296WB	2002 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to	Prerequisites: Completion of at least twelve (12) college		Occ	LAB 2.0 10.0 0.0	Z

				accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE	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.				
AGL296WC	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. COMMON COMPETENCY COURSE	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
AGL296WD	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. COMMON COMPETENCY COURSE	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		Occ	LAB 4.0 20.0 0.0	Z

					enrolled in at least one class which is related to students major or career interest or with permission of Instructor.				
AGL298AA	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z
AGL298AB	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z
AGL298AC	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	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z

				available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE					
AGS164	2021 Fall	Plant Growth and Development		Principles of growth in relation to seed germination, emergence, growth and reproduction processes of plants and the environmental influences on plant growth processes.	Prerequisites: None.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 4.0 4.0	T
AGS165AA	2021 Fall	Fall Sustainable Crop Production		Study of the importance of Fall-planted crops for food, feed, and fiber. Cultural practices for raising the major crops in the State of Arizona, including planting, environmental modifications, harvesting, handling and quality control with an emphasis on sustainability.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AGS164 or permission of Instructor.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0	T
AGS165AB	2021 Fall	Spring Sustainable Crop Production		Study of the importance of Spring-planted crops for food, feed, and fiber. Cultural practices for raising the major crops in the State of Arizona, including planting, environmental modifications, harvesting, handling and quality control with an emphasis on sustainability.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AGS164 or permission of Instructor.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0	T
AGS166	2021 Fall	Aquaponics		Establishment, care, and selection of facilities for commercial production of animals and plants in a water-based closed system.	Prerequisites: None.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0	T
AGS168	2018 Fall	Grounds Equipment Management		Selection, use and maintenance of grounds equipment, including both manual and power equipment.	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0	T
AGS170	1992 Fall	Pesticides		Chemistry and classification of pesticides. Interpret the use of pesticide labels	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5	S

AGS171	1992 Fall	Insect Identification		Concepts of insect identification	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5	S
AGS172	1992 Fall	Household Pests		Problems associated with household pests	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5	S
AGS173	1992 Fall	Wood Destroying Pests		Problems associated with wood destroying pests	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5	S
AGS174	1992 Fall	Regulations: Federal and State		Federal and state pesticide regulations and guidelines for licensing pest control use	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5	S
AGS175	1992 Fall	Pesticide Safety and Use of Equipment		Federal and state pesticide safety regulations and use of equipment	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5	S
AGS176	1992 Fall	Environment and Toxicology of Pesticides		Environmental concepts, endangered species and toxicology associated with the use of pesticides	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5	S
AGS177	1992 Fall	Aquatic Pest Control		Aquatic ecosystems, pest organisms and their control	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5	S
AGS178	1992 Fall	General Pest Control		Arthropods and other pest organisms and their control	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5	S
AGS179	1992 Fall	Terrestrial Weed Control		Terrestrial weeds and their control	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5	S
AGS182	2001 Summer I	Gardening Practices and Techniques		Cultural practices of vegetables, fruits and ornamental plants as they relate to organic and inorganic gardening	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
AGS182AA	2022 Fall	Gardening Practices and Techniques		Cultural practices of vegetables, fruits and ornamental plants as they relate to organic and inorganic gardening.	Prerequisites: None.	AGS182AA may be repeated for credit.	Occ	LEC 3.0 1.0 1.0 LAB 0.0 4.0 4.0	T
AGS183	2001 Summer I	Urban Plant Identification and Use		Identification, growth, cultural requirements, uses, maintenance, and care of landscape trees, shrubs, vines and ground covers commonly used in Arizona	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AGS183AA	2001 Summer I	Urban Plant Identification and Use: Trees		Emphasis on trees commonly used in cityscapes in the Southwest. Review of their origin, cultural requirements, uses, required maintenance, benefits and disadvantages. Identification, planting procedures, water and	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S

				nutritional requirements are covered					
AGS183AB	2001 Summer I	Urban Plant Identification and Use: Shrubs		Emphasis on shrubs commonly used in cityscapes in the Southwest. Review of their origin, cultural requirements, uses, required maintenance, benefits and disadvantages. Identification, planting procedures, water and nutritional requirements are covered	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
AGS183AC	2001 Summer I	Urban Plant Identification and Use: Vines, Flowers, Groundcovers		Emphasis on groundcovers, annuals, perennials and vines commonly used in cityscapes in the Southwest. Review of their origin, cultural requirements, uses, required maintenance, benefits and disadvantages. Identification, planting procedures, water and nutritional requirements covered	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
AGS186	2018 Fall	Greenhouse Management and Construction		Principles and practices of greenhouse operation; control of environmental factors and cultural practices affecting the production of greenhouse crops	Prerequisites: None.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0	T
AGS186AA	1995 Fall	Greenhouse Management and Construction		Principles and practices of greenhouse operation; control of environmental factors and cultural practices affecting the production of greenhouse crops	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AGS187	1995 Fall	Indoor Foliage Plants		Environmental and nutritional requirements for foliage plants used for interior decoration. Includes identification, nomenclature and uses	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AGS188	2001 Fall	Arid Landscape Plants		Provides information on currently propagated Xerophytes available in southern Arizona. Shows how each can be applied to specific desert landscape	Prerequisites: None.		Occ	LEC 3.0 6.0 5.1	S

				situations. Considers identification, cultural requirements, and physical characteristics related to landscape design					
AGS190	2000 Fall	Arid Land Plants Identification and Use		Covers xerophytes common in southern Arizona and their applications to specific desert landscape situations. Identification, cultural requirements, and physical characteristics related to landscape design, including both mature plants and live containerized material	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AGS192	2021 Fall	Urban Plant Care		Establishment, care and preservation of ornamental trees, shrubs, vines, and ground cover plants used in landscape for human well-being and pleasure.	Prerequisites: None.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0	T
AGS192AA	2001 Fall	Urban Plant Care: Site Analysis, Plant Selection and Requirements		Establishment of ornamental trees, shrubs, vines, and ground cover plants used in landscape for human well-being and pleasure	Prerequisites: None.		Occ	LEC 1.0 1.67 1.46	S
AGS192AB	2001 Fall	Urban Plant Care: Maintenance of Urban Plants		Care of ornamental trees, shrubs, vines, and ground cover plants used in landscape for human well-being and pleasure	Prerequisites: None.		Occ	LEC 1.0 1.67 1.46	S
AGS192AC	2001 Fall	Urban Plant Care: Diagnosing and Curing Plant Problems		Preservation of ornamental trees, shrubs, vines, and ground cover plants used in landscape for human well-being and pleasure	Prerequisites: None.		Occ	LEC 1.0 1.67 1.46	S
AGS217	2022 Fall	Introduction to Hydroponics and Controlled Environment Agriculture		Introduction to hydroponics and controlled environment agriculture. Includes a history of hydroponics and basic plant physiology and anatomy. Study of general cultural practices, plant protection, conventional and organic hydroponic production systems. pollination,	Prerequisites: A grade of C or better in AGS164, or permission of Instructor.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 4.0 4.0	T

				fertilization and bee management. Provides an overview of plant nutrition and disorders, irrigation systems and nutrients transplant production. Covers greenhouse site selection, structures and control systems, fruit harvest; food handling, safety and marketing and economics of a hydroponic business.					
AGS255	2018 Fall	Plant Tissue Culture		Plant tissue culture techniques for cloning, reproduction, and manufacturing including media mixing, cell growth and development, aseptic transfer, manipulation, observation, and documentation	Prerequisites: A grade of C or better in AGS164.		Occ	L+L 3.0 5.0 5.0	T
AGS260	2018 Fall	Soils		Fundamental properties of the physical, chemical, and biological relation of soil to plant growth. Evaluation of the human impact on soil health.	Prerequisites: A grade of C or better in CHM130 or permission of Instructor.	Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ]	Occ	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0	T
AGS261	1998 Fall	Soil Fertility And Management		Relationship of soils, crops, and climatic factors to economic use of commercial fertilizer	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AGS262	2021 Fall	Irrigation Design, Installation, Operation, and Trouble Shooting		Design, installation, maintenance and troubleshooting of sprinklers, drip, and flood systems. Use of time clocks, pumps, filters, backflow devices, and other equipment to deliver water to the landscape. Types of water and their use in the landscape.	Prerequisites: None.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0	T
AGS264	2018 Fall	Irrigation and Water Management		Irrigation and drainage problems relating to pumps, motors, pipe lines, ditches and wells in the Southwest. Installation of sprinkler, drip and subirrigation, time clock installation and repair. Land	Prerequisites: None.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0	T

				measurement and principles of land leveling					
AGS265	2023 Fall	Sustainable Crop Production		Study of the importance of crops for food, feed, and fiber. Cultural practices for raising the major crops in the State of Arizona, including planting, environmental modifications, harvesting, handling and quality control with an emphasis on sustainability.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AGS164 or permission of Instructor.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0	T
AGS266	1998 Fall	Urban Insect Control		The interrelationship of plant organisms, animals and environments with insects as affected by soils, temperature, water and agricultural chemicals	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AGS267	2018 Fall	Weeds and Plant Diseases of Arizona		Weed identification, relationship to competition, cultural practices, prevention and chemical usage for control. General outline of plant autonomy and physiology relating to chemical usage of selectivity. Diseases of plants, their life cycles, biological interrelationships, identification, and control.	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0	T
AGS268	2021 Fall	Integrated Pest Management in the Cultivated Environment		Identification and management of pests of the garden, farm and landscape in the arid west. Special emphasis is given to safe handling of pesticides.	Prerequisites: None.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 4.0 4.0	T
AGS282AA	2013 Summer I	Service-Learning Experience in Agriculture		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	AGS282AA 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
AGS282AB	2013 Summer I	Service-Learning Experience in Agriculture		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	AGS282AB 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

AGS282AC	2013 Summer I	Service-Learning Experience in Agriculture		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	AGS282AC 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
AGS284	1995 Fall	Lawn and Turf Care		Factors that affect the establishment and maintenance of turf grasses. Includes budgets, schedules and selection of equipment	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AGS285	2018 Fall	Propagation of Horticultural Plants		Principles and processes of propagation of crops using seed, budding, grafting, and cuttings in greenhouse structures and open ground	Prerequisites: None.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0	T
AGS285AA	2018 Fall	Propagation of Horticultural Plants Structures Media and Management		Design, maintenance and repair of greenhouse structures. Principles of plant propagation media and procedures. The processes involved in nursery management, including plant care, display, and marketing	Prerequisites: None.		Occ	LEC 1.0 0.67 0.67 LAB 0.0 1.0 1.0	T
AGS290	1997 Fall	Internship		Supervised field training for Urban Horticulture students with local industry businesses.	Prerequisites: Student shall be in final semester before graduation and permission of Department or Division.		Occ	LAB 3.0 6.0 0.0	P
AGS296WA	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. COMMON COMPETENCY COURSE	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 1.0 5.0 0.0	Z

					career interest or with permission of Instructor.				
AGS296WB	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. COMMON COMPETENCY COURSE	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
AGS296WC	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. COMMON COMPETENCY COURSE	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
AGS296WD	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. COMMON COMPETENCY COURSE	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 4.0 20.0 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.				
AGS298AA	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z
AGS298AB	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z
AGS298AC	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z

				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. COMMON COMPETENCY COURSE					
AHU245	2013 Spring	Arabic Culture and Islam		A survey of Arab heritage in the Arab world (Middle East). Cultural and social institutions and their contribution to the development of the region and its heritage.	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
AIM100	2020 Fall	Introduction to Artificial Intelligence		Basic concepts and applications of artificial intelligence (AI), including AI project cycles. Focus on issues surrounding AI including ethics, bias, culture, regulations, and professional expectations.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AIM110	2020 Fall	Introduction to Machine Learning		Introduction to machine learning concepts and Python applications, including data acquisition, supervised and unsupervised learning, and data modeling.	Prerequisites: A grade of C or better in AIM100, CIS156 and MAT206.		Occ	L+L 3.0 4.0 4.0	T
AIM210	2020 Fall	Natural Language Processing		Fundamental concepts in Natural Language Processing (NLP) and text processing. Focus on knowledge and skills necessary to create a language recognition application.	Prerequisites: A grade of C or better in AIM110.		Occ	L+L 3.0 4.0 4.0	T
AIM220	2020 Fall	Artificial Intelligence for Computer Vision		Understand and apply the basic techniques to process images using OpenCV and Python libraries.	Prerequisites: A grade of C or better in AIM110.		Occ	L+L 3.0 4.0 4.0	T
AIM230	2020 Fall	Artificial Intelligence for Business Solutions		Fundamentals of artificial intelligence (AI) and machine	Prerequisites: A grade of C or better in AIM210 and AIM220.		Occ	L+L 3.0 4.0 4.0	T

				learning to support business solutions.					
AIM240	2020 Fall	Artificial Intelligence Capstone Project		Focus on how a social issue is explored, brought through the Artificial Intelligence (AI) Project cycle, and delivered as a solution using the different domains of AI, including computer vision and natural language processing.	Prerequisites: A grade of C or better in AIM210 and AIM220.		Occ	L+L 3.0 4.0 4.0	T
AIR160	2023 Fall	Reservation/Booking Procedures		Overview of reservation/booking procedures. Includes use of availability displays, seating assignments, booking procedures, and fare rules as well as fare pricing and selling. Communication skills also covered.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AIR161	2023 Fall	Airline Reservations Systems		Practical application of a travel booking procedures using a computerized reservations system. Covers codes, Passenger Name Record, booking, and reservations.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AIR160 or permission of Instructor.		Occ	L+L 2.0 3.0 3.0	T
AIR163	2023 Fall	Advanced Airline Reservations		Rules, restrictions, and procedures for handling special reservations situations and managing codeshare accounts and award plans. Also includes international travel procedures and partner carriers.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AIR160 or permission of Instructor.		Occ	L+L 2.0 3.0 3.0	T
AIR165	2023 Fall	Overview of Flight Schedules/Itineraries		Basic reservation information including flight schedules, itineraries, and fares. Handling travel agent calls also covered.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AIR170	2009 Summer I	International Air Transport Association Geography		Overview of world geography according to the International Air Transport Association (IATA). Includes world traffic area divisions, sub areas and office responsibilities. Also covers atlas reading including location of countries, major	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S

				cities and grids in addition to use of city codes.					
AIR171	2009 Summer I	International Air Transport		International air reservations procedures. Includes Passenger Name Record (PNR) creation and modification as well as use of availability displays and international itineraries. Covers preferred programs and partnerships.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AIR172	2009 Summer I	International Fares		Overview of international fares. Includes fare basis codes, combinability and construction. Also covers transpacific routing and electronic tickets as well as procedures for completing international reissues.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
AIR173	2018 Fall	International Air Transport Lab		Practical application of international air reservations procedures. Includes Passenger Name Record (PNR) creation and modification as well as use of availability displays and international itineraries.	Prerequisites: None.		Occ	LAB 2.0 6.0 6.0	T
AIS101	2013 Summer I	Survey of American Indian Issues		Introduction to critical issues related to American Indian peoples. Examines cultural, political, economic, educational, social, and environmental issues. Focuses on contemporary issues and factors influencing American Indian communities.	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
AIS103	2019 Summer	Introduction to Indigenous Cultures		Introduction to political, economic and social structures of indigenous peoples. Examines the impact on indigenous peoples of contact with non-indigenous cultures.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
AIS105	2013 Summer I	Introduction to American Indian Studies	SOC105	Introduction to political, economic, and social structures of American Indian	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S

				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.					
AIS110	2006 Fall	Navajo Government		Addresses and examines major historical developments of the Navajo People with a focus on government, law, society, livelihood, tradition, and culture. Includes the major components and operation of Navajo government and related tribal laws, such as Title II and Title VII of the Navajo Nation Code, as well as the significance of the Treaty of 1868. Federal Indian policies and their impact on Navajo society and government, the importance of federal and tribal citizenship and related federal and tribal laws, and the role of the Navajo clanship system and other relevant cultural concepts addressed	Prerequisites: None.	Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Historical Awareness - [H]	Acad	LEC 3.0 3.0 3.0	S
AIS112	1999 Spring	American Indian Policy	SOC112	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
AIS113	2023 Fall	Proposal Writing		Provides an overview of funding sources for grants. Reviews techniques and skills	Prerequisites: A grade of C or better in ENG101 or ENG107.		Acad	LEC 3.0 3.0 3.0	S

				necessary to develop successful proposals. Focuses on the design and writing of a complete grant proposal related to a selected problem or issue.					
AIS140	2023 Fall	American Indian History	HIS140	Survey of American Indian history with emphasis on the last 200 years. Focuses on cultural, economic, political and social continuity and changes. Topics include how federal policies impacted and were shaped by Indigenous peoples and how Indigenous individuals, communities, and nations have maintained cultural identity and sovereignty.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
AIS141	2003 Spring	Sovereign Indian Nations	SOC141	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 Designation: Cultural Diversity - [C] General Education Designation: Historical Awareness - [H] General Education Designation: Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S
AIS160	2017 Summer	American Indian Law	SOC160	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 sovereignty. Units of analysis include the development of Indian law, United States Supreme Court decisions, Congressional Acts, treaty rights and the development of	Prerequisites: None.	Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Historical Awareness - [H]	Acad	LEC 3.0 3.0 3.0	S

				tribal governments. Focuses on legal institutions that have abridged the property rights of Indian Nations.					
AIS170	2023 Spring	American Indian History of the Southwest	HIS170	Covers history of American Indian Peoples of the Southwestern United States from pre-European contact era to the present. Includes historical events, the development and implementation of non-Indigenous policies and their impact on American Indian Peoples in these areas, and contemporary issues of importance.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
AIS201	2023 Fall	Indigenous Nation Building		Discussion of the relationship between general management issues and their specific application to tribal government situations. Special consideration given to application of management theory and to the unique status and situation of tribal governments.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
AIS203	2023 Fall	Fundamentals of Economic Development for Indigenous Nations		Provides a practical understanding of the economic development process. Examines ways in which development can be initiated and financed. Focuses on how budget systems can be used as management tools. Reviews fundamentals of proposal writing and budget management for grants.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
AIS213	2013 Summer I	American Indian Religions	REL203	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,	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 - [HU] General Education	Acad	LEC 3.0 3.0 3.0	S

				including a study of modern day American Indian beliefs and practices.		Designation: Literacy and Critical Inquiry - [L]			
AIS261	2024 Fall	Indigenous Women's Literature of the Americas	ENH/WST261	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 themes relevant to Indigenous women such as racial and gender oppression, reservation life, acculturation, and their sociopolitical activism in the Americas.	Prerequisites: A grade of C or better in ENG101 or ENG107.		Acad	LEC 3.0 3.0 3.0	S
AIS282AA	2008 Spring	Volunteerism for Indigenous Studies		Service-learning field experience within private/public agencies, educational institutions, and citizen volunteer groups.	Prerequisites: Permission of Instructor.	AIS282AA may be repeated for a total of six (6) credit hours.	Acad	LAB 1.0 1.0 0.0	L
AIS282AB	2008 Spring	Volunteerism for Indigenous Studies		Service-learning field experience within private/public agencies, educational institutions, and citizen volunteer groups.	Prerequisites: Permission of Instructor.	AIS282AB may be repeated for a total of six (6) credit hours.	Acad	LAB 2.0 2.0 0.0	L
AIS296WA	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 instructor. Corequisites: Must be concurrently enrolled in at least one class which is related to student's		Acad	LAB 1.0 5.0 0.0	Z

					major or career interest or with permission of the Instructor.				
AIS296WB	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 instructor. Corequisites: Must be concurrently enrolled 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
AIS296WC	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 instructor. Corequisites: Must be concurrently enrolled 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
AIS296WD	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 credits, minimum 2.6 grade point average,		Acad	LAB 4.0 20.0 0.0	Z

				related to the career objectives of the students.	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. Corequisites: Must be concurrently enrolled in at least one class which is related to student's major or career interest or with permission of the Instructor.				
AIS298AA	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0	Z
AIS298AB	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0	Z

AIS298AC	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0	Z
AIT100	2022 Fall	Industrial Safety		Introductory course in workplace safety training, including an overview of critical safety policies, procedures, and practices that help prevent injuries and keep the workplace safe and productive.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
AIT101	2022 Fall	Introduction to Industrial Automation		Introductory course in manufacturing automation systems and technologies. Includes safety practices, quality measurement, print reading, machine operation, hand tool usage, and maintenance operations.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0 LAB 0.0 2.0 2.0	T
AIT105	2022 Fall	Modern Maintenance Operations		Introductory course into the practice of modern maintenance operations. Includes: safely and correctly using maintenance tools (e.g., hand tools, power tools), measuring instrumentations (e.g., tape, caliper, micrometer) and reading various engineering documents (e.g., blueprints, flowcharts, parts diagrams). Use and convert units in System International (SI) and	Prerequisites: None.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0	T

				imperial. Basic discussion of industrial safety procedures, machine operations, troubleshooting, failure analysis, modern maintenance principles, rigging, workplace organization, and records keeping.					
AIT110	2022 Fall	Mechanical Power Transmission Systems		Introductory course in how to transmit, measure, calculate, and work safely with rotational mechanical equipment. Hands-on assembly, alignment, maintenance, and troubleshooting of mechanical power transmission systems and components e.g., belts, bearings, chains, dynamometers, gears, pulleys, couplings, bushings, and sprockets. Introduction to lubricant and grease types, their standards, safety, and application.	Prerequisite: None.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0	T
AIT115	2022 Fall	Hydraulic Systems		Introductory course in the principles of hydraulic system operation, components construction, maintenance, troubleshooting, and operation, as well as the role of the individual components in an operating hydraulic system. Includes hydraulic fitting and seals, accumulators, cylinders, directional control valves (DVC), relief valves, check valves, pumps, filters, hoses, and a variety of hydraulic control circuits.	Prerequisites: None.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0	T
AIT120	2022 Fall	Pneumatic Systems		Introductory course in the principles of pneumatic system operation, components construction, maintenance, troubleshooting, and operation, as well as the	Prerequisites: None.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0	T

				role of the individual components of an operating pneumatic system. Includes pneumatic fitting, seals, accumulators, actuator/cylinders, Directional Control Valves (DCV), manifolds, relief valves, check valves, pumps, filters, regulators, dryers, and common pneumatic control circuits.					
AIT123	2021 Spring	J-STD Soldering Certification		This course 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 IPC trainer (CIT).	Prerequisites: Permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
AIT124	2021 Spring	Composites		Basic composite materials, construction, and repair. Manufacturing methods and equipment. Assessment and repair of composite structures using vacuum bagging and other approved procedures. Corrosion control, electrical bonding, materials substitutions, machining of composite components, mold fabrication. Hot bond repair of composite components including complex shapes and varied materials.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T

AIT125	2022 Fall	DC and AC Components and Circuits		An introductory course in Alternating Current (AC) and Direct Current (DC) electric theory. Includes electric circuits using resistors, capacitors and inductors. Also includes solenoids, relays, transformers, basic DC and AC motors, circuit protection devices and a variety of switches.	Prerequisites: None.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0	T
AIT128	2019 Summer	A-620 Cable and Wire Harness Assembly Certification		This course 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).	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
AIT130	2019 Fall	Maintenance Piping		Overview of the area of maintenance of piping systems for manufacturing or industrial facilities. Preparation to sit for the NIMS Duty Area 9: Maintenance Piping Certification Exam.	Prerequisites: None.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0	T
AIT132	2022 Spring	Industrial Technology for the Semiconductor Industry		Introduction to semiconductor manufacturing concepts,	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T

				processes, and hands-on application. Includes electrical theory, circuits, schematics, hand tools, safety, clean room protocols, model based problem solving, lean manufacturing, vacuum technology, and troubleshooting.					
AIT205	2022 Fall	Power Electronics and Variable Frequency Drives		Introductory course in AC and DC power electronic theory. Includes power supplies, power conditioning, solid-state power devices, and power control circuits. Also includes proximity sensors, analog thermal sensors, control feedback loops, and the setup and operation of Variable Frequency Drives (VFDs).	Prerequisites: A grade of C or better in AIT125, or permission of Instructor.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0	T
AIT210	2022 Fall	Programmable Logic Controller Programming and Troubleshooting		Introductory course in Programmable Logic Controller (PLC) Ladder Logic programming and troubleshooting PLC connected components and systems. Also includes basic Human Machine Interface (HMI) navigation, connecting to a PLC, and program downloading.	Prerequisites: A grade of C or better in AIT125, or permission of Instructor.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0	T
AIT215	2022 Fall	Process Control Systems		Introductory course in Process Control Systems design, operation, and tuning of Proportional, Integral, Derivative (PID) controllers for regulating flow, temperature, pressure, and level of industrial process variables. Includes manual control, feedback control, automated controls, analysis process setup, operate, and troubleshooting processes of control systems. Also includes typical Pipe and Instrument	Prerequisites: A grade of C or better in AIT125, or permission of Instructor.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 4.0 4.0	T

				Diagram (P&IDs) symbols and tags along with the development of a basic P&ID drawing.					
AIT225	2022 Fall	Industrial Motors and Motor Control		An introductory course in DC, single-phase AC, and 3-phase AC electric motors and motor control circuits. Includes electric motor control circuit components, motor control circuit applications, sequence circuits, and timer circuits.	Prerequisites: A grade of C or better in AIT125, or permission of Instructor.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0	T
AIT250	2019 Fall	Automated Industrial Technology Capstone		An examination of the integration of mechanical, hydraulic, pneumatic, electrical, piping, electronic control, and process control systems. Experience in designing, building, maintaining, troubleshooting, and repairing such integrated systems will be gained.	Prerequisites: A grade of C or better in AIT225, or permission of Instructor or Corequisites: AIT225.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0	T
AIT270	2022 Spring	Robotics I		Fundamental principles of working safely with robots, and applications and trends in industrial robotics. Includes types of robots, axes and coordinate systems, programming and operating robots. Incorporates end effectors and collaborative robots.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AIT100 or permission of Instructor.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 2.0 2.0	T
AIT275	2020 Fall	Robotics II		Intermediate principles of working safely with robots; robot auxiliary, subsystems, and components. Includes robot maintenance, troubleshooting and repair. Integrates a basic robot design project.	Prerequisites: A grade of C or better in AIT270.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 2.0 2.0	T
AIT276	2020 Fall	Robotics Operations and Programming		This course is intended for an operator, technician, or programmer who must setup, record and/or troubleshoot programs on a Handling Tool software package. The course	Prerequisites: A grade of C or better in (ATP190, ATP201, and ATP205) or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T

				covers the Robot Operations intermixed with the tasks required to set up the Handling Tool application, test run, and refine the program and production setup.					
AIT280	2022 Fall	Industry 4.0 and Industrial Control Systems		Introductory course in Industry 4.0, physical processes within factories, and the virtualization techniques and intelligent decision making capabilities. Includes Cyber-Physical Systems (CPS), Supervisory Control and Data Acquisition (SCADA), Distributed Control Systems (DCS), Smart Factories, lean manufacturing, and the Internet of Things (IOT). Also includes an introduction and setup of SCADA software.	Prerequisites: A grade of C or better in AIT125, or permission of Instructor.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0	T
AIT285	2022 Fall	Sensors and Data Acquisition		Introductory course in sensors and data acquisition. Includes sensor types, function, installation, adjustment, and maintenance. Also includes a brief overview of sensor signal conditioning, data acquisition configuration, chart recorder operation, and data storage.	Prerequisites: A grade of C or better in AIT125, or permission of Instructor.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0	T
AIT291	2019 Fall	Automated Industrial Technology Internship		Supervised work experience in production environments. Includes experiences in maintenance, troubleshooting, repair of production environment and specific manufacturing processes. Also includes experiences in problem solving; working as a team; soft skills; time and resource management; and exposure to specific manufacturing processes.	Prerequisites: A grade of C or better in AIT225, or permission of Instructor or Corequisites: AIT225.		Occ	LAB 3.0 6.0 0.0	C
AIT298AA	2022 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z

				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.					
AIT298AB	2022 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
AIT298AC	2022 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
AJS100	2016 Summer	Police Academy Preparation		Preparation for individuals entering a police academy as well for those who are in the beginning stages of preparing	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S

				for a career in law enforcement. Includes principles of policing and job responsibilities. Covers expectations of recruits in the areas of academics, physical fitness, mental and emotional preparation. Emphasis on professional and ethical behavior.					
AJS101	2018 Summer	Introduction to Criminal Justice		An introduction to crime and society's responses to it. Examines the nature and causes of crime, the criminal law, constitutional safeguards, and the organization and operation of the criminal justice system including the police, courts, jails, prisons, probation and parole departments, and community corrections agencies. Covers the history of the criminal justice system, terminology and career opportunities.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AJS107	1998 Spring	Patrol Procedures		Specialized areas of the patrol function, including responding to crowds, riots, bomb threats, intoxication, hazardous materials, fires, and domestic disputes. Partially fulfills Arizona POST (Peace Officer Standards and Training) requirements for proficiency skills academy attendance	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AJS109	2020 Fall	Substantive Criminal Law		Covers philosophy of legal sanctions and historical development from the common law to modern American criminal law, classifications of crimes, elements of and parties to crimes, general definition of crimes, common defenses utilized. Includes specific	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S

				offenses and the essential elements of each offense.					
AJS110	1997 Fall	Law and Legal Review I		In-depth study of the Arizona laws governing arrest by peace officers, as well as, an intensive study of the Arizona substantive criminal law code (ARS Title 13). Focuses on specific sections of ARS Title 4 and ARS Title 8, as they apply to peace officers in Arizona. Partially fulfills the Arizona POST (Peace Officer Standard and Training) Board requirements for Proficiency Skills Academy attendance	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AJS112	2018 Fall	Wellness for Law Enforcement Officers		The value of physical fitness in law enforcement and the basic elements of strength training, aerobic conditioning, flexibility, nutrition, and back injury prevention	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0	T
AJS113	2023 Fall	Criminal Justice Crime Control Policies and Practices		Focus on changing the distribution of crime opportunities rather than offender motivation. Topics include application of situational crime prevention strategies, problem-oriented crime control approaches, hot spots policing, and crime prevention through environmental design.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AJS115	2020 Fall	Community Emergency Response Team (CERT): Level I	FSC115	Basic skills, including instruction in teamwork and disaster simulations, needed to help oneself, family, and neighbors in the event of a community disaster in accordance with the Federal Emergency Management Agency (FEMA) guidelines.	Prerequisites: None.		Occ	LEC 1.5 1.5 1.5	S
AJS116	2009 Fall	Crime Prevention		Examines the principles and skills associated with crime prevention. Analyzes the appropriate techniques and	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S

				strategies police agencies use to operate crime prevention programs.					
AJS119	2018 Fall	Computer Applications in Justice Studies		Provides literacy in microcomputer applications in major areas of the criminal justice system. Examines availability and uses of current software packages in criminal justice work. Provides hands-on experience with appropriate integrated software packages pertaining to justice studies.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
AJS123	2018 Summer	Ethics and the Administration of Justice		Introduces and explores ethical issues and the justice system. Focuses on ethics and the law, the police, courts and corrections. Reviews ethical theory, concepts and practices as they relate to administration of justice. Explores issues of how media/social media shape ethics. Encourages critical thinking and value decision making in criminal justice system situations.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AJS124	1996 Spring	Correctional Institutions		An examination of correctional institutions with an emphasis on personnel and security measures, care and treatment programs and institutional planning. The criminal justice system and matters of custody and treatment. Inmate subcultures, and organized crime in correctional institutions and jails	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AJS131	1996 Spring	Police Management Techniques I		Police supervisory techniques for planning, organization, coordination, reporting, budgeting and handling related personnel problems	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AJS132	2002 Spring	Police Management Techniques II		Management of police personnel including selections	Prerequisites: A grade of C or better in AJS131		Occ	LEC 3.0 3.0 3.0	S

				procedures, disciplinary practices, public relations, elements of supervision, service ratings, recruiting and probation, and related personnel problems	or permission of Instructor.				
AJS137	2021 Fall	Public Safety Dispatcher: Basic		Designed to provide in-depth orientation and standardized training of public safety dispatchers within the law enforcement community and familiarize the student with the skills and information important to functioning in a competent, ethical, and professional manner.	Prerequisites: None.		Occ	LEC 5.0 5.0 5.0	S
AJS139	2020 Fall	Emergency Response to Terrorism	FSC139	Fundamentals of emergency response to suspected terrorist events. Historical perspective of terrorist activities and methods by which responders can identify and protect themselves and the public from these threats. Coordination of responding agencies.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AJS140AA	1999 Fall	Patrol Rifle Concepts		Pre-law enforcement employment course relating to how rifles are used in the patrol function	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
AJS145	2018 Fall	Criminal Justice System Experiences		Examines the purpose, organization, operation, and employment opportunities of various criminal justice agencies including police departments, crime labs, morgues, courts, juvenile detention facilities, jails, prisons, parole boards, and halfway houses. Includes tours of a variety of criminal justice facilities	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0	T
AJS146	2021 Fall	Disaster Recovery Operations	FSC146	Specialized knowledge and skills for the emergency manager in developing programs and activities	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S

				associated with disaster recovery assistance and mitigation actions that reduce losses from future disasters.					
AJS147	2020 Fall	Emergency Preparedness	FSC147	Emergency preparedness related to natural and manmade disasters. Planning concepts and the planning process; awareness and education programs and strategies for the general community as well as business and industries.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AJS148	2020 Fall	Fundamentals of Emergency Management	FSC148	Emergency management systems including career opportunities, function, tasks and responsibilities of the emergency management program manager, role of the emergency manager in mitigation, preparedness, response, and recovery. Past civil defense and current emergency management systems since evolution from World War II.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AJS149	2020 Fall	Hazard Mitigation	FSC149	Knowledge and skills required to develop programs to reduce losses from future disasters, emergencies, and other extreme events caused by natural and man-made hazards.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AJS150	1995 Spring	Defensive Tactics		Skills in the protection against persons armed with dangerous and deadly weapons, demonstration and drill in a limited number of holds and come-alongs, and restraint of prisoners and the mentally ill.	Prerequisites: None.	AJS150 may be repeated for a total of three (3) credit hours	Occ	LEC 1.0 1.0 1.0	S
AJS151	2018 Fall	Firearms I		Moral aspects, legal provisions, safety precautions and restrictions covering the use of firearms, and the firing of sidearms.	Prerequisites: None.		Occ	L+L 1.0 1.0 1.0	T

AJS152	1996 Summer I	First Aid		Methods for providing emergency medical care to victims of accidents or illness and related safeguards. Includes legal and civil issues, basic functions and major organs of the human body, injury management, resuscitation, movement and extrication of victims	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AJS153	2018 Fall	Firearms II/Handguns		Advanced familiarization with handguns. Variations of basic shooting stance. Legal and moral repercussions of self-defense. Includes range practice.	Prerequisites: A grade of C or better in AJS151 or equivalent certified firearms training as reviewed by the Department.		Occ	L+L 1.0 1.0 1.0	T
AJS154	2018 Fall	Firearms III/Long Weapons		Familiarization with different types of long weapons and associated ammunition. Emphasis on safety techniques for use and storage of weapons. Limited use of range for practice	Prerequisites: None.		Occ	L+L 1.0 1.0 1.0	T
AJS155	2018 Fall	Concealed Weapons Carry		Training in safe handling and use of handguns. Examines legal provisions related to carrying a concealed weapon; legal and moral implications of self-defense	Prerequisites: None.		Occ	L+L 2.0 2.0 2.0	T
AJS156	2018 Fall	Home and Vehicle Personal Defense		Development of personal safety plans, confrontation avoidance, and effective self-defense tactics. Legal and safe use of firearms. Includes range practice	Prerequisites: A grade of C or better in AJS151 or permission of Instructor.		Occ	L+L 1.0 1.0 1.0	T
AJS162	2012 Summer I	Domestic Violence		Explores domestic violence as a social problem within the United States from historical, cultural, political, legal, and law enforcement perspectives. Provides an overview of theories, definitions and causes of, and interventions for domestic violence involving spousal, elder and child abuse along with teen dating	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S

				violence. Examines the dynamics and effects of domestic violence. Addresses research issues and contemporary domestic violence policy					
AJS170	2011 Fall	Fire and Arson Investigation for Law Enforcement		An examination of fire and arson investigative techniques along with the motives and pathology of the arsonist and the chemistry of fire. Other topics include documenting the scene, evidence, eliminating accidental causes and surveillance.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AJS191	2007 Summer I	Hate Crimes		Explores the causes, incidence rates and forms of hate crimes in the United States and other countries. Studies hate crime laws and the Constitution. Examines the impact of hate crimes on society, culture and the law. Considers societal responses to combat and prevent hate crimes	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AJS192	2005 Summer I	Serial Killers and Mass Murderers		The study of serial killers, mass murderers and their victims. Examines the history and frequency of these crimes, profiles the killers and their victims, explores theories of causation, and discusses the problems and techniques of investigation, prosecution, punishment, and prevention	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AJS195	2002 Summer I	International and Domestic Terrorism		An overview of the history, structure, goals, and activities of domestic and international terrorist groups. Explores theories explaining terrorism and reviews methods used to combat it	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AJS198AB	2023 Fall	Special Topics in the Administration of Justice		Explores special topics related to the administration of justice	Prerequisites: None.	AJS198AB may be repeated for a total of nine (9) credit hours.	Occ	LEC 1.0 1.0 1.0	S

				with an emphasis on current issues.					
AJS198AF	2023 Fall	Special Topics in the Administration of Justice		Explores special topics related to the administration of justice with an emphasis on current issues.	Prerequisites: None.	AJS198AF may be repeated for a total of nine (9) credit hours.	Occ	LEC 3.0 3.0 3.0	S
AJS200	2018 Summer	Current Issues in Criminal Justice		Examines current issues, techniques and trends in the Criminal Justice System.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AJS201	2018 Fall	Rules of Evidence		A practical insight into the rules of evidence to include how to recognize evidence: the general rules governing admissibility of evidence; the hearsay rule and its exceptions; the use of documentary evidence, written memoranda, photographs, recordings and electronic surveillance; corpus delicti; opinion evidence, circumstantial evidence, evidential privileges.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AJS205	2019 Summer	Effective Communication and Report Writing in Criminal Justice		Overview of effective communication for criminal justice agencies. Covers the communication process and flow. Written communication emphasized with report writing, including characteristics of reports and field notes, and the importance and uses of each. Form, style, and procedures for writing various reports, including elements of composition, required substance, proper and improper conclusions, and descriptions of persons and property.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AJS210	1995 Fall	Constitutional Law		An examination of the U.S. Constitution as it relates to the law enforcement function. Includes statutory law and judicial decisions governing	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S

				the areas of arrest, search and seizure, interrogations and confessions, self-incrimination and other constitutional guarantees. Required in AJS curriculum					
AJS211	1996 Fall	Police Planning		An analysis of the process of planning, and a descriptive study of logical and systematic approaches to strategic, short-range, operational, organizational and tactical planning within a law enforcement organization	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AJS212	2023 Fall	Juvenile Justice Procedures		Examines the nature and extent of juvenile delinquency to the present. Including but not limited to the history, jurisdictions, terminology, procedures, and institutions of the juvenile justice system.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AJS213	2023 Fall	Evidence Technology: Fingerprints		Covers the fundamental principles of fingerprints, including the history of fingerprint classification, the biology of friction ridge skin, pattern analysis, comparison, and identification as well as their application in significant court cases. Also includes techniques for obtaining inked prints and developing and preserving latent prints.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AJS213AB	2023 Fall	Fingerprint Classification I		Identification of typelines, deltas, and cores. Rules for classification of loops, whorls, and arches.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
AJS214	2001 Fall	Evidence Technology/Photography		The use of photography and other aids in identification and preservation of evidence such as fingerprints, footprints and impressions. Techniques in crime scene and traffic accident photography	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AJS215	2000 Fall	Criminalistics: Physical Evidence		The scientific analysis and examination of physical	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S

				evidence with emphasis on scientific investigation, recognition, collection, and preservation of evidence. Topics include fingerprints, shoe prints, tool marks, firearms identification, paint chips and arson					
AJS216	2000 Fall	Criminalistics: Biological Evidence		The scientific analysis and examination of biological evidence with emphasis on collection and preservation of evidence. Topics discussed include blood, drugs, blood alcohol, hairs and fibers, and topics of special interest in criminalistics	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AJS217	2018 Fall	Court Procedures		Study of procedures practiced by courts of general and original jurisdiction. Extensive use of mock and moot trial methods used to prepare students in legal research, case preparation and presentation, and adversary hearings.	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0	T
AJS218	1995 Fall	Special Investigations: Drugs		Advanced course in the specialized investigation area of drug enforcement. Emphasis on the pharmacological properties of abused drugs, field testing, evidence requirements and specialized investigation techniques utilized in narcotic and dangerous drug investigations	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AJS219	2018 Fall	Crime Scene Technology: Physical Evidence		Scientific analysis and examination of physical evidence with emphasis on scientific investigation, recognition, collection, and preservation of evidence. Fingerprints, shoe prints, tool marks, firearms identification, paint chips and arson	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0	T

AJS220	2022 Spring	Transnational Organized Crime		The study of organized crime on a domestic and global scale. Examines the history, structure, and activities of domestic and transnational organized crime groups. Explores domestic and global responses to transnational organized crime, along with accompanying challenges and future implications.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AJS223	2016 Spring	Forensic Pathology: Death Investigation		An examination of the medical investigation of sudden, unnatural, unexplained or violent deaths. Explains the legal and medical roles of death investigators and medical examiners. Additional topics include the autopsy, documenting and evaluating the body, routine and special investigative techniques, and death event reconstruction.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AJS225	2023 Fall	Criminology		Study of deviance, society's role in defining behavior; theories of criminality and the economic, social, and psychological impact of crime; relationships between statistics and crime trends. Examines crime victimization and the various types of crime and categories of offenders. Required in the AJS curriculum.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AJS230	2002 Spring	The Police Function		Theories of procedures and methods of operations of public police with emphasis on discretionary powers available to the working police officer. Career opportunities and current trends in law enforcement presented	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AJS240	2023 Fall	The Correction Function		Examines the history and development of correctional theories and institutions.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S

AJS241	2000 Fall	Police Photography		Emphasis on proper procedure for photographing crime scenes, accident scenes, and laboratory specimens. Discussion of photographic techniques, equipment, lighting techniques, aerial photography, video and motion pictures, macro and micro photography, filters, and preparation for court presentation using selected simulations	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AJS243	2006 Spring	Crime Scene Reconstruction		Examines techniques used to reconstruct the physical actions that occurred at a crime or accident scene. Involves the use of physical, testimonial, and documentary evidence, knowledge of criminal modus operandi and the scientific method, including deductive and inductive logic. Includes analysis of case studies.	Prerequisites: A grade of C or better in AJS215 or AJS216 or AJS219 or AJS275 or FOR105 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0	S
AJS255	2021 Fall	The Criminal Justice System Handling of the Mentally Ill		An introduction to methods police, court and correctional personnel employ specific to the mentally ill. Covers various types of mental illnesses, police emergency responses, how criminal and civil courts deal with the mentally ill, diversion programs and the correctional response both within the community and under confinement.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AJS256	2020 Fall	Law Enforcement Firearm Instructor	LET256	A train the trainer course for police firearm instructors. Covers instructional techniques for the pistol, revolver, and shotgun.	Prerequisites: AzPost (Peace Officer Standard and Training) Certified Police General Instructor or permission of Department or Division.	AJS/LET256 may be repeated for Credit.	Occ	LEC 5.0 5.0 5.0	S

AJS256AA	2020 Fall	Law Enforcement Patrol Rifle Instructor	LET256AA	Techniques on proper manipulation and marksmanship skills needed by a patrol officer/deputy in the use of the patrol rifle, and techniques of teaching those skills to other officers/deputies.	Prerequisites: AzPOST (Peace Officer Standard and Training) certified law enforcement firearms instructor or permission of Instructor.	AJS/LET256AA may be repeated for Credit.	Occ	LEC 3.0 3.0 3.0	S
AJS258	2023 Fall	Victimology and Crisis Management in Public Safety	EMT/FSC258	Victimology, the criminal justice system, techniques of crisis intervention and management, and the importance of a multicultural and global perspective. Includes violent crimes, sexual assault, family violence, post-traumatic stress disorder, the role of substance abuse, developing effective coping skills of victims and responders, appropriate community resources, and the cultural responsiveness of the justice system.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AJS260	2022 Fall	Procedural Criminal Law		Concerned with the understanding of procedural criminal law. Examines the processes and procedures followed by law enforcement, attorneys, and the courts in the apprehension and prosecution of criminal offenders. Examines the rationale underlying major court holdings impacting the criminal justice process, the procedural requirements that stem from these holdings and their effect on the daily operations of the criminal justice system.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AJS269AA	1994 Fall	Internship		Supervised field training for preservice administration of justice students. Maximum of three (3) credit hours allowed in program.	Prerequisites: Student sponsored by governmental enforcement agency		Occ	LAB 1.0 5.0 0.0	P

					and permission of Department or Division.				
AJS269AB	1994 Fall	Internship		Supervised field training for preservice administration of justice students. Maximum of three (3) credit hours allowed in program.	Prerequisites: Student sponsored by governmental enforcement agency and permission of Department or Division.		Occ	LAB 2.0 10.0 0.0	P
AJS269AC	1994 Fall	Internship		Supervised field training for preservice administration of justice students. Maximum of three (3) credit hours allowed in program.	Prerequisites: Student sponsored by governmental enforcement agency and permission of Department or Division.		Occ	LAB 3.0 15.0 0.0	P
AJS270	2013 Fall	Community Relations		Examination, recognition and understanding of community problems; community action programs; methods of coping with human behavior, victimology, conflict and communication; ethnic and minority cultures and environments; the community and relationships with the criminal justice system	Prerequisites: None.	Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB]	Occ	LEC 3.0 3.0 3.0	S
AJS275	2018 Fall	Criminal Investigation I		Introduction to the theory of criminal investigation. Examines crime scene procedures, case preparation, interviewing, and basic investigative techniques	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AJS276	2021 Summer	Terrorism Liaison	FSC276	Provides knowledge and skills required for the Terrorism Liaison Officer (TLO) role to coordinate and communicate with various fire, police, and military agencies in managing threat vulnerability and other emergency disasters.	Prerequisites: Permission of Program Director.	AJS/FSC276 is not open to the public.	Occ	L+L 4.0 4.0 4.0	T
AJS277	2021 Summer	Threat Vulnerability Assessment	FSC277	Provides a historical perspective of threats and the activities and methods used by first responders to identify and mitigate future threats. Introduces and examines threat vulnerability of critical	Prerequisites: Permission of Program Director.	AJS/FSC277 is not open to the public.	Occ	L+L 1.0 1.0 1.0	T

				infrastructure within jurisdictions. Provides assessment techniques for responding agencies.					
AJS278	2021 Fall	Hostile Intent and Intervention Training	FSC278	Provides knowledge and skills required to detect and anticipate terrorist activities as a member of a Hostile Intent and Intervention Team (HIIT).	Prerequisites: Permission of Program Director.	AJS/FSC278 is not open to the public.	Occ	L+L 2.0 2.0 2.0	T
AJS279	2021 Fall	Field Intelligence Team Training	FSC279	Provides knowledge and skills required for situational awareness of suspicious activities and the deployment of first responders for mitigation and investigation for the Field Intelligence Team (FIT).	Prerequisites: Permission of Program Director.	AJS/FSC279 is not open to the public.	Occ	L+L 3.0 3.0 3.0	T
AJS280	2022 Spring	Terrorism Hazmat First Responder Training	FSC280	Provides knowledge and skills to understand the chemistry of reactive and unstable hazardous materials, the toxicology of dangerous chemicals, and the measures taken to protect the safety of responders, the community, and the environment of chemical accidents. Also includes an introduction to field sampling of unknown substances for the Field Intelligence Team (FIT) and the Hostile Intent and Intervention Team (HIIT).	Prerequisites: Permission of Program Director.	AJS/FSC280 is not open to the public.	Occ	L+L 4.0 4.0 4.0	T
AJS282AA	2023 Fall	Service-Learning Experience in Administration of Justice Studies		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	AJS282AA 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
AJS282AB	2023 Fall	Service-Learning Experience in Administration of Justice Studies		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	AJS282AB 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
AJS282AC	2023 Fall	Service-Learning Experience in Administration of Justice Studies		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	AJS282AC may be repeated for a total of six (6) credit hours. Standard grading available	Occ	LAB 3.0 3.0 0.0	L

						according to procedures outlined in catalog.			
AJS290AH	2018 Fall	Use of Force		Examines issues related to the use of force by and against police officers. Explores police use of force decision-making options. Reviews recent changes in Arizona law relative to police officers	Prerequisites: Permission of Department or Division.		Occ	L+L 0.5 0.5 0.5	T
AJS290AI	1996 Fall	Theories of Criminal Behavior		Theories of human behavior and crime. Biological, sociological, and psychological approaches to the theories of criminal behavior	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
AJS290AU	1995 Fall	Child Abuse Investigation		Definition and investigation of the causes and effects of child abuse	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
AJS290AW	1995 Fall	Narcotics and Dangerous Drugs		Pharmacological effects of the use and abuse of drugs, including a description of common abuse patterns and investigative techniques used in the enforcement of drug laws	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
AJS290AZ	1995 Fall	Police Interrogation Techniques		Proper interview and interrogation techniques, including a discussion of the constitutional rights of the defendant and applicable court decisions	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
AJS290BB	2023 Fall	Police Report Writing		Writing clear, concise, complete, and accurate reports with an emphasis on sentence structure, paragraph construction, grammar, punctuation, and spelling.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
AJS290BE	1996 Fall	Probation and Parole		Current issues in probation and parole, including sentencing, parole revocation, and administrative procedure	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
AJS290BH	1995 Fall	Sex Crimes Investigation		Investigative procedures employed by the police and courtroom procedures utilized	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S

				by the prosecuting attorney in sex-related crimes					
AJS290BJ	1995 Fall	Accident Investigation I		Skills and concepts necessary to conduct an adequate traffic accident investigation	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
AJS290BN	1996 Fall	Courtroom Testimony Seminar		Courtroom demeanor and protocol. Role and primary functions of witness and legal counsels	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
AJS290BU	2004 Fall	Family Violence		Family violence issues as they relate to the criminal justice response	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
AJS290BV	2004 Fall	Victim Assistance		An overview of victim issues emphasizing strategies used to reduce the trauma associated with crime. Includes description of counseling methods, referral procedures, intervention techniques, and community resources	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
AJS296WA	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. COMMON COMPETENCY COURSE	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
AJS296WB	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		Occ	LAB 2.0 10.0 0.0	Z

				COMMON COMPETENCY COURSE	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.				
AJS296WC	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. COMMON COMPETENCY COURSE	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
AJS296WD	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. COMMON COMPETENCY COURSE	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 4.0 20.0 0.0	Z

					career interest or with permission of Instructor.				
AJS298AA	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z
AJS298AB	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z
AJS298AC	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 3.0 3.0 0.0	Z

				individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE					
ALT100	2020 Fall	Academic Literacy Through Integrated Reading and Writing		Develops academic language skills and critical reading skills for organizing, analyzing, and retaining material through complementary reading and writing assignments. Prepares students for college level reading and writing intensive courses as well as career-related reading and writing tasks.	Prerequisites: An appropriate District placement.		Acad	LEC 4.0 4.0 4.0	S
AMS298AA	2006 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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z
AMS298AB	2006 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	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z

				development. COMMON COMPETENCY COURSE					
AMS298AC	2006 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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z
AMT124	2020 Fall	Aircraft Forms and Regulations, Weight and Balance, Drawings, and Ground Operations		Federal Aviation maintenance publications, forms and records. Overview of technician's privileges and limitations. Perform aircraft weight and balance, aircraft ground operations and fuel servicing techniques. Drawings, symbols and schematic diagrams.	Prerequisites: Admission to the Aircraft Maintenance Technology program.		Occ	L+L 5.0 9.0 9.0	T
AMT126	2020 Fall	Fundamentals of Mathematics and Electricity		Mathematical computation of fundamental electrical circuit parameters. Basic definitions, laws, and concepts. Schematic, wiring, and parts placement diagrams. Test and troubleshoot electrical and electronic components and circuits.	Prerequisites: Admission to the Aircraft Maintenance Technology program.		Occ	L+L 9.0 12.0 12.0	T
AMT128	2020 Fall	Fundamentals of Aviation Physics, Corrosion Control, Materials and Processes, Fluid Lines and Fittin		Basic concepts of motion, fluid dynamics, heat and sound, aerodynamics, aircraft structure and theory of flight. Fluid lines and fittings, component identification, function, inspection, and installation. Cleaning and corrosion control, materials	Prerequisites: Admission to the Aircraft Maintenance Technology program.		Occ	L+L 5.0 9.0 9.0	T

				and processes, non-destructive testing, and precision measurement techniques.					
AMT220	2018 Fall	Fundamentals of Aircraft Wood Structures, Covering and Finishing, and Bonded Structures		Theories and techniques of aircraft wood structures. Inspection, test and repair of aircraft fabric and wood structures. Aircraft structural design and methods of working with selected materials. Characteristics of composites, inspections and repairs	Prerequisites: Admission to the program.		Occ	L+L 3.0 6.0 6.0	T
AMT222	2018 Fall	Atmosphere Control, Fire Detection, Ice and Rain Protection Systems		Operation and maintenance of aircraft auxiliary systems. Inspection, servicing, troubleshooting and repair of environmental control, ice and rain control, fire protection and warning systems	Prerequisites: Admission to the program.		Occ	L+L 4.0 6.0 6.0	T
AMT224	2018 Fall	Aircraft Sheet Metal		Inspection, fabrication, and repair techniques of aircraft structural and nonstructural components. Sheet metal heat-treating techniques	Prerequisites: Admission to the program.		Occ	L+L 5.0 11.0 11.0	T
AMT226	2018 Fall	Aircraft Landing Gear, Hydraulic, Pneumatic, Fuel, Position and Warning Systems		Identification, inspection, repair, and troubleshooting techniques of aircraft landing gear, hydraulic, fuel, pneumatic, and position and warning system components	Prerequisites: Admission to the program.		Occ	L+L 7.0 12.0 12.0	T
AMT228	2018 Fall	Aircraft Electrical Systems, Instruments, Fuel Indicating, Communication and Navigation Systems		Proper operation, inspection, servicing and troubleshooting of DC(Direct Current) and AC(Alternating Current) sources, systems, and components. Mechanical and electrical sensing and information display systems. Fuel indicator system inspections, repairs, and troubleshooting. Transmitter and receiver fundamentals. Avionics installation, inspection and testing	Prerequisites: Admission to the program.		Occ	L+L 7.0 12.0 12.0	T

AMT230	2018 Fall	Airframe Assembly, Inspection and Welding		Aircraft assembly and rigging. Flight control balancing and rigging. Airframe inspection techniques, reporting procedures, and aircraft jacking. Welding techniques, theory, and materials identification	Prerequisites: Admission to the program.		Occ	L+L 6.0 11.0 11.0	T
AMT263	2018 Fall	Aircraft Turbine Engines		Historical development and application of turbine engines. Theory of thrust and the design and environmental factors which influence thrust. Turbine engine troubleshooting, inspection, service, repair and overhaul. Operational characteristics and engine test techniques on the aircraft and in test cells	Prerequisites: Admission to the program.		Occ	L+L 5.0 9.0 9.0	T
AMT264	2018 Fall	Aircraft Reciprocating Engines		Historical development and application of reciprocating engines, theory, design, and operations. Techniques used in troubleshooting, overhaul, inspection, and repair of opposed and radial engines	Prerequisites: Admission to the program.		Occ	L+L 7.0 11.0 11.0	T
AMT266	2018 Fall	Engine Fuel Systems, Fuel Metering and Induction System		Inspection, servicing, troubleshooting, overhaul, and repair of aircraft fuel systems and components, fuel metering devices, injection systems, turbochargers, and superchargers. Induction system principles of operation and design	Prerequisites: Admission to the program.		Occ	L+L 6.0 9.0 9.0	T
AMT268	2018 Fall	Engine Electrical, Ignition and Starter Systems		Inspect, service, troubleshoot, overhaul, and repair of engine electrical, ignition, starter systems, and components	Prerequisites: Admission to the program.		Occ	L+L 6.0 12.0 12.0	T
AMT270	2018 Fall	Engine Instruments, Fire Protection and Lubrication, Cooling and Exhaust Systems		Operation, maintenance, servicing, inspection, repair, and troubleshooting of engine instruments, fire detection and extinguishing, engine lubrication, cooling, and exhaust systems	Prerequisites: Admission to the program.		Occ	L+L 5.0 8.0 8.0	T

AMT272	2018 Fall	Propeller Systems and Engine Inspections		Historical development, operation, disassembly, inspection, repair, and maintenance of propellers. Reciprocating and turbine engine inspection and documentation	Prerequisites: Admission to the program.		Occ	L+L 4.0 8.0 8.0	T
AMT298AA	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z
AMT298AB	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z
AMT298AC	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	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z

				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. COMMON COMPETENCY COURSE					
APT101	2018 Spring	Automotive Service Operations		Theory and operation of basic automotive systems. Basic principles of working in an automotive service area. Management-employee relations, resume writing, interviewing, shop practices, flat-rate system, equipment care, and basic hand tools.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
APT111	2017 Spring	Internal Combustion Engines Theory		Study of construction and operating principles of internal combustion engines and related lubrication, cooling, fuel, and electrical systems.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
APT131	2018 Fall	Automotive Manual Power Trains		Designed for beginning automotive students. Operation, diagnosis, service, and repair of the automotive power train. Includes manual transmissions and transaxles, clutches, front and rear drive axles, drive shafts, differentials and transfer case.	Prerequisites: None.		Occ	LEC 6.0 3.0 3.0 LAB 0.0 7.0 7.0	T
APT141	2018 Fall	Alignment, Steering, and Suspension		Designed for beginning automotive students. Fundamental principles of steering and suspension systems. Includes two-wheel and four-wheel alignment procedures. Emphasis on diagnosis, testing, service, and replacement of steering and suspension components.	Prerequisites: None.		Occ	LEC 6.0 3.0 3.0 LAB 0.0 7.0 7.0	T
APT151	2018 Fall	Automotive Brake Systems		Designed for beginning automotive students. Fundamentals of drum, disc, ABS and hybrid regenerative	Prerequisites: None.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 5.0 5.0	T

				braking theory. Includes training in diagnosis, testing, service, and repair.					
APT161	2018 Fall	Auto Electrical/Electronic Systems I		Designed for beginning automotive students. The principles of electricity including Ohm's Law, circuit principles and wiring diagrams. Skill development will include diagnosis, testing, service and repair of batteries, starting systems, charging systems, lighting systems, horns, wipers, defoggers, door locks, power mirrors, power windows, power seats and the use of Digital Multi Meters (DMM) will be addressed in this course.	Prerequisites: None.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 5.0 5.0	T
APT171	2018 Fall	Automotive Air Conditioning		Designed for beginning automotive students. Theory and principles of ventilation, heating, automotive refrigeration, vacuum-electric controls, and automatic temperature control systems. Includes training in diagnosis, testing, service and repair.	Prerequisites: None.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 5.0 5.0	T
APT181	2018 Fall	Engine Performance and Diagnosis I		Designed for beginning automotive students. Engine construction and operating principles, including lubrication, cooling, induction, exhaust, fuel, and ignition systems. Includes training in diagnosis, testing, service, and repair.	Prerequisites: None.		Occ	LEC 6.0 3.0 3.0 LAB 0.0 7.0 7.0	T
APT262	2018 Fall	Auto Electrical/Electronic Systems II		Designed for experienced students. This course develops knowledge of body control modules including skill development, diagnosis, testing, service, and repair of the following systems - advanced lighting circuits, vehicle stability control,	Prerequisites: A grade of C or better in APT161 or permission of Instructor.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 5.0 5.0	T

				traction control, basic and advanced climate control systems, integrated safety systems, collision avoidance systems, start-stop technology, hybrid technology, mobile connectivity, use of Digital Multi Meters (DMM) and automotive oscilloscopes.					
APT282	2018 Fall	Engine Performance and Diagnosis II		Designed for the experienced engine performance student. This course will include training in fuel systems, emission systems, ignition systems, turbocharging, computerized engine controls and engine driveability. Also, training in diagnosis, testing, service, repair, and documenting for customer understanding using the 3C's which are Concern, Cause and Correction will be addressed in this course.	Prerequisites: A grade of C or better in APT181 or permission of Instructor.		Occ	LEC 6.0 3.0 3.0 LAB 0.0 7.0 7.0	T
ARB101	2020 Fall	Elementary Arabic I		Introduction to the basic alphabet, grammar, pronunciation and vocabulary of the Arabic language. Listening, speaking, reading and writing skills.	Prerequisites: None.		Acad	L+L 5.0 5.0 5.0	T
ARB102	2020 Fall	Elementary Arabic II		A continuation of ARB101. Continued study of grammar and vocabulary, with emphasis on pronunciation and speaking skills.	Prerequisites: A grade of C or better in ARB101. Completion of prerequisites within the last three years is required.		Acad	L+L 5.0 5.0 5.0	T
ARB115	2005 Spring	Beginning Arabic Conversation I		Conversational Arabic with emphasis on basic sentence structure, pronunciation and vocabulary. Designed to develop speaking and listening abilities with less emphasis on grammar	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
ARB201	2020 Fall	Intermediate Arabic I		Review of essential grammar of the Arabic language and study of the Arabic culture.	Prerequisites: A grade of C or better in ARB102 or permission		Acad	L+L 5.0 5.0 5.0	T

				Continued practice and development of reading, writing, and speaking skills. Emphasis on both fluency and accuracy in the spoken language.	of Department or Division. Completion of prerequisites within the last three years is required.				
ARB202	2020 Fall	Intermediate Arabic II		Advanced grammatical structures in Arabic. Further development of language skills with emphasis on speaking the language.	Prerequisites: A grade of C or better in ARB201 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Acad	L+L 5.0 5.0 5.0	T
ARB296WA	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.	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
ARB296WB	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 2.0 10.0 0.0	Z

					major or career interest or with permission of the Instructor.				
ARB296WC	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
ARB296WD	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
ARB298AA	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	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0	Z

				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. COMMON COMPETENCY COURSE					
ARB298AB	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0	Z
ARB298AC	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0	Z
ARC100	2018 Fall	Introduction to Environmental Design		A survey of design through historical evaluation of built environments and works of well-known architects. Principles, concepts, and skills	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0	T

				associated with designs of actual and imagined ideas and things. Emphasis on social, technical, environmental, and theoretical forces that impacts design					
ARC120	2018 Fall	Design Fundamentals I		An introduction to architectural drawing and graphic representation methods. Using architectural drawings and graphic representations as visualization, and problem-solving methods. Emphasis on visual communication, and the application and development of the visual design via process as well as product.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0	T
ARC121	2018 Fall	Introduction to Architectural Drafting: Manual		Emphasis on basic techniques and principles of manual architectural drafting. Includes hand lettering, line work, dimensioning, multi-view projection, work in plan, section, and elevation views, design standards, wall details, office procedures, and portfolio development	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0	T
ARC140	2018 Fall	Rendering and Portfolio Development		Two-dimensional and three-dimensional drawings and rendering methods, including freehand and/or use of drawing tools for presentation of ideas. Techniques for use of pencil, ink, and colors. Professional formatting of portfolios	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0	T
ARC141	2018 Fall	Architectural CAD I: Introduction		Introduction to Computer Aided Drafting (CAD) for Architecture, Interior Design, and related professions using AutoCAD software. Includes basic operational systems, drawing set-ups, architectural formats, and two-dimensional drawing. Editing commands,	Prerequisites: None.	ARC141 may be repeated for a total of six (6) credit hours.	Occ	L+L 3.0 6.0 6.0	T

				annotation, and plotting for the industry also included.					
ARC142	2018 Fall	Architectural CAD II: Plans and Elevations		Computer Aided Drafting (CAD) instruction directed to the creation of fully annotated plan, elevation, and schematic section views including dimensions, notes, symbols, and schedules. Introduction to three-dimensional (3D) CAD using SketchUp.	Prerequisites: A grade of C or better in ARC141 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T
ARC143	2018 Fall	Architectural CAD: Extended Study		Reinforcement and extended study of basic two-dimensional computer aided drafting (CAD) skills for Architecture, Interior Design, and related professions using AutoCAD software. Includes sending/receiving drawing files on web; templates/set-ups; dimension/text formats; sheet management; external referencing, design center, basic/extended drawing and editing commands, and plotting.	Prerequisites: A grade of C or better in ARC141 or permission of Instructor.	ARC143 may be repeated for a total of six (6) credit hours.	Occ	L+L 3.0 6.0 6.0	T
ARC146	2018 Fall	Architectural Print Reading		Analysis and interpretation of architectural working drawings including written specifications and drawings prepared by consulting engineers.	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0	T
ARC148	2007 Fall	Methods and Materials of Construction		Modern methods of construction and materials for residential, multiple, and commercial building, including the four types of structures used: wood, concrete, steel and masonry. Methods of assembly and how different materials can be used to create desired designs. Requirements of most recent building codes and the F.H.A. standards	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
ARC150	2018 Fall	Architectural Desktop I		Residential construction drawing using Architectural	Prerequisites: A grade of C or better in		Occ	L+L 3.0 6.0 6.0	T

				Desktop (ADT). Includes preliminary workspace setups, configuration procedures, modules operations, and on screen menus applicable for producing components of a building model.	CON130 or permission of Department or Division.				
ARC160	2018 Fall	Site Planning		Emphasis on the basic art of site planning, using professional design techniques and principles of architecture to develop site plans. Selection of materials, awareness of problems, and emphasis on the production of site plan drawings using board and/or computer aided drafting (CAD) skills.	Prerequisites: A grade of C or better in DFT122 or permission of Program Director.		Occ	L+L 3.0 6.0 6.0	T
ARC161	2018 Fall	Residential Architectural Drafting		Basics of residential drafting and documentation topics and techniques. Includes preliminary planning and preparation for residential documentation; use of the local building codes and standards; complete drawing and annotation of a floor plan, reflected ceiling plan, roof plan, a building sections, framing plan, and exterior elevations.	Prerequisites: A grade of C or better in CON130 or permission of Department or Division.		Occ	L+L 3.0 6.0 6.0	T
ARC162	2018 Fall	Advanced Residential Architectural Drafting		Advanced residential drafting and documentation topics and techniques. Includes site orientation, layout and legal description; window and door schedules; interior elevation of kitchen and bath rooms; advanced instruction on framing and structural detail methods; foundation systems, support and layout; and other needed residential details and layouts.	Prerequisites: A grade of C or better in ARC161 and CON230 or permission of Department or Division.	Course Attribute(s): COMMON COMPETENCY COURSE	Occ	L+L 3.0 6.0 6.0	T
ARC163	2018 Fall	Commercial Architectural Drafting		Fundamental commercial drafting and documentation	Prerequisites: A grade of C or better in	Course Attribute(s): COMMON COMPETENCY COURSE	Occ	L+L 3.0 6.0 6.0	T

				topics and techniques. Includes preliminary planning and preparation for commercial documentation; use of the local building codes and standards; building methods and materials of commercial structures; complete drawing and annotation of a floor plan, reflected ceiling plan, roof plan, building sections, and exterior elevations.	CON130 or permission of Department or Division.				
ARC164	2018 Fall	Advanced Commercial Architectural Drafting		Further development of advanced commercial drafting and documentation topics and techniques. Covers commercial building materials and methods, specifications, land drawings, foundation plans, interior elevations, and more details specific to commercial buildings.	Prerequisites: A grade of C or better in (ARC163 and CON130) or permission of Department or Division.	Course Attribute(s): COMMON COMPETENCY COURSE	Occ	L+L 3.0 6.0 6.0	T
ARC165	2004 Fall	Introduction to Architecture Professional Practice and Ethics		Professional, legal, and ethical issues in architecture practice and services. Includes marketing issues, communications, standards, insurance and bonds, agreements, contracts and contractors, standard American Institute of Architecture (AIA) forms and conditions, selection of contractors, and bidding procedures	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
ARC225	2018 Fall	Fundamentals of Architectural Detailing		Introduction to construction /architecture detailing. Examines functional, construction-related, and aesthetic applications of detailing.	Prerequisites: A grade of C or better in CON130 or CON252 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0	S
ARC226	2018 Fall	Advanced Architectural Detailing		Advanced methods of detailing major construction materials such as wood, steel, and concrete, ranging from	Prerequisites: A grade of C or better in CON130 or CON252 or		Occ	LEC 3.0 3.0 3.0	S

				simple residential to more complicated commercial structures. Includes detailing foundations, exterior and interior walls, roof and ceiling areas.	permission of Department or Division.				
ARC243	2018 Fall	Architectural CAD III: Site Plans and Sections		Computer-aided drafting (CAD-based) instruction directed to the creation of fully annotated site plans and sectional views. Development of professional quality site plans, wall sections, and building sections working from given residential and commercial layouts. Assignments incorporate applicable codes, construction materials and methods and office practices typical to the local area.	Prerequisites: A grade of C or better in ARC142 or permission of Department or Division.		Occ	L+L 3.0 6.0 6.0	T
ARC244	2018 Fall	Architectural CAD IV: Structural Systems		CAD-based(Computer-Aided Drafting) instruction for layout and completion of fully annotated structural drawings. Focuses on working from residential and commercial layouts to develop professional quality roof, roof framing, floor framing and foundation plans. Emphasis on the use of applicable codes, construction materials and methods, and office practices typical to the local area	Prerequisites: A grade of C or better in ARC142 or permission of Department or Division.		Occ	L+L 3.0 6.0 6.0	T
ARC245	2018 Fall	Architectural CAD V: Mechanical and Electrical Systems		CAD-based(Computer-Aided Drafting) instruction for layout and completion of fully annotated building systems drawings. Focuses on working from residential and commercial layouts to develop professional quality Electrical, Mechanical(HVAC), Plumbing and Reflected Ceiling plans.	Prerequisites: A grade of C or better in ARC142 or permission of Department or Division.		Occ	L+L 3.0 6.0 6.0	T

				Emphasis on the use of applicable codes, construction materials and methods, and office practices typical to the local area					
ARC246	2018 Fall	Architectural CAD VI: Construction Details		Typical southwestern construction systems and details. Creation of personal standard detail files for wood frame, concrete masonry, and other specialized construction systems.	Prerequisites: A grade of C or better in ARC243 or permission of Department or Division.		Occ	L+L 3.0 6.0 6.0	T
ARC250	2020 Fall	Basic Revit	INT250	Basic skills required to complete architectural drawings with Revit software; simplified overview of the software program and operations gained through completing typical plan, elevation, sectional, and 3D views, using generic walls and related components.	Prerequisites: None. ARC141, or previous AutoCAD/industry experience recommended.	ARC/INT250 may be repeated for a total of six (6) credit hours.	Occ	L+L 3.0 6.0 6.0	T
ARC251	2018 Fall	Intermediate Revit		Comprehensive use of Revit Design Development tools through the development of 3-D model(s) in working drawing and rendered formats. Includes completing a set of construction documents from creating walls, incorporating doors, windows, floor, stairs, etc., to adding views and annotation to various sheets and coordinating those sheets within the finished set.	Prerequisites: None. ARC250 or previous architectural and CAD experience strongly recommended.	ARC251 may be repeated for a total of six (6) credit hours.	Occ	L+L 3.0 6.0 6.0	T
ARC252	2018 Fall	Advanced Revit		Advanced applications and use of REVIT architectural software in completing assigned projects; focus on customization of the Revit environment and developing Revit families.	Prerequisites: A grade of C or better in ARC251 or permission of Instructor.	ARC252 may be repeated for a total of six (6) credit hours.	Occ	L+L 3.0 6.0 6.0	T
ARC255	2018 Fall	Introduction to Revit Structure		Introduction to Revit Structure software, addressing specialized options and processes used in structural	Prerequisites: None. Previous educational/professional experience in	ARC255 may be repeated for a total of six (6) credit hours.	Occ	L+L 3.0 6.0 6.0	T

				engineering offices; includes project modeling, model analysis, reinforcement modeling, detailing, and documentation.	architecture or structural engineering strongly recommended.				
ARC261	2018 Fall	Architectural CAD 3D I: Introduction		Introduction to construction, manipulating, and rendering three-dimensional (3D) objects and architectural spaces on the computer using AutoCAD software.	Prerequisites: A grade of C or better in ARC141 or equivalent or permission of Department or Division. ARC142 suggested but not required.		Occ	L+L 3.0 6.0 6.0	T
ARC262	2018 Fall	Architectural CAD 3D II: ADT and VIZ		Additional skill development in constructing, manipulating, and rendering three-dimensional (3D) architectural computer models using AutoCAD Architectural Desktop (ADT) and Viz Render (VIZ) software	Prerequisites: A grade of C or better in ARC261 or equivalent or permission of Department or Division.		Occ	L+L 3.0 6.0 6.0	T
ARC265	2020 Fall	Sketchup I: Introduction to Sketchup	INT251	Provides students with introductory level instruction utilizing Sketchup rendering software for school and workplace applications. Addresses basic drawing/rendering commands, accessing external drawing files, and plotting through the creation of both three-dimensional schematic and rendered interior and exterior building views.	Prerequisites: None. Previous CAD experience recommended but not required.	ARC265/INT251 may be repeated for a total of six (6) credit hours.	Occ	L+L 3.0 6.0 6.0	T
ARC266	2021 Summer	Sketchup II: Advanced Rendering Techniques	INT267	Provides students with advanced instruction utilizing Sketchup, Google Earth, Sandbox and Podium rendering software for school and workplace applications. Creation of photo-realistic rendered three-dimensional interior and exterior building/site views.	Prerequisites: A grade of C or better in ARC265/INT251 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T
ARC270	2018 Fall	Architectural Technology Synthesis		Provides students an opportunity to integrate and synthesize knowledge and	Prerequisites: A grade of C or better in (ARC243 and ARC244	ARC270 may be repeated for a total of six (6) credit hours.	Occ	L+L 3.0 6.0 6.0	T

				skills acquired in prerequisite courses. Includes completion of a full set of working drawings using AutoCAD under supervision comparable to workplace situations. Designed to provide practice in self-checking work, correcting and editing drawings, and assembling a portfolio.	and ARC245) or permission of Instructor.				
ARC282AA	2004 Fall	Volunteerism for Architecture: A Service Learning Experience		Service-learning field experience within private/public agencies and citizen volunteer groups.	Prerequisites: Permission of Department or Division.	ARC282AA may be repeated for a total of three (3) credit hours. May not repeat specific assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in college catalog.	Occ	LAB 1.0 1.0 0.0	L
ARC282AB	2004 Fall	Volunteerism for Architecture: A Service Learning Experience		Service-learning field experience within private/public agencies and citizen volunteer groups.	Prerequisites: Permission of Department or Division.	ARC282AB may be repeated for a total of three (3) credit hours. May not repeat specific assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in college catalog.	Occ	LAB 2.0 2.0 0.0	L
ARC282AC	2004 Fall	Volunteerism for Architecture: A Service Learning Experience		Service-learning field experience within private/public agencies and citizen volunteer groups.	Prerequisites: Permission of Department or Division.	Standard grading available according to procedures outlined in college catalog.	Occ	LAB 3.0 3.0 0.0	S
ARC290AA	2004 Fall	Architecture Internship		Architecture internship office and field experience with private agencies, public agencies, or citizen volunteer groups.	Prerequisites: A grade of C or better in ARC282++ or permission of Department or Division.	ARC290AA may be repeated for a total of three (3) credit hours. ARC290AA students may not repeat a specific assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in college catalog.	Occ	LAB 1.0 1.0 0.0	P
ARC290AB	2004 Fall	Architecture Internship		Architecture internship office and field experience with private agencies, public agencies, or citizen volunteer groups.	Prerequisites: A grade of C or better in ARC282++ or permission of Department or Division.	ARC290AB may be repeated for a total of three (3) credit hours. ARC290AB students may not repeat a specific assignment for more than three (3) credit hours. Standard	Occ	LAB 2.0 2.0 0.0	P

						grading available according to procedures outlined in college catalog.			
ARC290AC	2004 Fall	Architecture Internship		Architecture internship office and field experience with private agencies, public agencies, or citizen volunteer groups.	Prerequisites: A grade of C or better in ARC282++ or permission of Department or Division.	Standard grading available according to procedures outlined in college catalog.	Occ	LAB 3.0 3.0 0.0	P
ARC296WA	2006 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. COMMON COMPETENCY COURSE	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
ARC296WB	2006 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. COMMON COMPETENCY COURSE	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

ARC296WC	2006 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. COMMON COMPETENCY COURSE	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
ARC296WD	2006 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. COMMON COMPETENCY COURSE	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
ARC298AA	2006 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.	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z

				Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE					
ARC298AB	2006 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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z
ARC298AC	2006 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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z
ARH100	2018 Fall	Introduction to Art		Understanding and enjoyment of art and visual culture through study of two-dimensional and three-dimensional works of art, design elements, media and processes, and cultural contexts. Emphasis on	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S

				contemporary topics and cultural diversity in the arts.					
ARH101	2023 Fall	Art from Prehistory Through Middle Ages		History of art from the Paleolithic period through the Middle Ages.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
ARH102	2023 Fall	Art from Renaissance to Modernism		History of art from the Renaissance through Modernism.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
ARH109	2024 Fall	History of American Art		Study of the major art historical developments and traditions in the United States from pre-colonial times to the present, including the changing nature of American art and identity in the age of globalization. Consideration of major genres and stylistic characteristics with emphasis on the sociocultural contexts in which art was created and received.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
ARH110	2024 Fall	History of Graphic Design		Survey of the history of graphic design from its origins to the present. Traces the characteristics, aesthetics, and relationships between graphic design and society. Includes movements, individual artists, and interpretation. Emphasizes the function of graphic design as a branch of human visual communication.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
ARH112	2024 Fall	Introduction to Modern and Contemporary Art		Study of art and theory from the mid-nineteenth century to the present. Focus on European and American modern and contemporary art while considering other regions of the world. Examination of the historical, social, and cultural contexts of artistic developments. Application of various interpretive models to	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S

				examine modern and contemporary art.					
ARH115	2023 Fall	History of Photography		Survey of history of photography from beginning to present. Emphasizes the reciprocal relationship between the medium's development and reception, society, and other visual arts. Technical developments, photographic practices, and sociocultural themes are studied.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
ARH118	2018 Fall	Introduction to Chinese Art		Explores Chinese philosophy, symbolism, history and religions that underlie the choice of subject matter and life forms in Chinese art. Uses Chinese bamboo brush, ink and rice paper to study Chinese calligraphy and traditional subjects for painting	Prerequisites: None.	Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU]	Acad	L+L 3.0 3.0 3.0	T
ARH145	2003 Fall	History of American Indian Art		Survey of American Indian Art from precontact to present. Reviews the impact of these art forms on contemporary American society, other world societies and on the visual arts. Explores characteristics, cultural influences and concerns represented in various art forms past and present. Features field trips to galleries and collections	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
ARH201	2024 Fall	Art of Asia		Introduction to the origins and historical development of art in Asia, with emphasis on Asia's major sub-regions including West, Central, East, South, and Southeast.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
ARH202	2023 Fall	Art of Africa, Oceania, and Americas	X Ref	Study of the material cultures of Africa, America, and Oceania, with an emphasis on diverse worldviews and their expression within a contemporary global context.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S

ARH203	2005 Spring	Art of Ancient Egypt		The art and culture of ancient Egypt from prehistoric through the Greco-Roman period	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
ARH204	2014 Spring	Roman Art and Architecture		Detailed examination of the art and architecture of ancient Rome from the monarchical period to the late empire, with emphasis on the visual culture and artifacts of the civilization.	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
ARH216	2003 Spring	Pre-Columbian Art History		Art of the Americas prior to European contact, focusing on Mesoamerica and the Central Andean region and their respective adjoining areas, with some attention to the U.S. Southwest and Eastern Woodlands Mound Building cultures	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
ARH217	1995 Fall	Mexican Art History		Art of Mexico and related cultures, from the prehistoric to the contemporary period	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
ARH240	2008 Fall	Art and Architecture of the Islamic World to 1800		Introduction to the principal achievements in art and architecture of the Islamic world circa 650-1800 CE and placing them in social and cultural contexts and consideration of the historical evolution of Western knowledge and understanding of these works	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
ARH250	2016 Spring	Visual Language and Interpretation		Examines the communication of concepts through visual interpretation and expression.	Prerequisites: A grade of C or better in (ART111, ART112, ART131, ART167 and ARH100) or permission of instructor.		Acad	LEC 1.0 1.0 1.0	S
ARH298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0	Z

				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. COMMON COMPETENCY COURSE					
ARH298AB	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0	Z
ARH298AC	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0	Z

ART105	2018 Fall	Art Beyond the Classroom		Visual arts experience. Includes field trips to galleries, museums, and collections as well as art lectures, demonstrations, and varied studio experiences.	Prerequisites: None.	ART105 may be repeated for a total of four (4) credit hours.	Acad	L+L 1.0 2.0 2.0	T
ART106	2018 Fall	Gallery Operations		Operation of an art gallery. Includes organization, publicity, evaluation of artwork, selection and installation of exhibits.	Prerequisites: Permission of Instructor.	ART106 may be repeated for a total of six (6) credit hours.	Acad	L+L 3.0 6.0 6.0	T
ART110	2018 Fall	Experimental Chinese Painting		Explores ancient Chinese techniques with rice paper and Chinese ink to create traditional and nontraditional designs. Emphasis on use of Chinese techniques in mixed media works.	Prerequisites: None.	ART110 may be repeated for credit.	Acad	L+L 1.0 2.0 2.0	T
ART111	2018 Fall	Drawing I		Fundamental principles of drawing. Emphasis on composition and facility in objective and expressive representation, using variety of drawing media	Prerequisites: None.	Course Attribute(s): Arizona Shared Unique Number SUN#: ART 1111	Acad	L+L 3.0 6.0 6.0	T
ART112	2018 Fall	Two-Dimensional Design		Study of fundamental elements and principles of two-dimensional design.	Prerequisites: None.	Course Attribute(s): Arizona Shared Unique Number SUN#: ART 1112	Acad	L+L 3.0 6.0 6.0	T
ART113	2018 Fall	Color		Investigation seeking visual solutions to a variety of problems concerning color in two and three dimensions and modes of color appearances, including light and effects in design and theory of design.	Prerequisites: None.		Acad	L+L 3.0 6.0 6.0	T
ART115	2018 Fall	Three-Dimensional Design		Fundamental principles of three-dimensional design.	Prerequisites: None.	Course Attribute(s): Arizona Shared Unique Number SUN#: ART 1115	Acad	L+L 3.0 6.0 6.0	T
ART116	2018 Fall	Life Drawing I		Use of form, structure and anatomy of draped and undraped human figure to develop basic principles of sound draftsmanship	Prerequisites: None.		Acad	L+L 3.0 6.0 6.0	T
ART117	2018 Fall	Life Drawing II		Further study of form, structure, and anatomy of the draped and undraped human	Prerequisites: A grade of C or better in ART116.		Acad	L+L 3.0 6.0 6.0	T

				figure with emphasis on composition					
ART118	2018 Fall	Art Anatomy		Artistic study of the concept of anatomical unity. Principle skeletal and muscular structures affecting surface form of the human figure. Includes drawing project, portfolio, and tests.	Prerequisites: A grade of C or better in ART116 or permission of Instructor.		Acad	L+L 3.0 6.0 6.0	T
ART122	2018 Fall	Drawing and Composition II		Emphasis on composition and exploration of drawing media	Prerequisites: A grade of C or better in ART111.		Acad	L+L 3.0 6.0 6.0	T
ART131	2018 Fall	Photography I		Basic photographic principles and techniques. Basic camera functions and controls. Experience in the image-making process by creating and editing photographs for various display environments. Introduction to the photographic aesthetic and photography's role in society.	Prerequisites: None.	ART131 requires a Camera. Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU]	Acad	L+L 3.0 6.0 6.0	T
ART132	2018 Fall	Photography II		Advanced camera and darkroom techniques. Aesthetic awareness with personal expression	Prerequisites: A grade of C or better in ART131 or permission of Instructor.		Acad	L+L 3.0 6.0 6.0	T
ART133	2018 Fall	Photography III		Refinement of aesthetic and technical aspects producing convincing images of highest quality	Prerequisites: A grade of C or better in ART132 or permission of Instructor.		Acad	L+L 3.0 6.0 6.0	T
ART134	2018 Fall	Photography IV		Emphasis on personal statement and style. Related graphic art forms explored. Development of portfolio	Prerequisites: A grade of C or better in ART133 or permission of Instructor.		Acad	L+L 3.0 6.0 6.0	T
ART136	2023 Fall	Documentary Photography		Explore the history and contemporary trends of documentary photography. Students will learn how to research and define a topic, ethics of documentary photography, storytelling, production and post production techniques and distribution methods. Students will create a final documentary portfolio.	Prerequisites: A grade of C or better in ART131, or ART142, or permission of Instructor.		Acad	L+L 3.0 6.0 6.0	T

ART137	2023 Fall	Alternative Photographic Processes		This course focuses on the 19th-century photographic processes including new picture-making technologies. Discussing the history of photography in relation with techniques taught in class. Students encouraged to explore historical processes in combination with contemporary technologies. Through technical demonstrations, hands-on workshops, and technical assignments, students develop a working knowledge of a range of processes while developing their own visual language.	Prerequisites: None.		Acad	L+L 3.0 6.0 6.0	T
ART145	2018 Fall	Digital Storybook	COM145 STO145	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
ART150	2018 Fall	Digital Storytelling	COM150 STO150	Enables students to find and develop their personal stories. Emphasis on the use of digital technology to create, edit, produce and archive a digital story	Prerequisites: None.		Acad	L+L 3.0 6.0 6.0	T
ART151	2019 Spring	Sculpture I		Exploration of sculptural form and expression in clay, plaster, stone, wood and metal.	Prerequisites: None.		Acad	L+L 3.0 6.0 6.0	T
ART152	2018 Fall	Sculpture II		Emphasis on control of sculptural media	Prerequisites: A grade of C or better in ART151.		Acad	L+L 3.0 6.0 6.0	T
ART153	2019 Fall	Woodworking I		Fundamental woodworking techniques to produce creative functional and sculptural, three-dimensional objects.	Prerequisites: None.		Acad	L+L 3.0 6.0 6.0	T
ART154	2019 Fall	Woodworking II		Advanced design, joinery, fixture building, and woodworking techniques.	Prerequisites: A grade of C or better in ART153.		Acad	L+L 3.0 6.0 6.0	T

				Application of design principles.					
ART155	2018 Fall	Glass Fusing and Slumping I		Introduction to the basics involved in glass fusing and slumping. The concepts of glass, glass fusing, and glass slumping will be covered with hands-on experience using a variety of techniques to create finished glass projects such as jewelry, dishes, frames, and door bells.	Prerequisites: None.	ART155 may be repeated for a total of twelve (12) credits	Acad	L+L 3.0 6.0 6.0	T
ART156	2018 Fall	Glass Fusing and Slumping II		Further study in the area of glass fusing and slumping. Advanced techniques including Pate-de-Verre, Pattern Bars, watchbands, bracelets, and patterned dishes.	Prerequisites: A grade of C or better in ART155.	ART156 may be repeated for a total of twelve (12) credits	Acad	L+L 3.0 6.0 6.0	T
ART158	2018 Fall	Introduction to Glass Blowing		Introduction to the basics involved in free hand blowing glass. The concepts of hot glass, glass shaping, and glass blowing will be covered with hands-on experience using a variety of techniques to create finished glass projects such as spheres, cones, cups, and other hollow glass objects.	Prerequisites: None.	ART158 may be repeated for a total of twelve (12) credits.	Acad	L+L 3.0 6.0 6.0	T
ART159	2018 Fall	Intermediate Glass Blowing		Further study in the area of glass blowing. Advanced techniques including traditional techniques as well as further investigation into color, form, and scale.	Prerequisites: A grade of C or better in ART158.	ART159 may be repeated for a total of twelve (12) credits.	Acad	L+L 3.0 6.0 6.0	T
ART160	2018 Fall	Advanced Glass Blowing		Further study in the area of glass blowing with emphasis on advanced techniques and design considerations, such as sculpting, larger scale projects, working in multiples, and further refinement of technical skill.	Prerequisites: A grade of C or better in ART159.	ART160 may be repeated for a total of fifteen (15) credit hours.	Acad	L+L 3.0 6.0 6.0	T
ART161	2018 Fall	Ceramics I		Introduction to ceramic materials and techniques of	Prerequisites: None.		Acad	L+L 3.0 6.0 6.0	T

				hand construction, decorating, glazing and throwing on potters' wheel					
ART162	2018 Fall	Ceramics II		Major emphasis on wheel throwing, glaze making and decorating techniques	Prerequisites: A grade of C or better in ART161.		Acad	L+L 3.0 6.0 6.0	T
ART165	2018 Fall	Watercolor Painting I		Transparent and Gouache watercolor painting.	Prerequisites: A grade of C or better in (ART111 and ART112) or permission of Instructor.		Acad	L+L 3.0 6.0 6.0	T
ART166	2018 Fall	Watercolor Painting II		Painting in water soluble media. Emphasis on individual techniques and design.	Prerequisites: A grade of C or better in ART165.		Acad	L+L 3.0 6.0 6.0	T
ART167	2023 Spring	Painting I		Exploration of technical and expressive possibilities of various media in painting.	Prerequisites: A grade of C or better in (ART111 and ART112) or permission of Instructor.		Acad	L+L 3.0 6.0 6.0	T
ART168	2018 Fall	Painting II		Continued refinement of painting skills and investigation of new possibilities in painting	Prerequisites: A grade of C or better in ART167 or permission of Instructor.		Acad	L+L 3.0 6.0 6.0	T
ART171	2018 Fall	Jewelry I		Fundamentals of jewelry making. Covers hand formed methods, including cutting, shaping, forging, soldering, and lost wax technique	Prerequisites: None.		Acad	L+L 3.0 6.0 6.0	T
ART172	2018 Fall	Jewelry II		Further refinement of personal expression using techniques and design concepts of ART171	Prerequisites: A grade of C or better in ART171.		Acad	L+L 3.0 6.0 6.0	T
ART211	2018 Fall	Drawing and Composition III		Advanced development of drawing skill with emphasis on compositional theory	Prerequisites: A grade of C or better in ART122 or permission of Instructor.		Acad	L+L 3.0 6.0 6.0	T
ART216	2018 Fall	Life Drawing III		Advanced creative study from model in various painting and drawing media	Prerequisites: A grade of C or better in ART117 or permission of Instructor.		Acad	L+L 3.0 6.0 6.0	T
ART217	2018 Fall	Life Drawing IV		Further development of skills in expressive drawing materials and techniques as applied to finished drawings of the human form	Prerequisites: A grade of C or better in ART216 or permission of Instructor.		Acad	L+L 3.0 6.0 6.0	T

ART222	2018 Fall	Drawing and Composition IV		Further study of drawing techniques with emphasis on individual problems and techniques	Prerequisites: A grade of C or better in ART211 or permission of Instructor.		Acad	L+L 3.0 6.0 6.0	T
ART234	2023 Fall	Color Photography		Basic principles of color theory, camera and input and output techniques using analog or digital photography.	Prerequisites: A grade of C or better in ART131, or AVC142, or permission of Instructor.	Film or digital camera is required.	Acad	L+L 3.0 6.0 6.0	T
ART241	2018 Fall	Intaglio		Introduction to traditional concepts and techniques for Intaglio printmaking. Deals with black and white printing; includes brief introduction to color printing. Covers various tools and materials used in Intaglio	Prerequisites: A grade of C or better in ART111 and ART113.		Acad	L+L 3.0 6.0 6.0	T
ART242	2018 Fall	Lithography		Provides introduction to concepts and techniques of Lithography, both in plate and stone methods. Focus on black and white Lithographic drawing techniques. Introduction in color printing given	Prerequisites: A grade of C or better in ART111 and ART113.		Acad	L+L 3.0 6.0 6.0	T
ART250	2018 Fall	Introduction to Printmaking		Introduction to concepts and techniques involved in Fine Art field of Printmaking. Deals with three most basic Printmaking modes of Serigraphy, Woodcut, and Monoprinting in first part of course. Overview of Etching, Lithography and Papermaking in second part of course.	Prerequisites: A grade of C or better in ART111 and ART113.		Acad	L+L 3.0 6.0 6.0	T
ART251	2018 Fall	Sculpture III		With emphasis on attention to individual problems and techniques	Prerequisites: A grade of C or better in ART152.		Acad	L+L 3.0 6.0 6.0	T
ART252	2018 Fall	Sculpture IV		Advanced sculpture problems and professional practices	Prerequisites: A grade of C or better in ART251.		Acad	L+L 3.0 6.0 6.0	T
ART253	2018 Fall	Woodcut		Focuses on relief method of printing, utilizing the techniques of Woodcut. Deals specifically with black and white images. Study of printing materials and tools,	Prerequisites: A grade of C or better in ART111 and ART113.		Acad	L+L 3.0 6.0 6.0	T

				papers and printing methods. Relief printing in color introduced. Traditional forms of Woodcut, also an overview of innovative techniques in the field					
ART255	1994 Fall	Art Marketing		Career goals, presentation of artist and art work (portfolio, resume, business cards, catalog), pricing and selling works, networking, establishing a studio, promotion and publicity, writing press releases, proposal writing, business ethics, artist rights, copyright law, contracts and agreements, royalties, record keeping, and communication skills	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
ART255AA	1994 Fall	Self Promotion		Career goals, presentation of artist, communication skills, keeping files and records, developing self-promotional materials	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
ART255AB	2016 Summer	The Portfolio		Choosing the right pieces to include, presenting art work, developing the portfolio.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
ART255AC	1994 Fall	Marketing Fine Art		Exhibitions and galleries, establishing a studio, alternative markets	Prerequisites: A grade of C or better in ART255AB or permission of Instructor.		Acad	LEC 1.0 1.0 1.0	S
ART256	2018 Fall	Glass Fusing and Slumping III		Further study in the area of glass fusing and slumping with emphasis on advanced techniques and design considerations, such as, plates designed using different techniques, weaving or strip glass, and combining previous techniques to create projects.	Prerequisites: A grade of C or better in ART156.	ART256 may be repeated for a total of fifteen (15) credits.	Acad	L+L 3.0 6.0 6.0	T
ART257	2018 Fall	Glass Fusing and Slumping IV		Further study of advanced glass fusing and slumping including problems, professional practices, personal expression and	Prerequisites: A grade of C or better in ART256.	ART257 may be repeated for a total of fifteen (15) credits.	Acad	L+L 3.0 6.0 6.0	T

				experimental research into various techniques.					
ART258	2018 Fall	Papermaking		Introduction to concepts and techniques of Fine Art Papermaking. Basic overview of historical origins of craft and importance of modern papermaking to fine arts	Prerequisites: A grade of C or better in ART111 and ART113.		Acad	L+L 3.0 6.0 6.0	T
ART259	2018 Fall	Monoprinting		Introduction to concepts and techniques for Monoprintmaking. Deals with la prima technique used in painting in first part of course. Multi-plate printing and how method of printing relates to use of color and separation in second part of course	Prerequisites: A grade of C or better in ART111 and ART113.		Acad	L+L 3.0 6.0 6.0	T
ART261	2018 Fall	Ceramics III		Emphasis on wheel throwing skill and individual style development	Prerequisites: A grade of C or better in ART162.		Acad	L+L 3.0 6.0 6.0	T
ART262	2018 Fall	Ceramics IV		Experimental work in clays and glazes	Prerequisites: A grade of C or better in ART261.		Acad	L+L 3.0 6.0 6.0	T
ART263	2018 Fall	Figure Painting		Study of the nude and clothed figure in painting with special attention upon relevant color palettes, direct and indirect figurative painting techniques, and development of anatomical knowledge and compositional structure. Students will draw upon both historical and contemporary modes of depicting the figure to develop a personalized approach to figure painting. Live models, photographs, drawings, "Planes of the Head" models, and the studio skeleton will be used as the basis of projects.	Prerequisites: A grade of C or better in ART167 or permission of Instructor.	Previous experience drawing from the live model recommended. Oil paint is the preferred medium but students may work in other painting media if they have previous experience. ART263 may be repeated for credit.	Acad	L+L 3.0 6.0 6.0	T
ART264	2019 Spring	Glass Casting		Further study of glass art with a focus on casting and kiln working, including problems, professional practices, personal expression and	Prerequisites: A grade of C or better in ART160.	ART264 may be repeated for a total of fifteen (15) credits.	Acad	L+L 3.0 6.0 6.0	T

				experimental application of various techniques.					
ART265	2018 Fall	Watercolor Painting III		Continuation of watercolor painting with emphasis on control and expression	Prerequisites: A grade of C or better in ART166.		Acad	L+L 3.0 6.0 6.0	T
ART266	2018 Fall	Watercolor Painting IV		Advanced problems directed toward more personal expression	Prerequisites: A grade of C or better in ART265.		Acad	L+L 3.0 6.0 6.0	T
ART267	2018 Fall	Painting III		Development of materials and techniques of painting. Individual problem-solving	Prerequisites: A grade of C or better in ART168 or permission of Instructor.		Acad	L+L 3.0 6.0 6.0	T
ART268	2018 Fall	Painting IV		Advanced problem in painting. Study with greater emphasis on personal expression	Prerequisites: A grade of C or better in ART267 or permission of Instructor.		Acad	L+L 3.0 6.0 6.0	T
ART271	2018 Fall	Jewelry III		Emphasis on advanced jewelry design techniques and practices.	Prerequisites: A grade of C or better in ART172.	Further refinement and mastery of the skills and techniques introduced in ART171 and ART172.	Acad	L+L 3.0 6.0 6.0	T
ART272	2018 Fall	Jewelry IV		Emphasis on expanding repertoire of advanced jewelry design techniques and practices.	Prerequisites: A grade of C or better in ART271.	Further refinement and mastery of the skills and techniques introduced in ART271.	Acad	L+L 3.0 6.0 6.0	T
ART275	2018 Fall	Lost Wax Casting I		Introduction to lost wax casting techniques for jewelry and small sculptures. Emphasis on design concepts as related to three-dimensional forms	Prerequisites: None.		Acad	L+L 3.0 6.0 6.0	T
ART276	2018 Fall	Lost Wax Casting II		Advanced course in lost wax casting techniques for jewelry and small sculptures. Emphasis on the continuation of individual expression using the lost wax method	Prerequisites: A grade of C or better in ART275.		Acad	L+L 3.0 6.0 6.0	T
ART277	2018 Fall	Textiles I		Introduction to exploration of textile media.	Prerequisites: A grade of C or better in ART112 or permission of Instructor.		Acad	L+L 3.0 6.0 6.0	T
ART282AA	2020 Fall	Service-Learning Experience in Art		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	ART282AA 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

ART282AB	2020 Fall	Service-Learning Experience in Art		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	ART282AB 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
ART282AC	2020 Fall	Service-Learning Experience in Art		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	ART282AC 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
ART290AA	2018 Fall	Studio Art		Studio course for art majors allowing continuation in a subject field.	Prerequisites: Permission of Instructor.	ART290AA students must have completed advanced courses in the subject field. ART290AA may be repeated for credit.	Acad	L+L 1.0 2.0 2.0	T
ART290AB	2018 Fall	Studio Art		Studio course for art majors allowing continuation in a subject field.	Prerequisites: Permission of Instructor.	ART290AB students must have completed advanced courses in the subject field. ART290AB may be repeated for credit.	Acad	L+L 2.0 4.0 4.0	T
ART290AC	2018 Fall	Studio Art		Studio course for art majors allowing continuation in a subject field.	Prerequisites: Permission of Instructor.	ART290AC students must have completed advanced courses in the subject field. ART290AC may be repeated for credit.	Acad	L+L 3.0 6.0 6.0	T
ART290BC	2018 Fall	Studio Art: Drawing		Studio course for art majors allowing continuation in a subject field.	Prerequisites: A grade of C or better in ART111 or permission of Instructor.	ART290BC may be repeated for credit.	Acad	L+L 3.0 6.0 6.0	T
ART290CC	2018 Fall	Studio Art: Mixed Media		Studio course for art majors allowing continuation in a subject field.	Prerequisites: A grade of C or better in ART112 or permission of Instructor.	ART290CC may be repeated for credit.	Acad	L+L 3.0 6.0 6.0	T
ART290DC	2018 Fall	Studio Art: Life Drawing		Studio course for art majors allowing continuation in a subject field.	Prerequisites: A grade of C or better in ART117 or permission of Instructor.	ART290DC may be repeated for credit.	Acad	L+L 3.0 6.0 6.0	T
ART290EC	2018 Fall	Studio Art: Photography		Studio course for art majors allowing continuation in a subject field.	Prerequisites: A grade of C or better in ART132 or permission of Instructor.	ART290EC may be repeated for credit.	Acad	L+L 3.0 6.0 6.0	T
ART290FF	2018 Fall	Studio Art: Sculpture		Studio course for art majors allowing continuation in a subject field.	Prerequisites: A grade of C or better in ART252 or permission of Instructor.	ART290FF may be repeated for credit.	Acad	L+L 3.0 6.0 6.0	T
ART290GC	2018 Fall	Studio Art: Ceramics		Studio course for art majors allowing continuation in a subject field.	Prerequisites: A grade of C or better in ART162 or permission of Instructor.	ART290GC may be repeated for credit.	Acad	L+L 3.0 6.0 6.0	T

ART290HC	2018 Fall	Studio Art: Watercolor		Studio course for art majors allowing continuation in a subject field.	Prerequisites: A grade of C or better in ART166 or permission of Instructor.	ART290HC may be repeated for credit.	Acad	L+L 3.0 6.0 6.0	T
ART290JC	2018 Fall	Studio Art: Color		Studio course for art majors allowing continuation in a subject field.	Prerequisites: A grade of C or better in ART113 or permission of Instructor.	ART290JC may be repeated for credit.	Acad	L+L 3.0 6.0 6.0	T
ART290KC	2018 Fall	Studio Art: Glazing Techniques		Studio course for art majors allowing continuation in a subject field.	Prerequisites: A grade of C or better in ART162 or permission of Instructor.	ART290KC may be repeated for credit.	Acad	L+L 3.0 6.0 6.0	T
ART290LC	2018 Fall	Studio Art: Clay Bodies		Studio course for art majors allowing continuation in a subject field.	Prerequisites: A grade of C or better in ART162 or permission of Instructor.	ART290LC may be repeated for credit.	Acad	L+L 3.0 6.0 6.0	T
ART290MC	2018 Fall	Studio Art: Digital Photography		Studio course for art majors allowing continuation in a subject field.	Prerequisites: A grade of C or better in ART143 or permission of Instructor.	ART290MC may be repeated for credit.	Acad	L+L 3.0 6.0 6.0	T
ART290PC	2018 Fall	Studio Art: Painting		Studio course for art majors allowing continuation in a subject field.	Prerequisites: A grade of C or better in ART168 or permission of Instructor.	ART290PC may be repeated for credit.	Acad	L+L 3.0 6.0 6.0	T
ART290WC	2019 Fall	Studio Art: Woodworking		Studio course for art majors allowing continuation in a subject field.	Prerequisites: A grade of C or better in ART154 or permission of Instructor.	ART290WC may be repeated for credit.	Acad	L+L 3.0 6.0 6.0	T
ART295AC	2018 Fall	Art Workshop/Seminar: Drawing		Advanced level workshop seminar in art disciplines.	Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair.		Acad	L+L 3.0 6.0 6.0	T
ART295BA	2018 Fall	Art Workshop/Seminar: Sculpture		Advanced level workshop seminar in art disciplines.	Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair.		Acad	L+L 1.0 2.0 2.0	T
ART295BC	2018 Fall	Art Workshop/Seminar: Sculpture		Advanced level workshop seminar in art disciplines.	Prerequisites: Minimum of three (3) credits		Acad	L+L 3.0 6.0 6.0	T

					introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair.				
ART295CA	2018 Fall	Art Workshop/Seminar: Life Drawing		Advanced level workshop seminar in art disciplines	Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair.		Acad	L+L 1.0 2.0 2.0	T
ART295DA	2018 Fall	Art Workshop/Seminar: Photography		Advanced level workshop seminar in art disciplines.	Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair.		Acad	L+L 1.0 2.0 2.0	T
ART295DB	2018 Fall	Art Workshop/Seminar: Photography		Advanced level workshop seminar in art disciplines.	Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair.		Acad	L+L 2.0 4.0 4.0	T
ART295DC	2018 Fall	Art Workshop/Seminar: Photography		Advanced-level workshop seminar in art disciplines.	Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair.		Acad	L+L 3.0 6.0 6.0	T
ART295EA	2018 Fall	Art Workshop/Seminar: Painting		Advanced level workshop seminar in art disciplines.	Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair.		Acad	L+L 1.0 2.0 2.0	T

ART295EC	2018 Fall	Art Workshop/Seminar: Painting		Advanced level workshop seminar in art disciplines.	Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair.		Acad	L+L 3.0 6.0 6.0	T
ART295GA	2018 Fall	Art Workshop/Seminar: Ceramics		Advanced level workshop seminar in art disciplines.	Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair.		Acad	L+L 1.0 2.0 2.0	T
ART295GB	2018 Fall	Art Workshop/Seminar: Ceramics		Advanced level workshop seminar in art disciplines.	Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair.		Acad	L+L 2.0 4.0 4.0	T
ART295GC	2018 Fall	Art Workshop/Seminar: Ceramics		Advanced level workshop seminar in art disciplines.	Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair.		Acad	L+L 3.0 6.0 6.0	T
ART295HC	2018 Fall	Art Workshop/Seminar: Mixed Media		Advanced level workshop seminar in art disciplines.	Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair.		Acad	L+L 3.0 6.0 6.0	T
ART295LA	2018 Fall	Art Workshop/Seminar: Glazing Techniques		Advanced level workshop seminar in art disciplines	Prerequisites: Permission of Instructor.		Acad	L+L 1.0 2.0 2.0	T
ART295LB	2018 Fall	Art Workshop/Seminar: Glazing Techniques		Advanced level workshop seminar in art disciplines	Prerequisites: Permission of Instructor.		Acad	L+L 2.0 4.0 4.0	T
ART295LC	2018 Fall	Art Workshop/Seminar: Glazing Techniques		Advanced level workshop seminar in art disciplines	Prerequisites: Permission of Instructor.		Acad	L+L 3.0 6.0 6.0	T

ART295MC	2018 Fall	Art Workshop/Seminar: Clay Bodies		Advanced level workshop seminar in art disciplines	Prerequisites: Permission of Instructor.		Acad	L+L 3.0 6.0 6.0	T
ART295NA	2018 Fall	Art Workshop/Seminar: Glass Blowing		Advanced level workshop seminar in art disciplines.	Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair.	ART295NA may be repeated for a total of five (5) credits.	Acad	L+L 1.0 2.0 2.0	T
ASB100	2011 Fall	Introduction to Global Health		The study of human health patterns at an international and local scale. Focus on pressing global health challenges that the world faces today are examined from a broad social, ecological, and cultural context.	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
ASB102	2017 Spring	Introduction to Cultural Anthropology		Principles of cultural anthropology, with illustrative materials from a variety of cultures. The nature of culture; social, political, and economic systems; religion, aesthetics and language.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
ASB202	2017 Spring	Ethnic Relations in the United States	AFR202 CCS202	Basic concepts and processes, including historic overview, of interethnic relations in the United States: culture, race, ethnicity, ethnocentrism, prejudice, discrimination, racism, assimilation, acculturation, and individual and group responses to interethnic contact. Cultural knowledge and intercultural communication skills and perspectives as fundamental tools for successful management of social relations in a multicultural world.	Prerequisites: None.	Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Historical Awareness - [H] General Education Designation: Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S
ASB211	2024 Fall	Women Across Cultures		Cross-cultural analysis of the economic, social, political, and	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S

				religious factors that affect women's status in traditional and modern societies.					
ASB214	2012 Summer I	Magic, Witchcraft and Healing: An Introduction to Comparative Religion		Origins, elements, and forms of religion; a comparative survey of religious beliefs, myths, rituals and symbolism including magic, witchcraft and healing as practiced in selected regions of the world; the place of religion in the total culture	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
ASB220	2006 Fall	Anthropology Goes to the Movies		Archaeology and anthropology through the lens of popular films of the 20th and 21st Century. Explores the popularity of ancient humans as a topic for film ventures and how accurately they are portrayed. Provides the student with a basic knowledge of anthropology and offers film images of anthropologists and archaeologists and the practice of archaeology and anthropology. Analyzes accuracy of films depicting culture and our human past.	Prerequisites: None.	Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU]	Acad	LEC 3.0 3.0 3.0	S
ASB222	2018 Fall	Buried Cities and Lost Tribes: Old World		Introduction to archaeology through discoveries and the researchers who made them. Emphasis on methods of archaeological fieldwork and what these discoveries reveal about humanity, including the nature of archaeological inquiry, the development of human social groups, the changing role of religion in evolving societies, the origins of agriculture, the origins of settled lifeways, the rise of cities and complex societies, political strife across different cultures and the forces which	Prerequisites: None.	Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Historical Awareness - [H] General Education Designation: Humanities, Arts and Design - [HU] General Education Designation: Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S

				tend to fragment societies. Examples drawn from Africa, Asia, Europe, the Pacific Islands, and Australia					
ASB223	2014 Summer	Buried Cities and Lost Tribes: New World		Introduction to archaeology through discoveries and the researchers who made them. Emphasis on methods of archaeological fieldwork and what these discoveries reveal about humanity, including the nature of archaeological inquiry, the development of human social groups, the changing role of religion in evolving societies, the origins of agriculture, the origins of settled lifeways, the rise of cities and complex societies, political strife across different cultures and the forces which fragment societies. Examples drawn from North America, Central America, and South America.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
ASB226	2012 Spring	Human Impacts on Ancient Environments		Interrelationship between humans and their environments, using archaeological data and case studies beginning with early hominids. Uses of research to identify environmental change and distinguish between climatic and human-induced global change. Explores ways in which prehistoric people caused and responded to environmental changes	Prerequisites: None.	Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S
ASB230	1995 Fall	Principles of Archaeology		Introduction to archaeological methods and theory	Prerequisites: None.	Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S
ASB231	2018 Fall	Archaeological Field Methods		Excavation of an archaeological site; recording and interpreting data collected during the field experience. Overview of the cultures	Prerequisites: None.	Course Attribute(s): General Education Designation: Natural Sciences (General) - [SG]	Acad	L+L 4.0 6.0 6.0	T

				concerned; contemporary issues in archaeology.					
ASB234	2024 Fall	Art and Archaeology of Ancient Egypt		Introduction to the major social, political, religious and economic institutions of Ancient Egypt. The historical events and people that shaped Egyptian civilization.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
ASB235	2024 Fall	Southwest Archaeology		Anthropological perspective and comparative study of the cultures of prehistoric native peoples of the North American southwest.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
ASB245	2012 Summer I	Indians of the Southwest		Comparative study of the cultures, including the histories and present status, of Indians of the Southwest	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
ASB252	2014 Summer	Sports and Culture		Cross-cultural examination of symbolic and social dimensions of sports, past and present.	Prerequisites: None.	General Education Designation: Global Awareness - [G] General Education Designation: Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S
ASB253	2011 Spring	Death and Dying Across Cultures		Responses to death and dying in cultures around the world. Explanations for particular cultural responses to death and dying. Examples drawn from ancient and contemporary cultures	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
ASB282AA	2013 Fall	Service-Learning Experience in Anthropology		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	ASB282AA 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
ASB282AB	2013 Fall	Service-Learning Experience in Anthropology		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	ASB282AB 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
ASB282AC	2013 Fall	Service-Learning Experience in Anthropology		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	ASB282AC 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
ASB298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0	Z

				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. COMMON COMPETENCY COURSE					
ASB298AB	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0	Z
ASB298AC	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0	Z

ASD100	2012 Spring	Foundations of Addictions and Substance Use Disorders		Introduction to the foundations of the alcohol and drug abuse rehabilitation field. Emphasis on the roles and responsibilities of the addictions counselor, ethical issues, pharmacology, family dynamics, dual diagnosis, intervention techniques, self-help groups, levels of care, symptom identification, and conducting alcohol/drug histories. Interactive work stressed.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
ASD102	2012 Spring	Communication Skills in Treating Addiction		Further examination and refinement of communication and beginning professional counseling skills as they relate to the addicted client and family members. Emphasis on practicing the application of these skills to various situations associated with treatment planning. Recordkeeping/documentation skills emphasized.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
ASD110	2012 Spring	Pharmacology of Substances of Abuse and Dependency		Exploration of the pharmacology of substance of abuse and dependency. Examines the effects of psychopharmacological chemicals on human physiology. Emphasis on identification and management of substances of abuse and dependency.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
ASD120	2015 Fall	Professional Ethics in Addictions and Substance Use Disorders		Exploration of topics relative to the professional and ethical development of the addictions and substance use disorders counselor, including codes of ethics, confidentiality laws, professionalism and boundary issues, and the meeting of individual counselor needs within the field.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S

ASD145	2012 Spring	AIDS and Addiction		Exploration of AIDS and its relationship to addiction. Emphasis on myths and realities of AIDS, personal values, feelings, and limitations and treatment goals.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
ASD146	2020 Spring	Peer Support Specialist		Introduction to the role and foundational responsibilities of a peer support specialist in the field of addictions and substance use. Explores basic pharmacology, ethics, case management, and crisis management. Recovery-Oriented Systems of Care (ROSC) is emphasized.	Prerequisites: None. Corequisites: ASD147.	ASD146 has not been approved by any state's Department of Health Services / Department of Behavioral Services (DHS) and may not lead to certification as a Peer Support Specialist/Recovery Support Specialist by DHS. Completion of ASD146 and ASD147 may lead to certification as a National Certified Peer Recovery Support Specialist by the National Certification Commission for Addiction Professionals (NCC AP) or in Peer Recovery by the International Certification & Reciprocity Consortium (IC&RC).	Occ	LEC 4.0 4.0 4.0	S
ASD147	2020 Spring	Peer Support Specialist Practicum		Peer support specialist preparation related to addictions and substance use disorders. Opportunity for students to use their developed knowledge and skills in an applied setting with supervision.	Prerequisites: None. Corequisites: ASD146.	ASD147 requires completion of 200 hours of practice experience. Course has not been approved by any state's Department of Health Services / Department of Behavioral Services (DHS) and may not lead to certification as a Peer Support Specialist/Recovery Support Specialist by DHS. Completion of ASD146 and ASD147 may lead to certification as a National Certified Peer Recovery Support Specialist by the National Certification Commission for Addiction Professionals (NCC AP) or in Peer Recovery by the International Certification &	Occ	LAB 3.0 5.0 5.0	T

						Reciprocity Consortium (IC&RC).			
ASD148	2020 Spring	Introduction to the Science of Prevention		Overview of the science underlying evidence-based prevention interventions and strategies and the effective application of these approaches in prevention practice.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
ASD149	2020 Spring	Physiology and Pharmacology for Prevention		Overview of the physiology and pharmacology of psychoactive substances and their effects on the brain to affect mood, cognition, and behavior and the consequences of such use on the individual, family, and community.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
ASD150	2012 Spring	Principles of Self-Help Groups		Overview of the fundamental principles, concepts and historical antecedents of the various self-help groups. Emphasis on the self-help groups of Alcoholics Anonymous, Al-anon, Alateen, Narcotics Anonymous, Co- dependents Anonymous, and Adult Children of Alcoholics.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
ASD151	2020 Spring	Prevention Interventions and Policies		Overview of primary evaluation methods used to measure evidence-based prevention interventions and gives guidance in applying them to "real-world" prevention settings.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
ASD152	2020 Spring	Family-Based Prevention Interventions		Overview of the family as the primary socialization agent of children, the science behind family-based prevention interventions, and the application of such evidence- based approaches to help prevent the onset of substance use in children.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
ASD153	2020 Spring	School-Based Prevention Interventions		Overview of the role of the school in society, the science	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S

				behind school-based prevention interventions, and the application of such evidence-based approaches in school settings around the world.					
ASD154	2020 Spring	Workplace-Based Prevention Interventions		Overview of the role of work and the workplace in society, how stressors and other work-related influences affect risk of substance use, the science behind workplace prevention interventions, and the application of such evidence-based approaches in work settings around the world.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
ASD155	2020 Spring	Environment-Based Prevention Interventions		Overview of the science underlying evidence-based substance use prevention using environmental interventions, involving policy, and community-wide strategies.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
ASD156	2020 Spring	Media-Based Prevention Interventions		Overview of the science underlying the use of media for substance use prevention interventions.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
ASD157	2020 Spring	Community-Based Prevention Implementation Systems		Overview of the science underlying the systems approach to prevention interventions and guidance for developing such approaches, as well as exemplars of evidence-based drug use prevention systems.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
ASD158	2020 Spring	Gambling Disorders Prevention		Overview of gambling disorders prevention. Emphasis on current prevention research. Also includes information on gambling prevention resources.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
ASD159	2020 Spring	Adolescent Substance Use Prevention		Adolescent substance use prevention issues. Emphasis on current and developing adolescent prevention	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S

				information. Covers common adolescent substance use characteristics and prevention strategies.					
ASD160	2020 Spring	Behavioral Addictions Prevention		Overview of behavioral addictions prevention issues. Emphasis on current research. Also includes community resources information.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
ASD161	2012 Spring	Beginning Clinical Documentation Skills		Overview of addictions and substance use disorders counseling, interviewing, and documentation. Includes record keeping and documentation skills. Alcohol and drug abuse counselor core functions emphasized.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
ASD165	2012 Spring	Theories and Techniques in the Treatment of Addictions		Overview of counseling theories including the application to addictions and substance use disorders groups. Recordkeeping skills and beginning counseling skills emphasized.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
ASD220	2012 Spring	Family Dynamics and Addiction		Analysis of the impact of addictions on all the members of a family. Interviewing, assessment and therapeutic approaches particularly useful for these family members presented.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
ASD226	2012 Spring	Counseling Multicultural and Diverse Populations		Exploration of influences of culture and diversity on addictions and substance abuse. Emphasis on recovery and therapeutic relationships.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
ASD236	2012 Spring	Relapse, Recovery, and Addiction		Review of the bio-psycho-social processes of recovery and relapse in addictions. Exploration into those factors that both contribute to and inhibit recovery and relapse.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
ASD245	2012 Spring	Co-Occurring Disorders		Examines co-occurring disorders from the bio-psycho-social model. Includes causes,	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S

				consequences, assessment, and treatment, emphasizing the psychoeducational model of treatment.					
ASD250	2012 Spring	Group Interventions		Focus on group dynamics and group process as they relate to addictions and substance use disorders. Exploration of group developmental stages, family intervention models, various counseling approaches/techniques and their application to therapeutic, education and family groups.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
ASD275	2012 Spring	Advanced Theory and Techniques in the Treatment of Addiction Disorders		Capstone course for level two certificate in addictions and substance use disorders program. Focus on counseling theories and techniques used by counselors as they relate to the client and family members.	Prerequisites: A grade of C or better in ASD220, ASD226, ASD245 and ASD250 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0	S
ASD280	2018 Fall	Addictions and Substance Use Disorders Practicum		Opportunity for advanced students to use his/her developed knowledge and skills in an applied setting with supervision.	Prerequisites: A grade of C or better in ASD275 or permission of Department or Division.	ASD280 may be repeated for a total of twelve (12) credit hours.	Occ	LAB 6.0 18.0 18.0	T
ASD285	2012 Spring	Addictions Seminar		Special topics in addictions and substance use disorders with an emphasis on current issues not covered in other addictions and substance use disorders courses.	Prerequisites: None.	ASD285 may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0	S
ASD285AA	2012 Spring	Treatment for Stimulant Use Disorders Seminar		Stimulant use disorder treatment issues. Emphasis on current and developing treatment information. Covers common stimulant abuse characteristics and treatment strategies. Also includes community resource information.	Prerequisites: None.	ASD285AA may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0	S
ASD285BB	2012 Spring	Adolescent Substance Abuse Treatment Seminar		Adolescent substance abuse treatment issues. Emphasis on current and developing treatment information. Covers	Prerequisites: None.	ASD285BB may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0	S

				common adolescent substance abuse characteristics and treatment strategies. Also includes community resource information.					
ASD285CC	2012 Spring	Addiction Review Seminar		A brief review of current addiction issues. Emphasis on current and developing treatment information. Covers common alcohol and drug addiction characteristics and treatment strategies. Also includes community resource information.	Prerequisites: None.	ASD285CC may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0	S
ASD285DD	2012 Spring	Motivation for Change in Substance Abuse Treatment Seminar		Issues regarding motivational change in substance abuse treatment. Emphasis on current and developing treatment information. Covers common motivational change techniques. Also includes community resource information.	Prerequisites: None.	ASD285DD may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0	S
ASD285EE	2012 Spring	Domestic Violence and Substance Abuse Seminar		Domestic violence and substance abuse treatment issues. Emphasis on current and developing domestic violence and substance abuse information. Covers techniques, strategies, and treatment modalities for domestic violence and substance abuse patients. Also includes community resource information.	Prerequisites: None.	ASD285EE may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0	S
ASD285FF	2012 Spring	Street Drugs Seminar		Street drug issues. Emphasis on current and developing street drug information. Covers techniques strategies and treatment modalities for street drug abuse patients. Also includes community resource information.	Prerequisites: None.	ASD285FF may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0	S

ASD285GG	2012 Spring	Addictive and Medical Plants Seminar		Addictive and medical plant issues. Emphasis on current and developing addictive and medical plant information. Covers addictive and medical plant typology. Also includes community resource information.	Prerequisites: None.	ASD285GG may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0	S
ASD285HH	2012 Spring	Intervention and Treatment for Addictions and Substance Use Disorders Seminar		Brief interventions and treatment for addictions and substance use disorders. Emphasis on current and developing intervention and treatment information. Covers treatment and intervention techniques for use with addictions and substance use disorders. Also includes community resource information.	Prerequisites: None.	ASD285HH may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0	S
ASD285II	2012 Spring	Multicultural Aspects		Multicultural aspects of counseling in addictions and substance use disorders. Emphasis on current and developing treatment information. Covers common aspects of multicultural characteristics and treatment strategies. Also explores ethical counselor/client relationships.	Prerequisites: None.	ASD285II may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0	S
ASD285JJ	2012 Spring	Clinical Supervision Training of Supervisors		Clinical supervision training of supervisor issues. Emphasis on current and developing treatment information. Also includes community resource information.	Prerequisites: None.	ASD285JJ may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0	S
ASD285KK	2012 Spring	Recovery-Oriented Systems of Care Seminar		Overview of recovery-oriented systems of care programs. Covers research, development, and characteristics of programs in addition to applicable federal mandates.	Prerequisites: None.	ASD285KK may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0	S
ASD285LL	2012 Spring	Gambling Addiction Seminar		A brief review of gambling addiction issues. Emphasis on	Prerequisites: None.	ASD285LL may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0	S

				current research, intervention, and treatments in the field. Also includes community resources information.					
ASD285MM	2012 Spring	Sexual Addiction Seminar		A brief review of sexual addiction issues. Emphasis on current research, intervention, and treatments in the field. Also includes community resources information.	Prerequisites: Student must be 18 years or older.	ASD285MM may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0	S
ASD285NN	2016 Fall	Eating Disorders Seminar		An overview of issues associated with eating disorders. Emphasis on current research, intervention, prevention, and treatments in the field. Also includes community resources information.	Prerequisites: None.	ASD285NN may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0	S
ASD285OO	2016 Fall	Eating Disorders: Special Considerations and Populations Seminar		A review of issues associated with eating disorders within diverse populations. Emphasis on multicultural populations, current research, intervention, prevention, and treatments in the field. Also includes community resources information.	Prerequisites: None.	ASD285OO may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0	S
ASD285PP	2016 Fall	Eating Disorders: Conceptualization and Treatment Seminar		A review of issues associated with eating disorders. Emphasis on current research, intervention, prevention, and treatments in the field. Also includes community resources information.	Prerequisites: None.	ASD285PP may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0	S
ASD285QQ	2016 Fall	Behavioral Addictions Seminar		A review of issues associated with behavioral addictions. Emphasis on current research, intervention, prevention, and treatments in the field. Also includes community resources information.	Prerequisites: None.	ASD285QQ may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0	S
ASD285RR	2016 Fall	Behavioral Addictions Seminar: Internet-Related Addictions		A review of issues associated with internet-based behavioral addictions. Emphasis on	Prerequisites: None.	ASD285RR may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0	S

				diagnostic descriptions and considerations for internet-based addictions including current research, intervention, prevention, and treatments in the field. Also includes community resources information.					
ASD285SS	2017 Spring	Marijuana Addiction Seminar		An overview of issues associated with marijuana addiction. Emphasis on current research, intervention, prevention, and treatments in the field. Also includes community resources information.	Prerequisites: None.	ASD285SS may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0	S
ASD285TT	2017 Spring	Opioid Addiction Seminar		An overview of issues associated with opioid addiction. Emphasis on current research, intervention, prevention, and treatments in the field. Also includes community resources information.	Prerequisites: None.	ASD285TT may be repeated for a total of four (4) credit hours.	Occ	LEC 1.0 1.0 1.0	S
ASD295	2016 Summer	Advanced Foundations: Addictions and Substance Use Disorders Counselor Licensing/Certification Exams		Review for individuals preparing for addictions and substance use disorders counselor licensing and/or certification exams. Emphasis on ethics, treatment, pharmacology, family issues, and self-help groups.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
ASD296WA	2012 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 student's academic or career goals (student's present job may qualify); or permission of instructor. Corequisites: Must be concurrently enrolled in		Occ	LAB 1.0 5.0 0.0	Z

					at least one class which is related to student's major or career interest or with permission of the instructor.				
ASD296WB	2012 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 student's academic or career goals (student's present job may qualify); or permission of instructor. Corequisites: Must be concurrently enrolled 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
ASD296WC	2012 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 student's academic or career goals (student's present job may qualify); or permission of instructor. Corequisites: Must be concurrently enrolled 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
ASD296WD	2012 Spring	Cooperative Education		Work-college experiences that involve the combined efforts of educators and employers to	Prerequisites: Completion of at least twelve (12) college		Occ	LAB 4.0 20.0 0.0	Z

				accomplish an outcome related to the career objectives of the students.	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. Corequisites: Must be concurrently enrolled in at least one class which is related to student's major or career interest or with permission of the instructor.				
ASD298AA	2012 Spring	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
ASD298AB	2012 Spring	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

ASD298AC	2012 Spring	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
ASE100	2023 Fall	Introduction to Automotive Service		Introduction to the standards of the automotive industry. Includes an overview of the major automotive systems, safety practices, workplace habits, tools, and equipment.	Prerequisites: None.		Occ	L+L 2.0 4.0 4.0	T
ASE102	2019 Fall	Automotive Express Service		Use of standard service publications; performance of commonly used service operations following published service procedures; emphasis on good attitude development and safety habits about automotive service.	Prerequisites: None.		Occ	L+L 2.0 4.0 4.0	T
ASE102AU	2019 Fall	Automotive Express Service		Use of standard service publications; performance of commonly used service operations following published service procedures; emphasis on good attitude development and safety habits about automotive service.	Prerequisites: None.		Occ	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0	T
ASE110	2023 Fall	Engine Fundamentals		Diagnosis, disassembly, repair and reassembly of automotive internal combustion engines.	Prerequisites: None.		Occ	L+L 4.0 7.5 7.5	T
ASE110AU	2023 Fall	Engine Fundamentals		Diagnosis, disassembly, repair and reassembly of automotive internal combustion engines.	Prerequisites: None.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 5.5 5.5	T

ASE111	2019 Fall	Engine Diagnosis and Inspection		Diagnosis and inspection of automotive internal combustion engines.	Prerequisites: None.		Occ	L+L 2.0 4.0 4.0	T
ASE111AU	2019 Fall	Engine Diagnosis and Inspection		Diagnosis and inspection of automotive internal combustion engines.	Prerequisites: None.		Occ	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0	T
ASE120	2023 Fall	Automatic Transmission and Transaxle		Principles of automotive operation, servicing and repair procedures for automatic transmissions/transaxles; includes diagnostics and testing of mechanical, electrical, and hydraulic components.	Prerequisites: None.		Occ	L+L 4.0 7.5 7.5	T
ASE120AU	2023 Fall	Automatic Transmission and Transaxle		Principles of automotive operation, servicing and repair procedures for automatic transmissions/transaxles; includes diagnostics and testing of mechanical, electrical, and hydraulic components.	Prerequisites: None.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 5.5 5.5	T
ASE130	2023 Fall	Manual Drive Trains and Axles		Operation, diagnosis, service, and repair of the automotive powertrain. Includes manual transmissions/transaxles, clutches, drive axles, driveshafts, differentials, four-wheel drive, and all-wheel drive.	Prerequisites: None.		Occ	L+L 4.0 7.5 7.5	T
ASE130AU	2023 Fall	Manual Drive Trains and Axles		Operation, diagnosis, service, and repair of the automotive powertrain. Includes manual transmissions/transaxles, clutches, drive axles, driveshafts, differentials, four-wheel drive, and all-wheel drive.	Prerequisites: None.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 5.5 5.5	T
ASE140	2023 Fall	Automotive Steering, Suspension and Alignment		Principles of automotive suspension and steering systems. Diagnosis, service, and repair procedures emphasis on four-wheel alignment.	Prerequisites: None.		Occ	L+L 4.0 7.5 7.5	T

ASE140AU	2023 Fall	Automotive Steering, Suspension and Alignment		Principles of automotive suspension and steering systems. Diagnosis, service, and repair procedures emphasis on four-wheel alignment.	Prerequisites: None.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 5.5 5.5	T
ASE141	2019 Fall	Steering, Suspension and Pre-Alignment		Principles and operation of automotive suspension and steering systems.	Prerequisites: None.		Occ	L+L 2.0 4.0 4.0	T
ASE141AU	2019 Fall	Steering, Suspension and Pre-Alignment		Principles and operation of automotive suspension and steering systems.	Prerequisites: None.		Occ	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0	T
ASE150	2023 Fall	Automotive Brake Systems		Operation, diagnosis, service, and repair of automotive brake systems.	Prerequisites: None.		Occ	L+L 4.0 7.5 7.5	T
ASE150AU	2023 Fall	Automotive Brake Systems		Operation, diagnosis, service, and repair of automotive brake systems.	Prerequisites: None.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 5.5 5.5	T
ASE151	2019 Fall	Introduction to Brake Systems		Fundamentals and operation of automotive braking systems. Includes training in service, testing, and repair of basic brake and brake-related components.	Prerequisites: None.		Occ	L+L 2.0 4.0 4.0	T
ASE151AU	2019 Fall	Introduction to Brake Systems		Fundamentals and operation of automotive braking systems. Includes training in service, testing, and repair of basic brake and brake-related components.	Prerequisites: None.		Occ	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0	T
ASE160	2023 Fall	Introduction to Automotive Electrical		Automotive electrical systems foundations. Emphasis on testing and diagnosis of automotive battery, starting, and charging systems.	Prerequisites: None.		Occ	L+L 4.0 7.5 7.5	T
ASE160AU	2023 Fall	Introduction to Automotive Electrical		Automotive electrical systems foundations. Emphasis on testing and diagnosis of automotive battery, starting, and charging systems.	Prerequisites: None.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 5.5 5.5	T
ASE161	2019 Fall	Basic Automotive Electrical/Electronics		The basic principles of automotive electricity and electrical systems.	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0	T

ASE161AU	2019 Fall	Basic Automotive Electrical/Electronics		The basic principles of automotive electricity and electrical systems.	Prerequisites: None.		Occ	LEC 2.0 1.0 1.0 LAB 0.0 2.0 2.0	T
ASE162	2019 Fall	Automotive Battery, Starting and Charging Systems		The principles of operation, testing and diagnosis of automotive battery, starting and charging systems.	Prerequisites: A grade of C or better in ASE161, or permission of Instructor.		Occ	L+L 2.0 3.0 3.0	T
ASE162AU	2019 Fall	Automotive Battery, Starting and Charging Systems		The principles of operation, testing and diagnosis of automotive battery, starting and charging systems.	Prerequisites: A grade of C or better in ASE161, or permission of Instructor.		Occ	LEC 2.0 1.0 1.0 LAB 0.0 2.0 2.0	T
ASE170	2023 Fall	Automotive Heating, Ventilation and Air Conditioning Systems		Theory and operation of automotive heating, ventilation and air conditioning systems. Includes diagnosis, service and repair of these systems.	Prerequisites: None.		Occ	L+L 4.0 7.5 7.5	T
ASE170AU	2023 Fall	Automotive Heating, Ventilation and Air Conditioning Systems		Theory and operation of automotive heating, ventilation and air conditioning systems. Diagnosis, service and repair of these systems.	Prerequisites: None.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 5.5 5.5	T
ASE180	2023 Fall	Introduction to Engine Management		Introduction to automotive engine management. Includes the construction and operating principles of automotive internal combustion engines. Focus on operation and diagnosis of fuel systems, ignition systems, lubrication, and cooling systems.	Prerequisites: None.		Occ	L+L 4.0 7.5 7.5	T
ASE180AU	2023 Fall	Introduction to Engine Management		Introduction to automotive engine management. Includes the construction and operating principles of automotive internal combustion engines. Focus on operation and diagnosis of fuel systems, ignition systems, lubrication, and cooling systems.	Prerequisites: None.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 5.5 5.5	T
ASE181	2019 Fall	Introduction to Engine Performance		An introductory course in automotive engine performance as it relates to the construction and operating principles of automotive internal combustion engines,	Prerequisites: None.		Occ	L+L 2.0 4.0 4.0	T

				fuel systems, ignition systems, and the related lubrication and cooling systems.					
ASE181AU	2019 Fall	Introduction to Engine Performance		An introductory course in automotive engine performance as it relates to the construction and operating principles of automotive internal combustion engines, fuel systems, ignition systems, and the related lubrication and cooling systems.	Prerequisites: None.		Occ	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0	T
ASE182	2019 Fall	Fundamentals of Automotive Fuel/Air and Ignition Systems		The theory and fundamentals of automotive fuel/air delivery and ignition systems. The proper diagnosis and repair of the fuel/air delivery and ignition systems.	Prerequisites: A grade of C or better in ASE181, or permission of Instructor.		Occ	L+L 2.0 4.0 4.0	T
ASE182AU	2019 Fall	Fundamentals of Automotive Fuel/Air and Ignition Systems		The theory and fundamentals of automotive fuel/air delivery and ignition systems. The proper diagnosis and repair of the fuel/air delivery and ignition systems.	Prerequisites: A grade of C or better in ASE181, or permission of Instructor.		Occ	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0	T
ASE240	2023 Fall	Advanced Driver Assistance Systems		Principles of Advanced Driver Assistance Systems (ADAS). Diagnosis, service, and repair procedures.	Prerequisites: A grade of C or better in ASE140, or ASE140AU, or permission of Instructor.		Occ	L+L 2.0 4.0 4.0	T
ASE241	2019 Fall	Advanced Steering, Suspension and Alignment		Advanced automotive principles of suspension and steering systems. Diagnosis, service and repair procedures, with emphasis on four-wheel alignment.	Prerequisites: A grade of C or better in ASE141, or permission of Instructor.		Occ	L+L 2.0 4.0 4.0	T
ASE241AU	2019 Fall	Advanced Steering, Suspension and Alignment		Advanced automotive principles of suspension and steering systems. Diagnosis, service and repair procedures, with emphasis on four-wheel alignment.	Prerequisites: A grade of C or better in ASE141, or permission of Instructor.		Occ	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0	T
ASE251	2019 Fall	Advanced Brake Systems		The operation, diagnosis, service and repair of advanced automotive brake systems.	Prerequisites: A grade of C or better in ASE151, or permission of Instructor.		Occ	L+L 2.0 4.0 4.0	T

ASE251AU	2019 Fall	Advanced Brake Systems		The operation, diagnosis, service and repair of advanced automotive brake systems.	Prerequisites: A grade of C or better in ASE151, or permission of Instructor.		Occ	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0	T
ASE260	2023 Fall	Advanced Automotive Electrical		Advanced principles of automotive electronics.	Prerequisites: A grade of C or better in ASE160, or ASE160AU, or permission of Instructor.		Occ	L+L 4.0 7.5 7.5	T
ASE260AU	2023 Fall	Advanced Automotive Electrical		Advanced principles of automotive electronics.	Prerequisites: A grade of C or better in ASE160, or ASE160AU, or permission of Instructor.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 5.5 5.5	T
ASE261	2019 Fall	Automotive Electrical Diagnostics and Repair		Principles of automotive electrical diagnostics and repair.	Prerequisites: A grade of C or better in ASE162, or permission of Instructor.		Occ	L+L 2.0 4.0 4.0	T
ASE261AU	2019 Fall	Automotive Electrical Diagnostics and Repair		Principles of automotive electrical diagnostics and repair.	Prerequisites: A grade of C or better in ASE162, or permission of Instructor.		Occ	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0	T
ASE262	2019 Fall	Automotive Electronic Control Systems		Principles and operation of automotive electronics and electronic control systems.	Prerequisites: A grade of C or better in ASE261, or permission of Instructor.		Occ	L+L 2.0 4.0 4.0	T
ASE262AU	2019 Fall	Automotive Electronic Control Systems		Principles and operation of automotive electronics and electronic control systems.	Prerequisites: A grade of C or better in ASE261, or permission of Instructor.		Occ	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0	T
ASE263	2019 Fall	Hybrid Vehicle Overview		Automotive hybrid vehicle design and operation. Safety practices as suggested by manufacturers for servicing hybrid vehicle.	Prerequisites: A grade of C or better in ASE101.		Occ	L+L 2.0 4.0 4.0	T
ASE264	2019 Fall	Automotive Electrical/Electronic Systems III		Designed for the advanced automotive student, this course covers the automotive computer, multiple computer systems, and automotive computer networks.	Prerequisites: A grade of C or better in ASE161 and ASE162, or permission of Instructor.		Occ	L+L 3.0 5.0 5.0	T
ASE265	2023 Fall	Introduction to Electric and Hybrid Vehicles		Principles of electric drive vehicles, including electric drive, hybrid, and fuel cell electric vehicles.	Prerequisites: A grade of C or better in ASE260, or permission of Instructor.		Occ	L+L 2.0 4.0 4.0	T

ASE266	2019 Fall	Electric/Hybrid Vehicle High Voltage Batteries		This course covers the safety, operation, testing, diagnosis, and repair of electrical and hybrid high voltage batteries.	Prerequisites: A grade of C or better in ASE161 and ASE162, or permission of Instructor.		Occ	L+L 1.0 2.0 2.0	T
ASE267	2019 Fall	Electric Vehicle Operation and Diagnosis		Covers the operation and diagnosis of electric/hybrid vehicles.	Prerequisites: A grade of C or better in ASE161 and ASE162, or permission of Instructor.		Occ	L+L 3.0 5.0 5.0	T
ASE280	2023 Fall	Engine Management		Diagnostic concepts of advanced engine management. Operation and diagnosis of engine management control systems, communication networks, and vehicle emissions.	Prerequisites: None.		Occ	L+L 4.0 7.5 7.5	T
ASE280AU	2023 Fall	Engine Management		Diagnostic concepts of advanced engine management. Operation and diagnosis of engine management control systems, communication networks, and vehicle emissions.	Prerequisites: None.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 5.5 5.5	T
ASE281	2019 Fall	Computerized Automotive Engine Control Systems		The theory of computerized engine control systems as they relate to engine performance and emissions control.	Prerequisites: A grade of C or better in ASE261 and ASE182, or permission of Instructor.		Occ	L+L 2.0 4.0 4.0	T
ASE281AU	2019 Fall	Computerized Automotive Engine Control Systems		The theory of computerized engine control systems as they relate to engine performance and emissions control.	Prerequisites: A grade of C or better in ASE182, or permission of Instructor.		Occ	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0	T
ASE282	2019 Fall	Advanced Engine Performance Diagnosis		Diagnosis and repair of emission and engine control systems. Emphasizes the proper diagnosis, documentation, and repair of systems faults.	Prerequisites: A grade of C or better in ASE261 and ASE281, or permission of Instructor.		Occ	L+L 2.0 4.0 4.0	T
ASE282AU	2019 Fall	Advanced Engine Performance Diagnosis		Diagnosis and repair of emission and engine control systems. Emphasizes the proper diagnosis, documentation, and repair of systems faults.	Prerequisites: A grade of C or better in ASE261 and ASE281, or permission of Instructor.		Occ	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0	T

ASE290AA	2020 Fall	Automotive Service Internship		Automotive work experience in the automotive service industry.	Prerequisites: Permission of Department or Division.	80 hours of designated work per credit. Maximum of four (4) credits can be earned by taking any combination of ASE290AA, and/or ASE290AB, and/or ASE290AC; this combination may include repeats of the same suffixed course(s).	Occ	L+L 1.0 1.0 0.0	C
ASE290AB	2020 Fall	Automotive Service Internship		Automotive work experience in the automotive service industry.	Prerequisites: Permission of Department or Division.	80 hours of designated work per credit. Maximum of four (4) credits can be earned by taking any combination of ASE290AA, and/or ASE290AB, and/or ASE290AC; this combination may include repeats of the same suffixed course(s).	Occ	L+L 2.0 2.0 0.0	C
ASE290AC	2020 Fall	Automotive Service Internship		Automotive work experience in the automotive service industry.	Prerequisites: Permission of Department or Division.	80 hours of designated work per credit.	Occ	L+L 3.0 3.0 0.0	C
ASE296WA	2019 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 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
ASE296WB	2019 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		Occ	LAB 2.0 10.0 0.0	Z

					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.				
ASE296WC	2019 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 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
ASE296WD	2019 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 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 4.0 20.0 0.0	Z

ASE298AA	2019 Fall	Special Projects		An organized and tailored activity around the interests and needs of the individual student. 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
ASE298AB	2019 Fall	Special Projects		An organized and tailored activity around the interests and needs of the individual student. 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
ASE298AC	2019 Fall	Special Projects		An organized and tailored activity around the interests and needs of the individual student. 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
ASL090AA	2020 Fall	Speedy American Sign Language I		Introduction of techniques for communicating with deaf people using American Sign Language (A.S.L.). Expressive and receptive sign skills, manual alphabet, numbers, and basic sign vocabulary.	Prerequisites: None. ASL103 suggested but not required.	ASL090AA may be repeated for a total of five (5) credit hours.	Occ	LEC 1.0 1.0 1.0	S
ASL090AB	2020 Fall	Speedy American Sign Language II		Use American Sign Language (ASL) to converse about feelings, family members, other people, clothing, events according to proper tense, and to count to one hundred.	Prerequisites: A grade of C or better in ASL090AA. Completion of prerequisites within the last three years is required.	ASL090AB may be repeated for a total of five (5) credit hours.	Occ	LEC 1.0 1.0 1.0	S
ASL101	2020 Fall	American Sign Language I		Introduction of principles, methods, and techniques for communicating with deaf people who sign. Development of expressive and receptive sign skills, manual alphabet, numbers, and sign vocabulary. Overview of syntax, grammar,	Prerequisites: None. ASL103 suggested as a corequisite but not required.		Occ	LEC 4.0 4.0 4.0	S

				and culture related to American Sign Language (A.S.L.).					
ASL102	2020 Fall	American Sign Language II		Continued development of knowledge and language skills for communicating with deaf people who sign. Includes numbers, fingerspelling, and culture. Emphasis on enhancement of receptive sign skills and continued development of expressive sign skills. Application of rudimentary, syntactical, and grammatical structure stressed with continued development of sign vocabulary.	Prerequisites: A grade of C or better in ASL101 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Occ	LEC 4.0 4.0 4.0	S
ASL103	2020 Fall	Introduction to the Deaf Community		History and development of American Sign Language (ASL) and English codes. Overview of education for Deaf and Hard of Hearing children. Legal rights and common adaptive devices used by Deaf and Hard of Hearing individuals.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
ASL105	2020 Fall	Survey of the Interpreting Profession		Survey of the field of sign language interpreting. Overview of cultural, historical and sociological framework for the principles, ethics, roles, responsibilities, and standard practices of the interpreting profession.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
ASL110	2020 Fall	Fingerspelling		Introduction to fingerspelling techniques. Focus on methods, theory, and applications on receptive and expressive skills including manual alphabet production and numbers. In addition, skill development in speed, dexterity, clarity, and lexicalized fingerspelling, numeric incorporation,	Prerequisites: A grade of C or better in ASL101 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Occ	LEC 3.0 3.0 3.0	S

				prefixes, suffixes, and polysyllabic words.					
ASL200	2020 Fall	Issues and Resources		Implications of laws pertaining to educational choices and rights of deaf, deaf-blind, and hard of hearing individuals. Local, state, and national organizations, activities, and agencies affecting the deaf community.	Prerequisites: A grade of C or better in ASL102 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Occ	LEC 3.0 3.0 3.0	S
ASL201	2020 Fall	American Sign Language III		Linguistics of American Sign Language (A.S.L.) including non-manual behaviors and signing English idioms with conceptual accuracy. Emphasis on practical application of A.S.L. skills, expanded vocabulary, and cross-cultural communication.	Prerequisites: A grade of C or better in ASL102 or permission of Department or Division. (ENG101 or ENG107) and (CRE101 or equivalent as indicated by assessment) suggested but not required. Completion of prerequisites within the last three years is required.		Occ	LEC 4.0 4.0 4.0	S
ASL202	2020 Fall	American Sign Language IV		Advanced American Sign Language skills including continued vocabulary. Emphasis on conversational techniques in a cross-cultural framework. Continued work on conceptual accurate signing of English idioms and words with multiple meanings.	Prerequisites: A grade of C or better in ASL201 or permission of Department or Division. (ENG101 or ENG107), ASL200, and (CRE101 or equivalent as indicated by assessment) suggested but not required. Completion of prerequisites within the last three years is required.		Occ	LEC 4.0 4.0 4.0	S
ASL203	2020 Fall	American Sign Language V		Advanced study of vocabulary, classifiers, use of space, and grammatical features of American Sign Language (ASL). Includes evaluation of changes that occur in ASL as a living language. Advanced use of	Prerequisites: A grade of C or better in ASL202. Completion of prerequisites within the last three years is required.		Occ	LEC 4.0 4.0 4.0	S

				ASL in demonstrations, reports, and presentations					
ASL204	2020 Fall	Comparative Linguistics: ASL/English		A variety of topics about linguistics of American Sign Language (ASL) and English including phonology, morphology, lexicon, syntax, discourse, and language acquisition. Aspects of using sign language and how visual languages differ and are similar to spoken language.	Prerequisites: A grade of C or better in ASL202. Corequisites: ASL203. Completion of prerequisites within the last three years is required.		Occ	LEC 3.0 3.0 3.0	S
ASL212	2020 Fall	Deaf Culture		Linguistic, social, educational, and political issues in deaf culture. Values and group identity issues as related to heritage and literature. Special emphasis on the cultural and philosophical attitudes shared with other minority groups.	Prerequisites: A grade of C or better in ASL202 or permission of Department or Division. Completion of prerequisites within the last three years is required.		Occ	LEC 3.0 3.0 3.0	S
ASL296WA	2020 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 Instructor. Corequisites: Concurrent in at least one class related to student's major or career interest, or permission of Instructor.		Occ	LAB 1.0 5.0 0.0	Z
ASL296WB	2020 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		Occ	LAB 2.0 10.0 0.0	Z

					career goals (student's present job may qualify), or permission of Instructor. Corequisites: Concurrent in at least one class related to student's major or career interest, or permission of Instructor.				
ASL296WC	2020 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 Instructor. Corequisites: Concurrent in at least one class related to student's major or career interest, or permission of Instructor.		Occ	LAB 3.0 15.0 0.0	Z
ASL296WD	2020 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 Instructor. Corequisites: Concurrent in at least one class related to student's major or career interest, or permission of Instructor.		Occ	LAB 4.0 20.0 0.0	Z

ASL298AA	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
ASL298AB	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
ASL298AC	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

ASM104	2018 Fall	Bones, Stones, and Human Evolution		Study of human evolution and variation; including fossil hominids and their tools, primate anatomy and behavior, human genetics, and the environment and human biology.	Prerequisites: None.	Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] General Education Designation: Natural Sciences (General) - [SG]	Acad	L+L 4.0 5.0 5.0	T
ASM265	2018 Fall	Laboratory Methods in Archaeology		Techniques of artifact. Basic archaeological research techniques; methods of report writing.	Prerequisites: None.	ASM265 may be repeated for a total of eight (8) credits hours Course Attribute(s): General Education Designation: Natural Sciences (General) - [SG]	Acad	L+L 4.0 4.0 4.0	T
ASM275	2018 Fall	Forensic Anthropology	FOR275	Survey of the role of forensic anthropologists, from the crime scene to the courtroom. Course focuses on how skeletal analysis can aid in medicolegal investigations, especially by identifying aspects of the life history of unknown individuals and by reconstructing events that took place at crime scenes. Covers both the legal aspects of forensic practice and the underlying biological basis for evidence obtained from skeletal remains. Examines applications of forensic anthropology in mass disasters, human rights investigations, and the deciphering of historic cases. Lab activities designed to illustrate techniques and principles central to the discipline.	Prerequisites: None.	Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] General Education Designation: Natural Sciences (General) - [SG]	Acad	L+L 4.0 5.0 5.0	T
ASM282AA	2013 Summer I	Service-Learning Experience in Anthropology		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	ASM282AA 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
ASM282AB	2013 Summer I	Service-Learning Experience in Anthropology		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	ASM282AB may be repeated for a total of six (6) credit hours. Standard grading available	Acad	LAB 2.0 2.0 0.0	L

						according to procedures outlined in catalog.			
ASM282AC	2013 Summer I	Service-Learning Experience in Anthropology		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	ASM282AC 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
ASM298AA	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0	Z
ASM298AB	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0	Z
ASM298AC	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	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0	Z

				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. COMMON COMPETENCY COURSE					
AST101	2023 Fall	Survey of Astronomy		Survey of astronomy for the nontechnical student. The history, content, and evolution of the solar system and the universe in general. Astronomical principles and instrumentation. The planets, moons, sun, comets, stars and star formation, galaxies, and cosmology.	Prerequisites: None.	Course Attribute(s): General Education Designation: Natural Sciences (General) - [SG]	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0	T
AST102	2023 Fall	Survey of Astronomy Laboratory		Astronomical observations and exercises designed to familiarize students with the sky, telescopes, and methods used in astronomy.	Prerequisites: A grade of C or better in AST101 and permission of Instructor or Department or Division.	AST102 is a legacy course intended for those students who have previously completed the corresponding lecture course. Current MCCC students should enroll in AST101 only.	Acad	LAB 1.0 3.0 3.0	T
AST106	2019 Spring	Life in the Universe	GLG106	Introduction to the search for life in the universe for the non-science major. Earth's location in space and time, nature of life, light and the spectrum, origin and history of the universe, origin of life on Earth and the possibility of life on other planets.	Prerequisites: A grade of C or better in MAT090 or MAT091 or MAT092 or completion of higher level mathematics course, or satisfactory score on placement exam.	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
AST107	2019 Spring	Life in the Universe Laboratory	GLG107	Astronomy, Biology, and Planetary Science laboratory.	Prerequisites: A grade of C or better in AST/GLG106 and permission of Instructor or Department or Division.	AST/GLG107 is a course intended for those students who have previously completed the corresponding lecture course. Current MCCC students should enroll in AST/GLG106 only.	Acad	LAB 1.0 3.0 3.0	T
AST111	2019 Spring	Introduction to Solar System Astronomy		Introduction to astronomy for the non-science major. The scientific method, properties of light, astronomical instruments, our Solar System	Prerequisites: A grade of C or better in MAT092 or higher, or satisfactory score on district placement exam.	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

				and solar systems around other stars. Includes hands-on astronomical observations and laboratory exercises.					
AST112	2019 Spring	Introduction to Stars, Galaxies, and Cosmology		Introduction to astronomy for the non-science major. Structure and evolution of stars; supernovae, black holes, and quasars; nebulae; star clusters; galaxies; cosmology, including the birth and death of the universe.	Prerequisites: A grade of C or better in MAT092 or higher, or satisfactory score on district placement exam.	AST111 is not a prerequisite for AST112. 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
AST113	2019 Spring	Introduction to Solar System Astronomy Laboratory		Hands-on astronomical observations and exercises to supplement AST111.	Prerequisites: A grade of C or better in AST111 and permission of Instructor or Department or Division.	AST113 is a course intended for those students who have previously completed the corresponding lecture course. Current MCCC students should enroll in AST111 only.	Acad	LAB 1.0 3.0 3.0	T
AST114	2019 Spring	Introduction to Stars, Galaxies, and Cosmology Laboratory		Hands-on astronomical observations and exercises to supplement AST112.	Prerequisites: A grade of C or better in AST112 and permission of Instructor or Department or Division.	AST114 is a course intended for those students who have previously completed the corresponding lecture course. Current MCCC students should enroll in AST112 only.	Acad	LAB 1.0 3.0 3.0	T
AST282AA	2023 Fall	Service-Learning Experience in Astronomy		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	AST282AA 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
AST282AB	2023 Fall	Service-Learning Experience in Astronomy		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	AST282AB 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
AST282AC	2023 Fall	Service-Learning Experience in Astronomy		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	AST282AC 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
AST285	2018 Fall	Introduction to Astrodynamics	ECE285 PHY285	Introduction to celestial mechanics and the dynamics of spacecraft navigation. Introduction to rocket propulsion and spacecraft design. Orbital and interplanetary celestial	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

				mechanics and maneuvers. Astrophysics and characteristics of the space environment. Lab is project-based, utilizing a real-time spacecraft simulation environment.					
AST294	2010 Fall	Special Topics in Astronomy		Conceptual, experimental, and computational aspects of a special topic in astronomy.	Prerequisites: Permission of Department or Division.	AST294 may be repeated for credit.	Acad	LEC 3.0 3.0 3.0	S
AST294AA	2010 Fall	Special Topics in Astronomy		Conceptual, experimental, and computational aspects of a special topic in astronomy.	Prerequisites: Permission of Department or Division.	AST294AA may be repeated for credit.	Acad	LEC 2.0 2.0 2.0	S
AST294AB	2010 Fall	Special Topics in Astronomy		Conceptual, experimental, and computational aspects of a special topic in astronomy.	Prerequisites: Permission of Department or Division.	AST294AB may be repeated for credit.	Acad	LEC 1.0 1.0 1.0	S
AST294AC	2010 Fall	Special Topics in Astronomy		Conceptual, experimental, and computational aspects of a special topic in astronomy.	Prerequisites: Permission of Department or Division.	AST294AC may be repeated for credit.	Acad	LEC 0.5 0.5 0.5	S
AST298AA	1996 Spring	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0	Z
AST298AB	1996 Spring	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	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0	Z

				independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE					
AST298AC	1996 Spring	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0	Z
ATC298AA	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z
ATC298AB	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	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z

				made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE					
ATC298AC	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z
ATP100	2018 Fall	Introduction to Manufacturing and Programmable Logic Controllers		Explores the origin and basic operation of programmable logic controllers (PLC) in manufacturing processes. Laboratory exercises include ladder logic programming, installation, adjustment, and testing of digital and analog sensors, signal conditioners, and basic troubleshooting concepts.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0	T
ATP101	2016 Fall	Introduction to Automated Systems and Robotics		An introduction to automation, distribution systems, Automated Storage and Retrieval Systems (ASRS), and the role of the manufacturing technician. Includes general manufacturing techniques, industry standards, and statistical process control.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
ATP105	2010 Spring	Engineering Documentation		Analysis and interpretation of engineering documentation,	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S

				common to manufacturing processes.					
ATP106	2018 Fall	Industrial Electrical Systems		Safety for electrical power and control systems, DC & AC circuit analysis, DC power supplies, switches and proximity sensors, inductors and capacitors, electrical and engineering documentation & schematics, digital multimeter & oscilloscope operation, solid state relays, and industrial control transformers.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0	T
ATP111	2018 Fall	Mechanical Systems and Maintenance		Examination of mechanical drive systems. Includes fundamentals of direct drives, belt and pulley drives, chain drives and gear drives. Explores calculating and measuring quantities such as power, speed, torque, speed and torque reduction/amplification, and backlash. Also includes hands-on experience assembling and aligning components, testing and troubleshooting systems.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0	T
ATP115	2018 Fall	Fluid Power		Fundamental industrial fluid power concepts including hydraulic and pneumatic installation, maintenance, and adjustments for the control of automated manufacturing systems.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0	T
ATP130	2018 Fall	DC Circuit Analysis		Direct current (DC) electric circuits. Ohm's law, Kirchoff's laws, series, parallel and series-parallel circuits, network theorems, fundamentals of magnetism in electric circuits.	Prerequisites: None.		Occ	L+L 2.0 2.0 2.0	T
ATP135	2018 Fall	AC Circuit Analysis		Alternating Current (AC) circuits containing resistance and reactance. Detailed coverage of AC circuit	Prerequisites: A grade of C or better in ATP130 or ELE100 or approval of Instructor.		Occ	L+L 2.0 3.0 3.0	T

				parameters, including theorems, impedance matching, and resonance.					
ATP150	2018 Fall	Fluid Power 1 - Hydraulics, Pneumatics, and Vacuum Concepts		Fundamental fluid power and vacuum for industry. Pneumatic, hydraulic, and vacuum system technologies with emphasis on assembly, integration, and measurement.	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0	T
ATP160	2018 Fall	Programmable Logic Controllers 1 - Introduction to Ladder Logic		Introductory lecture and laboratory course explores the origin and basic operation of Programmable Logic Controllers (PLC) with laboratory exercises including wiring of hardware, ladder logic programming and basic troubleshooting concepts.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: ATP135 or ELC119 or permission of Program Director.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 4.0 4.0	T
ATP175	2018 Fall	Introduction to Motors and Motor Controls		Introduction to direct current and alternating current (AC) motors, types of direct current (DC) and alternation motors.	Prerequisites: A grade of C or better in (ATP130 and ATP135) or ELE111.		Occ	L+L 2.0 3.0 3.0	T
ATP180	2018 Fall	Programmable Logic Controllers 2 - Human-Machine Interfaces and Function Block Programming		Advanced lecture and laboratory course builds upon the foundations covered in introductory course, covering development and documentation of advanced ladder logic and function block programming, Programmable Logic Controller (PLC) control of variable frequency devices, and the installation and programming of Human Machine Interfaces (HMI).	Prerequisites: A grade of C or better in ATP160 or permission of Program Director.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 5.0 5.0	T
ATP190	2019 Spring	Industrial Robotics		Introduction to industrial robotics covering topics such as safety, operation, control technology, and programming.	Prerequisites: A grade of C or better in GTC108 or higher level math course.		Occ	LEC 3.0 4.0 3.7	S
ATP201	2018 Fall	Programmable Logic Controller (PLC) Systems		Advanced lecture and laboratory course builds upon the foundations covered in introductory course, including development and documentation of advanced ladder logic and function block	Prerequisites: A grade of C or better in (ATP100 and ATP106) or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T

				programming, Programmable Logic Controller (PLC) control of variable frequency devices, PLC Networks and the installation and programming of Human Machine Interfaces (HMI).					
ATP205	2018 Fall	Electric Motors and Controls		Examination of electrical motor control, power, and protection systems. Includes fundamentals of single and three-phase power, power, control and protection circuits. Also includes variable frequency drive (VFD), silicon controlled rectifier (SCR) control, and programmable logic controller (PLC).	Prerequisites: A grade of C or better in (ATP100 and ATP106) or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T
ATP210	2018 Fall	Process Control		Introduction to instrumentation and control systems for wet type (continuous product) and dry type (discrete product) production systems. Includes process control concepts, instrumentation tag information, piping and instrumentation diagrams, level and flow sensing devices, Proportional-Integral-Derivative (PID) controllers, Programmable Logic Controllers (PLC), and final control elements.	Prerequisites: A grade of C or better in (ATP100 and ATP106) or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T
ATP215	2018 Fall	Automation System Integration		Capstone course regarding the implementation of the planning, construction, adjustment, and testing of an industrial control system needed for the development of a functional automated system.	Prerequisites: A grade of C or better in (ATP201 and ATP205 and ATP210) or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T
ATP296WA	2017 Spring	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 grade point average	Course Attribute(s): COMMON COMPETENCY COURSE	Occ	LAB 1.0 5.0 0.0	C

				related to the career objectives of the students.	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. 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.				
ATP296WB	2017 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 student's academic or career goals (student's 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.	Course Attribute(s): COMMON COMPETENCY COURSE	Occ	LAB 2.0 10.0 0.0	C
ATP296WC	2017 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 student's academic or career goals (student's present job may qualify) or permission of Instructor. Corequisites: Must be concurrent in at least one class which is related to student's	Course Attribute(s): COMMON COMPETENCY COURSE	Occ	LAB 3.0 15.0 0.0	C

					major or career interest or with permission of the Instructor.				
ATP296WD	2017 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 student's academic or career goals (student's 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.	Course Attribute(s): COMMON COMPETENCY COURSE	Occ	LAB 4.0 20.0 0.0	C
AUT097	1995 Fall	General Automotive Maintenance		A study of automotive systems operation and maintenance for the consumer. Purchasing service for cars and performing minor maintenance	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AUT101	1994 Fall	Internal Combustion Engines Theory		Study of construction and operating principles of internal combustion engines and related lubrication, cooling, fuel, and electrical systems	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AUT101AA	2018 Fall	Internal Combustion Engines Theory		Study of construction and operating principles of internal combustion engines and related lubrication, cooling, fuel, and electrical systems	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
AUT103AA	2018 Fall	Automotive Electrical Systems		Basic principles and fundamentals of automotive electricity and electrical systems. Training in diagnosis, service and reconditioning procedures of automotive starting, charging, ignition, and electrical circuits and components	Prerequisites: None.		Occ	L+L 6.0 10.0 10.0	T

AUT103AB	2018 Fall	Automotive and Electrical/Electronic Systems I		Designed for beginning automotive students. The principle of electricity; the mathematical computations involved with Ohm's Law; the use of meters; electrical schematics; the theory of electrical components as they relate to automobiles; the diagnosis, testing, service and repair of batteries, starting systems and charging systems, lighting systems and instrumentation	Prerequisites: None.		Occ	L+L 4.0 7.0 7.0	T
AUT103BD	2009 Spring	Ignition Systems		Diagnosis, service, and reconditioning procedures for automotive ignition systems	Prerequisites: Permission of Instructor.		Occ	LEC 1.0 1.0 1.0	S
AUT103DA	2018 Fall	Basic Automotive Electrical Theory		Covers introductory level automotive electrical theory. This includes shop safety and procedures, Circuits, Ohm's Law, use of meters, oscilloscopes, and other basic test equipment, as well as diagnosis of problems in and caused by electrical circuits. Repair of these problems also covered	Prerequisites: None.		Occ	L+L 1.1 2.0 2.0	T
AUT103DB	2018 Fall	Automotive Batteries		Study of automotive batteries. Diagnosis, testing, service, and repair of batteries and related circuits covered	Prerequisites: A grade of C or better in AUT103DA or permission of Instructor.		Occ	L+L 0.6 1.0 1.0	T
AUT103DC	2018 Fall	Automotive Charging Systems		The diagnosis, testing, service, and repair of charging systems and related components	Prerequisites: A grade of C or better in AUT103DA or permission of Instructor.		Occ	L+L 0.9 1.5 1.5	T
AUT103DD	2018 Fall	Automotive Starting Systems		Covers the starting motor systems used on modern automotive vehicles including light duty trucks. Diagnosis, testing, service, and repair of starting systems and related components covered.	Prerequisites: A grade of C or better in AUT103DA or permission of Instructor.		Occ	L+L 0.6 1.12 1.12	T
AUT103DE	2018 Fall	Automotive Lighting, Indicator, and Warning Circuits		Covers the operation of, diagnosis and repair of common automotive lighting,	Prerequisites: A grade of C or better in		Occ	L+L 0.8 1.37 1.37	T

				instrumentation, and warning device circuits used on the automobile.	AUT103DA or permission of Instructor.				
AUT104AA	2018 Fall	Automotive Fuel Systems		Theory and operation of fuel injection, engine control management, turbo charging and fuel systems, training in diagnosis, service and reconditioning procedures	Prerequisites: A grade of C or better in AUT103AA or AUT103AB or permission of Instructor.		Occ	L+L 3.0 5.0 5.0	T
AUT105AA	2018 Fall	Engine Performance and Diagnosis		The theory and fundamentals of automotive engine management troubleshooting and oscilloscope testing as it pertains to diagnosis and tune-up of the modern day automobile. Emphasis on interpretation of oscilloscope patterns and Scantool Data as they relate to engine performance.	Prerequisites: A grade of C or better in (AUT103AA and AUT104AA) or permission of Instructor.		Occ	L+L 3.0 5.0 5.0	T
AUT106AA	2018 Fall	Engine Overhaul and Reconditioning		Diagnostic and service skills essential to service and repair automotive internal combustion engines. Includes valve guide, seat reconditioning, cylinder block, piston, rod and crankshaft service	Prerequisites: None.		Occ	L+L 4.0 8.0 8.0	T
AUT106AC	2018 Fall	Engine Overhaul and Reconditioning: Heads and Valves		Diagnostic and service skills essential to service and repair of the cylinder head and valve train of contemporary automotive engines. Includes valve, guide, and seat reconditioning and service. Does not include block and crankshaft service	Prerequisites: A grade of C or better in AUT103AA or permission of Instructor.		Occ	L+L 3.0 5.0 5.0	T
AUT106AD	2018 Fall	Engine Overhaul and Reconditioning Block and Crankshaft		Diagnostic and service skills related to cylinder block, piston, rod and crankshaft service. Includes honing, boring and crankshaft reconditioning as well as piston and ring service. Does not include cylinder head and valve work.	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0	T

AUT107AA	2018 Fall	Automotive Air Conditioning		The theory and principles of refrigeration and air conditioning. Training in diagnosis, servicing, and reconditioning procedures of automotive air conditioning systems	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0	T
AUT107AC	2018 Fall	Automotive Air Conditioning		The theory and principles of refrigeration and air conditioning. Training in diagnosis, servicing, and reconditioning procedures of automotive air conditioning systems	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0	T
AUT107AD	2018 Fall	Automotive Air Conditioning		The theory and principles of refrigeration and air conditioning. Training in diagnosis, servicing, and reconditioning procedures of automotive air conditioning systems including electronic system controls.	Prerequisites: A grade of C or better in AUT103AA.		Occ	L+L 4.0 7.0 7.0	T
AUT108AB	2018 Fall	Front-End Suspension, Steering, and Alignment		The fundamentals and principles of suspension and steering systems. Diagnosis, service, and reconditioning procedures. Laboratory emphasis on front-end service and alignment	Prerequisites: None.		Occ	L+L 4.0 7.0 7.0	T
AUT109AA	2018 Fall	Automotive Brake Systems		The fundamentals and principles of hydraulics and automotive braking systems. Diagnosis, service, and reconditioning procedures of automotive braking systems	Prerequisites: None.		Occ	L+L 3.0 5.0 5.0	T
AUT109AC	2018 Fall	Automotive Brake Systems		Designed for beginning automotive students. Fundamentals of drum, disc, and ABS brakes. Includes training in diagnosis, testing, service, and repair	Prerequisites: None.		Occ	L+L 4.0 7.0 7.0	T
AUT110AC	2018 Fall	Automotive Power Trains		Designed for beginning automotive students. Operation, diagnosis, service, and repair of the automotive power train. Includes clutches,	Prerequisites: None.		Occ	L+L 4.0 7.0 7.0	T

				torque converters, standard and automatic transmissions and transaxles, front and rear drive axles, drive shafts, differentials and transfer case					
AUT123	2018 Fall	Automatic Transmissions		Theory of operation and servicing procedures for current automatic transmissions.	Prerequisites: A grade of C or better in (AUT103AA and AUT104AA) or permission of Instructor.		Occ	LEC 6.0 4.0 4.0 LAB 0.0 6.0 6.0	T
AUT123AA	2018 Fall	Automatic Transmissions		Theory of operation and servicing procedures for current domestic automatic transmissions; includes diagnostics and testing of mechanical, electrical, and hydraulic components	Prerequisites: None.		Occ	L+L 4.0 8.0 8.0	T
AUT130	2018 Fall	Automotive Quick Service		Use of standard service publications; performance of commonly used service operations following published service procedures; emphasis on good attitude development and safety habits about automotive service.	Prerequisites: None.		Occ	L+L 4.0 7.0 7.0	T
AUT203	2018 Fall	Electrical Accessories		Theory and principles of wiring diagrams, accessories circuits, turn signals, and warning systems. Circuit trouble-shooting and service of gauges, indicators, power windows and seats, deck latches, and windshield wipers. Computerized electronic devices.	Prerequisites: A grade of C or better in AUT103AA or permission of Instructor.		Occ	L+L 3.0 5.0 5.0	T
AUT210	1996 Spring	Automotive Emission Systems		Automotive emissions control systems and methods of emissions measurement. Diagnostic practices as suggested by the manufacturers and the related service of emissions control devices	Prerequisites: A grade of C or better in (AUT103AA and AUT104AA) or permission of Instructor.		Occ	LEC 3.0 3.0 3.0	S
AUT210AA	2018 Fall	Automotive Emission Systems		Automotive emissions control systems and methods of emissions measurement.	Prerequisites: A grade of C or better in (AUT103AA and		Occ	L+L 3.0 5.0 5.0	T

				Diagnostic practices as suggested by the manufacturers and the related service of emissions control devices	AUT104AA) or permission of Instructor.				
AUT215AA	2018 Fall	Automotive and Electrical/Electronic Systems II		Electrical accessory circuits including horns, wipers, defoggers, automatic door locks, power mirrors, power windows and power seats. Focuses on introduction to body computers, advanced lighting circuits and instrumentation, and chassis electronic control systems. Includes training in diagnosis, testing, service, and repair.	Prerequisites: A grade of C or better in AUT103AA or AUT103AB or permission of Instructor.		Occ	L+L 4.0 7.0 7.0	T
AUT233	2018 Fall	Computerized Engine Control Systems		Presents the reasons for developing and using computerized engine control systems. Explores system operation, examining each component. Emphasizes diagnosis and repair of system faults	Prerequisites: A grade of C or better in AUT103AB and AUT104AA or permission of Instructor.		Occ	L+L 3.0 5.0 5.0	T
AUT240	2018 Fall	Hybrid Vehicle Overview		Automotive hybrid vehicle design and operation. Safety practices as suggested by manufacturers for servicing hybrid vehicles.	Prerequisites: A grade of C or better in AUT130.		Occ	L+L 2.0 3.0 3.0	T
AUT282AA	2014 Summer	Service-Learning Experience in Automotive		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	AUT282AA 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
AUT282AB	2014 Summer	Service-Learning Experience in Automotive		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	AUT282AB 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
AUT282AC	2014 Summer	Service-Learning Experience in Automotive		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	AUT282AC 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

AVC100	2023 Fall	Introduction to Digital Arts		Foundation course in digital arts and design, with emphasis in the production of art using the computer.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0	T
AVC103	2023 Fall	Typography in the Digital Age		Survey of the history of typography and individual designers. Emphasis on the function of typography as an integral part of effective visual communication. Study of type anatomy, mechanics, characteristics, structure, and the principles of effective selection and the relation of copy and image in graphic design. Evaluate fonts both visually and technically and learn how to manage them.	Prerequisites: A grade of C or better in AVC100 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T
AVC104	2023 Fall	Cross-Media Marketing for Designers		Role of graphic designer in business with an emphasis on using graphic design to achieve marketing and sales objectives. Variety of communication channels explored, such as print and digital and including social media, web, and mobile media.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0	T
AVC110	2023 Fall	Survey of Graphic Design and Visual Communication		A survey of graphic design and visual communication with an emphasis on application, history, and design processes. Tracing connections between contemporary and historical design. Apply knowledge to assemble and produce projects.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
AVC114	2023 Fall	Digital Color		Overview of how color is perceived and utilized in a digital environment and how to ensure consistent color from capture to final output in print or online. Investigate visual solutions utilizing electronic devices for color correction, manipulation and integrity.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0	T

AVC119	2023 Fall	Penciling for Sequential Art		Development of observational skills as they apply to sequential art. Emphasis on techniques that showcase how characters interact with their environment and manipulate props and cartooning anatomy. Includes techniques on composing page layouts, adapting scripts and reference gathering.	Prerequisites: None. ART111, or ART116, or previous drawing experience strongly recommended.		Occ	L+L 3.0 6.0 6.0	T
AVC120	2023 Fall	Inking for Sequential Art		Development of inking materials and techniques used in sequential art. Emphasis on the types of tools used in the industry and the various means of employing them. Understanding the duties of the inker and the process of computer finishing.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0	T
AVC135	2023 Fall	Foundations of Photojournalism		Basic technical knowledge of photographic process as applied by mass media.	Prerequisites: A grade of C or better in ART131 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T
AVC138	2023 Fall	Commercial Photography I		Basic techniques of lighting, camera work, and reproduction of commercial photography. Cooperation with commercial art community.	Prerequisites: A grade of C or better in (ART131 or AVC142) or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T
AVC139	2023 Fall	Commercial Photography II		Advanced techniques with portfolio organization and presentation.	Prerequisites: A grade of C or better in AVC138.		Occ	L+L 3.0 6.0 6.0	T
AVC140	2023 Fall	Portrait Photography		Fundamentals of portrait photography. Basic techniques of lighting, posing, design, and digital workflows applicable to the industry. Theory and practices of a portrait photography business.	Prerequisites: A grade of C or better in ART131, or AVC142, or permission of Instructor.	Digital camera with manual settings required.	Occ	L+L 3.0 6.0 6.0	T
AVC142	2023 Fall	Introduction to Digital Photography		Fundamentals of digital photography. Includes camera operations, exposure techniques, introduction to digital output, and theory of digital photography.	Prerequisites: None.	Digital camera required.	Occ	L+L 3.0 6.0 6.0	T

AVC143	2023 Fall	Intermediate Digital Photography		Intermediate theory and techniques of digital photography. Aesthetic awareness and personal expression from image capture through intermediate techniques in the digital darkroom. Introduction to high-resolution digital output.	Prerequisites: A grade of C or better in AVC142 or permission of Instructor.	Semi-adjustable, high-resolution digital camera is required.	Occ	L+L 3.0 6.0 6.0	T
AVC164	2023 Fall	Introduction to Drawing and Digital Paint		Essential skills, concepts and use of digital media for drawing and painting. From concept to line-drawing; use of value, texture, color, lighting, space and scale elements to execute a finished rendering.	Prerequisites: A grade of C or better in AVC100 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T
AVC164AC	2023 Fall	Introduction to Drawing and Digital Paint III		Essential skills, concepts and use of digital media for drawing and painting to execute a finished rendering and output formats.	Prerequisites: Permission of Instructor.		Occ	L+L 1.0 2.0 2.0	T
AVC169	2023 Fall	2D Media Design		Generation of two-dimensional (2D) images, designs, and media using digital and traditional methods of visual problem solving. Understanding digital and design-based techniques and workflows.	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
AVC170	2023 Fall	3D Computer Design		Artistic manipulation of computer images. Emphasis on color and three-dimensional (3D) design in production of these images. Existing software used to generate three-dimensional art.	Prerequisites: A grade of C or better in AVC100 or AVC169 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T
AVC173	2023 Fall	Computer Art		Introduction to the multiple elements of paint software programs using the microcomputer. Basic foundation in the use of computer techniques including color paint programs for the production of computer	Prerequisites: A grade of C or better in AVC100 or permission of Instructor.	Prerequisites: A grade of C or better in ART100 or permission of Instructor.	Occ	L+L 3.0 6.0 6.0	T

				images. Use of electronic input and output devices.					
AVC174	2023 Fall	Electronic Color Principles		Interactive use of color for graphic communication. Color theory, color relationships and electronic color manipulation for computer graphic art, animation and multimedia.	A grade of C or better required in all prerequisites. Prerequisites or Corequisites: AVC100.		Occ	L+L 1.0 2.0 2.0	T
AVC175	2023 Fall	Electronic Publishing Design I		Introduction to the multiple elements of commercial publishing using the microcomputer. Basic foundation in the use of electronic page layout techniques. Emphasis on publication design layout and concepts.	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
AVC177	2023 Fall	Digital Photographic Imaging I		Introduction to multiple elements of digital imaging. Basic foundation in photographic manipulation of images, with special attention to aesthetic foundations underlying photographic composition.	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
AVC178	2023 Fall	Digital Arts Studies		Designed for broad overview of the digital arts. Experience in digital based media, creative problem solving, design and aesthetics.	Prerequisites: A grade of C or better in AVC100 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T
AVC179	2023 Fall	Electronic Presentation Design		Introduction to the multiple elements of commercial-graphic presentation materials using the microcomputer and other advanced technologies. Basic foundation in the use of computer presentation software programs using presentation techniques. Special attention to aesthetic foundations underlying all presentation materials.	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
AVC180AC	2023 Fall	Designer's Tools: Quark Express		Introduction to the multiple elements of Quark Express, a visual art adaptation software package using the Macintosh	Prerequisites: A grade of C or better in AVC100 or permission of Instructor.		Occ	L+L 1.0 2.0 2.0	T

				microcomputer. Basic foundation course in the use of electronic techniques, including appropriate input and output production devices.					
AVC180AD	2023 Fall	Designer's Tools: Adobe Illustrator		Introduction to the multiple elements of Adobe Illustrator, a visual art adaptation software package using the Macintosh microcomputer. Basic foundation course in the use of electronic techniques, including appropriate input and output production devices.	Prerequisites: A grade of C or better in AVC100 or permission of Instructor.		Occ	L+L 1.0 2.0 2.0	T
AVC180AE	2023 Fall	Designer's Tools: Adobe Photoshop		Introduction to the multiple elements of Photoshop software package using the microcomputer. Basic foundation in the use of electronic techniques including appropriate input and output production devices.	Prerequisites: A grade of C or better in AVC100 or permission of Instructor.		Occ	L+L 1.0 2.0 2.0	T
AVC180AI	2023 Fall	Designer's Tools:3-D Studio Textures		Introduction to multiple elements of 3-D studio material using DOS microcomputers. Basic foundation in the use of electronic input and output production devices.	Prerequisites: A grade of C or better in AVC/MMT184 or AVC284 or permission of Instructor.		Occ	L+L 1.0 2.0 2.0	T
AVC180AJ	2023 Fall	Designer's Tools:3-D Special Effects		Introduction to multiple elements of 3-D studio special effects software using DOS microcomputer. Basic foundation in the use of electronic input and output production devices.	Prerequisites: A grade of C or better in AVC/MMT184 or AVC284 or permission of Instructor.		Occ	L+L 1.0 2.0 2.0	T
AVC180AK	2023 Fall	Designer's Tools: Adobe Premiere		Basic functions and use of Adobe Premiere video editing software. Applications for computer animation, multimedia, and digital video production.	Prerequisites: A grade of C or better in AVC100. AVC/MMT184 is strongly recommended but not required.		Occ	L+L 1.0 2.0 2.0	T

AVC180AL	2023 Fall	Designer Tools: Character Studio		Character Studio 3D-Character Animation software. Character motion, editing and blending electronic with traditional techniques.	Prerequisites: A grade of C or better in AVC100 and AVC/MMT184. ART116 is recommended but not required.		Occ	L+L 2.0 5.0 5.0	T
AVC180AM	2023 Fall	Designer's Tools: Dreamweaver		Introduction to Dreamweaver software and Web editing process. Developing sites, automating production, Web design integration using graphics, and graphics output. Learn powerful Web editing methods.	Prerequisites: A grade of C or better in AVC100 or permission of Instructor.		Occ	L+L 1.0 2.0 2.0	T
AVC180AN	2023 Fall	Designer's Tools: Flash		Introduction to Flash software. Basic foundation in Flash vector graphics, 2D and 3D animation and creation of full motion video with sound.	Prerequisites: A grade of C or better in (AVC180AD and AVC180AE) or permission of Instructor.		Occ	L+L 1.0 2.0 2.0	T
AVC180AP	2023 Fall	Designer's Tools: Photoshop for Multimedia		Advanced Adobe Photoshop techniques for multimedia. Foundations in imaging for animation, Web, graphics, digital video and offset graphics.	Prerequisites: A grade of C or better in AVC180AE or permission of Instructor.		Occ	L+L 1.0 2.0 2.0	T
AVC180AR	2023 Fall	Designer's Tools: Final Cut Pro		Introduction to non-linear editing using Final Cut Pro software for graphics, animation and the Web applications.	Prerequisites: A grade of C or better in AVC100 or permission of Instructor.		Occ	L+L 1.0 2.0 2.0	T
AVC180AS	2023 Fall	Designer's Tools: Adobe InDesign		Basic functions and operations of Adobe InDesign software. Application for graphic design, publishing, digital pre- press production and web layout.	Prerequisites: A grade of C or better in AVC100 or permission of Instructor.		Occ	L+L 1.0 2.0 2.0	T
AVC180AT	2023 Fall	Designer's Tools: Adobe After Effects		Introduction to Adobe After Effects software. Digital effects and motion graphics for the WEB, CD-ROM, DVD, video, film and animation.	Prerequisites: A grade of C or better in AVC100 or permission of Instructor.		Occ	L+L 1.0 2.0 2.0	T
AVC181	2023 Fall	Graphic Design I		Basic understanding of design principles and the stages of graphic design, with an emphasis on final product and presentation.	Prerequisites: A grade of C or better in AVC100 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T

AVC182	2023 Fall	Graphic Design II		Utilizing graphic design essentials of typography, contrast and layout to develop design solutions to problems in consumer advertising, typography and structure.	Prerequisites: A grade of C or better in AVC181 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T
AVC183	2023 Fall	Digital Graphic Arts I		Graphic design use in microcomputer; black and white graphics, standard and color brushes, lines, shapes, area fills and fonts. Application to illustration, advertising graphics, typography, and video interaction.	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
AVC184	2023 Fall	Digital Animation I	MMT184	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
AVC185	2023 Fall	3D Modeling and Animation I	MMT185	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
AVC187	2023 Fall	Perspective Drawing for Animation		Perspective techniques for creating depth illusion as applied to principles of 3D modeling and animation. Study of size relationships, size and space variation, converging lines, vanishing points, overlapping planes. 3D lighting systems and light changes over distance.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0	T
AVC190	2023 Fall	Art of Web Site Design	MMT190	Introduction to design production for websites.	Prerequisites: A grade of C or better in		Occ	L+L 3.0 6.0 6.0	T

				Layout, typography and presentation style for HTML (Hyper Text Markup Language). Design of 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.	AVC100, or permission of Instructor. CIS133DA recommended.				
AVC190AA	2023 Fall	Art of Website Design I		Introduction to design production for websites. Layout, typography and presentation style for HTML (Hyper Text Markup Language). Design of mock-ups using digital design software to produce artistic form and content for the Web using Hyper Text Markup Language, digital text, and graphics.	Prerequisites: A grade of C or better in AVC100, or permission of Instructor. CIS133DA recommended.		Occ	L+L 1.0 2.0 2.0	T
AVC190AB	2023 Fall	Art of Website Design II		Producing Web site pages, using design and Hyper Text digital text and graphics. Discussion of color, proportion, typography and Web-specific design principles.	Prerequisites: A grade of C or better in AVC100 and AVC190AA, or permission of Instructor. CIS133DA recommended		Occ	L+L 1.0 2.0 2.0	T
AVC190AC	2023 Fall	Art of Website Design III		Producing Web sites using artistic form and content. Emphasizes design of cross-browser compatible interfaces that optimize usability, accessibility and browser interoperability.	Prerequisites: A grade of C or better in AVC100 and AVC190AB, or permission of Instructor. CIS133DA recommended.		Occ	L+L 1.0 2.0 2.0	T
AVC191	2023 Fall	Storyboarding and Layout		Introduction to story boarding, including film storytelling and scene presentation.	Prerequisites: A grade of C or better in ART111 or AVC187.		Acad	L+L 2.0 4.0 4.0	T

AVC192	2023 Fall	Advanced Web Presentation Design		Advanced interactive application and training for Web designers and graphic artists using Quark, Illustrator, Photoshop, HTML Flash, Dreamweaver and Digital Video site optimization techniques. Development of design concepts for web pages that communicate and deliver Web content creatively	Prerequisites: A grade of C or better in AVC/MMT190 or permission of instructor. AVC180AM and AVC180AN suggested but not required.		Occ	L+L 3.0 6.0 6.0	T
AVC200	2023 Fall	Animation and Interactivity		Animation and object-oriented programming concepts and techniques using industry standard authoring tools applied by the creative industry to animation productions, and interactive media. Introduction to animation and object-oriented programming concepts and techniques using industry standard authoring tools. Includes tools used by the creative industry for animation productions and interactive media	Prerequisites: A grade of C or better in AVC100 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T
AVC201	2023 Fall	Variable Data Printing		Understanding variable data and all areas including: design, utilizing data, cleaning and creating a database, file setup, prepress and press setup. Software used: Excel, Adobe InDesign, Acrobat.	Prerequisites: A grade of C or better in AVC175, or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T
AVC202	2023 Fall	Media Productions I		Introduction to digital media production tools, equipment, and broadcast applications. Pre-production including script writing, storyboards, budgeting and copyright; studio and mobile production including the use of cameras, lighting, audio recording, and new media tools; post-production including media editing, transitions, titles,	Prerequisites: A grade of C or better in AVC100 or permission of Instructor.	Prerequisites: A grade of C or better in ART100 or permission of Instructor.	Occ	L+L 3.0 6.0 6.0	T

				overlays and basic motion graphics.					
AVC203	2023 Fall	Aesthetics of Web Design		Develop portfolio-level web design projects. Emphasis on advanced elements and principles of design. Continued development of aesthetic awareness and personal expression. Evaluation of aesthetic principles throughout semester.	Prerequisites: A grade of C or better in AVC/MMT190 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T
AVC204	2023 Fall	Creative Design for Advertising		Focuses on the design and production of advertisement layouts and visual marketing campaigns for digital, mobile, and social channels which drive business objectives. Emphasis on terminology, analysis, and critique of advertising design, campaign methods, techniques, and the use of video across digital, mobile, and social channels.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0	T
AVC210	2023 Fall	Design Tools for Imagery, Production, and Publishing		Industry standard development of image manipulation, digital production, digital negatives, typography, and desktop publishing. New techniques using integrated software with multiple platform applications. Emphasis on alternative processes including: technique, aesthetics and creative imagery.	Prerequisites: A grade of C or better in AVC100 and [AVC169 or (AVC180AD, AVC180AE, and ART180AS)] and AVC181, or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T
AVC215	2023 Fall	Advanced Electronic Publishing		Advanced use of electronic page layout techniques including in-depth styles; typography; technical documents and digital publishing interactivity.	Prerequisites: A grade of C or better in AVC175.		Occ	L+L 3.0 6.0 6.0	T
AVC219	2023 Fall	Coloring, Toning and Lettering for Sequential Art		Understanding of the digital rules and programs used in coloring, toning and lettering comics, and the problems	Prerequisites: A grade of C or better in (AVC100 and AVC119) or permission of		Occ	L+L 3.0 6.0 6.0	T

				presented therein within the sequential narrative. Emphasis on rules and guidelines within the industry, and digital coloring and lettering.	Instructor. AVC120 recommended.				
AVC220	2023 Fall	Publishing for the Comic Industry		Understanding of the comics industry. Includes researching, marketing, packaging, and distributing comics. Emphasis on selling and submitting to comic publishers, how to develop comics for self-publishing, promotional materials, and understanding contracts and copyrights involved in the process of publishing comics.	Prerequisites: A grade of C or better in AVC100 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T
AVC221	2023 Fall	Comics Creation		Development of a complete sequential comic, using all comics skills from beginning to end. Process includes scripting, penciling, inking, coloring or toning, lettering, and printing for publication.	Prerequisites: A grade of C or better in (AVC100 and AVC219) or permission of Instructor.		Occ	L+L 3.0 3.0 3.0	T
AVC227	2023 Fall	Estimating for Digital Output		Introduction to estimating for digital output including job costing, labor/time, material and equipment costs. Focus on layout and imposition for press. Learn outside purchasing and vendor relationship management.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0	T
AVC230	2023 Fall	Visual Brand Design		Simulates an actual working environment which exposes students to the challenges and advantages of working in cross-functional teams. Topics include preparation for collaborative work environments, critical thinking and communication, messaging, and effectively employing marketing and design principles. Reviews logo creation and	Prerequisites: A grade of C or better in (AVC100 and MKT110) or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T

				implementation, preparing online and offline collateral, creating marketing messaging and campaigns, written and oral communication, and personal presentation skills.					
AVC232	2023 Fall	Studio Lighting		This course covers the fundamentals of lighting techniques with studio strobes, speed lights, and continuous lighting systems. Teaches students to use different light modifiers according to situation, subject and personal vision.	Prerequisites: A grade of C or better in ART131, or AVC142, or permission of Instructor.	Camera with manual settings required of this course. AVC232 may be repeated for a total of six (6) credit hours.	Occ	L+L 3.0 6.0 6.0	T
AVC236	2023 Fall	Photography Location Shooting		Practical application of camera techniques, use of lighting, and on-location shooting for post-production printing.	Prerequisites: A grade of C or better in (ART131 or AVC142) or permission of Instructor.	Film and/or Digital Single Lens Reflex (DSLR) camera is required. AVC236 may be repeated for credit.	Occ	L+L 3.0 6.0 6.0	T
AVC237	2023 Fall	Fashion Photography		Practical application of photographic techniques within the fashion industry. Includes the photographing of models, garments, and accessories.	Prerequisites: A grade of C or better in (ART131 or AVC142) or permission of instructor.	Digital Single Lens Reflex (DSLR) camera is required. AVC237 may be repeated for credit.	Occ	L+L 3.0 6.0 6.0	T
AVC240	2023 Fall	Cinematography and Directing for 2D/3D Animation		Essential skills, concepts and the use of virtual cameras in 2D and 3D animation environments: planning, pre-production, storyboards and pre-visualization using real-world camera principles is combined with rendering, sound and post-production in a nonlinear environment.	Prerequisites: A grade of C or better in (AVC/MMT184, or AVC/MMT185, or FMP108) or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T
AVC246	2023 Fall	Digital Fabrication	THO246	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	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0	T

				output devices to produce solid models.					
AVC248	2023 Fall	Design Self Promotion		Defining career goals, and developing a self-promotional marketing plan to enter the workplace, including a resume, business card, leave behind, social media presence, interactive portfolio and printed portfolio. Understand business ethics and etiquette, artist's rights, copyright laws and contractual agreements, and develop networking, interview and communication skills.	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0	T
AVC249	2023 Fall	Visual Communication Project Management and Workflow		Communication and coordination of digital projects from inception through completion. Emphasis on job workflow including professional communication, time management, detailed follow through and conflict resolution with stakeholders.	Prerequisites: A grade of C or better in AVC100 or permission of Instructor.	Working with Printing Industries of America and their iLearning Center, students will have the opportunity to become industry certified for the Customer Service Professional (CSP) Certification for a minimal additional cost.	Occ	L+L 3.0 6.0 6.0	T
AVC269AC	2023 Fall	Digital Studio		Continued development of digital studio media with emphasis on advanced use of media techniques within a digital environment.	Prerequisites: A grade of C or better in (AVC169 or AVC170 or AVC173 or AVC179 or AVC192 or AVC274 or AVC284 or AVC289 or AVC291) or permission of Instructor.	AVC269AC students must have completed advanced courses in the subject field.	Occ	L+L 3.0 6.0 6.0	T
AVC270	2023 Fall	Digital Photographic Imaging II		Intermediate digital photographic imaging techniques. Refinement of aesthetic awareness and personal expression.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AVC177.		Occ	L+L 3.0 6.0 6.0	T
AVC273AC	2023 Fall	Special Topics: Multimedia Arts		Multimedia art studio course examining new and/or current topics in media and/or multimedia arts.	Prerequisites: Permission of Instructor.	AVC273AC is designed to offer special topics and/or specialized training for students in multimedia arts. Activities may also be appropriate for portfolio enhancement.	Occ	L+L 3.0 6.0 6.0	T
AVC274	2023 Fall	Digital Photographic Imaging III		Advanced digital photographic imaging techniques.	A grade of C or better required in all		Occ	L+L 3.0 6.0 6.0	T

				Advanced manipulation techniques of photographic images and time-based media. Continued development of aesthetic awareness and personal expression.	Prerequisites. Prerequisites or Corequisites: AVC270.				
AVC279	2023 Fall	Media Productions II		Intermediate digital media production techniques. Continued pre-production, production, and post-production skills. Exploration of types of productions including interviews, informational/how-to, marketing/product, and documentary/artistic media productions. Refinement of aesthetic awareness and personal expression.	Prerequisites: A grade of C or better in AVC202 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T
AVC280AA	2023 Fall	Digital Media Arts and Design Capstone		Focus on design, art, and development skills for a problem taken from business or industry. Includes practice-based capstone project focusing on a specific issue or need in digital media arts and design.	Prerequisites: Permission of Program Director or Instructor.	AVC280AA requires 80 clock hours of designated work per credit hour.	Occ	L+L 1.0 2.0 2.0	T
AVC280AB	2023 Fall	Digital Media Arts and Design Capstone		Focus on design, art, and development skills for a problem taken from business or industry. Includes practice-based capstone project focusing on a specific issue or need in digital media arts and design.	Prerequisites: Permission of Program Director or Instructor.	AVC280AB requires 80 clock hours of designated work per credit hour.	Occ	L+L 2.0 4.0 4.0	T
AVC280AC	2023 Fall	Digital Media Arts and Design Capstone		Focus on design, art, and development skills for a problem taken from business or industry. Includes practice-based capstone project focusing on a specific issue or need in digital media arts and design.	Prerequisites: Permission of Program Director or Instructor.	AVC280AC requires 80 clock hours of designated work per credit hour.	Occ	L+L 3.0 6.0 6.0	T
AVC281	2023 Fall	Graphic Design III		Advanced course in the process of graphic design and	Prerequisites: A grade of C or better in		Occ	L+L 3.0 6.0 6.0	T

				problem solving to meet customer specifications. Emphasis on steps needed to create and promote complex graphic design projects.	AVC182 or permission of Instructor.				
AVC283	2023 Fall	Digital Graphic Arts II		Advanced skill development of graphic design through use of microcomputer. Emphasis on computer design and techniques for producing all types of camera-ready advertising art for printed matter and package design. Includes illustration, typography, photo imaging, and color separation.	Prerequisites: A grade of C or better in AVC183 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T
AVC284	2023 Fall	Digital Animation II		Elements of electronic animation with interactive text graphics, photography, sound, film, and video construction.	Prerequisites: A grade of C or better in AVC/MMT184 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T
AVC285	2023 Fall	3D Modeling and Animation II	MMT285	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
AVC286	2023 Fall	Graphic Design IV		Continuing advanced course in the process of graphic design and problem solving to meet customer specifications. Emphasis on creating complex graphic design projects.	Prerequisites: A grade of C or better in AVC281 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T
AVC287	2023 Fall	3D Character Animation		3D-Character modeling and animation for multimedia, film, broadcast, video games and interactive entertainment. Character motion, editing, and blending electronic with traditional techniques.	Prerequisites: A grade of C or better in AVC/MMT184 or AVC180AC. Corequisites: ART116 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T

AVC288	2023 Fall	PDF Portable Document Format		Focuses on complexity, versatility and creation of a PDF file. Emphasis on the importance of the settings regarding color management, compression, and output. Includes fillable forms and interactive files with audio and video capabilities, editing functions, preflight abilities and security.	Prerequisites: A grade of C or better in AVC175 or permission of Instructor.	Emphasis will be on understanding how and why PDF is the most common workflow for printers.	Occ	L+L 3.0 6.0 6.0	T
AVC289	2023 Fall	Computer Illustration		Introduction to the multiple elements of commercial illustration using the microcomputer. Basic foundation in the use of computer techniques including color paint and draw programs for the production of commercial illustrations for publications and printed matter. Use of and output devices.	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
AVC291	2023 Fall	Digital Prepress		Introduction to fundamental concepts of digital prepress necessary for the designer to create digital documents for accurate output and reproduction.	Prerequisites: A grade of C or better in AVC100 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T
AVC292	2023 Fall	Digital Output Prepress		Introduction to prepress for digital output. Foundation of job costing and the functions of a job ticket for proper file preparation including trapping, color management, file transfers, workflow, RIPping, imposition and file proofing.	Prerequisites: A grade of C or better in AVC291 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T
AVC293	2023 Fall	Digital Output		Emphasis on setup, operation, and maintenance of a digital press. Introduction to specialty and common substrates and inks. Instruction on quality control, troubleshooting techniques, and proper safety precautions for press, equipment, and consumables.	Prerequisites: Permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T

AVC295KA	2023 Fall	Art Workshop/Seminar: Graphics/Animation		Advanced level workshop/seminar in art disciplines.	Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair.		Occ	L+L 1.0 2.0 2.0	T
AVC295XA	2023 Fall	Art Workshop/Seminar: Digital Photography		Advanced level workshop seminar in digital photography disciplines.	Prerequisites: A grade of C or better in AVC143 or permission of Instructor.	AVC295XA may be repeated for a total of four (4) credits.	Occ	L+L 1.0 2.0 2.0	T
AVC295XB	2023 Fall	Art Workshop/Seminar: Digital Photography		Advanced level workshop seminar in digital photography disciplines.	Prerequisites: A grade of C or better in AVC143 or permission of Instructor.	AVC295XB may be repeated for a total of eight (8) credits.	Occ	L+L 2.0 4.0 4.0	T
AVC295XC	2023 Fall	Art Workshop/Seminar: Digital Photography		Advanced level workshop seminar in digital photography disciplines.	Prerequisites: A grade of C or better in AVC143 or permission of Instructor.	AVC295XC may be repeated for a total of twelve (12) credits.	Occ	L+L 3.0 6.0 6.0	T
AVC296WA	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 student's major or career interest or with permission of the instructor.		Occ	LAB 1.0 5.0 0.0	Z
AVC296WB	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 2.0 10.0 0.0	Z

					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 student's major or career interest or with permission of the instructor.				
AVC296WC	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 student's major or career interest or with permission of the instructor.		Occ	LAB 3.0 15.0 0.0	Z
AVC296WD	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		Occ	LAB 4.0 20.0 0.0	Z

					student's major or career interest or with permission of the instructor.				
AVC297AA	2023 Fall	Commercial Art Internship		Digital design, development, and photographic imaging work experience in a business or industry. 80 hours of designated work.	Prerequisites: Permission of Department or Division.	AVC297AA may be repeated for a total of three (3) credit hours.	Occ	L+L 1.0 1.0 0.0	C
AVC297AB	2023 Fall	Commercial Art Internship		Digital design, development, and photographic imaging work experience in a business or industry. 160 hours of designated work.	Prerequisites: Permission of Department or Division.		Occ	L+L 2.0 2.0 0.0	C
AVC297AC	2023 Fall	Commercial Art Internship		Digital design, development, and photographic imaging work experience in a business or industry. 240 hours of designated work.	Prerequisites: Permission of Department or Division.		Occ	L+L 3.0 3.0 0.0	C
AVC298AA	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
AVC298AB	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	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.					
AVC298AC	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
AVT298AA	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z
AVT298AB	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. COMMON COMPETENCY COURSE					
AVT298AC	2025 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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z
BAW100	2023 Fall	Nail Technology I		Introduction to basic nail services, general sciences, safety, and infection control practices in the nail care industry.	Prerequisites: None.		Occ	L+L 4.0 8.0 8.0	T
BAW102	2023 Fall	Aesthetics Essentials		Introduction to the field of aesthetics including application of theory and skills to deliver an effective skin care facial treatment and client pre and post consultations. Focus on effective client communication, interpersonal skills, sanitation, Arizona laws, client care, and facial care.	Prerequisites: None.		Occ	L+L 4.0 8.0 8.0	T
BAW104	2021 Fall	Hair Essentials I		Introduction to the basic theory and procedures in cosmetology hair essentials.	Prerequisites: None.		Occ	L+L 4.0 8.0 8.0	T
BAW105	2023 Fall	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: A grade of C or better in BAW100 or permission of Program Director.		Occ	L+L 4.0 8.0 8.0	T

BAW106	2021 Fall	Hair Essentials II		Hair-shaping techniques and chemical application procedures in cosmetology hair essentials.	Prerequisites: None.		Occ	L+L 4.0 8.0 8.0	T
BAW110	2023 Fall	Advanced Aesthetics		Theory and application of advanced skin care modalities, resurfacing, and cosmetic chemistry. Hair removal techniques, makeup application, and an introduction to body treatments is also included. Application of theory and skills through treatment services provided to the public. Focus on communication and documentation to create customized treatment plans and product recommendations for clients that follow all safety and infection control procedures in compliance with the Arizona Barbering & Cosmetology Board.	Prerequisites: None.		Occ	L+L 4.0 8.0 8.0	T
BAW111	2023 Fall	Nail Technology III		Preparation for the written and practical examinations for Arizona Barbering and Cosmetology Board licensure. Includes concepts related to nail services, general sciences, and business skills in the nail care industry.	Prerequisites: A grade of C or better in BAW105 or permission of Program Director.		Occ	L+L 4.0 8.0 8.0	T
BAW112	2023 Fall	Hair Essentials		Focus on the competencies of the Cosmetologist and the Hair Stylist certificate programs and the Arizona Barbering & Cosmetology Board as an introduction to the basic theory and procedures in cosmetology hair essentials.	Prerequisites: None.		Occ	L+L 7.0 17.0 17.0	T
BAW114	2020 Fall	Student Salon I		Introduction to Cosmetology Student Salon operations and client services in the Cosmetology Clinic. Focus on application of skills learned in	Prerequisites: None.		Occ	L+L 4.0 8.0 8.0	T

				the classroom on live and mock clients.					
BAW115	2023 Fall	Aesthetics Mastery		Focus on theories and performance of comprehensive professional aesthetics treatments for the public including communication and documentation to create customized treatment plans and product recommendations for clients that follow all safety and infection control procedures in compliance with the Arizona Barbering & Cosmetology Board. Overview of business planning and employment in the field including marketing, job search strategies, professional development, and self promotion. Arizona Barbering & Cosmetology Board examination licensure preparation.	Prerequisites: None.		Occ	L+L 4.0 8.0 8.0	T
BAW116	2023 Fall	Student Salon II		Continuation of student salon with a focus on real life scenarios to serve a client and/or become a future business owner in the beauty industry.	Prerequisites: A grade of C or better in BAW114.		Occ	L+L 4.0 8.0 8.0	T
BAW118	2023 Fall	Hair Stylist State Licensure		Preparation for the written and practical examinations for Arizona Barbering & Cosmetology Board licensure as related to hairstyling. Focus on Arizona State testing procedures for the written and practical examinations, as well as applicable Arizona State laws for a Hairstylist. Final salon business practices and services.	Prerequisites: None.		Occ	L+L 4.0 8.0 8.0	T
BAW119	2020 Fall	Nail Essentials		Introduction to nail services in the beauty industry. Focus on knowledge and skills of	Prerequisites: None.		Occ	L+L 4.0 8.0 8.0	T

				providing nail services on actual clients in a salon setting.					
BAW120	2023 Fall	Massage Therapy Basics		Introduction to massage therapy. Includes 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: None.		Occ	L+L 3.5 7.0 7.0	T
BAW121	2023 Fall	Massage Therapy Advanced		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: None.		Occ	L+L 3.5 7.0 7.0	T
BAW212	2020 Fall	Skin Essentials		Introduction to skin services in the beauty industry. Focus on knowledge and skills of providing skin services on actual clients in a salon setting.	Prerequisites: None.		Occ	L+L 4.0 8.0 8.0	T
BAW214	2023 Fall	Student Salon III		Focus on application of cosmetology skills learned in the live salon setting to perform services with limited instructor assistance. Industry readiness and preparation to perform services in the chosen field of expertise after licensure with the Arizona Barbering & Cosmetology Board.	Prerequisites: A grade of C or better in BAW116.		Occ	L+L 4.0 8.0 8.0	T

BAW218	2023 Fall	Cosmetology State Licensure		Preparation for the written and practical examinations for the Arizona Barbering & Cosmetology Board licensure. Focus on Arizona state testing procedures for the written and practical examinations, as well as Arizona state laws for a cosmetologist. Final salon business practices and services.	Prerequisites: None.		Occ	L+L 2.0 4.0 4.0	T
BAW220	2023 Fall	Massage Therapy Mastery I		Advanced anatomy and massage. Focuses in detail on the skeletal and muscular components and manipulations of the upper body. Includes review of bones and muscles of the upper body and the kinesiology that develops from their interactions. Practical application of advanced anatomy in deep-tissue massage for the upper body. Emphasis on the integration of deep tissue, Thai massage, myofascial, and structural massage. Introduction to Subjective, Objective, Assessment, and Plan (S.O.A.P.) notes.	Prerequisites: A grade of C or better in BAW121 or permission of Program Director.		Occ	L+L 3.5 7.0 7.0	T
BAW221	2023 Fall	Massage Therapy Mastery II		Advanced anatomy and massage. Focus on the skeletal and muscular components and manipulations of the lower body. Review all of the bones and muscles of the lower body and the kinesiology that develops from their interactions. Practical application of advanced anatomy in deep-tissue massage for the lower body. Includes client assessment, treatment planning, and	Prerequisites: A grade of C or better in BAW220 or permission of Program Director.		Occ	L+L 3.5 7.0 7.0	T

				documentation for clients with common needs and clients with unique needs (such as athletes, expecting mothers, infants, older adults, obese individuals, people with disabilities, and end of life care). Also includes entrepreneurial skills conducive to the industry of massage therapy.					
BAW298AA	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
BAW298AB	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 2.0 2.0 0.0	Z
BAW298AC	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	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z

				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.					
BHS150	2018 Fall	Introduction to Behavioral Health and Social Services		Survey of the behavioral health and social services professions, including scope of practice and training requirements. Exploration of employment opportunities in the field and self-assessment/academic planning for a career in mental health. Overview of mental health disorders and first responder skills in a mental health crisis situation.	Prerequisites: None.	Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: Social-Behavioral Sciences - [SB]	Occ	LEC 3.0 3.0 3.0	S
BHS155	2022 Fall	Professional Resiliency and Well-Being		Exploration of building human resilience and well-being to prevent burnout, traumatic stress, and compassion fatigue for social services and mental health professionals, healthcare providers, emergency first responders, and other relationship-intense occupations. Causes, symptoms, and effects of traumatic stress, burnout compassion fatigue and other work-related stress. Focus on enhancing quality of life and improving a healthy lifestyle by incorporating evidenced-based practices in psychological and emotional resilience training, cognitive behavioral therapy, mindfulness, positive psychology, prevention, peer	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S

				support, and self-care, including nutrition, exercise, and sleep.					
BHS160	2023 Fall	Ethical, Legal, and Professional Issues in Counseling Services		Explores relevant ethical, legal, and professional issues inherent in the behavioral health and social services field, including expectations of and limitations on providers. Key areas of inquiry include boundaries and dual relationships, mandated reporting, confidentiality, scope of practice, beneficence and non-maleficence, rights and responsibilities, professional relationships, and credentialing/regulating agencies.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
BHS165	2020 Fall	Applied Therapeutic Communication Skills		Theory and practice of communication skills to establish and maintain effective helping relationships and enhance the therapeutic alliance. Emphasis on verbal communication, nonverbal communication, paraverbal communication, rapport building, empathetic and active listening skills, resolving interpersonal conflicts, appropriate feedback, and developing and maintaining personal and professional relationships.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
BHS170	2018 Fall	Case Management and Clinical Documentation		Overview and application of the principles, practices, and function of case management in human services. Case management service delivery and coordination for clients with psychological, developmental, and psychiatric and comorbid medical conditions. Documentation techniques	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S

				necessary to maintain clinical records in a variety of behavioral healthcare settings.					
BHS175	2023 Fall	Trauma-Informed Care and Recovery Treatment		Comprehensive overview of various types of trauma, neurobiological effects of traumatic stress, and ethics associated in working with a trauma survivor. Concepts and skills needed to become a fully functioning trauma-informed caregiver professional in the mental health and primary care setting.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
BHS180	2019 Spring	Child, Family, and Adult Advocacy		The role of advocacy in relation to multiple systems affecting children, families, and adults. Emphasis on identifying appropriate supports, community resources, and "wrap-around" services to help foster healthy family and child development, adult recovery, and social welfare.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
BHS185	2020 Fall	Cultural Competence in Behavioral Health		Exploration of cultural diversity and its potential impact on behaviors, emotions, cognitions and perceptions, relationships, and values. Intercultural communication skills through the examination of cultural and racial diversity, sexual and gender identity, social justice, and religious and spiritual diversity. Consideration of its implications for the therapeutic process and the importance of self-awareness and effective communication skills for professionals in the behavioral health and social sciences.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
BHS190	2023 Fall	Supervised Practice in Behavioral Health and Human Services		Supervised, entry-level work-based experience in mental	Prerequisites: A grade of C or better in		Occ	LAB 1.0 1.0 0.0	C

				health, social service, or a related behavioral health care provider setting. 80 hours of designated volunteer or paid work-based learning.	BHS150, or BHS155, or BHS160, or permission of Department or Division.				
BHS205	2023 Fall	Introduction to Individual Counseling Theories		Introduction to the major evidence-based therapeutic models and interventions in social and behavioral sciences. Defines the key concepts, techniques and procedures of each theoretical model.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
BHS210	2023 Fall	Addictions, Substance Use Disorders, and Recovery		Introduction to the historical and current developments in the field of addiction, as well as sociological, psychological, and physiological aspects of addictive behaviors and substance use. Introduces contemporary treatment methods within addiction practice, including self-help groups, levels of care, symptom identification, and models of prevention, and intervention. Examines factors that predict relapse and support recovery.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
BHS215	2023 Fall	Introduction to Group Therapy		Overview of the methods and techniques for influencing change in group settings. Examination of theories and concepts essential to provision of group counseling in behavioral health and addiction settings.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
BHS216	2019 Spring	Group Process		Evaluate and demonstrate the methods and techniques for influencing change in group settings.	Prerequisites: A grade of C or better in BHS151 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0	S
BHS220	2020 Fall	Introduction to Integrated Behavioral Healthcare		Introduction to key concepts related to the provision of integrated health care services, as well as role of	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S

				wellness and prevention in community health services. The course will introduce students to the theory and clinical practice of integrated behavioral health in primary care, as well as evidence-based approaches to promote wellness in individuals and communities.					
BHS230	2018 Fall	Crisis and Trauma Stabilization		Theoretical and applied foundation designed for behavioral health service providers working with people in crisis. Examines the phenomena and dynamics of crises and emergencies, as well as the related strategies/modalities.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
BHS235	2018 Fall	Emergency Mental Health Crisis Response and Recovery		Comprehensive study of natural and human-caused disasters and their effects on the trauma survivor. Introduction to basic emergency mental health interventions to help stabilize those experiencing crisis following critical incident disasters.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
BHS251	2020 Fall	Harm Reduction in Addiction, Substance Use, and Social Services		Introduction to harm reduction principles, policies, programs, and practices that aim to reduce the adverse health, social and economic consequences of the use of legal and illegal drugs. This course will introduce behavioral health and social service providers as well as paraprofessional counselors to the theory and practice of harm reduction strategies in addiction, social service, and community settings.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S

BHS255	2020 Fall	Health and Wellness Coaching in Professional Resiliency		Comprehensive overview of the art, science, and role of coaching and teaching resiliency for the following issues: personal and work-related stress, burnout, traumatic stress, and compassion fatigue. Develop pedagogical techniques and practical application of evidence-based interventions in biobehavioral self-regulation, mindfulness, cognitive restructuring, positive psychology, peer support, and holistic self-care. Designed to develop skills as a health and wellness coach in professional resiliency for enhancing health and quality of life.	Prerequisites: A grade of C or better in BHS155.		Occ	LEC 3.0 3.0 3.0	S
BHS262	2023 Fall	Behavioral Health Service Techniques for the Elderly		Specific counseling skills and appropriate intervention strategies for working with the elderly. Focus on the particular psychological, sociological and physical problems of this age group.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
BHS266	2020 Fall	Violence and Abuse Services		Techniques, strategies, and treatment modalities necessary for the helping professional working with the victims and perpetrators of violence and abuse.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
BHS267	2023 Fall	Introduction to Play Therapy		Exploration and application of therapeutic play techniques and strategies for the helping professional working with children.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
BHS269	2020 Fall	Grief Support Techniques		Techniques, strategies, and treatment modalities necessary for the helping professional working with the bereaved and others affected by traumatic loss.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S

BHS271	2020 Fall	Developmental Disabilities Assistance Training		Introduction to the field of developmental disability assistance. Also includes common causes of developmental disabilities, treatments and other behavioral conditions that may affect such individuals.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
BHS272	2020 Fall	Child and Adolescent Mental Health and Interventions		Strategies for training and reinforcing positive interaction with children. Covers behavior management strategies and techniques to prevent behavioral problems, replace behaviors and manage consequences.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
BHS275	2018 Fall	Infant and Early Childhood Mental Health		Foundational knowledge of mental health during infancy and early childhood. Exploration of social-emotional development and relational influences on mental health. Emphasis on identifying early warning signs, making appropriate referrals, and employing a multidisciplinary child and family team approach to services.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
BHS281	2023 Fall	Introduction to Art Therapy		Exploration of the process, dynamics and objectives of the therapeutic art experience. Emphasis on Art Therapy from both the psychological and artistic perspectives. Highlights topics in the history, theory and practice of Art Therapy.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
BHS298AA	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	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z

				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. COMMON COMPETENCY COURSE					
BHS298AB	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z
BHS298AC	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z
BHS300	2023 Fall	Research Methods for Evidence-Based Practice		Overview of the uses, limitations, and ethics of research methodology in the behavioral sciences, and the qualitative and quantitative methods associated with	Prerequisites: A grade of C or better in PSY230, or permission of Instructor.		Acad	L+L 4.0 4.0 4.0	T

				<p>common research designs. Prepares students to conduct evaluations of literature published research, use empirical evidence as the basis for interventions, and evaluate the effectiveness of their own interventions. Focuses on applications of descriptive and inferential statistics using statistical software.</p>					
BHS310	2023 Fall	Fundamentals of Family Systems Counseling		<p>Study of the family as a system and the concepts and principles applicable to helping individuals from a systemic perspective. Examines family processes, including functional and dysfunctional patterns, difficulties that families may experience as they move through their developmental stages, and the family's interactions with individuals and communities. Introduction to family systems theory as it applies to the predominant models of family therapy.</p>	Prerequisites: A grade of C or better in BHS205, or permission of Instructor or Department.		Acad	LEC 3.0 3.0 3.0	S
BHS320	2023 Fall	Behavioral Development Across the Lifespan		<p>Critical analysis of human development throughout the lifespan, including physical, cognitive, emotional, and social development. Prepares students in the behavioral sciences to conceptualize clients through a developmental perspective. Overview of both normal human development and developmental psychopathology. Focus on child, adolescent, and adult development through the study of major theories and</p>	Prerequisites: A grade of C or better in BHS262 or BHS272 or BHS275, or permission of Instructor.		Acad	LEC 3.0 3.0 3.0	S

				models, with implications for helping professionals.					
BHS340	2023 Fall	Psychopathology Across Cultures		Overview of the scientific study of mental illness and substance use disorders (psychopathology). Evaluates theories of psychopathology from sociological, psychological, and behavioral perspectives. Examines the most prevalent categories of mental disorders from several different theoretical and treatment perspectives. Focus on diagnostic features, etiology, epidemiology, prognosis, and treatment issues related to various psychiatric disorders. Legal, ethical, and cultural issues pertaining to psychopathology also discussed, in addition to prevention and intervention strategies.	Prerequisites: A grade of C or better in (BHS150 and BHS185), or permission of Instructor.		Acad	LEC 3.0 3.0 3.0	S
BHS385	2023 Fall	Multicultural Approaches to Behavioral Health Care		Advanced application of multicultural competencies, focusing on necessary awareness, knowledge, and skills needed in behavioral health settings. Examination of the dimensions of personal identities and intersectionality in the conceptualization, planning, and implementation of interventions in human services fields.	Prerequisites: A grade of C or better in BHS185, or permission of Instructor.		Acad	LEC 3.0 3.0 3.0	S
BHS400	2023 Fall	Biological and Environmental Bases of Behavior		Examination of human behavior from biophysiological, psychosocial-cognitive, and social-cultural perspectives using relevant theories. Focuses on the nervous system, brain function, and cognition, as well as the role	Prerequisites: A grade of C or better in BIO160, or permission of Instructor.		Acad	LEC 3.0 3.0 3.0	S

				of psychopharmacology in behavioral healthcare.					
BHS410	2023 Fall	Co-Occurring Substance Use and Mental Disorders		Advanced instruction in co-occurring behavioral health and substance use disorders from the bio-psycho-social model for application in the behavioral health field. Includes philosophies and practices of empirically supported models. Emphasis on causes, consequences, assessment, treatment, recovery, and harm reduction.	Prerequisites: A grade of C or better in (BHS210 and BHS340), or permission of Instructor.		Acad	LEC 3.0 3.0 3.0	S
BHS420	2023 Fall	Relational Approach to Trauma		Exploration of the science of trauma and recovery within the family context. Includes the dynamic elements of trauma treatment with the integration of systemic and family treatment models. Examines the lifelong impact of traumatic stress and complex trauma during the early years of life. Focus on evidence-based treatment and interventions from a family theory perspective for individual, relational, and systematic traumatization.	Prerequisites: A grade of C or better in BHS175, or permission of Instructor or Department.		Acad	LEC 3.0 3.0 3.0	S
BHS430	2023 Fall	Concepts and Principles of Applied Behavior Analysis		An in-depth consideration of the scientific theories, concepts, and principles of understanding and modifying behavior. Focus on applying behavior analysis for data-based decisions to resolve challenging behaviors and foster prosocial behaviors. Students will learn basic principles and procedures, such as functional behavior assessment, assessment of reinforcers, and implementation of a behavior	Prerequisites: A Grade of C or better in (BHS205 and BHS320), or permission of Instructor or Department.		Acad	LEC 3.0 3.0 3.0	S

				intervention plan to reach socially meaningful outcomes.					
BHS490	2023 Fall	Advanced Supervised Practice in Behavioral Health and Human Services		Advanced, supervised work experience in mental health, social service, or a related behavioral health care provider setting. 160 hours of designated volunteer or paid work-based learning.	Prerequisites: AAS in Behavioral Health Sciences or permission of Instructor.		Acad	LAB 2.0 2.0 0.0	C
BIO100	2018 Fall	Biology Concepts		Introductory course covering basic principles and concepts of biology. Methods of scientific inquiry and behavior of matter and energy in biological systems are explored.	Prerequisites: None.	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
BIO101	2018 Fall	Introduction to Human Genetics for Non-Majors		Study of inheritance in humans, at the organismal, cellular and molecular levels. Includes exploration of gene expression, isolation and manipulation of DNA, Mendelian genetics, pedigree analysis, as well as chromosomal abnormalities and genetic diseases.	Prerequisites: None.	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
BIO102	2018 Fall	Cells to Systems: An Introduction to Biology for Non-Majors		Study of living things. Builds from basic molecular components to structure and physiology of cells and organ systems of animals and plants.	Prerequisites: None.	General Education Designation: Natural Sciences (Quantitative) - [SQ]	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0	T
BIO105	2018 Fall	Environmental Biology		Fundamentals of ecology and their relevance to human impact on natural ecosystems.	Prerequisites: None.	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
BIO106	2001 Fall	Biotechnology and Society I		Introduction to biotechnology and its impact on society. Covers applications, limitations, benefits, risks, and legal and moral issues associated with biotechnology	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
BIO107	2018 Fall	Introduction to Biotechnology		Introduction to biotechnology and its global impact on society. Covers applications, laboratory techniques,	Prerequisites: None.	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

				limitations and the international economic benefits, risks, and legal and moral issues associated with biotechnology					
BIO108	2023 Fall	Plants and Society		A global study of plants in relation to humans; as a source of food, fiber, drugs, and other products; for aesthetic value, survival, and energy.	Prerequisites: None.	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
BIO109	2024 Fall	Natural History of the Southwest		Study of the common plants and animals of the Southwest including their distribution, adaptation, behavior, and ecology. Introduction to basic field and laboratory techniques used in the study of natural history. Specific field problems presented dealing with plant and animal analysis and ecological interrelationships.	Prerequisites: None.		Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0	T
BIO111	2024 Fall	Microbes and Society		A study of microorganisms and the roles they play in everyday life.	Prerequisites: None.		Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0	T
BIO116	2023 Spring	Introduction to Animal Behavior		Scientific study of animal behavior for non-majors. Includes experimental exploration of current hypotheses for genetic and environmental influences, communication, reproductive strategies, habitat selection, and sociality.	Prerequisites: None.		Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0	T
BIO145	2018 Fall	Marine Biology		A survey of marine environments and their biotic communities with emphasis on the natural history of marine organisms	Prerequisites: None.	Course Attribute(s): General Education Designations: Natural Sciences (General) - [SG]	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0	T
BIO149AH	2020 Spring	Field Biology: Marine Biology in Mexico		Introduction to marine experiments, marine biology, and ecology. On-site field experience in Mexico. Emphasis on observation and	Prerequisites: Permission of Instructor.	BIO149AH may be repeated for a total of three (3) credit hours.	Acad	L+L 1.0 1.34 1.34	G

				study of marine organisms along the shore.					
BIO149AK	1990 Fall	Field Biology: Ecological and Environmental Field Experience		Field expeditions in which ecological and environmental principles and concepts are observed and studied.	Prerequisites: None.	BIO149AK may be repeated for a total of four (4) credit hours.	Acad	LAB 1.0 7.0 1.0	H
BIO149AL	2002 Fall	Field Biology: Ecological and Environmental Field Experience		Field expeditions in which ecological and environmental principles and concepts are observed and studied.	Prerequisites: None.	BIO149AL may be repeated for a total of four (4) credit hours.	Acad	LAB 2.0 14.0 2.0	F
BIO149AM	1990 Fall	Field Biology: Ecological and Environmental Field Experience		Field expeditions in which ecological and environmental principles and concepts are observed and studied	Prerequisites: None.		Acad	LAB 3.0 21.0 1.0	H
BIO149AN	1990 Fall	Field Biology: Ecological and Environmental Field Experience		Field expeditions in which ecological and environmental principles and concepts are observed and studied	Prerequisites: None.		Acad	LAB 4.0 28.0 1.0	H
BIO149SV	2020 Spring	Field Biology: Ecological and Environmental Field Experience		Field expeditions in which ecological and environmental principles and concepts are observed and studied.	Prerequisites: None.	BIO149SV may be repeated for a total of eight (8) credit hours.	Acad	L+L 1.0 1.34 1.34	G
BIO156	2020 Fall	Introductory Biology for Allied Health		An introductory biology course for allied health majors with an emphasis on humans. Topics include fundamental concepts of cell biology, histology, microbiology, and genetics.	Prerequisites: A grade of C or better in RDG100 or RDG100LL or higher or eligibility for CRE101 as indicated by appropriate reading placement test score. One year of high school or one-semester of college level chemistry is strongly recommended.	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
BIO156XT	2020 Fall	Introductory Biology for Allied Health		An introductory biology course for allied health majors with an emphasis on humans. Topics include fundamental concepts of cell biology, histology, microbiology, and genetics.	Prerequisites: A grade of C or better in RDG100 or RDG100LL or higher or eligibility for CRE101. One year of high school or one-semester of college level chemistry is strongly recommended.		Acad	LEC 4.0 3.0 3.0 LAB 0.0 4.0 4.0	T
BIO160	2020 Spring	Introduction to Human Anatomy and Physiology		Principles of scientific method. Structural organization, homeostasis and control	Prerequisites: None.	Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ]	Acad	LEC 4.0 3.0 3.0	T

				mechanisms of the body. Specific chemistry concepts. Structure and function of the major systems of the body.				LAB 0.0 3.0 3.0	
BIO181	2023 Fall	General Biology (Majors) I		The study and principles of structure and function of organisms at the molecular and cellular levels. A detailed exploration of the chemistry of life, the cell, and genetics.	Prerequisites: A grade of C or better in RDG100, or RDG100LL, or higher, or eligibility for CRE101. One year of high school or one semester of college-level biology and chemistry is strongly recommended.		Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0	T
BIO181XT	2023 Fall	General Biology (Majors) I		The study and principles of structure and function of organisms at the molecular and cellular levels. A detailed exploration of the chemistry of life, the cell, and genetics.	Prerequisites: A grade of C or better in RDG100, or RDG100LL, or higher, or eligibility for CRE101. One year of high school or one semester of college-level biology and chemistry is strongly recommended.		Acad	LEC 4.0 3.0 3.0 LAB 0.0 4.0 4.0	T
BIO182	2023 Fall	General Biology (Majors) II		The study and principles of structure and function of living things at cellular, organismic, and higher levels of organization. A detailed exploration of the mechanisms of evolution, biological diversity, biology of organisms, and ecology.	Prerequisites: A grade of C or better in BIO181, or BIO181XT, or permission of Department or Division Chair.	Course Attribute(s): General Education Designation: Natural Sciences (General) - [SG] Arizona Shared Unique Number SUN# BIO 1182	Acad	LEC 4.0 3.0 3.0 0.0 3.0 3.0	T
BIO182XT	2023 Fall	General Biology (Majors) II		The study and principles of structure and function of living things at cellular, organismic, and higher levels of organization. A detailed exploration of the mechanisms of evolution, biological diversity, biology of organisms, and ecology.	Prerequisites: A grade of C or better in BIO181, or BIO181XT, or permission of Department or Division Chair.		Acad	LEC 4.0 3.0 3.0 0.0 4.0 4.0	T
BIO192	2018 Fall	Recitation in Biology		Discussion, guided practice and problem solving related to a topically focused area of biology.	Prerequisites: None. Corequisites: Any 100-level BIO Biology	BIO192 may be repeated for credit.	Acad	L+L 1.0 1.0 1.0	T

					course or permission of Instructor.				
BIO194AA	2018 Fall	Special Topics in Biology		Conceptual and research basis of a current topic in biology.	Prerequisites: Permission of Instructor.	BIO194AA may be repeated for credit.	Acad	LEC 1.0 1.0 1.0	S
BIO194AB	2018 Fall	Special Topics in Biology		Conceptual and research basis of a current topic in biology. Includes integrated laboratory and/or field applications of related methodologies.	Prerequisites: Permission of Instructor.	BIO194AB may be repeated for credit.	Acad	L+L 1.0 2.0 2.0	T
BIO194AC	2018 Fall	Special Topics in Biology		Conceptual and research basis of a current topic in biology. Includes laboratory and/or field applications of related methodologies.	Prerequisites: Permission of Instructor.	BIO194AC may be repeated for credit.	Acad	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0	T
BIO195AA	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 (BIO181 or CHM151 or PHY111) or permission of Instructor.	BIO195AA may be repeated for credit.	Acad	L+L 1.0 2.0 2.0	T
BIO195AB	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	Prerequisites: A grade of C or better in (BIO181 or CHM151 or PHY111) or permission of Instructor.	BIO195AB may be repeated for credit.	Acad	L+L 2.0 4.0 4.0	T

				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.					
BIO195AC	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 (BIO181 or CHM151 or PHY111) or permission of Instructor.	BIO195AC may be repeated for credit.	Acad	L+L 3.0 6.0 6.0	T
BIO201	2020 Fall	Human Anatomy and Physiology I		Study of structure and function of the human body. Topics include cells, tissues, integumentary system, skeletal system, muscular system, and nervous system.	Prerequisites: (A grade of C or better in BIO156 or BIO156XT or BIO181 or BIO181XT or one year of high school biology) and a grade of C or better in RDG100 or RDG100LL or higher or eligibility for CRE101. CHM130 or higher or one year of high school chemistry suggested but not required.	Course Attribute(s): General Education Designation: Natural Sciences (General) - [SG] Arizona Shared Unique Number SUN# BIO 2201	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0	T
BIO201XT	2023 Fall	Human Anatomy and Physiology I		Study of structure and function of the human body. Topics include cells, tissues, integumentary system, skeletal system, muscular system, and nervous system.	Prerequisites: A grade of C or better in (BIO156, or BIO156XT, or BIO181, or BIO181XT, or one year of high school biology)	Course Attribute(s): General Education Designation: Natural Sciences (General) - [SG]	Acad	LEC 4.0 3.0 3.0 LAB 0.0 4.0 4.0	T

					and (RDG100, or RDG100LL, or higher, or eligibility for CRE101). CHM130 or higher or one year of high school chemistry suggested but not required.				
BIO202	2023 Fall	Human Anatomy and Physiology II		Continuation of structure and function of the human body. Topics include endocrine, circulatory, lymphatic, respiratory, digestive, urinary, and reproductive systems; and fluid and electrolyte balance.	Prerequisites: A grade of C or better in BIO201 or BIO201XT.	Course Attribute(s): General Education Designation: Natural Sciences (General) - [SG] Arizona Shared Unique Number SUN# BIO 2202	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0	T
BIO205	2023 Fall	Microbiology		Study of microorganisms and their relationship to health, ecology, and related fields.	Prerequisites: A grade of C or better in (BIO156, or BIO156XT, or BIO181, or BIO181XT, or one year of high school biology) and (RDG100, or RDG100LL, or higher, or eligibility for CRE101). CHM130 or higher or one year of high school chemistry suggested but not required.	Course Attribute(s): General Education Designation: Natural Sciences (General) - [SG] Arizona Shared Unique Number SUN# BIO 2205	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0	T
BIO208	2023 Fall	Nucleic Acid Methods		Intensive introduction to laboratory methods for the isolation, purification, manipulation analysis and quantification of nucleic acids.	Prerequisites: A grade of C or better in [ABS173 and ABS175 and (BIO156 or BIO181)] or permission of Instructor.		Acad	L+L 3.0 6.0 6.0	T
BIO209	2023 Fall	Biomolecular Separation		Introduction to industrial laboratory biotechnology with intensive focus on the recovery of heterologous proteins and other biomolecules from cultivated cells and the subsequent recovery, purification and characterization of these molecules.	Prerequisites: A grade of C or better in [ABS173 and ABS175 and (BIO156 or BIO181)] or permission of Instructor.		Acad	L+L 3.0 6.0 6.0	T

BIO210	2018 Fall	Advanced Lab Instrumentation		Provides training in the principles, operation and interpretation of data from laboratory instrumentation.	Prerequisites: A grade of C or better in BIO208, or BIO209, or permission of Instructor.		Acad	L+L 3.0 6.0 6.0	T
BIO211AA	2009 Spring	Biotechnology Seminar: Biomedical Applications		Special topics in biotechnology with an emphasis on current issues not covered in other life science courses	Prerequisites: None.	BIO211AA may be repeated for a total of two (2) credit hours	Acad	LEC 1.0 1.0 1.0	S
BIO211AB	2009 Spring	Biotechnology Seminar: Laboratory Protocol		Special topics in biotechnology with an emphasis on current issues not covered in other life science courses	Prerequisites: A grade of C or better in BIO211AA or permission of Instructor.	BIO211AB may be repeated for a total of two (2) credit hours	Acad	LEC 1.0 1.0 1.0	S
BIO211AE	2023 Fall	Biotechnology Seminar: Business and Regulatory Issues		Selected topics in biotechnology with an emphasis on current issues not covered in other life science courses.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
BIO213	2023 Fall	Biotechnology Refresher		Opportunity for students who need more practice with biotechnology laboratory techniques to review their skills.	Prerequisites: A grade of C or better in (BIO208 or BIO209) and permission of Program Director.	BIO213 may not be substituted for any of the prerequisite courses or BIO210 in satisfaction of degree requirements. BIO213 may be repeated for a total of four (4) credit hours.	Acad	L+L 2.0 6.0 6.0	T
BIO215AB	2023 Fall	Biotechnology Internship		Internship experience in a biotechnology laboratory. Setting, achieving, and evaluating goals for hands-on learning experience in a biotechnology laboratory. Development of skills and knowledge needed to work in a biotechnology laboratory.	Prerequisites: A grade of C or better in (BIO208 or BIO209 or BIO213) and permission of Program Director.	BIO215AB requires 160 clock hours in the laboratory setting. BIO215AB may be repeated for a total of six credit hours.	Acad	LAB 2.0 2.0 0.0	C
BIO215AC	2023 Fall	Biotechnology Internship		Internship experience in a biotechnology laboratory. Setting, achieving, and evaluating goals for hands-on learning experience in a biotechnology laboratory. Development of skills and knowledge needed to work in a biotechnology laboratory.	Prerequisites: A grade of C or better in (BIO208 or BIO209 or BIO213) and permission of Program Director.	BIO215AC requires 240 clock hours in the laboratory setting. BIO215AC may be repeated for a total of six credit hours.	Acad	LAB 3.0 3.0 0.0	C

BIO220	2018 Fall	Biology of Microorganisms		Detailed study of microbial cells, their structure, genetics, physiology and taxonomy.	Prerequisites: A grade of C or better in BIO181. Corequisites: (CHM152 and CHM152LL) or (CHM154 and CHM154LL).		Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0	T
BIO234	2021 Spring	Fundamental Evolutionary Biology		Fundamentals of evolutionary theory including natural selection, adaptation, species concepts, speciation, extinction, basics of phylogenetics, molecular and population genetics, and the evolution of sex and sociality.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: BIO182 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0	S
BIO240	2023 Fall	General Genetics		In depth examination of the field of genetics.	Prerequisites: A grade of C or better in BIO181, or BIO181XT, or permission of Instructor.		Acad	LEC 4.0 4.0 4.0	S
BIO241	2018 Fall	Human Genetics		An introduction to the basic concepts of human heredity and cytogenetics including Mendelian, molecular, and population genetics	Prerequisites: A grade of C or better in BIO100 or BIO181 or equivalent or permission of Instructor.	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
BIO249	2021 Fall	Applied Biosciences: Biotechnology Internship		Internship/work experience in a biotechnology laboratory. Setting, achieving, and evaluating goals for hands-on learning experiences in a biotechnology laboratory. Development of skills and knowledge needed to work in a biotechnology laboratory.	Prerequisites: Permission of Instructor.	BIO249 requires a minimum of 320 clock hours in the biotechnology laboratory setting.	Acad	LAB 4.0 4.0 0.0	C
BIO254	2018 Fall	Entomology		Form, activities, and classification of insects.	Prerequisites: One semester of college-level biology or equivalent or permission of Instructor.		Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0	T
BIO270	2012 Spring	Sustainable Biological Systems		Course to introduce concepts in Ecology covering abiotic and biotic systems, population biology and ecology, community ecology, biotic communities, disturbance and succession, biogeography, fire	Prerequisites: A grade of C or better in BIO181.		Acad	LEC 3.0 3.0 3.0	S

				ecology, evolution in changing environments, human population biology, and issues in ecology.					
BIO276	2018 Fall	Scientific Diving		Theory and practice of underwater research using snorkel and self-contained underwater breathing apparatus (SCUBA). Advanced diving skills, data acquisition and processing, and planning an underwater study.	Prerequisites: A grade of C or better in PED101SU or PED201SU (any certification card from a nationally recognized agency.) BIO145 or BIO181 recommended but not required.		Acad	L+L 3.0 4.0 4.0	T
BIO282AA	2013 Fall	Service-Learning Experience in Biology		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	BIO282AA 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
BIO282AB	2013 Fall	Service-Learning Experience in Biology		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	BIO282AB 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
BIO282AC	2013 Fall	Service-Learning Experience in Biology		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	BIO282AC 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
BIO283	2023 Fall	Bioinformatics and Scientific Computing	CSC283	Introduction to bioinformatics, including history, concepts, major genetic databases and access tools. Computer software and techniques for analyzing one nucleotide or protein sequence, searching for similar sequences, and aligning and comparing two or multiple sequences. Microarray analysis and phylogenetic trees. Application of standard software to bioinformatic computing tasks, including word processing of reports, and use of spreadsheets for statistical analysis and graphing. Text	Prerequisites: A grade of C or better in [(BIO156 or BIO181) and (MAT095, or MAT096, or MAT114, or MAT115, or MAT12+, OR an appropriate district placement for MAT15+ or higher)], or permission of Instructor or Department/Division Chair. Concurrent enrollment in, or previous completion of BIO208 is strongly suggested but not required.		Acad	L+L 3.0 4.0 4.0	T

				editors, Unix, Internet web site searching and construction, and ethics.					
BIO290AA	2023 Fall	Biology Internship		Internship experience with a public or private agency, non-profit organization or special interest group related to some aspect or application of biology.	Prerequisites: Permission of Instructor.	BIO290AA requires a minimum of 80 clock hours in the internship setting. BIO290AA may be repeated for a total of two (2) credit hours.	Acad	LAB 1.0 1.0 0.0	C
BIO290AB	2023 Fall	Biology Internship		Internship experience with a public or private agency, non-profit organization or special interest group related to some aspect or application of biology.	Prerequisites: Permission of Instructor.	BIO290AB requires a minimum of 160 clock hours in the internship setting. BIO290AB may be repeated for a total of four (4) credit hours.	Acad	LAB 2.0 2.0 0.0	C
BIO290AC	2023 Fall	Biology Internship		Internship experience with a public or private agency, non-profit organization or special interest group related to some aspect or application of biology.	Prerequisites: Permission of Instructor.	BIO290AC requires a minimum of 240 clock hours in the internship setting. BIO290AC may be repeated for a total of six (6) credit hours.	Acad	LAB 3.0 3.0 0.0	C
BIO292	2018 Fall	Advanced Recitation in Biology		Discussion, guided practice and problem solving related to advanced topics in biology.	Prerequisites: None. Corequisites: Any 200-level BIO Biology course or permission of Instructor.	BIO292 may be repeated for credit.	Acad	L+L 1.0 1.0 1.0	T
BIO294AA	2018 Fall	Special Topics in Biology- Advanced		Advanced evidence-based study of a current topic in biology from a research and theoretical perspective.	Prerequisites: Permission of Instructor.	BIO294AA may be repeated for credit.	Acad	LEC 1.0 1.0 1.0	S
BIO294AB	2018 Fall	Special Topics in Biology-Advanced		Advanced evidence-based study of a current topic in biology from a research and theoretical perspective. Includes integrated laboratory and/or field applications of related methodologies.	Prerequisites: Permission of Instructor.	BIO294AB may be repeated for credit.	Acad	L+L 1.0 2.0 2.0	T
BIO294AC	2018 Fall	Special Topics in Biology-Advanced		Advanced evidence-based study of a current topic in biology from a research and theoretical perspective. Includes integrated laboratory and/or field applications of related methodologies.	Prerequisites: Permission of Instructor.	BIO294AC may be repeated for credit.	Acad	LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0	T
BIO295AA	2017 Fall	Independent Research in Biology		Original scientific investigation of biological phenomenon.	Prerequisites: A grade of C or better in	BIO295AA requires a minimum of 80 hours of independent	Acad	LAB 1.0 1.0 0.0	Z

					(BIO156 or BIO181) and permission of Instructor.	laboratory and/or field study. BIO295AA may be repeated for credit.			
BIO295AB	2017 Fall	Independent Research in Biology		Original scientific investigation of biological phenomenon.	Prerequisites: A grade of C or better in (BIO156 or BIO181) and permission of Instructor.	BIO295AB requires a minimum of 160 hours of independent laboratory and/or field study. BIO295AB may be repeated for credit.	Acad	LAB 2.0 2.0 0.0	Z
BIO295AC	2017 Fall	Independent Research in Biology		Original scientific investigation of biological phenomenon.	Prerequisites: A grade of C or better in (BIO156 or BIO181) and permission of Instructor.	BIO295AC requires a minimum of 240 hours of independent laboratory and/or field study. BIO295AC may be repeated for credit.	Acad	LAB 3.0 3.0 0.0	Z
BIO296WA	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.	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
BIO296WB	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.	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		Acad	LAB 2.0 10.0 0.0	Z

					or with permission of the Instructor.				
BIO296WC	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.	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
BIO296WD	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.	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
BIO298AA	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.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0	Z

				Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE					
BIO298AB	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0	Z
BIO298AC	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0	Z
BLT101	2000 Spring	Introduction to Construction Trades		Introduction to trade and craft apprenticeships in Arizona, including concrete, carpentry, millwright, pipefitting, steamfitting and plumbing, sheet metal, painter, decorator and drywall taper, electrician and ironworker	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S

BLT120	1995 Fall	Techniques of Building Inspection		Theory and practice of zoning, foundation, structural, mechanical and electrical inspection in modern residential and commercial construction	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
BLT121	1994 Fall	Electrical Codes		Principles of safe electrical installations and proper inspection procedures. Topics include conduit installation, transformer service, raceways, control circuits, grounding and bonding, hazardous occupancies and the National Electrical Code	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
BLT122	1996 Fall	Basic Engineering for Building Inspectors and Contractors I		Basic engineering mechanics, gravity loads, shears, bending moments, wood frame construction, deck joints, beams, columns, bracing and shear walls.	Prerequisites: A grade of C or better in BLT120 and MAT187 or equivalent or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0	S
BLT124	1997 Fall	Designing for the Americans with Disabilities Act(ADA)		In-depth analysis of federal standards described in the Americans with Disabilities Act (ADA). Reviews the state of Arizona's enforcement document (AzDAAG). Focuses on helping designers, architects, and building officials create barrier-free buildings and facilities	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
BLT125	1990 Fall	Residential Electrical Codes		National Electrical Code requirements for safe electrical installations and proper inspection procedures in residential buildings. Topics include branch circuitry, feeder calculations, services grounding, overcurrent protection, wiring methods, types and proper usage of material, swimming pool installation	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
BLT126	2015 Fall	Soil Mechanics		Soil conditions as related to modern building requirements. Topics include bearing value,	Prerequisites: A grade of C or better in MAT150 or MAT151 or		Occ	LEC 3.0 3.0 3.0	S

				classification and identification, exploration and samplings, behavior of fills, compaction, subsurface drainage, and field sampling.	MAT152 or satisfactory score on District placement exam.				
BLT127	1994 Fall	Plumbing Codes		Code requirements and construction practices. Topics include underground and above ground plumbing, venting and finish plumbing	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
BLT128	1994 Fall	Mechanical Codes		Code requirements and construction practices. Topics include duct work, conductors and fuel supply, insulation, and controls	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
BLT129	1994 Fall	Materials of Construction		Fundamental characteristics of modern construction materials and the effective use of these materials in construction	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
BLT131	1996 Spring	Applied Electric Codes		National Electric Code (NEC) administration and application. NEC requirements for safe installation of system control equipment and design of electric utilization systems. Identification of wiring systems and permitted uses. Application of NEC requirements for hazardous locations, specific occupancies, and special uses of electric equipment	Prerequisites: None.		Occ	LEC 4.0 4.0 4.0	S
BLT132	1996 Spring	Applied Plumbing Codes		Plumbing code administration. Application, design and installation of drainage/waste and venting systems in private and public buildings. Application of plumbing codes for design and installation of water systems	Prerequisites: None.		Occ	LEC 4.0 4.0 4.0	S
BLT140	2000 Spring	Environmentally Responsible Building		An overview of environmentally responsible building and a historical survey of building methodologies. Introduces	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S

				design concepts and strategies related to the mitigation of environmental impacts. Examines building processes, environmental issues and the interdependent nature of our built environment. Topics include human impacts, climate and geography, sustainability, renewable energies, water use and energy, resource efficiency, building materials, indoor air quality and waste reduction					
BLT142	2011 Summer I	Green Building Codes, Standards and Rating Systems		Surveys green building rating systems, environmental building standards and green construction codes; addresses the broader scope of public health, safety and general welfare in the context of regulations and the natural environment; examines site development and land use, material resource conservation, energy efficiency, water resource conservation, indoor environmental quality, building commissioning, operation and maintenance; includes exercises demonstrating the use of tools and applying the principles discussed during the course.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
BLT191	2021 Fall	Applied Plumbing Codes		Uniform plumbing code and plumbing systems installation requirements. Code administration as well as requirements relative to the installation and maintenance of plumbing systems.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
BLT200	2000 Fall	Construction Management: Field Operations		Skills and techniques necessary for management of construction field operations.	Prerequisites: A grade of C or better in DFT126 and GTC121 or		Occ	LEC 3.0 3.0 3.0	S

				Includes job scheduling, inspection techniques, personnel relations, safety, and the scope and supervision of the overall construction process.	departmental permission.				
BLT201	2002 Fall	Construction Management: Office Operations		Develops the skills and techniques necessary for successful management of construction office operations. Includes establishing and financing the business, marketing, office operations, and relationships with other construction industry entities	Prerequisites: A grade of C or better in DFT122 or DFT126 or GTC121 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0	S
BLT263AK	2003 Spring	Building Codes: IBC		Designed specifically to acquaint students with safety principles of building construction under the International Building Code (IBC), including structural requirements for wood, masonry and concrete, fire resistance of building construction, fire resistant materials, and ratings and occupancy requirements	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
BLT263AL	2003 Spring	Building Codes: IRC		Designed specifically to acquaint students with safety principles of building construction under the International Residential Code, including structural requirements for wood, masonry and concrete, fire resistance of building construction, fire resistant materials, and ratings and occupancy requirements	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
BLT296WA	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		Occ	LAB 1.0 5.0 0.0	Z

				COMMON COMPETENCY COURSE	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.				
BLT296WB	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. COMMON COMPETENCY COURSE	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
BLT296WC	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. COMMON COMPETENCY COURSE	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.				
BLT296WD	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. COMMON COMPETENCY COURSE	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
BLT298AA	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.	Course Attribute(s): COMMON COMPETENCY COURSE	Occ	LAB 1.0 1.0 0.0	Z
BLT298AB	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	Prerequisites: Permission of Program Director or Instructor.	Course Attribute(s): COMMON COMPETENCY COURSE	Occ	LAB 2.0 2.0 0.0	Z

				independent study and individualized learning to be combined to maximize student development.					
BLT298AC	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.	Course Attribute(s): COMMON COMPETENCY COURSE	Occ	LAB 3.0 3.0 0.0	Z
BME101	2020 Fall	Introduction to Biomedical Equipment Technology		Introduces fundamental concepts of the field of biomedical equipment technology. Emphasis on the responsibilities of the technician, electrical safety, and knowledge of devices and their functions, maintenance, and repair.	Prerequisites: A grade of C or better in ELE111, BIO160 and (HCC145 or HCC145AA).		Occ	LEC 3.0 3.0 3.0	S
BPC100AA	1996 Fall	Business-Personal Computers I		Introduction to the use of personal computers in the business environment. Computer hardware components, operating system functions and concepts. Running application software	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5	S
BPC100AB	1996 Fall	Business-Personal Computers II		Use the personal computer to create, store and retrieve information. Procedures for running and using business application software to produce documents and spreadsheets	Prerequisites: A grade of C or better in BPC100AA or permission of Instructor.		Occ	LEC 0.5 0.5 0.5	S
BPC100AD	2018 Fall	Computing Fundamentals		Fundamental computer concepts and terminology for	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0	T

				business and personal computers					
BPC100BD	2018 Fall	Key Software Applications		Covers basic features of software applications for business and personal computers	Prerequisites: None.		Occ	L+L 1.0 1.0 1.0	T
BPC100CD	2018 Fall	Living Online		Fundamental network and Internet concepts and terminology for business and personal computers. Covers basic features of electronic mail applications	Prerequisites: None.		Occ	L+L 1.0 1.0 1.0	T
BPC100DD	2018 Fall	Internet and Computing Fundamentals		Fundamental computer and Internet concepts and terminology for business and personal computers. Covers basic features of software applications	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
BPC101	2018 Fall	Introduction to Computers		Computer software applications for the personal computer, including electronic spreadsheet and word processing, keyboarding review, a desktop environment, database management, computer graphics and operating system commands. Individualized advanced applications of software selected to solve specific problems on the personal computer.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
BPC101AA	2018 Fall	Introduction to Computers I		Computer software applications for the personal computer, including electronic spreadsheet and word processing, keyboarding review, and a desktop environment.	Prerequisites: None.	Course Attribute(s): COMMON COMPETENCY COURSE	Occ	L+L 1.0 2.0 2.0	T
BPC101AB	1997 Fall	Introduction to Microcomputers I: Macintosh		Microcomputer software applications for the Macintosh personal computer, including electronic spreadsheet and word processing, keyboarding	Prerequisites: None.		Occ	LEC 1.0 2.0 1.7	S

				review, and a desktop environment					
BPC101BA	2018 Fall	Introduction to Computers II		Computer software applications for the personal computer, including database management, computer graphics, electronic spreadsheet, and word processing, and operating system commands	Prerequisites: A grade of C or better in BPC101AA.	Course Attribute(s): COMMON COMPETENCY COURSE	Occ	L+L 1.0 1.0 1.0	T
BPC103AK	2001 Summer I	Using Word: Level I		Use of Word to create, manipulate and print documents on a microcomputer	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5	S
BPC104AD	1992 Fall	Using Excel: Level I		Use of Excel to create, edit, save and print worksheets	Prerequisites: None.		Occ	LEC 0.5 0.5 0.5	S
BPC104BD	1994 Summer I	Using Excel: Level II		Use of Excel to enhance worksheets to include graphing and formatting data, using complex formula and function expressions to build and analyze data, and special print options to output worksheets and graphs	Prerequisites: A grade of C or better in BPC104AD or permission of Instructor.		Occ	LEC 0.5 0.5 0.5	S
BPC104CD	2018 Spring	Using Excel: Level III		Use of Excel to produce worksheets utilizing macros for template development and automation of repetitious tasks, and worksheet methods for the storage and management of data.	Prerequisites: A grade of C or better in BPC104BD or permission of Instructor.		Occ	LEC 0.5 0.5 0.5	S
BPC106AH	2018 Fall	MS Outlook: Level I		Messaging and word processing functions of a Microsoft Outlook electronic work state	Prerequisites: None.		Occ	L+L 0.5 0.5 0.5	T
BPC106BH	2018 Fall	Microsoft Outlook: Level II		Microsoft Outlook features including sort, filter and group items; templates and forms; information sharing by public folders and Net Folders; share and fax contacts; and record activities in the Journal. Outlook environment customization also covered	Prerequisites: A grade of C or better in BPC106AH or permission of Instructor.		Occ	L+L 0.5 0.5 0.5	T
BPC110	2018 Fall	Computer Usage and Applications		Introduction to business and personal computer operations	Prerequisites: None.	Course Attribute(s): General Education Designation:	Occ	L+L 3.0 4.0 4.0	T

				and usage. Software applications for analyzing and solving business problems including word processing, spreadsheet, database, and presentation graphics		Computer/Statistics/Quantitative Applications - [CS]			
BPC111AA	2018 Fall	Computer Keyboarding I	OAS111AA	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
BPC111AB	2018 Fall	Computer Keyboarding II		Further development of microcomputer keyboard speed and accuracy. Emphasis on touch typing with speed and accuracy development of numerals as related to preparation and handling of documents.	Prerequisites: A grade of C or better in BPC/OAS111AA or permission of Instructor.		Occ	L+L 1.0 1.7 1.7	T
BPC113	2018 Fall	Micro-Alphabetic Indexing		Mastery of essential microcomputer filing skills. Emphasis on indexing and alphabetizing individual and business names; subject, geographic, and numeric methods; and cross-referencing.	Prerequisites: None.		Occ	L+L 1.0 1.7 1.7	T
BPC119	2018 Fall	Basic Data Entry Activities		Development of speed and accuracy of data entry skills. Includes vocabulary, keyboard drills, and data entry simulations.	Prerequisites: A grade of C or better in (BPC111AA or OAS111AA or OAS101AA) or permission of Instructor. OAS118 recommended but not required.		Occ	LAB 1.0 2.0 2.0	T
BPC125	2018 Fall	Microcomputer Set Up and Maintenance		How to install and maintain a microcomputer (personal computer). Steps used to set up a new or add options to a previously installed microcomputer. Installation of internal options (memory, graphics, modems, etc.), as well as external options and devices (printers, monitors, communications, etc.).	Prerequisites: None.		Occ	L+L 1.0 1.0 1.0	T

				Troubleshoot (identify and repair or have repaired) microcomputer problems					
BPC128	2018 Fall	Introduction to Desktop Publishing		Presents basic concepts of commercially prepared software used to do desktop publishing. Incorporates a combination of narrative and pictorial/graphic creation and presentation, including set-up, text entry, graphic generation, text and graphic merging, and other computer-based functions	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0	T
BPC128AF	2018 Fall	Introduction to Desktop Publishing: MS Publisher		Presents basic concepts of commercially prepared software used to do desktop publishing. Incorporates a combination of narrative and pictorial/graphic creation and presentation, including set-up, text entry, graphic generation, text and graphic merging, and other computer-based functions	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0	T
BPC138AA	2018 Fall	Windows Desktop Design and Publishing		Use of Windows based microcomputers and appropriate commercial software package to compose and print textual and graphic materials of high quality. Includes overview of micro operating system, word processing of copy, use of graphics programs, layout of design elements, and printing alternatives.	Prerequisites: A grade of C or better in CIS105 or BPC110 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
BPC160	2019 Fall	AppleCare: Service Fundamentals		Prepares students to become certified in repairing and troubleshooting iOS or macOS devices. It prepares the students for the AppleCare Certified technician exams: Apple Certified iOS Technician (ACIT) and Apple Certified Mac Technician	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T

				(ACMT). Students will learn the Apple service style for customer interactions, safety precautions, and basic troubleshooting skills.					
BPC170	2020 Fall	A+ Exam Prep: Computer Hardware Configuration and Support		Explore technical aspects of personal computers, including system components, installation, system configuration, peripheral devices, and notebooks. Emphasis placed on hardware installation, maintenance, mobile devices, and hardware troubleshooting. Helps prepare students for the CompTIA A+ examinations.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
BPC171	2018 Fall	Recycling Used Computer Technology		Use of hardware maintenance knowledge and skills to refurbish used computers.	Prerequisites: A grade of C or better in BPC170 or Corequisites: BPC170 or permission of Instructor.	BPC171 may be repeated for a total of three (3) credit hours.	Occ	L+L 1.0 2.0 2.0	T
BPC210	2018 Fall	Advanced Computer Usage and Applications		Advanced application of software for business and personal computers including word processing, spreadsheet, database, and presentation. Includes integration of applications and Internet	Prerequisites: A grade of C or better in BPC110 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
BPC225	2018 Fall	Computer Configuration and Enhancement		Configuration and enhancement of a computer. Emphasis on configuration of hardware and software to optimize computer performance. Includes memory configuration and the identification and troubleshooting of configuration problems	Prerequisites: A grade of C or better in BPC125 or permission of Instructor.		Occ	L+L 1.0 2.0 2.0	T
BPC250	2018 Fall	Post-Advanced Computer Usage and Applications		Post-advanced applications of software for business and personal computers including word processing, spreadsheet, database, and	Prerequisites: A grade of C or better in BPC210 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T

				presentation. Includes integration of applications and Internet					
BPC260	2021 Spring	AppleCare iPhone Technician (ACIT) Certification		Prepares students for the AppleCare iPhone Technician Certification and to perform warranty level hardware repairs and troubleshooting Apple iOS devices.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
BPC262	2021 Spring	AppleCare MAC Technician (ACMT) Certification		Prepares the students for the AppleCare MAC Technician certification exam and to perform warranty level hardware repairs on Apple iOS devices.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
BPC270	2018 Fall	A+ Exam Prep: Operating System Configuration and Support		Explore advanced technical aspects of maintaining and servicing computers. Emphasis placed on OS installation, maintenance, mobile devices, security, software troubleshooting, and on proper usage of tools, safety procedures, and professionalism. Helps prepare students for the CompTIA A+ examinations.	Prerequisites: A grade of C or better in CIS105 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
BPC274	2022 Fall	Advanced Server Computer Maintenance: Server+ Prep		Explores the technical aspects of computer servers, including hardware installation and management; operating system configuration, access control and virtualization; and overall diagnostic and resolution of system hardware, software, connectivity, storage and security issues. Includes an emphasis on physical and network data security techniques and implementation of backup techniques to remediate disaster recoveries. Helps prepare students for the	Prerequisites: A grade of C or better in (CIS126++ and MST150++), or BPC270, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T

				CompTIA Server+ examination.					
BPC275	2021 Spring	CompTIA Exam Prep		Focuses on reviewing key concepts, practicing skills and preparing to successfully demonstrate existing knowledge on CompTIA certification exams. The course is designed to provide an overview of exam topics, study and test-taking strategies. It also will include structured study time, group discussions, and the use of practice exams to assess test readiness.	Prerequisites: A grade of C or better in BPC170, or BPC270, or permission of the Instructor.	Students should be finishing a CompTIA class, looking for CompTIA certificate renewal, or have industry or other prior training in CompTIA topics and concepts. BPC275 may be repeated for a total of six (6) credit hours.	Occ	L+L 2.0 3.0 3.0	T
BPC278	2018 Fall	Software Installation - MS Windows		Installing and configuring microcomputer software. Emphasis placed on the installation, configuration, upgrade, and related problem resolution of microcomputer operating system and applications software.	Prerequisites: A grade of C or better in CIS105 or BPC114 or CIS114 (any module whose course number suffix begins with a D) BPC117 or CIS117 (any module whose course number suffix begins with a D) and BPC170 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CAD100	2018 Fall	Fundamentals of 2D AutoCAD		Utilize AutoCAD software to generate two-dimensional (2-D) drawings and components in a generic installation. Apply basic AutoCAD commands and properties to format, draw, edit, layer, dimension, import/export, and manage drawing files. Creation, manipulation, and hardcopy production of 2-D drawing files from major AutoCAD command and display environments and plot options	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0	T
CAD101	2018 Fall	Elements of CAD Graphics (AutoCAD)		Computer generation of drafting and design components using pure elements and basic geometric	Prerequisites: A grade of C or better in CAD100 or Corequisites: CAD100		Occ	L+L 3.0 6.0 6.0	T

				procedures. Incorporates concept illustration based on standard pictorial methods and develops multi-view projection techniques and presentation methods. Introduction to the fundamentals of three-dimensional (3D) modeling and the construction and printing of 3D objects.	or permission of Instructor.				
CAD105	2018 Fall	Fundamentals of Revit Architecture		Introduction to Revit Architecture. Utilize Revit software to develop and generate basic 3-D models and components. Create, edit, dimension, and manage 2-D and 3-D drawing views and projects. Produce drawing files and plots using various display environments and plot options.	Prerequisites: A grade of C or better in CAD100 or (previous architectural and CAD experience, and permission of Department or Division).		Occ	L+L 3.0 6.0 6.0	T
CAD106	2020 Spring	Fundamentals of Civil 3D		Introduction to Civil 3D. Utilize Civil 3D software to develop and generate basic 3D models and components. Create, edit, dimension, and manage 2D and 3D drawing views and projects. Produce drawing files and plots using various display environments and plot options.	Prerequisites: A grade of C or better in CAD100 or (previous civil and CAD experience, and permission of Department or Division).		Occ	L+L 3.0 6.0 6.0	T
CAD120AH	2018 Fall	Getting Started with CAD: Microstation		Basic Commands; drawing aids; input devices; use of default settings	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0	T
CAD125AH	2018 Fall	Drawing Database Management: Microstation		Operating the system file manager. Establishing, updating, managing, and maintaining a CAD drawing database	Prerequisites: A grade of C or better in CAD120AH or permission of Instructor.		Occ	L+L 1.0 2.0 2.0	T
CAD145	2018 Fall	Design Principles for Industry		Survey of the basic standards and procedures for drawing setups and design documentation in the fields of architecture, manufacturing, and civil technology. Multi-	Prerequisites: A grade of C or better in (CAD100 and CAD101) or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T

				source hard copy design presentation.					
CAD150AH	2018 Fall	Two-Dimensional CAD: Microstation		Constructing scaled two-dimensional drawing using CAD.	Prerequisites: A grade of C or better in CAD125AH or permission of Instructor.		Occ	L+L 1.0 2.0 2.0	T
CAD160	2018 Fall	Residential Architectural Drafting		Basic skills associated with board drafting in the architectural field	Prerequisites: A grade of C or better in (CAD105 CAD110 and CAD115) or permission of Instructor.		Occ	L+L 2.0 4.0 4.0	T
CAD164	2018 Fall	Residential Working Drawings		Team projects in the development of a set of architectural working drawings for a residence.	Prerequisites: A grade of C or better in CAD145 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T
CAD165	2021 Fall	Architectural Software (AutoCAD Architecture)		Introduction to AutoCAD Architecture, a modeling software used by architecture professionals. Procedures unique to advanced software and pertinent to architectural documentation. Emphasis on residential working drawings.	Prerequisites: A grade of C or better in CAD145 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T
CAD167	2018 Fall	Architectural Drawings I (Revit): Residential CAD		Use of Revit architectural modeling software to develop 3-D architectural models, working drawings, construction documentation, and renderings. Emphasis on residential working drawings.	Prerequisites: A grade of C or better in CAD105 or permission of Department or Division.		Occ	L+L 3.0 6.0 6.0	T
CAD186	2020 Spring	Site Development I		Use coordinate geometry and survey point databases to create topographic maps utilizing civil engineering/surveying application software. Volumetric analysis of earthwork (cut and fills) utilizing civil engineering/surveying application software. Production of base mapping, earthwork, grading, and drainage plan utilizing civil engineering/surveying application software.	Prerequisites: A grade of C or better in CAD106 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T

CAD201	2018 Fall	Three-Dimensional (3D) Modeling and Advanced CAD Techniques		Advanced Computer Aided Drafting (CAD) techniques including the automation and semi-automation of design documentation, external referencing and attribute creation and manipulation. Development of three-dimensional (3D) models including construction, manipulation, rendering and 2D/3D output.	Prerequisites: A grade of C or better in (CAD100 and CAD101) or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T
CAD235	2021 Fall	Modeling, Rendering and Animation for Technical Presentations		Entry level course in technical modeling, visualization, and animation. Uses 3D modeling software, rendering, and animation tools to visualize and solve design issues. Development of professional quality presentation materials for design projects.	Prerequisites: A grade of C or better in CAD201 or Corequisites: CAD201 or permission of Department or Division.		Occ	L+L 3.0 6.0 6.0	T
CAD256	2021 Fall	CAD Customization and Management		Emphasis on developing customized user interfaces and basic programming skills. Installation and configuration of software processes. File management techniques; file archival, batch plotting, file conversion, and CAD standards.	Prerequisites: A grade of C or better in DFT254AA or permission of Department or Division.		Occ	L+L 3.0 6.0 6.0	T
CAD265	2021 Fall	Architectural Software (AutoCAD Architecture) II: Commercial CAD		Use of AutoCAD Architecture, an architectural modeling software to generate features associated with commercial building design. CAD treatment of selected details and other structural practices common to nonresidential buildings. Emphasis on the practices and standards of working drawings.	Prerequisites: A grade of C or better in CAD165.		Occ	L+L 3.0 6.0 6.0	T
CAD267	2018 Fall	Architectural Drawings (REVIT) II: Commercial CAD		Use of REVIT architectural modeling software utilized by the architectural industry to generate plans and features associated with commercial	Prerequisites: A grade of C or better in CAD167 or permission of Department or Division.		Occ	L+L 3.0 6.0 6.0	T

				building design. Focus on CAD development of selected plans, details, and structural practices common to nonresidential buildings.					
CAD269	2018 Fall	Computer Aided Landscape Design	AGL269	Using AutoCAD to create landscape design drawings and wire frames in Sketchup for elevations, sections and perspective sketches.	Prerequisites: A grade of C or better in : (AGB139 or CAD100 or CAD101) and AGL189 or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T
CAD274	2018 Fall	Residential Design CAD		Developing designs with plans and details based on current design vogues. CAD problem solving associated with design	Prerequisites: A grade of C or better in (CAD152 and CAD164) or permission of Instructor.		Occ	L+L 3.0 6.0 6.0	T
CAD282	2018 Fall	HVAC and Sheet Metal Design		Drawing, design, and specification of heating, ventilating, and air conditioning (HVAC) systems. Basic types of heating and cooling systems, heat loss calculations, sheet metal development, and solar design	Prerequisites: A grade of C or better in (CAD150 and [two of CAD262 CAD264 CAD266 CAD268]) or permission of Instructor.		Occ	L+L 1.0 2.0 2.0	T
CAD286	2018 Fall	Site Development II		Use a coordinate geometry and survey point database to create construction drawings utilizing civil engineering/surveying software.	Prerequisites: A grade of C or better in CAD186.		Occ	L+L 3.0 6.0 6.0	T
CAD287	2020 Spring	Advanced Revit Techniques		Advanced use of Revit architectural modeling software utilized by the architectural industry. Develop custom families with parameters and formulas, generate conceptual mass plans, prepare design phasing for renovation and tenant improvement projects, and work with advanced features associated with architectural building design.	Prerequisites: A grade of C or better in CAD167 or permission of Department or Division.		Occ	L+L 3.0 6.0 6.0	T
CAD292	2018 Fall	Current Developments in CAD Technology		The exploration and analysis of the newest software	Prerequisites: A grade of C or better in	DFT292 may be repeated for credit.	Occ	L+L 1.0 2.0 2.0	T

				packages and/or plug-ins on the market designed to enhance or replace existing Computer Aided Drafting (CAD) software. Designed to introduce and develop skills in the latest state-of-the-art tools pertinent to industry today.	CAD100 or permission of Department or Division.				
CAN101	2022 Fall	Introduction to Cannabis Industry		Introductory overview of the cannabis industry. Explores the historical, legal, social, and political aspects of cannabis use, cannabis careers and business management, including business plans, for the cannabis industry. Includes how industry trends and regulations have influenced supporting industries and consumer behaviors.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
CAN105	2023 Fall	Accounting, Finance and Funding in the Cannabis Industry		Overview of the cannabis industry's financing, funding, accounting, and tax practices. Includes capital ventures and accounting procedures unique to the cannabis industry.	Prerequisites: A grade of C or better in CAN101.		Occ	LEC 2.0 2.0 2.0	S
CAN110	2022 Fall	Social Equity and Current Issues in the Cannabis Industry		Social equity programs, trends, current issues and the societal impact in the cannabis industry.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
CAN115	2023 Fall	Human Resources and Operations Management in the Cannabis Industry		Overview of the human, facilities and capital management of the cannabis industry. Includes workforce development trends and best practices unique to the cannabis industry.	Prerequisites: A grade of C or better in CAN101.		Occ	LEC 1.0 1.0 1.0	S
CAN120	2022 Fall	Legal and Regulatory Environment in the Cannabis Industry		Study of cannabis industry laws, policies, regulations and ethics in non-use, medicinal-use, and adult-use U.S. states and territories.	Prerequisites: A grade of C or better in CAN101.		Occ	LEC 3.0 3.0 3.0	S
CAN125	2022 Fall	Supply Chain Management in the Cannabis Industry		Management of cannabis supply chain stages including: growing, extracting, laboratory	Prerequisites: A grade of C or better in CAN101.		Occ	LEC 2.0 2.0 2.0	S

				testing, product development and manufacturing, shipping and distributing, and dispensary and retailing across all legislative environments (federal, medicinal-use, and adult-use in U.S. states and territories).					
CAP120	2021 Fall	Introduction to Counseling		Introduction to the field of counseling with a focus on skills and competencies needed as a mental health practitioner. Foundations of counseling including counseling theories, ethical considerations, prevention and intervention topics, and multicultural counseling practices.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
CAP220	2021 Fall	The Counselor in a Multicultural Society		Current theories and research on culture, race and ethnicity, gender and other aspects of cultural diversity in a multicultural society through the lens of counseling. Focus on personal perspectives, will explore themes, theories, topics and research related to power, privilege and oppression in the United States as applied to counseling discipline.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
CAP240	2021 Fall	Introduction to Counseling Skills		Introduction to basic skills and techniques used in the counseling field. Focuses on active listening, self-awareness, and other related skills.	Prerequisites: A grade of C or better in CAP120.		Acad	LEC 3.0 3.0 3.0	S
CAP260	2021 Fall	Career and Professional Preparation for the Helping Professions		Overview of the process of career and life planning through self-awareness for students interested in helping fields. Focus on current occupational trends and outlook, the learning models of the individual, the world of	Prerequisites: A grade of C or better in ENG101.		Acad	LEC 3.0 3.0 3.0	S

				work, and decision-making. Emphasis on individual application and workplace diversity. Design materials for use in the professional world such as resumes, online presence, career portfolio.					
CCS101	2008 Summer I	Chicana and Chicano Studies		Introduction to the wealth and diversity of Chicana and Chicano Studies research from a variety of disciplinary perspectives through the use of a series of historical and social scientific studies, novels, testimonios, and films	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 - [HU]	Acad	LEC 3.0 3.0 3.0	S
CCS111	2006 Spring	Introduction to Chicana and Chicano Culture		A study of Chicano popular culture, including cultural themes and artistic expression. Expression of the Chicano experience in American society from the perspective of the social sciences. Analyzes Chicano self-identity and social and cultural dynamics of the Chicano community	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
CCS202	2017 Spring	Ethnic Relations in the United States	AFR202 ASB202	Basic concepts and processes, including historic overview, of interethnic relations in the United States: culture, race, ethnicity, ethnocentrism, prejudice, discrimination, racism, assimilation, acculturation, and individual and group responses to interethnic contact. Cultural knowledge and intercultural communication skills and perspectives as fundamental tools for successful management of social relations in a multicultural world.	Prerequisites: None.	Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Historical Awareness - [H] General Education Designation: Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S

CCS212	2016 Spring	The Mexican American Novel		A study of the social, historical, and cultural backgrounds as well as the form and content of the Mexican American novel.	Prerequisites: ENG101 and ENH112 suggested but not required.		Acad	LEC 3.0 3.0 3.0	S
CCS282AA	2000 Fall	Volunteerism for Chicana and Chicano Studies: A Service Learning Experience		Service learning field experience within private/public agencies such as museums and libraries, and citizen volunteer groups.	Prerequisites: Permission of Instructor.	CCS282AA 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
CCS298AA	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
CCS298AB	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
CCS298AC	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	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0	Z

				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.					
CET102	2018 Fall	Surveying II		Surveying principles including triangulation, municipal and land surveys, topographic surveys, earthwork, state plane coordinate systems, stadia methods, practical astronomy, highway curves, superelevations and construction.	Prerequisites: A grade of C or better in CON241 or permission of Department or Division.		Occ	LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0	T
CET103	1996 Spring	Construction Methods		Modern construction techniques: planning methods, critical path method (CPM), excavation and earthmoving practices, estimating and work scheduling, concrete design and placement practices. Includes reinforced concrete, prestressed concrete, carpentry, asphalt characteristics, proper proportioning of aggregate and important safety methods. Introduction to heavy construction equipment use	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
CET104	1997 Spring	Community Planning and Development		Provides a comprehensive overview of the urban planning and development process. Introduces planning theories, methodologies, and strategies with practical applications from local and other urban communities. Topics include municipal planning, land use and zoning, circulation, water and waste water management, storm drainage and public	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S

				utility services. Examines the economic development process, environmental and legal issues and focuses on the interdependent nature of development					
CET105	1996 Summer I	Highway Technology		Economics of highway locations, rights-of-way, curves, drainage problems, bridge structures, road building equipment, highway financing, and administrative problems at the state, county and city levels	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
CET150	2004 Spring	Introduction to Geodesy and Map Projections		Coordinate frames used in geodesy, photogrammetry, surveying, and mapping. Cartesian, spherical, and ellipsoidal coordinates. Introduction to kinematics, gravity field, and size and shape of earth. Positioning in three dimensions. Introduction to map projections and associated coordinate systems. Theory and application of the plane coordinate systems with emphasis on Arizona. Development of projections from Global Positioning System (GPS) observations.	Prerequisites: A grade of C or better in (CET102 and MAT182) or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0	S
CET171	1996 Spring	Construction Contracts		Legal aspects of construction contracts, writing and interpretation of specifications, prequalifications, and use of performance bonds	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
CET201	2018 Fall	Boundary Control and Legal Principles		Principles of land surveying, boundary controls, ethical and legal principles, and office practices.	Prerequisites: A grade of C or better in CON241 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0	S
CET202	2018 Fall	Writing Legal Descriptions		Application of principles to actual case studies. Emphasis on proper form and clarity in legal description writing.	Prerequisites: A grade of C or better in CON241 or permission		Occ	LEC 3.0 3.0 3.0	S

				Procedure for filing subdivision plats and preparation for land surveyors' registration examinations.	of Department or Division.				
CET205	2004 Spring	Photogrammetry		An introduction to the study of aerial cameras, equipment, flight procedures, and interpretation of aerial photographs, including stereoscopic principles used in planimetric and topographic maps, map projections, grids, and forms. Practical applications of principles stressed	Prerequisites: A grade of C or better in CET102 or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0	S
CET211	2000 Fall	Strength of Materials		A study of strength and application of the materials of engineering construction, including the mechanics of beams, shafts, and bolted and welded connections under various loading conditions.	Prerequisites: A grade of C or better in DFT107 or ELT102 or (MAT151 and MAT182) or MAT187 or equivalent or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0	S
CET241	2010 Fall	Fundamentals of Traffic Engineering		Basic study of traffic movement, ordinances, mechanical controls, planning, street and highway design, parking, and traffic engineering organization. Training for personnel as civil engineer technicians.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
CET250	2004 Spring	Public Land Survey System		Overview of unique requirements to determine land boundaries according to the Manual of Instructions for the Survey of Public Lands of the United States, including history of the system, lotted sections, proportioning, subdividing, and evidence analysis. Emphasis on rules in order to perform any boundary survey, particularly for Arizona	Prerequisites: A grade of C or better in CET102 and CET201.		Occ	LEC 3.0 3.0 3.0	S
CET257	2018 Fall	Route and Construction Surveying		Principles and field practice of route and construction surveying, including route control surveys, construction	Prerequisites: A grade of C or better in CET102 or permission		Occ	L+L 3.0 5.0 5.0	T

				control, topographic mapping, highway curves, and computations for roadways, utilities, bridges, buildings, small commercial sites, and subdivisions	of Department or Division.				
CET296WA	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. COMMON COMPETENCY COURSE	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
CET296WB	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. COMMON COMPETENCY COURSE	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
CET296WC	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. COMMON COMPETENCY COURSE	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.				
CET296WD	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. COMMON COMPETENCY COURSE	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
CET298AA	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	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z

				development. COMMON COMPETENCY COURSE					
CET298AB	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z
CET298AC	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z
CFS101AH	2023 Fall	Art Activities for the Young Child		The creative use of art media and techniques at appropriate developmental levels.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CFS101AJ	2023 Fall	Music Activities for the Young Child		Experiences with music in singing, rhythm instruments, creative movements, and games, as well as the development of music appreciation and basic listening skills.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CFS101AP	2023 Fall	Science Activities for the Young Child		Interpreting the study of science in early childhood	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S

				education as a part of a dynamic growth process offered by the child's daily life experiences.					
CFS101AR	2023 Fall	Learning With Toys		Use of creative imagination with toys to enable the child alone or with others to explore the world. Includes evaluating proper use of toys and appropriate developmental skills.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CFS106	2023 Fall	Stress Management in the Family		Impact of stress factors on the family. Managing time and stress in the home. Options for coping with anxiety.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CFS107	2023 Fall	Men and Children: Strengthening the Bond		Overview of the relationship between fathers or significant male figures and children from the role perspective of the involved, nurturing male. Strategies for assessing and organizing successful male involvement programs examined.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CFS109	1988 Fall	Parent/Child Communication		Communication between parents and children. Developing self-esteem, responsibility and empathic listening. Pitfalls to communication	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CFS111	2023 Fall	Relationships to Promote Learning in Young Children: Birth to Age Three		Overview of the relationship between the teacher/caregiver and child from the perspective of a reflective teacher. Students will learn the importance of assessing, understanding, and enhancing the development of emotional skills of young children to help guide and develop a child's self-image. Student will also be able to monitor, reflect, and plan self-care so they become effective teachers.	Prerequisites: None. CFS/ECH176 recommended.		Acad	LEC 1.0 1.0 1.0	S

CFS112	2023 Fall	Personal Growth and Family Relations		Personal development as related to the individual, the family, and their relations. Emphasis on interpersonal family relationships. Skills and techniques to facilitate and strengthen the individual and family relationships.	Prerequisites: None.	Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S
CFS114	2023 Fall	Working with the Hyperactive Child		Causes of hyperactivity in children; focus on the family's role in identification, treatment and school/community support.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CFS116	2023 Fall	Discipline and Guidance		Age appropriate principles for disciplining and guiding young children's behavior in child care settings, including interpersonal and environmental strategies. Observational opportunities provided.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
CFS120	2024 Fall	Contemporary Issues In Early Childhood		Designed to develop understanding of a broad range of contemporary issues that impact the child in today's society. Course directed at pre-service and in-service professionals.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CFS121AA	2023 Fall	Single Parent Family-Adjustment		Overview of issues facing single parent families. Examination of adjustment issues with emphasis on relationships. Methods of adapting family life to meet the needs and variations of one-parent families.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CFS123	2023 Fall	Health and Nutrition In Early Childhood Settings		Creating and maintaining healthy environments and practices in programs serving young children. Emphasis on assessing the child's health status, nutrition and food service, communicable disease recognition, transmission, and prevention, infection control, regulations	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S

				and regulatory agencies, current topics, resources, and innovative practices.					
CFS125	2023 Fall	Safety in Early Childhood Settings		Fundamental concepts of promoting a safe, but challenging learning environments. Establishing and maintaining safety procedures in the early childhood setting. Emphasis on indoor and outdoor equipment and activities, risk analysis, accident, evacuation, and emergency plans, regulations, regulatory agencies and resources, current topics, and innovative practices.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CFS130	2023 Fall	Demystifying Adolescence		A holistic overview of the physical, social, and emotional development of adolescents. Emphasis on effective skills necessary for working with adolescents and their families.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CFS140	2002 Fall	Special Topics: Child and Family Studies		Explores special topics related to child and family studies. Topics vary and include concepts relevant to those pursuing careers in or employed in early childhood care or to those working with families in programs, agencies, organizations, and resource centers that provide services to families.	Prerequisites: None.	CFS140 may be repeated for a total of two (2) credit hours with change of topic.	Acad	LEC 0.5 0.5 0.5	S
CFS157	1995 Fall	Marriage and Family Life		Study of marriage and the family as a social system, including models of family analysis, intra- and interpersonal relations, and cross-cultural and historical patterns	Prerequisites: None.	Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S
CFS159	2001 Spring	The Modern Family		An examination of the modern American family. Special emphasis on the changing functions and roles of	Prerequisites: None.	Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S

				individuals within today's society and an analysis of the basic problems confronting the family, including alternative family styles					
CFS160	2023 Fall	Using Music, Speech, and Movement with Children's Literature		Using elements of music, speech, and movement with children's literature, including rhymes, chants, songs, and books to enhance children's social, physical, cognitive, and emotional development.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CFS163	2009 Fall	Family Child Care: Introduction to Business Management		Emphasis on small business management and effective policies and procedures for family child care providers. Licensing, legal, and regulatory issues in a home setting are examined	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
CFS164	2009 Fall	Family Child Care: Curriculum and Environment		Family child care planning for multi-age groupings of children through age eight. Role of the environment as well as various curriculum programs will be explored and evaluated. Exploration of culturally rich, inclusive and child-centered environment in his/her own child care setting. Issues of professionalism, family partnerships, observation, guidance, and health/safety practices are examined	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
CFS164AA	2009 Fall	Family Child Care: The Environment		Family child care environments for multi-age groupings of children through age eight. Exploration of culturally rich, inclusive, and child-centered environment in his/her own child care setting. Issues of health/safety practices are examined	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CFS164AB	2009 Fall	Family Child Care: Programming, Guidance and Observation		Family child care programming for multi-age groupings of children through	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S

				age eight. Various curriculum programs will be explored and evaluated. Issues of observation and guidance are examined					
CFS164AC	2009 Fall	Family Child Care: Family Partnerships and Professionalism		Issues of professionalism, family partnerships, communication, and ethical practices are examined	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CFS167	2023 Fall	School-Age Child Care Provider		Issues related to school-age child care. Past, current, and future trends; regulations, insurance liabilities and coverage, shared facilities, and community resources. Techniques for managing/administering services and personnel, communicating with parents, and evaluating the care/program. Planning and scheduling the school-age program. Includes overview of child growth and development, types of routines and activity schedules.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
CFS176	2023 Fall	Child Development	ECH176	Study of the science of human development from conception through adolescence. Includes observation skills, parent and adult roles in the lives of children, and contemporary issues.	Prerequisites: None.	Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S
CFS177	1988 Fall	Parent-Child Interaction		Positive methods to strengthen relationships and resolve conflicts with children. Focus on effective interpersonal skills and guidance techniques	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
CFS178	2023 Fall	Survey of Early Childhood Education		Orientation to basic concepts of day care and nursery programs. History and philosophy of child care services including state regulations governing those	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S

				services. Observation opportunities provided.					
CFS179	1988 Fall	Child Care: A Multifaceted Career		Overview of the child care field. Focus on enhancing children's self esteem, providing for children's nutritional needs, and developing adequate safety and sanitation practices	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CFS181	2023 Fall	Enhancing Infant and Toddler Development		Principles of development in children from birth through 30 months. Emphasis on individuality of child and the adult role in providing a safe and stimulating environment for the development of the child.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
CFS182	2023 Fall	Parenting the Early Adolescent: Ages Ten to Fourteen		Emphasis on the early adolescent developmental period, ages ten to fourteen, and the importance of the parent-child relationship, as well as strategies to ensure successful teen years.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CFS183	2023 Fall	Contemporary Issues in Adolescence		Current issues that impact adolescent development and behavior explored. Comprehensive and specific strategies for addressing these issues as parents or professionals working with teens emphasized. Issues related to adolescent sexuality, abuse, mental health, violence, and risk behaviors included.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
CFS190	2023 Fall	Home-Based Visitation		Emphasis on development of skills needed to successfully complete home-based client visitation. Opportunities for field-based observations provided.	Prerequisites: None.		Acad	L+L 3.0 4.0 4.0	T
CFS192	2023 Fall	Child Care Center Staff Development		Presents strategies to administrators and supervisors in child care centers for developing the	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S

				personal and professional growth of child care staff.					
CFS193	2023 Fall	Financial Management in Child Care Centers		Provides strategies for financial management and administration of finances in a child care center. Specific concerns of participants addressed.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CFS194AA	2023 Fall	Early Childhood Program Management: Staffing and Managing		Methods and techniques for recruiting, staffing, and managing in early childhood programs.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CFS194AB	2023 Fall	Early Childhood Program Management: Human Relations		Basic human relations in early childhood organizations and the influence of the individual's personal needs on the overall needs and objectives of the organization.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CFS194AC	2023 Fall	Early Childhood Program Management: Organizational Structure		Provides a broad perspective of the organizational life of an early childhood environment.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CFS195	2023 Fall	Early Childhood Personnel Supervision		Covers supervision concepts and applications for early childhood programs.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CFS196	2023 Fall	Ethics and the Early Childhood Educator		Ethical issues in the early childhood field.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CFS197	2023 Fall	Leadership in Early Childhood Education		Provides concepts for understanding and managing leadership roles and responsibilities in the early childhood field.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CFS204	2023 Fall	Reflective Supervision		Reflective supervisory processes to enhance learning and professional development. Includes professional development stages to provide supervisors with tools to support professional growth. Also covers challenges and barriers to the supervisor and employee/practitioner relationship.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CFS205	2023 Fall	Human Development		Explores the growth and development process over the human life span. Research	Prerequisites: None.	Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S

				and theoretical approaches; physical, cognitive, social, and personality development from birth through adulthood and death.					
CFS206	2023 Fall	Child and Family Organizations: Management and Administration		Examination of management and administration of community- based child and family organizations within the context of organizational behaviors. Focus on attributes of effective organizations: the impact of organizational culture and learning, work- place diversity and employee motivation.	12-13-2022		Acad	LEC 3.0 3.0 3.0	S
CFS207	2023 Fall	Organization and Community Leadership in Child and Family Organizations		Examination of organization and community leadership as it applies to the management and administration of community- based child and family services organizations. Provides overview of leadership styles and function.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
CFS208	2023 Fall	Child and Family Organizations: Fiscal Management and Grant Writing		Examination of fiscal accountability and resource development as it applies to the management and administration of community- based child and family social service organizations. Provides overview of grant development processes beginning with research into governmental and private funding sources through fiscal and grant audit processes. Includes budget development, risk management, and cost control issues.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
CFS209	2023 Fall	Child and Family Organizations: Project Management		Focuses on concepts and strategies associated with effective project management in community-based child and family organizations. Emphasis on planning,	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S

				evaluation and project management models.					
CFS210	2005 Spring	Family Life Education		Provides an overview of the professional work within the field of family life education. Emphasis on developing flexible, culturally sensitive and effective professional skills	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
CFS220	2004 Spring	Introduction to Parenting and Family Development		Overview of the field of family and parent development. Focuses on parenthood as a developmental process and cultural influences on child rearing. A family systems perspective introduced and applied to understanding families with children	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
CFS225	2011 Summer II	Foundations of Parent Education		Professional development as related to work with parents. Emphasis on developing effective skills with parents, professionals and paraprofessionals involved with the child. Skills and techniques to facilitate and strengthen the individual and family relationships.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
CFS235	2023 Fall	Developing Child: Theory into Practice, Prenatal to Age Eight		Understanding and working with young children, birth through age eight. Analysis of young children's physical, social, emotional, cognitive and linguistic development within their home, school, and cultural contexts. Typical and atypical development. Implications for teachers and parents. Emphasis on observations and planning curriculum based on theories, research, and child-specific data.	Prerequisites: None.	Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S
CFS240	2023 Fall	Human Behavior in Context		Considers the influences of physical and social environments in which human	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S

				behavior occurs. Includes multiple roles and perspectives of the individual, the family, society and the professional.					
CFS242	2023 Fall	Curriculum Planning for Diversity		Practical early childhood classroom applications for a diverse population, including integration of cultures, generations, genders, and races into the classroom, facilitation of second language acquisition, and practical teaching strategies which are also developmentally appropriate.	Prerequisites: A grade of C or better in CFS/ECH176.	Course Attribute(s): General Education Designation: Cultural Diversity - [C]	Acad	LEC 3.0 3.0 3.0	S
CFS243	2004 Spring	Cross-Cultural Parenting		Focus on the study of parents and children from a cross-cultural position. Emphasis on parenting styles and practices from a cultural directive and expectation perspective. Course designed for those seeking careers in Family Studies, Parent Education, Psychology, Social Work/Human Services	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
CFS247	2004 Spring	Family Ties and Aging		Identification and examination of facets of family relationships and aging. Emphasis on study of central family connections for older people, unique family situations, and implications of family transitions. Course designed for those seeking careers in Family Studies, Parent Education, Psychology, Social Work/Human Services	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
CFS249	2004 Spring	Transition to Adulthood		Emphasis on major elements of the transition to adulthood and key links to changes in family relationships. Focus on the realignment of intergenerational relationships	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S

				and reassessment of family priorities. Course designed for those seeking careers in Family Studies, Parent Education, Psychology, Social Work/Human Services					
CFS250	2023 Fall	Social Policy and Families		Examines the impact of social policy on family systems and the implications for professional roles and practice.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
CFS251	2023 Fall	Transitions: Work to Retirement		Explores the work to retirement transitional issues that impact individuals and families. Emphasis on physical, cognitive and psychosocial dimensions of retirement.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
CFS252	2023 Fall	Contemporary Issues in Aging		Current issues that impact aging development and behavior explored. Comprehensive and specific strategies for addressing these issues for professionals working with aging adults emphasized.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
CFS256	1996 Spring	Management in the Family		Management as a means to the realization of individual and family values and goals; creation, allocation, and use of resources. Focus on decision making	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
CFS257	2023 Fall	Working with Families with Diverse Needs		A collaborative approach to working with families with diverse needs. Examines the effect of specific challenges on the family system. Presents techniques for those working with families to facilitate stress management, conflict resolution, and utilization of community and personal resources to aid in the strengthening of the family unit.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S

CFS258	2004 Spring	Families in Society		<p>Areas of concentration include family transition, diversity in structure and culture faced by contemporary families, problems, crisis and change affecting the stress on families as our society progresses into a more complicated future. The study of change as an integral part of all family's day-to-day experiences while recognizing that family ancestral and cultural dimensions are fundamental for all family groupings. Course designed for those seeking careers in Family Studies, Parent Education, Psychology, Social Work/Human Services</p>	Prerequisites: A grade of C or better in CFS157 and CFS259 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0	S
CFS259	1997 Fall	Sexuality over the Life Span		<p>Examination of the physical, psychological, social, and cultural contributions to human sexuality. Emphasis on family life and cultural variation. Examination of facts and myths, current literature, and changing mores regarding human sexuality. Sexuality of males and females in contemporary society; impact of sexual trends on society; home/school issues in sexuality education.</p>	Prerequisites: Permission of Department or Division. Student must be 18 years or older.	Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S
CFS263	2023 Fall	Child and Family Studies Seminar		<p>Classroom portion of Child and Family Studies Internship. Emphasizes the blend of job-related activities including career exploration, employment procedures, human relations, and on-the-job problems.</p>	Prerequisites: Permission of Department or Division. Corequisites: CFS264AA or CFS264AB or CFS264AC initial enrollment in internship module.		Acad	LEC 1.0 1.0 1.0	S
CFS264AA	2023 Fall	Child and Family Studies Internship		<p>Laboratory portion of Child and Family Studies Seminar. Five hours of work weekly.</p>	Prerequisites: Permission of Department or Division	CFS264AA may be repeated for a total of six (6) credit hours.	Acad	LAB 1.0 5.0 0.0	C

				Supervision and evaluation by a coordinator.	Corequisites: CFS263 when initially enrolled in CFS264AA or CFS264AB or CFS264AC module.				
CFS264AB	2023 Fall	Child and Family Studies Internship		Laboratory portion of Child and Family Studies Seminar. Ten hours of work weekly. Supervision and evaluation by a coordinator.	Prerequisites: Permission of Department or Division Corequisites: CFS263 when initially enrolled in CFS264AA or CFS264AB or CFS264AC module.	CFS264AB may be repeated for a total of six (6) credit hours.	Acad	LAB 2.0 10.0 0.0	C
CFS264AC	2023 Fall	Child and Family Studies Internship		Laboratory portion of Child and Family Studies Seminar. Fifteen hours of work weekly. Supervision and evaluation by a coordinator.	Prerequisites: Permission of Department or Division Corequisites: CFS263 when initially enrolled in CFS264AA or CFS264AB or CFS264AC module.	CFS264AC may be repeated for a total of six (6) credit hours.	Acad	LAB 3.0 15.0 0.0	C
CFS269	2023 Fall	Child Care Seminar	ECH269	Emphasizes the blend of job-related activities including career exploration, employment procedures, human relations, and on-the-job issues.	Prerequisites: Permission of Department or Division.	CFS/ECH269 may be repeated for a total of three (3) credit hours.	Acad	LEC 1.0 1.0 1.0	S
CFS271	2023 Fall	Arranging the Environment	ECH271	Exploration of the influence of the environment on the behavior of young children. Indoor and outdoor spaces considered and analysis of environments practiced.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CFS273	2023 Fall	Math for the Young Child	ECH273	Methods and techniques for encouraging the beginnings of mathematical/logical thought with young children. Focus upon the theory of Jean Piaget.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CFS275	2023 Fall	Literacy Development and the Young Child	ECH275	Literacy from birth through the early childhood years. Focus on developmentally appropriate ways to encourage speaking, listening, writing, and reading in the home and classroom.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S

CFS277	2023 Fall	Adult-Adolescent Interaction		Prepares social service workers, teachers, and parents to interact effectively with teenagers. Develops understanding of the interaction between adolescents and their families. Teaches practical strategies to deal with specific problem areas.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
CFS281	2023 Fall	Adolescent School Success		An overview of factors that contribute to adolescent school success, including family-school interactions, special needs adolescents, and problem areas. Emphasis on strategies and resources to facilitate school success.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CFS282	2023 Fall	Mainstreaming The Young Child with A Disability		An exploration of the educational, social, and behavioral issues and concerns involved in the successful integration of children with disabilities into typical preschool classes. Includes discussion of practical concerns such as adaptation of environment and accessing existing resources in the community.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CFS283	2023 Fall	Multicultural Early Child Education		Practical early childhood classroom applications for a diverse ethnic population, including integration of multiculturalism into the classroom, facilitation of second language acquisition, and practical teaching strategies which are also developmentally appropriate.	Prerequisites: A grade of C or better in CFS/ECH176.		Acad	LEC 1.0 1.0 1.0	S
CFS284AA	2023 Fall	Early Childhood Teaching Internship	ECH284AA	Work experience in child care centers. 80 hours of designated work per credit.	Prerequisites: A grade of C or better in CFS/ECH176 and permission of Department or Division.	CFS/ECH284AA may be repeated for a total of six (6) credit hours.	Acad	L+L 1.0 1.0 0.0	C

CFS284AB	2023 Fall	Early Childhood Teaching Internship	ECH284AB	Work experience in child care centers. 80 hours of designated work per credit. Maximum of 6 credits allowed.	Prerequisites: A grade of C or better in CFS/ECH176 and permission of department. Corequisites: CFS/ECH269.		Acad	L+L 3.0 3.0 3.0	T
CFS285	2023 Fall	Family-School Interaction		Interaction among parents, teachers and the school. Emphasis on methods used cooperatively by parents and teachers to provide for education and developmental needs.	Prerequisites: A grade of C or better in CFS/ECH176 or CFS278 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0	S
CFS285AA	2023 Fall	Family-School Interaction: Preschool		Interaction among parents, teachers and the preschool. Emphasis on methods used cooperatively by parents and preschool teachers to provide for education and developmental needs.	Prerequisites: A grade of C or better in CFS/ECH176 or CFS278 or permission of Instructor.		Acad	LEC 1.0 1.0 1.0	S
CFS287	2023 Fall	Professional Development in Early Childhood Education	ECH287	Emerging professionalism within the field of early childhood education. Consideration of job responsibilities, rewards, ethics and current issues facing practitioners. Includes assessment and career planning.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CFS290AA	2023 Fall	Child Abuse: Identification and Reporting in Child Care Settings		Identification, recording, and reporting by child care providers of sexual abuse, physical abuse, or neglect of young children.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CHA104	2010 Fall	Community Health Work		Preparation of Community Health workers for outreach health prevention, advocacy, education, referral, and intervention working with individuals, communities and families. Includes history of community health work programs, community systems, and resources for	Prerequisites: None.	A minimum of 30 hours of service learning experience in a community-based setting involving interacting with various agencies within the community, managing home visits, dealing with challenging situations, and empowering and mobilizing for action.	Occ	LEC 3.0 3.0 3.0	S

				clients and families often in disparity.					
CHI101	2018 Fall	Elementary Chinese (Mandarin) I		Introduction to the basic grammar, pronunciation and vocabulary of the Mandarin Chinese language. Includes the study of Chinese culture, practice of listening, speaking, reading, and writing skills	Prerequisites: None.	General Education Designation: Global Awareness - [G] Arizona Shared Unique Number SUN#: CHI 1101	Acad	L+L 5.0 6.0 6.0	T
CHI102	2018 Fall	Elementary Chinese (Mandarin) II		Study of grammar and vocabulary along with the study of Chinese culture. Emphasis on pronunciation and speaking skills.	Prerequisites: A grade of C or better in CHI101 or permission of Department or Division. Completion of prerequisites within the last three years is required.	General Education Designation: Global Awareness - [G] Arizona Shared Unique Number SUN#: CHI 1102	Acad	L+L 5.0 6.0 6.0	T
CHI115	1995 Spring	Beginning Chinese Conversation I		Introduction to Chinese sound system, basic grammar, and vocabulary necessary to develop speaking ability in Mandarin Chinese. Designed for students seeking speaking and listening ability with little emphasis on writing and reading Chinese characters	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
CHI116	2014 Fall	Beginning Chinese Conversation II		Continued development of speaking and listening skills for effective communication in Mandarin Chinese. Includes elements of Chinese culture	Prerequisites: A grade of C or better in CHI115 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
CHI201	2018 Fall	Intermediate Chinese I		Continued development of speaking, reading, and writing proficiency in Mandarin Chinese through building vocabulary, phrases, idioms, and grammatical patterns. Includes study of Chinese culture	Prerequisites: A grade of C or better in CHI102 or permission of Department or Division. Completion of prerequisites within the last three years is required.	General Education Designation: Global Awareness - [G] Arizona Shared Unique Number SUN#: CHI 2201	Acad	L+L 5.0 6.0 6.0	T
CHI202	2018 Fall	Intermediate Chinese II		Advanced development of speaking, reading, and writing skills in Mandarin Chinese,	Prerequisites: A grade of C or better in CHI201 or permission of Department or Division.	General Education Designation: Global Awareness - [G] Arizona Shared Unique Number SUN#: CHI 2202	Acad	L+L 5.0 6.0 6.0	T

				and continued exploration of Chinese culture	Completion of prerequisites within the last three years is required.				
CHI225	2014 Fall	Intermediate Chinese Conversation I		Continued development of oral and aural skills for effective communication in Mandarin Chinese	Prerequisites: A grade of C or better in CHI116 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
CHI226	2014 Fall	Intermediate Chinese Conversation II		A continuation of conversational skills for effective communication in Mandarin Chinese	Prerequisites: A grade of C or better in CHI225 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
CHI296WA	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.	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
CHI296WB	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.	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)		Acad	LAB 2.0 10.0 0.0	Z

					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.				
CHI296WC	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.	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
CHI296WD	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.	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
CHI298AA	2005 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0	Z

				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. COMMON COMPETENCY COURSE					
CHI298AB	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0	Z
CHI298AC	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0	Z
CHM100	2021 Fall	Preparation for Fundamental Chemistry		A preparatory course designed to review	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S

				fundamental math and chemistry principles for students inexperienced or insecure with these concepts. Stresses individualized instruction. Designed to prepare students for CHM130.					
CHM107	2023 Fall	Chemistry and Society		A survey of chemistry and its impact on society and the environment.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
CHM107LL	2018 Fall	Chemistry and Society Laboratory		Laboratory experience in support of CHM107.	Prerequisites: A grade of C or better in CHM107 or Corequisites: CHM107.	General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM107	Acad	LAB 1.0 3.0 3.0	T
CHM130	2024 Fall	Fundamental Chemistry		A survey of the fundamentals of general chemistry. Emphasis on essential concepts and problem solving techniques. Basic principles of measurement, chemical bonding, structure and reactions, nomenclature, and the chemistry of acids and bases. Preparation for students taking more advanced courses in chemistry.	Prerequisites: A grade of C or better in [(CHM100, or high school algebra, or MAT140 or higher, or an EdReady score of 70 or higher) and (RDG100, or RDG100LL, or higher, or eligibility for CRE101 as indicated by appropriate reading placement)], or permission of the Instructor, or Department or Division Chair.	Students may receive credit for only one of the following: CHM130 and CHM130LL, or CHM130AA. Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM130LL Arizona Shared Unique Number SUN# CHM 1130 in combination with: CHM130LL	Acad	LEC 3.0 3.0 3.0	S
CHM130AA	2024 Fall	Fundamental Chemistry with Lab		A survey of the fundamentals of general chemistry. Emphasis on essential concepts and problem solving techniques. Basic principles of measurement, chemical bonding, structure and reactions, nomenclature, and the chemistry of acids and bases. Preparation for students taking more advanced courses in chemistry.	Prerequisites: A grade of C or better in [(CHM100, or high school algebra, or MAT140 or higher, or an EdReady score of 70 or higher) and (RDG100, or RDG100LL, or higher, or eligibility for CRE101 as indicated by appropriate reading placement)], or permission of the Instructor, or	Student may receive credit for only one of the following: CHM130 and CHM130LL, or CHM130AA. 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

					Department or Division Chair.				
CHM130LL	2024 Fall	Fundamental Chemistry Laboratory		Laboratory experience in support of CHM130.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: CHM130.	Students may receive credit for only one of the following: CHM130 and CHM130LL, or CHM130AA. Course Attribute(s): Natural Sciences (Quantitative) - [SQ] in combination with: CHM130 Arizona Shared Unique Number SUN# CHM 1130 in combination with: CHM130	Acad	LAB 1.0 3.0 3.0	T
CHM138	2021 Fall	Chemistry for Allied Health		Elements of fundamental and organic chemistry. Includes the general chemical behavior of inorganic matter and the structure of organic and biochemical systems. Course designed for specific allied health programs at MCCD. May not be applicable to other allied health programs or transferable.	Prerequisites: A grade of C or better in [CHM100 or MAT090 or MAT091 or MAT092 or (MAT103AA and MAT103AB) or higher or satisfactory score on math placement exam], or one year of high school chemistry taken within the last five years with a grade of C or better, or permission of the Instructor, or Department or Division Chair.		Acad	LEC 3.0 3.0 3.0	S
CHM138LL	2018 Fall	Chemistry for Allied Health Laboratory		Laboratory experience in support of CHM138, Chemistry for Allied Health.	Prerequisites: None. Corequisites: CHM138.		Acad	LAB 1.0 3.0 3.0	T
CHM140AA	2023 Fall	General Chemistry for Engineers with Lab		Generalized study of the principles of chemistry as they relate to fields of engineering.	Prerequisites: A grade of C or better in [(CHM130 and CHM130LL), or CHM130AA, or one year of high school chemistry taken within the last five years] and (a grade of C or better in MAT151 or higher level mathematics course, or satisfactory placement), or permission of Instructor, or Department or		Acad	L+L 6.0 9.0 9.0	T

					Division Chair. Completion of prerequisites within the last two years is recommended.				
CHM150	2024 Fall	General Chemistry I		Detailed study of principles of chemistry for science majors and students in pre-professional curricula.	Prerequisites: A grade of C or better in [(CHM130 and CHM130LL), or CHM130AA, or one year of high school chemistry taken within the last five years] and (a grade of C or better in MAT151 or higher level mathematics course, or satisfactory placement), or permission of the Instructor, or Department or Division Chair.	Completion of all prerequisites within the last two years is recommended. Student may receive credit for only one of the following: CHM150 and CHM151LL, or CHM151 and CHM151LL, or CHM150AA, or CHM151AA. Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM151LL	Acad	LEC 4.0 4.0 4.0	S
CHM150AA	2024 Fall	General Chemistry I with Lab		Detailed study of principles of chemistry for science majors and students in pre-professional curricula.	Prerequisites: A grade of C or better in [(CHM130 and CHM130LL), or CHM130AA, or one year of high school chemistry taken within the last five years] and (a grade of C or better in MAT151 or higher level mathematics course, or satisfactory placement), or permission of the Instructor, or Department or Division Chair.	Completion of all prerequisites within the last two years is recommended. Student may receive credit for only one of the following: CHM150 and CHM151LL, or CHM151 and CHM151LL, or CHM150AA, or CHM151AA. 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
CHM151	2024 Fall	General Chemistry I		Detailed study of principles of chemistry for science majors and students in pre-professional curricula.	Prerequisites: A grade of C or better in [(CHM130 and CHM130LL), or CHM130AA, or one year of high school chemistry taken within	Completion of all prerequisites within the last two years is recommended. Students may receive credit for only one of the following: CHM150 and CHM151LL, or CHM151 and CHM151LL, or CHM150AA, or	Acad	LEC 3.0 3.0 3.0	S

					the last five years] and (a grade of C or better in MAT151 or higher level mathematics course, or satisfactory placement), or permission of the Instructor, or Department or Division Chair.	CHM151AA. Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM151LL Arizona Shared Unique Number SUN# CHM 1151 in combination with: CHM151LL			
CHM151AA	2024 Fall	General Chemistry I with Lab		Detailed study of principles of chemistry for science majors and students in pre-professional curricula.	Prerequisites: A grade of C or better in [(CHM130 and CHM130LL), or CHM130AA, or one year of high school chemistry taken within the last five years] and (a grade of C or better in MAT151 or higher level mathematics course, or satisfactory placement), or permission of the Instructor, or Department or Division Chair.	Completion of all prerequisites within the last two years is recommended. Student may receive credit for only one of the following: CHM150 and CHM151LL, or CHM151 and CHM151LL, or CHM150AA, or CHM151AA. 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
CHM151LL	2024 Fall	General Chemistry I Laboratory		Laboratory experience in support of CHM150 or CHM151.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: CHM150 or CHM151.	Student may receive credit for only one of the following: CHM150 and CHM151LL, or CHM151 and CHM151LL, or CHM150AA, or CHM151AA. Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM151LL Arizona Shared Unique Number SUN# CHM 1151 in combination with: CHM151LL	Acad	LAB 1.0 3.0 3.0	T
CHM152	2024 Fall	General Chemistry II		A study of the chemical properties of the major groups of elements, equilibrium theory, thermodynamics, electrochemistry, and other selected topics.	Prerequisites: A grade of C or better in [(CHM150 or CHM151) and CHM151LL], or CHM150AA, or CHM151AA, or permission of the	Completion of CHM152LL required to meet the Natural Science requirement. Student may receive credit for only one of the following: CHM152 and CHM152LL, or CHM152AA.	Acad	LEC 3.0 3.0 3.0	S

					Instructor, or Department or Division Chair.				
CHM152AA	2024 Fall	General Chemistry II with Lab		A study of the chemical properties of the major groups of elements, equilibrium theory, thermodynamics, electrochemistry, and other selected topics.	Prerequisites: A grade of C or better in [(CHM150 or CHM151) and CHM151LL], or CHM150AA, or CHM151AA, or permission of the Instructor, or Department or Division Chair.	Completion of prerequisites within the last two years recommended. Student may receive credit for only one of the following: CHM152 and CHM152LL, or CHM152AA.	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0	T
CHM152LL	2024 Fall	General Chemistry II Laboratory		Laboratory experience in support of CHM152.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: CHM152.	Student may receive credit for only one of the following: CHM152 and CHM152LL, or CHM152AA.	Acad	LAB 1.0 3.0 3.0	T
CHM195AA	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 CHM151 or permission of Instructor.	CHM195AA may be repeated for credit.	Acad	L+L 1.0 2.0 2.0	T
CHM195AB	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.	Prerequisites: A grade of C or better in CHM151 or permission of Instructor.	CHM195AB may be repeated for credit.	Acad	L+L 2.0 4.0 4.0	T

				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.					
CHM195AC	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 CHM151 or permission of Instructor.	CHM195AC may be repeated for credit.	Acad	L+L 3.0 6.0 6.0	T
CHM230	2023 Fall	Fundamental Organic Chemistry		Chemistry of representative groups of organic compounds, emphasizing biological applications.	Prerequisites: A grade of C or better in (CHM130 and CHM130LL) or (CHM150 or CHM151 and CHM151LL), or permission of the Instructor, or Department or Division Chair.	Completion of prerequisites within the last two years recommended. CHM230 course content is designed to meet the needs of students in such areas as agriculture, home economics, nursing, pre-physician assistant, and physical education among others. Students may receive credit for only one of the following: CHM230 and CHM230LL or CHM230AA. Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM230LL	Acad	LEC 3.0 3.0 3.0	S

						Arizona Shared Unique Number SUN#: CHM 2230			
CHM230AA	2023 Fall	Fundamental Organic Chemistry with Lab		Chemistry of representative groups of organic compounds, emphasizing biological applications.	Prerequisites: A grade of C or better in [(CHM130 and CHM130LL) or CHM130AA] or [(CHM150 or CHM151) and CHM151LL) or CHM151AA] or permission of the Instructor or Department or Division Chair.	Students may receive credit for only one of the following: (CHM230 and CHM230LL), or CHM230AA. Completion of prerequisites within the last two years recommended. CHM230AA course content is designed to meet the needs of students in such areas as agriculture, home economics, nursing, pre-physician assistant, and physical education among others.	Acad	LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0	T
CHM230LL	2023 Fall	Fundamental Organic Chemistry Laboratory		Laboratory experience in support of CHM230	Prerequisites: A grade of C or better in CHM130LL or CHM151LL or equivalent or Corequisites: CHM230.	CHM230LL students may receive credit for only one of the following: (CHM230 and CHM230LL), or CHM230AA. Completion of prerequisites within the last two years recommended. Designed for students in agriculture, dental hygiene, home economics, nursing, and physical therapy. Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM230 Arizona Shared Unique Number SUN#: CHM 2230	Acad	LAB 1.0 3.0 3.0	T
CHM235	2018 Fall	General Organic Chemistry I		Rigorous introduction to chemistry of carbon-containing compounds. Reaction mechanisms and recent methods of synthesis emphasized.	Prerequisites: A grade of C or better in (CHM152 and CHM152LL), or CHM152AA, or (CHM154 and CHM154LL), or permission of the Instructor, or Department or Division Chair.	Completion of prerequisites within the last two years recommended. Course Attribute(s): Arizona Shared Unique Number SUN#: CHM 2235	Acad	LEC 3.0 3.0 3.0	S
CHM235AA	2020 Spring	General Organic Chemistry I with Lab		Rigorous introduction to chemistry of carbon-containing compounds. Reaction mechanisms and	Prerequisites: A grade of C or better in (CHM152 and CHM152LL), or	Student may receive credit for only one of the following: CHM235 and CHM235LL, or CHM235AA. Completion of	Acad	LEC 4.0 3.0 3.0 LAB 0.0 4.0 4.0	T

				recent methods of synthesis emphasized.	CHM152AA, or (CHM154 and CHM154LL), or permission of the Instructor, or Department or Division Chair.	prerequisites within the last two years recommended.			
CHM235LL	2018 Fall	General Organic Chemistry I Laboratory		Laboratory experience in support of CHM235.	Prerequisites: A grade of C or better in CHM235 or Corequisites: CHM235. Completion of prerequisites within the last two years recommended.	Course Attribute(s): Arizona Shared Unique Number SUN#: CHM 2235	Acad	LAB 1.0 4.0 4.0	T
CHM236	2020 Spring	General Organic Chemistry IIA		Study of chemistry of carbon-containing compounds continued. Structural determination and additional reaction mechanisms and modern methods of synthesis emphasized.	Prerequisites: A grade of C or better in (CHM235 and CHM235LL) or CHM235AA or permission of the Instructor or Department or Division Chair.	Students may receive credit for only one of the following: CHM236 and CHM236LL, or CHM236AA. Completion of prerequisites within the last two years recommended. Course Attribute(s): Arizona Shared Unique Number SUN# CHM 2236	Acad	LEC 3.0 3.0 3.0	S
CHM236AA	2020 Spring	General Organic Chemistry IIA with Lab		Study of chemistry of carbon-containing compounds continued. Structural determination and additional reaction mechanisms and modern methods of synthesis emphasized.	Prerequisites: A grade of C or better in (CHM235 and CHM235LL) or CHM235AA, or permission of the Instructor, or Department or Division Chair.	Student may receive credit for only one of the following: CHM236 and CHM236LL, or CHM236AA. Completion of prerequisites within the last two years recommended.	Acad	LEC 4.0 3.0 3.0 LAB 0.0 4.0 4.0	T
CHM236LL	2018 Fall	General Organic Chemistry IIA Laboratory		Laboratory experience in support of CHM236.	Prerequisites: A grade of C or better in CHM236 or Corequisites: CHM236. Completion of prerequisites within the last two years recommended.	Course Attribute(s): Arizona Shared Unique Number SUN#: CHM 2236	Acad	LAB 1.0 4.0 4.0	T
CHM260	2023 Fall	Fundamental Biochemistry		Structures, properties, and functions of proteins, enzymes, nucleic acids, carbohydrates and lipids; the utilization and synthesis of	Prerequisites: A grade of C or better in [(CHM230 and CHM230LL) or CHM230AA] or	Completion of prerequisites within the last two years recommended. Designed for students in agriculture, dental	Acad	LEC 3.0 3.0 3.0	S

				these materials by living systems and the relationship of the processes to energy production and utilization.	[(CHM235 and CHM235LL) or CHM235AA] or permission of the Instructor or Department or Division Chair.	hygiene, home economics, nursing, and physical therapy.			
CHM260LL	2018 Fall	Fundamental Biochemistry Laboratory		Laboratory experience in support of CHM260.	Prerequisites: A grade of C or better in CHM260 or Corequisites: CHM260. Completion of prerequisites within the last two years recommended.		Acad	LAB 1.0 3.0 3.0	T
CHM282AA	2014 Summer	Service-Learning Experience in Chemistry		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	CHM282AA 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
CHM282AB	2014 Summer	Service-Learning Experience in Chemistry		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	CHM282AB 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
CHM282AC	2014 Summer	Service-Learning Experience in Chemistry		Unpaid Service-Learning experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	CHM282AC 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
CHM295AA	2024 Fall	Special Topics in Chemistry		Specialized chemistry-related content not represented in the main curriculum.	Prerequisites: None.	CHM295AA may be repeated for credit.	Acad	L+L 1.0 1.0 1.0	T
CHM295AB	2024 Fall	Special Topics in Chemistry		Specialized chemistry-related content not represented in the main curriculum.	Prerequisites: None.	CHM295AB may be repeated for credit.	Acad	L+L 2.0 2.0 2.0	T
CHM295AC	2024 Fall	Special Topics in Chemistry		Specialized chemistry-related content not represented in the main curriculum.	Prerequisites: None.	CHM295AC may be repeated for credit.	Acad	L+L 3.0 3.0 3.0	T
CHM296WA	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.	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.				
CHM296WB	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.	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
CHM296WC	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.	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
CHM296WD	2023 Fall	Cooperative Education		Work-college experiences that involve the combined efforts of	Completion of at least twelve (12) college		Acad	LAB 4.0 20.0 0.0	Z

				educators and employers to accomplish an outcome 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.				
CHM298AA	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0	Z
CHM298AB	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	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0	Z

				development. COMMON COMPETENCY COURSE					
CHM298AC	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0	Z
CIS100	2018 Fall	Internet: A Tool for Learning		Use of the Internet to promote learning. Focus on Internet services and access. Information provided on browsing, Internet addresses, naming conventions, search concepts and techniques, using bookmarks and capturing information	Prerequisites: None.		Occ	L+L 0.5 0.5 0.5	T
CIS102	2003 Fall	Interpersonal and Customer Service Skills for IT Professionals		Examines behaviors necessary to develop and support an effective client service organization. Focuses on methods of increasing the effectiveness of help-desk professionals when responding to a range of customer conditions	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	F
CIS102DA	2020 Fall	Customer User Support		Examines skills, tools and strategies necessary for becoming a computer help-desk or end-user support professional.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
CIS103	2021 Fall	Introduction to Social Media		Identify and explain social media and Web 2.0 technologies for personal, academic, professional, and business applications. Create	Prerequisites: None.	Students must be 13 years or older to enroll in CIS103 as students are required to create social media accounts for course participation.	Occ	L+L 3.0 4.0 4.0	T

				and maintain accounts on various sites to socialize, write, and share multimedia, while understanding the related ethics, privacy and security issues.					
CIS105	2018 Fall	Survey of Computer Information Systems		Overview of computer technology, concepts, terminology, and the role of computers in business and society. Discussion of social and ethical issues related to computers. Use of word processing, spreadsheet, database, and presentation software. Includes uses of application software and the Internet for efficient and effective problem solving. Exploration of relevant emerging technologies.	Prerequisites: None.	Course Attribute(s): General Education Designation: Computer/Statistics/Quantitative Applications - [CS] Arizona Shared Unique Number SUN#: CIS 1120	Occ	L+L 3.0 4.0 4.0	T
CIS107	2018 Fall	The Electronic Game Industry		Introduction to the electronic game industry, including history, market, distribution and publishing channels, business models, team roles, and career landscape. Technical topics covered include software engineering, artificial intelligence, game physics, computer graphics, and networking.	Prerequisites: A grade of C or better in CIS105 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS108	2018 Fall	Electronic Portfolio Development		Compile, reflect on, and select prior learning experiences and artifacts. Design, produce, and publish an online portfolio that documents prior learning. Includes techniques for presenting the electronic portfolio for evaluation.	Prerequisites: A grade of C or better in (CIS105 or BPC110) or permission of Instructor.		Occ	L+L 1.0 2.0 2.0	T
CIS109AM	2001 Fall	Networking Technology I		Computer networking basics. Network services, transmission media, and connectivity devices covered. Open Systems	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S

				Interconnection (OSI) Reference Model					
CIS111	2014 Fall	Ethics in Information Technology		Ethical issues that arise as a result of increasing use of computers, and the responsibilities of those who work with computers, either as computer science professionals or end users. Critical inquiry and review of ethical challenges in information technology business, including professional and corporate responsibility, government regulation, fiduciary responsibilities of information, infringement of intellectual property, security risk assessment, Internet crime, identity theft, employee surveillance, privacy, compliance, social networking, and the ethics of IT corporations.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
CIS113AE	2018 Fall	Microsoft Word: Word Processing Level I		Using word processing software to create, name and manage files, edit text, and do basic formatting of documents.	Prerequisites: None.	CIS113AE may be repeated for a total of three (3) credit hours.	Occ	L+L 1.0 2.0 2.0	T
CIS113BE	2018 Fall	Microsoft Word: Word Processing Level II		Using more advanced features of word processing software to format documents, create lists, mail-merged documents, and documents with themes and styles.	Prerequisites: A grade of C or better in CIS113AE or permission of Instructor.	CIS113BE may be repeated for a total of three (3) credit hours.	Occ	L+L 1.0 1.0 1.0	T
CIS113CE	2018 Fall	Microsoft Word: Word Processing Level III		Utilizing more advanced features of word processing software to incorporate style and theme elements, use desktop publishing capabilities, and insert tables.	Prerequisites: A grade of C or better in CIS113BE or permission of Instructor.	CIS113CE may be repeated for a total of three (3) credit hours.	Occ	L+L 1.0 1.0 1.0	T
CIS113DE	2018 Fall	Microsoft Word: Word Processing		Using word processing software to create, name and manage files, edit text, format, apply themes and styles,	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T

				create and modify tables, apply desktop publishing features, and print a variety of types of documents.					
CIS114AE	2018 Fall	Excel: Level I		Computer spreadsheet skills for solving business problems using Excel, including calculations, forecasting, and projections.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0	T
CIS114BE	2018 Fall	Excel: Level II		Additional Excel spreadsheet techniques, including macro programming, database searching, extraction, and linking to obtain prescribed reports and graphs.	Prerequisites: A grade of C or better in CIS114AE or permission of Instructor.	CIS114BE may be repeated for a total of three (3) credit hours.	Occ	L+L 1.0 1.0 1.0	T
CIS114CE	2012 Spring	Excel: Level III		Additional Excel spreadsheet techniques, including complex macros, statistics, and matrix manipulation. Project design using multiple, integrated spreadsheets	Prerequisites: A grade of C or better in CIS114BE or permission of Instructor.		Occ	LEC 1.0 1.0 1.0	S
CIS114DE	2018 Fall	Excel Spreadsheet		Computer spreadsheet skills for solving business problems using Excel, including calculations, forecasting, projections, macro programming, database searching, extraction, linking, statistics, and matrix manipulation. Production of graphs and reports. Project design using multiple, integrated spreadsheets.	Prerequisites: None.	CIS114DE may be repeated for a total of nine (9) credit hours.	Occ	L+L 3.0 4.0 4.0	T
CIS116	2018 Fall	Computer Graphics: Introduction to Microsoft Visio		Introduction to use of Visio graphics software to create and edit drawings using predefined shapes and templates. Use of Visio tools to create simple drawings with text, symbols and labels.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0	T
CIS117AM	2018 Fall	Database Management: Microsoft Access - Level I		Introduction to the basic elements of a current version of the Microsoft Access database management program, for casual and beginning users.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0	T

CIS117BM	2018 Fall	Database Management: Microsoft Access - Level II		Exploration of additional components of the Microsoft Access database management program.	Prerequisites: A grade of C or better in CIS117AM or permission of Instructor.	CIS117BM may be repeated for a total of three (3) credit hours.	Occ	L+L 1.0 1.0 1.0	T
CIS117CM	2018 Fall	Database Management: Microsoft Access - Level III		Application of the features of the Microsoft Access program to some common database management problems	Prerequisites: A grade of C or better in CIS117BM.		Occ	L+L 1.0 1.0 1.0	T
CIS117DM	2021 Spring	Microsoft Access: Database Management		Introduction to Microsoft Access. Emphasis on features, design, and database management.	Prerequisites: None.	CIS117DM combines the contents of CIS117AM, CIS117BM and CIS117CM. CIS117DM may be repeated for a total of nine (9) credit hours.	Occ	L+L 3.0 4.0 4.0	T
CIS118AB	2018 Fall	PowerPoint: Level I		Use of PowerPoint software to produce professional-quality presentation visuals	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0	T
CIS118BB	2018 Fall	PowerPoint: Level II		Use of PowerPoint software to add movement and sound to desktop presentations to enhance audience attention.	Prerequisites: A grade of C or better in CIS118AB.	CIS118BB may be repeated for a total of three (3) credit hours.	Occ	L+L 1.0 1.0 1.0	T
CIS118DB	2018 Fall	Desktop Presentation: PowerPoint		Use of PowerPoint to produce professional-quality presentation visuals with animation and sound.	Prerequisites: None.	CIS118DB may be repeated for a total of nine (9) credit hours.	Occ	L+L 3.0 4.0 4.0	T
CIS119DO	2020 Fall	Introduction to Oracle: SQL		Use of Oracle tools and methodologies to fulfill real-world business information requirements. Hands-on exercises for designing, creating, and maintaining database structures to store, retrieve, update, and display data in a relational database using the SQL programming language. Creating and maintaining database objects. Advanced retrieval techniques.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: CIS105 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS119DP	2018 Fall	Oracle: Database Administration		Basic administrative tasks performed by a database administrator (DBA). Conceptual understanding and hands-on applications of the Oracle database architecture and interaction of its components.	Prerequisites: A grade of C or better in CIS119DO, or permission of Instructor. (CIS126++ or CIS121++ or MST152++) is recommended.		Occ	L+L 3.0 4.0 4.0	T

CIS120AJ	2018 Fall	Introduction to Digital Photo Editing		Introduction to digital photography and image editing. Digital photo editing use of electronic techniques to select, manipulate, and edit images.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0	T
CIS120DA	2020 Fall	Introduction to Adobe Premiere		Foundations of video import, export, and editing. Includes parts and function of a video camera, preproduction and production, incorporating photographs, titles, graphics, animation and audio, capturing, editing, rendering and outputting digital video. Prepares students for the Adobe Certifications related to Adobe Premiere.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
CIS120DB	2020 Fall	Introduction to Adobe Illustrator		Provides students with the knowledge and skills to use Adobe Illustrator graphics software on a computer. Basic foundation course in the use of electronic techniques to create, manipulate, and edit images, text, abstract art, graphics design, color graphics and business charts; determine file formats appropriate for web and print; utilize tools to optimize graphics and create a PDF file.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
CIS120DC	2020 Fall	Introduction to Adobe Animate		Focuses on entry-level skill expectations for digital animation using Adobe Animate. Covers basic animation techniques used in the creation, manipulation, and editing of animation graphics. Prepares students for the Adobe certifications related to Adobe Animate.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
CIS120DF	2020 Fall	Introduction to Adobe Photoshop		Focuses on entry-level skills and knowledge for digital imaging using Adobe	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T

				Photoshop. Prepares students for the Adobe Certifications related to Photoshop.					
CIS120DG	2018 Fall	Fireworks: Web Graphics		Use of graphics software to create and edit vector and bitmap (raster) graphics. Creation and manipulation of paths and special effects. Covers slices, buttons, pop-up menus, navigation bars, and animations for use in web sites.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
CIS120DK	2018 Fall	Introduction to Digital Video Editing		Introduction to digital video editing comprises of a foundation for video import, export, and editing functions. Includes parts and function of a video camera, preproduction and production, incorporating photographs, titles, graphics, animation and audio, capturing, editing, rendering and outputting digital video.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
CIS120DL	2020 Fall	Introduction to Adobe After Effects		Includes creating visual effects for video projects. Explores techniques and methodologies used to create shots for big budget special effects. Topics include color and light matching, keying, motion tracking, rotoscoping and working with film.	Prerequisites: A grade of C or better in CIS120DA or CIS120DK, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS120DO	2020 Fall	Introduction to Adobe Audition		Introduction to editing audio files in a multitrack editing environment using Adobe Audition. Includes the import of files in a variety of formats that were generated using other software and how to export files.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
CIS120DP	2018 Fall	Adobe Acrobat Pro: Portable Document Format (PDF) Files		Introduction to creating PDF (Portable Document Format) files using Adobe Acrobat for web viewing and printing. Addresses creation of interactive PDF documents	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T

				including security settings, navigation links, and form fields.					
CIS121AB	2018 Fall	Microsoft Command Line Operations		Use of the Microsoft command line interface: basic concepts, internal and external commands, subdirectories, and editor.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0	T
CIS121AE	2018 Fall	Windows Operating System: Level I		Specific topics include Windows basics, navigating and customizing the desktop, maintaining hardware and software, improving performance, configurations, securing your computer, taskbar, organizing, searching and managing folders and files, installing and uninstalling applications, Internet Explorer fine tuning, security, and searching, including advanced search techniques, keyboard shortcuts, and current topics.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0	T
CIS121AH	2020 Fall	Microsoft PowerShell/Command Line Operations		Day-to-day command line administration tasks of Microsoft Windows. PowerShell used to create scripts to administer Microsoft windows environment.	Prerequisites: None. MST150++ suggested but not required.		Occ	L+L 3.0 4.0 4.0	T
CIS121AI	2018 Fall	Mac Operating System		Specific topics include getting started with Mac OS; working with disks, folders, and files; installing and using applications; setting system preferences; printing, faxing, and scanning; getting and living online; using iLife; sharing a Mac with other users; creating a home network; and maintaining the Mac.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0	T
CIS122AE	2018 Fall	Windows Operating System: Level II		Additional capabilities of the Windows program that configure devices and customize the presentation of the operating system. System	Prerequisites: A grade of C or better in CIS121AE or permission of Instructor.		Occ	L+L 1.0 2.0 2.0	T

				tools, control panel utilities, the My Computer, Network Neighborhood, and Microsoft Exchange desktop icons. Other helpful utilities presented.					
CIS124AA	2018 Fall	Project Management Software: Level I		Utilization of project management software packages by managers and advanced business students to solve critical management planning tasks. Evaluation of management opportunities utilizing software packages to monitor project progress and resource allocation. Includes "what-if" analyses, and preparation of management reports	Prerequisites: None.		Occ	L+L 1.0 1.7 1.7	T
CIS124BA	2018 Fall	Project Management Software: Level II		Advanced use of project management software. Covers features and functions to solve critical management planning tasks. Project communications, scheduling, resource allocation, tracking processes and importing and exporting data also covered. Project consolidation emphasized.	Prerequisites: A grade of C or better in CIS124AA or permission of Instructor.		Occ	L+L 1.0 1.7 1.7	T
CIS126AA	2018 Fall	UNIX Operating System: Level I		Use of the UNIX operating system: system components, built-in commands, files and directories, editors, and UNIX Shell and command lines.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0	T
CIS126AL	2018 Fall	Linux Operating System I		Introduction to the Linux Operating system. Develop knowledge and skills required to install, configure a Linux-based workstation including basic network functions.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0	T
CIS126BA	1999 Fall	UNIX Operating System: Level II		Installation, configuration, and maintenance of the UNIX operating system	Prerequisites: A grade of C or better in CIS126AA.		Occ	LEC 1.0 1.0 1.0	S

CIS126CA	1999 Fall	UNIX Operating System: Level III		Create login scripts and batch files, and maintain system communications	Prerequisites: A grade of C or better in CIS126BA.		Occ	LEC 1.0 1.0 1.0	S
CIS126DA	2018 Fall	UNIX Operating System		Use of a UNIX operating system including system components, built-in commands, files, and directories, editors, and UNIX shell and command lines. Installation, configuration, and maintenance of a UNIX operating system. Create scripts and batch files, and maintain system communications.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
CIS126DL	2018 Fall	Linux Operating System		Introduction to the Linux Operating system. Develop knowledge and skills required to install, configure and troubleshoot a Linux-based workstation including basic network functions. Learn basic command line and Graphical User Interface (GUI) desktop environment utilities and applications. Fundamental abilities to achieve the entry-level industry certification covered.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
CIS126RH	2018 Fall	Red Hat System Administration I		Introduction to core administration skills needed to manage a Red Hat Enterprise Linux system. This Red Hat Academy course helps prepare for the Red Hat certification exams using a hands-on, task-focused curriculum.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
CIS128	2018 Fall	Databases in Practice Management		Use of a Practice Management Database (Electronic Health Record software) for installation and maintenance of an Electronic Health Record. Application of policies and procedures for data control, security, privacy,	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T

				and confidentiality of health information in electronic health information management systems.					
CIS129	2018 Fall	Introduction to Microsoft Sharepoint		Designed to provide basic skills enabling the end user to navigate, manage documents and collaborate using Microsoft Sharepoint.	Prerequisites: A grade of C or better in BPC110, or CIS105, or permission of Instructor.		Occ	L+L 1.0 2.0 2.0	T
CIS130DA	2018 Fall	3D Studio Max: Modeling		Introduction to 3D modeling using 3D Studio Max. Emphasis will be placed on Polygonal, Solid, and Surface modeling tools. Students will also understand concepts such as modifiers, sub-object editing, extruding, Booleans, lofting, lathing and compound object modeling. Introduction to basic lighting, texturing and rendering techniques.	Prerequisites: A grade of C or better in CIS105.		Occ	L+L 3.0 4.0 4.0	T
CIS130DB	2018 Fall	3D Studio Max: Animation		Introduction to three-dimensional animation tools and principles, with an emphasis on character construction and animation. 3D Studio Max will be the primary application for use in this class.	Prerequisites: A grade of C or better in CIS105.		Occ	L+L 3.0 4.0 4.0	T
CIS131AA	1998 Fall	Doing Business on the Internet		Overview of different ways businesses are taking advantage of and using the Internet. Includes how companies are selling items and services over the Internet; techniques used to expand customer contacts; marketing strategies; availability of government and financial information; future potential and disadvantages; using the Internet for customer service; establishing a World Wide Web site. Some previous computer experience preferred	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S

CIS132	2018 Fall	HTML/CSS		Overview of foundational HyperText Markup Language (HTML) and Cascading Style Sheets (CSS) coding. Create web pages and sites that adhere to web standards and best practices using current web coding standards.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
CIS133AA	2018 Fall	Internet/Web Development Level I-A		Overview of the Internet and its resources. Hands-on experience with various Internet communication tools	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0	T
CIS133DA	2019 Fall	Internet/Web Development Level I		Overview of the Internet/World Wide Web (WWW) and its resources. Hands-on experience with various Internet/WWW resource discovery, information retrieval, and social media tools. Design and Development of multi-page websites using current Hyper Text Markup Language (HTML) and Cascading Style Sheets (CSS) standards..	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
CIS136	2019 Summer	Content Management Systems: WordPress		Overview of WordPress Content Management System. Includes hands-on design and creation of web pages and blogs for the World Wide Web. Designed to cover best practices for web site/blog creation.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
CIS138DA	2019 Summer	Desktop Design and Publishing Using Adobe InDesign		Use of Adobe InDesign to compose and print textual and graphic materials of high quality. Includes word processing of copy, use of graphics programs, layout of design elements, printing alternatives, and file formats.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
CIS140	2021 Fall	Survey of Multimedia Technology		Introduction to multimedia technology and its uses. Overview of the various hardware and software used in developing and delivering	Prerequisites: A grade of C or better in CIS105 or permission of Instructor.		Occ	L+L 2.0 3.0 3.0	T

				multimedia. Emphasis on how multimedia is used in education and training. Provides a basic understanding of the process used to define and develop multimedia applications.					
CIS143	2021 Spring	Introduction to Critical Infrastructure Protection		History and overview of critical infrastructure protection and its ties within the Department of Homeland Security prior to and after September 11, 2001. Focus on risk management associated with sectors specific industries and provides and overview of the public and private partnerships, along with laws and standards developed to protect critical infrastructures.	Prerequisites: A grade of C or better in CIS111 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0	S
CIS150	2020 Fall	Programming Fundamentals		Structured program design and logic tools. Use of computer problems to demonstrate and teach concepts using appropriate programming language.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: CIS105 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS150AB	2020 Fall	Object-Oriented Programming Fundamentals		Structured and Object-Oriented design and logic tools. Use of computer problems to demonstrate and teach concepts using an appropriate programming language.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: CIS105 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS151	2018 Fall	Computer Game Development -Level I		Introduction to object-oriented game development, game design, and game theory. Use of computer software to demonstrate and teach concepts using an appropriate game development platform to model real-time simulations and create computer games using object oriented tools. Introduction to developing PC games, educational software, and training software using	Prerequisites: A grade of C or better in CIS105 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T

				windows based object oriented developments tools.					
CIS154	2018 Fall	Database Modeling and Design		Top-down, systematic approach to defining a database design based on analysis of business information and requirements. Identifying and evaluating standard data model and design patterns. Developing an entity-relationship (ER) diagram that accurately reflects the business. Mapping the ER diagram to an initial database design and revising for complex entities, attributes, and relationships.	Prerequisites: A grade of C or better in CIS105 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS156	2021 Fall	Python Programming: Level I		Introduction to Python programming. Includes general concepts, program design, development, data types, operators, expressions, flow control, functions, classes, input and output operations, debugging, structured programming, and object-oriented programming.	Prerequisites: A grade of C or better in CIS105 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS159	2018 Fall	Visual Basic Programming I		Use of the Visual Basic programming language to solve problems using suitable examples from business or other disciplines	Prerequisites: A grade of C or better in CIS105 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS162	2020 Spring	C Programming I		Beginning C programming. Includes features needed to construct programs, functions, pointers, input and output options, data types, structures, and unions, and disk file operations.	Prerequisites: A grade of C or better in CIS105 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS162AB	2018 Fall	C++: Level I		Introduction to C++ programming including general concepts, program design, development, data types, operators, expressions, flow control, functions, classes, input and output	Prerequisites: A grade of C or better in CIS105 or permission of Instructor.	Course Attribute(s): General Education Designation: Computer/Statistics/Quantitative Applications - [CS]	Occ	L+L 3.0 4.0 4.0	T

				operations, debugging, structured programming, and object-oriented programming					
CIS162AC	2018 Fall	Visual C++: Level I		Introduction to Visual C++ programming including general concepts, program design, development, data types, operators, expressions, flow control, functions, classes, input and output operations, debugging, structured programming, and object-oriented programming.	Prerequisites: A grade of C or better in CIS105 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS162AD	2018 Fall	C#: Level I		Introduction to C# programming including general concepts, program design, development, data types, operators, expressions, flow control, functions, classes, input and output operations, debugging, structured programming, and object-oriented programming	Prerequisites: A grade of C or better in CIS105 or permission of Instructor.	Course Attribute(s): General Education Designation: Computer/Statistics/Quantitative Applications - [CS]	Occ	L+L 3.0 4.0 4.0	T
CIS162RS	2022 Spring	Rust Programming		Beginning Rust programming. Includes features needed to construct programs, functions, pointers, input and output options, data types, structures, unions, and disk file operations.	Prerequisites: A grade of C or better in CIS105 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS163AA	2018 Fall	Java Programming: Level I		Introduction to Java programming. Includes features needed to construct Java Applets, Java Applications, control structures, methods, arrays, character and string manipulation, graphics, and object-oriented programming	Prerequisites: A grade of C or better in CIS105 or permission of Instructor.	Course Attribute(s): General Education Designation: Computer/Statistics/Quantitative Applications - [CS]	Occ	L+L 3.0 4.0 4.0	T
CIS164AB	2018 Fall	Oracle: PL/SQL Programming		Writing PL/SQL procedures, functions, and packages. Creating and managing PL/SQL program units and database triggers in Oracle development environment.	Prerequisites: A grade of C or better in CIS119DO or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T

				Managing dependencies and manipulating large objects					
CIS165	2020 Fall	Introduction to IOS Application Development		Introduction to iOS device programming utilizing the XCode application, and the programming languages Objective-C and/or Swift, utilizing various iOS frameworks. Understand iOS hardware and feature basics. Go through the entire design process from concept to final product delivery.	Prerequisites: A grade of C or better in CIS150++, or CIS156, or CIS159, or CIS162++, or CIS163AA, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS165DA	2020 Fall	Introduction to Android Application Development		Beginning with an overview of Android features, this class explores the required software tools and programming techniques for developing Android device applications from creating the user interface, working with activities, intents and views, to using databases, providing data persistence, accessing device services, to debugging and publishing applications.	Prerequisites: A grade of C or better in CIS150++, or CIS156, or CIS159, or CIS162++, or CIS163AA, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS165DB	2018 Fall	C#/VB.NET: Windows 8 App Development		Building upon desktop application development with Visual Studio using VB.NET or C# languages, developing apps for Windows 8 utilizes Extensible Application Markup Language (XAML) for interface design. Windows 8 utilizes UI design standards that are unique from previous versions. Develop apps for Windows 8 smartphones and tablets that utilize touch input methods, translate into different resolutions, states, and orientations, and can tap into mobile features such as location and acceleration sensors. Includes working with	Prerequisites: A grade of C or better in CIS159 or CIS162AD or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T

				external data and packaging for Windows Store distribution.					
CIS165DC	2018 Fall	Xamarin/C# Cross-Platform Development		Develop cross-platform mobile apps for iOS, Android, and Windows devices using the Xamarin.Forms Platform and C#, utilizing the Visual Studio IDE. Focusing on Xamarin.Forms projects, the course includes PCL and SAP approaches to shared code, developing interfaces with XAML or in C# code, emulator testing, data binding, backgrounding, packaging for deployment. Coding techniques include Layouts and shared controls (views), MVVM pattern, LINQ, SQLite, and Dependency Injection for platform specific coding.	Prerequisites: A grade of C or better in CIS162AD, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS166	2019 Fall	Web Scripting/Programming		Software development for Web sites, including client-side script and Common Gateway Interface (CGI) scripting. Covers Web-based transaction processing and use of databases in conjunction with the Web. Includes security issues.	Prerequisites: A grade of C or better in CIS133DA or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS166AA	2020 Spring	Introduction to JavaScript		Introduction to basic JavaScript programming concepts including syntax. Covers Hypertext Markup Language (HTML), programming logic and debugging, as well as forms manipulation and animation.	Prerequisites: A grade of C or better in CIS133DA or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS166AC	2019 Fall	Web Scripting with Active Server Pages (ASP).NET		Introduction to web scripting using Microsoft's ASP.Net (Active Server Pages). Web application development using Hypertext Markup Language (HTML), ASP.Net Web Forms, programming logic, and	Prerequisites: A grade of C or better in CIS133DA and (CIS159 or CIS162AD) or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T

				Structured Query Language (SQL).					
CIS166AE	2019 Fall	Web Scripting with PHP: Hypertext Preprocessor (PHP)		Introduction to web scripting with PHP (PHP: Hypertext Preprocessor). Web application development using Hypertext Markup Language (HTML), PHP, programming logic, and Structured Query Language (SQL).	Prerequisites: A grade of C or better in CIS133DA or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS171	2019 Spring	Survey of Blockchain Technology		This survey class will introduce you to the exciting world of distributed ledger technology (i.e. the blockchain), cryptocurrencies such as Bitcoin and Ether as well as smart contracts. The emphasis is on the blockchain's role in revolutionizing business. Basic knowledge of computer operation and the ability to browse the Internet are recommended.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
CIS175SA	2018 Fall	Interconnecting Cisco Network Devices		Procedures for interconnecting existing computer networks. Emphasis on internetworking, layer usage, and software configuration. Covers router and switch usage, protocol suite and wide-area networking, as well as Internet protocol address and routing configuration. Also includes frame relay and X.25 configuration, access list traffic management, and alternate router access information.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
CIS189	2018 Fall	Virtualization and IT Solutions for Digital Businesses		Introduction to Virtualization course is designed to teach basic virtualization computing concepts to learners. It then expands on the basic technical introduction provided	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T

				and explores the concepts in more detail with an emphasis on mapping the technologies to business needs and solutions. This course is suitable for anyone who wants to know more about terms like "cloud" and "virtualization." It will serve as a foundation to build upon when students learn how to design, install and configure various cloud technologies.					
CIS190	2020 Fall	Introduction to Networking		Overview of networks. Emphasis on the elements of a network, current issues and products, and use of a network. Includes terminology, hardware and software components, connectivity, resource monitoring and sharing, electronic mail and messaging, and security issues. Helps prepare students for the CompTIA Network+ examination.	Prerequisites: None. Corequisites: CIS105 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS197	2020 Fall	VMware ESXI Server Enterprise		Introduction to vSphere and VMware ESXI server in the enterprise. Covers many aspects of virtualization for VMware ESXI server administration. Designed to develop knowledge and skills required to install, configure and troubleshoot a VMware ESXI Server (vSphere) including basic network functions.	Prerequisites: A grade of C or better in [CIS105 and (BPC270 or MST150++) and (CIS126DL or CIS126RH) and (CIS190 or CNT140AB)] or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS198	2018 Fall	VMware vSphere: Optimize and Scale		VMware vSphere: Optimize and Scale is designed for experienced VMware vSphere users. It teaches advanced skills for configuring and maintaining a highly available and scalable virtual infrastructure. Through a mix	Prerequisites: A grade of C or better in CIS197.		Occ	L+L 3.0 4.0 4.0	T

				of lecture and hands-on labs, you will configure and optimize the vSphere features that build a foundation for a truly scalable infrastructure and discuss when and where these features have the greatest effect. It enables you to understand vSphere at a deeper level and how to use advanced features and controls.					
CIS200	2020 Fall	VMware NSX: Install, Configure, Manage		This comprehensive, fast-paced training course focuses on installing, configuring, and managing VMware NSX. This course covers NSX as a part of the software-defined data center platform, implementation use cases along with features of NSX, and functionality operating at Layer 2 through Layer 7 of the OSI model. Lecture and hands-on lab activities support the student's understanding of NSX features, functionality, and on-going management and control.	Prerequisites: A grade of C or better in CIS197.		Occ	L+L 3.0 4.0 4.0	T
CIS201	2024 Fall	Introduction to Operational Technology		Differences between Operational Technology (OT) and Information Technology (IT). Focus on the components and their uses within an OT system. Addresses the inherent threats, physical and cyber related, to an OT system when connected to an IT system needed to be addressed in order to maintain security and resilience.	Prerequisites: A grade of C or better in CIS270, or ITS110, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS202	2024 Fall	Introduction to Smart Grid Security		Focus on differences between control systems, used to control physical and computer information systems, used to	Prerequisites: A grade of C or better in (CIS270 or ITS110) and		Occ	LEC 3.0 3.0 3.0	T

				process data, in the Power and Utility industry. Power Systems industry, system elements, functions and security risks are covered.	CIS143, or permission of Instructor.				
CIS203	2024 Fall	Principles of the Risk Management Framework		History and overview of the Federal Information Security Modernization Act (FISMA) and its effect on cybersecurity management and oversight. Focus of the Risk Management Framework (RMF) and its use in the process of authorizing information systems to operate under the FISMA guidelines.	Prerequisites: A grade of C or better in CIS270, or ITS110, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS213DE	2018 Fall	Advanced Microsoft Word: Word Processing		Using advanced word processing software features to perform tasks such as mail merge, collaboration, web pages, math functions, macros, photo enhancements, graphics, tables, forms and manage long documents.	Prerequisites: A grade of C or better in CIS113DE or (CIS113AE and CIS113BE and CIS113CE) or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS214DA	2021 Fall	Advanced Excel for Data Analytics		Advanced Excel spreadsheet features for data analytics including advanced functions, PivotTables, Data Modelling, Dashboard creation and forecasting for Business Intelligence (BI). Includes capstone project of an interactive dashboard using a multi-table Excel Data Model.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: [CIS114DE and (CIS117DM or CIS276DA or CIS276DB)], or permission of Instructor.	A basic understanding of statistics is required.	Occ	L+L 3.0 4.0 4.0	T
CIS214DE	2019 Spring	Advanced Excel Spreadsheet: Level II		Advanced Excel spreadsheet features including formatting techniques, macros and Visual Basic for applications. Templates, built-in functions and lists as well as analysis tools including Pivot Tables and Goal Seek covered. Import and export data, workgroup collaboration and	Prerequisites: A grade of C or better in CIS114DE or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T

				Internet features of Excel emphasized.					
CIS215	2023 Fall	Foundations of Data Analytics and Programming		Overview of data analytics and programming, concepts, terminology, and how analytics and programming are used professionally in business. Use of office application software, dashboards and Integrated Development Environments (IDEs). Includes exploration of relevant emergent technologies.	A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: CIS105 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS216	2023 Fall	Data Governance, Management, and Quality		Overview of data governance, data management, and data quality concepts and terminology, and the roles of individuals and businesses with respect to data governance, data management and data quality in analytics. Use of word processing, spreadsheet, database and presentation software. Will demonstrate and use data governance, data management and data quality frameworks and models.	A grade of C or better required in all Prerequisites. Prerequisite or Corequisites: CIS215 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS217AM	2018 Fall	Advanced Microsoft Access: Database Management		Advanced database concepts including database design, primary and secondary key selection and relationships between tables. Queries, sub forms, macros, events, Visual Basic modules and Access Internet features also covered	Prerequisites: A grade of C or better in CIS117CM or CIS117DM.		Occ	L+L 3.0 4.0 4.0	T
CIS220DC	2018 Fall	Flash: Advanced Animation and ActionScript		Advanced Flash programming, action scripting, tweening, advanced buttons and user input, movie clips, using dynamic sound and text, managing information flow, Object-Oriented Programming concepts in relation to Flash.	Prerequisites: A grade of C or better in CIS120DC or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T

CIS220DF	2022 Fall	Adobe Photoshop Level II: Advanced Digital Imaging		Goes beyond the basic use of palettes, selections, layers, menus, and tool options, and focuses on using Photoshop software's advanced features to manipulate and correct digital and digitally produced images.	Prerequisites: A grade of C or better in CIS120DF or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS220DK	2020 Fall	Advanced Adobe Premiere		Includes an in-depth study of digital video editing using premiere, including preproduction, production and post production. Advanced techniques into a capstone project. Emphasis placed on enhanced workflow processes, integration of other applications into Premiere, multiple output formats, timesaving quick key setup and advanced production and editing tools.	Prerequisites: A grade of C or better in CIS120DA, or CIS120DK, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS221AB	2018 Fall	Microsoft Power Shell		Microsoft Power Shell (PS) is used to aid system administrators of Microsoft Network Operating Systems (NOS) in automating many administrative tasks through shell script automation.	Prerequisites: A grade of C or better in BPC121AB CIS121AB or permission of Instructor.		Occ	L+L 1.0 2.0 2.0	T
CIS224	2018 Fall	Project Management Microsoft Project for Windows		Introduction to project management concepts while working with MS Project to solve complex project management networks, including creating Gantt and PERT charts, tracking project progress, planning for restrictions, and integrating MS Project with other software packages such as Excel, Word, Powerpoint, and cc Mail.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
CIS225	2018 Fall	Business Systems Analysis and Design		Investigation, analysis, design, implementation and evaluation of business computer systems.	Prerequisites: Any programming language or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T

CIS225AB	2018 Fall	Object-Oriented Analysis and Design		Methodologies and notations for fundamental object-oriented analysis and design including use cases, objects, classes, stereotypes, and relationships. Object-oriented iterative process for system development. A continuous application development exercise for applying the analysis and design concepts.	Prerequisites: Any programming language or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS226AL	2018 Fall	Internet/Intranet Server Administration-Linux		Configuration and management of internet/intranet services, including the Apache web server, Simple Mail Transfer Protocol servers (SMTP), Structured Query Language (SQL server), File Transfer Protocol (FTP), Network Time Protocol (NTP), and other network services used in home and small business environments. Covers basic security configuration and testing.	Prerequisites: A grade of C or better in CIS126 (any module) or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS227	2020 Spring	Assembly Language		Concepts and use of the Assembly programming language, including basic arithmetic operations, flow control, and memory management.	Prerequisites: A grade of C or better in CIS162++ or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS228	2018 Fall	Advanced Databases for Practice Management		Advanced installation, configuration and use of Practice Management Database (Electronic Health Record software) for implementation and maintenance of for vendor specific and open source Electronic Health Records (EHRs). Configuration of policies and procedures for data control, security, privacy, and confidentiality of health information in electronic health	Prerequisites: A grade of C or better in CIS128 or permission of Instructor.		Occ	LEC 3.0 4.0 4.0	T

				information management systems.					
CIS230DA	2018 Fall	3D Studio Max: Materials		Emphasis on creating and applying materials and textures to three-dimensional environments. Techniques for creating skins, surfaces, and shading types for objects, environments and characters will be explored. Original textures, both life-like and imaginary, will be created using 3D Studio Max and a 2D computer graphics software application.	Prerequisites: A grade of C or better in CIS130DA or CIS120DF or CIS120DG or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS230DB	2018 Fall	3D Studio Max: Lighting and Rendering		Emphasis on lighting and rendering for three-dimensional environments. Techniques for illuminating scenes and characters will be explored. Prepare scenes for rendering to video, film and real-time rendering using 3D Studio Max.	Prerequisites: A grade of C or better in CIS130DA or permission of instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS231	2022 Fall	Ethereum Blockchain Application Development		Exploration of the theory behind Ethereum blockchain technology and the development of Ethereum smart contracts. In-depth emphasis on programming concepts relating to the creation and eventual deployment of smart contracts to the Ethereum blockchain.	Prerequisites: A grade of C or better in CIS171 or permission of Instructor.	CIS156, CIS159, CIS162++, CIS163AA, or equivalent skills are recommended.	Occ	L+L 3.0 4.0 4.0	T
CIS233AA	2019 Fall	Internet/Web Development Level II-A		Design and creation of pages on the World Wide Web using hypertext markup language (HTML). Hands-on experience authoring HTML and preparing sophisticated web documents.	Prerequisites: A grade of C or better in CIS133DA or permission of Instructor.		Occ	L+L 1.0 2.0 2.0	T
CIS233AC	2019 Fall	Internet Web Development: Dreamweaver Level I		Design and development of websites using Dreamweaver. Hands-on experience designing, developing, testing, and publishing web	Prerequisites: A grade of C or better in CIS133DA or permission of Instructor.		Occ	L+L 1.0 2.0 2.0	T

				documents that contain client-side web technologies.					
CIS233BA	2005 Summer I	Internet/Web Development Level II-B		Hands-on experience designing Web presentations using advanced markup languages, programming languages, scripts, and multimedia	Prerequisites: A grade of C or better in CIS233AA or permission of Instructor.		Occ	LEC 1.0 1.0 1.0	S
CIS233DA	2021 Fall	Internet/Web Development Level II		Plan, design and create web sites using HTML and Advanced Cascading Style Sheets (CSS). Expedite the development process using CSS frameworks and libraries. Enhance user experience and web site functionality using supporting technologies. Exploration of User Interface (UI) and User Experience (UX), best practices, accessibility, strategies, and careers in web design and development.	Prerequisites: A grade of C or better in CIS133DA or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS233DC	2019 Fall	Internet Web Development: Dreamweaver		Design and development of comprehensive and interactive websites using Dreamweaver. Hands-on experience designing, developing, testing, and publishing web documents that contain various client-side web technologies. Assists in preparing students for the Adobe Certifications related to Adobe Dreamweaver.	Prerequisites: A grade of C or better in CIS132 or CIS133DA or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS234	2019 Fall	XML Application Development		The use of Extensible Markup Language (XML) to make documents smarter, simplify Web automation, and to communicate between databases, both within and between corporations. Includes techniques for XML generation, data extraction and sharing, and	Prerequisites: A grade of C or better in CIS133DA or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T

				transformation and managing of XML files.					
CIS235	2019 Fall	e-Commerce		Introduction to Electronic Commerce on the Internet. Designing an electronic storefront including web page content and development, e-commerce site marketing, advertisement, legal and security considerations, credit card and other debit transaction covered. Also includes current issues in e-commerce.	Prerequisites: A grade of C or better in CIS133DA or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS236	2019 Fall	Web-Based Teaching and Learning I		Experience using a web-based learning environment from an online student's perspective. Use communication tools, submit assignments, use evaluation tools, create homepages, and navigate online-learning environment. Introduction to basics of online pedagogy. Hands-on experience with a web-based learning environment.	Prerequisites: A grade of C or better in CIS133DA or permission of Instructor.		Occ	L+L 2.0 3.0 3.0	T
CIS237	2018 Fall	Web-Based Teaching and Learning II		Create an online or hybrid course using a web-based learning environment. Create, prepare, and manage content and resource files; locate and add resources; and manage a course homepage. Add, delete, and revise tools; create, maintain, and release quizzes and assignments; and manage a course. Track students, data, and revise student grades, submissions, and attendance. Hands-on experience with creating a course using a web-based learning environment	Prerequisites: A grade of C or better in CIS236 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS238DL	2018 Fall	Linux System Administration		Managing Linux Operating Systems including	Prerequisites: A grade of C or better in		Occ	L+L 3.0 4.0 4.0	T

				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. Preparation for industry certifications such as the CompTIA Linux+, the Red Hat Certified System Administrator (RHCSA), the Red Hat Certified Engineer (RHCE) and the Linux Professional Institute (LPIC-1).	CIS126DL or CIS126RH or permission of Instructor.				
CIS238RH	2020 Fall	Red Hat System Administration II		Continue to develop core administration skills needed to manage a Red Hat Enterprise Linux system. This Red Hat Academy course helps to prepare students for the Red Hat certification exams using a hands-on, task-focused curriculum.	Prerequisites: A grade of C or better in CIS126RH, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS239DL	2020 Fall	Linux Shell Scripting		Linux Shell Scripting syntax and methods including the automation of system tasks as well as interpreted user-level programming. Course includes the Linux Borne Again Shell (BASH) as well as a variety of industry competitors.	Prerequisites: A grade of C or better in CIS238DL or CIS238RH or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS240	1999 Spring	Local Area Network Planning and Design		Analysis of the needs and requirements for a local area network (LAN). Emphasis on basic systems analysis and design for a local area network, selection of appropriate hardware and software components. Includes current and future issues, needs analysis, cost	Prerequisites: A grade of C or better in CIS190 or MST140 or permission of Instructor.		Occ	LEC 3.0 3.0 3.0	S

				estimation, selection of connectivity and network components, and issues relating to access, security, and support					
CIS240DL	2020 Fall	Linux Network Administration		In depth networking based on Linux servers and the Transmission Control Protocol/Internet Protocol (TCP/IP) protocol suite. Integrating Linux servers and workstations into a network environment with multi-platform network operating systems including a variety of open-standard and proprietary protocols. Preparation for industry certifications such as the CompTIA Linux+, the Red Hat Certified System Administrator (RHCSA), the Red Hat Certified Engineer (RHCE) and the Linux Professional Institute (LPIC-1).	Prerequisites: A grade of C or better in CIS238DL or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS240RH	2020 Fall	Red Hat System Administration III		Provides solid understanding of how to automate services on a Linux system. Covers use of Ansible to automate provisioning, configuration, application deployment, and orchestration on Red Hat Enterprise Linux 8. Content aligns with the Red Hat Certified Engineer (RHCE - EX294) exam, a professional certification.	Prerequisites: A grade of C or better in CIS238RH or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS243	2018 Fall	Internet/Web Development Level III		Development of interactive websites with graphics, video, and sound using advanced web design techniques and tools. Design theory for maximizing web readership, interactive and multimedia elements, speed and	Prerequisites: A grade of C or better in CIS233DA or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T

				accessibility optimization, and intuitive user interfaces					
CIS250	2019 Summer	Management of Information Systems		The study of business information systems and its management, communication, e-business strategies, emerging technologies, database concepts, and project management. Overview of systems analysis and design. Learn about the competitive and strategic uses of information systems and how they are transforming organizations and their management.	Prerequisites: A grade of C or better in CIS105.		Occ	L+L 3.0 4.0 4.0	T
CIS251	2018 Fall	Computer Game Development -Level II		Advanced object-oriented game development, advanced game design, and advanced game theory. Use of game development software tools to demonstrate advanced concepts for modeling real-time simulations and creating computer games using object oriented development tools. In depth coverage of game programming (scripting) techniques, and decision logic using object oriented techniques.	Prerequisites: A grade of C or better in CIS151 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS252	2022 Fall	Introduction to Kubernetes Administration		Provides students skills and knowledge to perform the responsibilities of a Kubernetes administrator. Includes covering the cluster architecture, installation, configuration, workloads, scheduling, services, networking, storage and troubleshooting. Helps students prepare for the Certified Kubernetes Administrator (CKA) certification.	Prerequisites: A grade of C or better in CIS238DL or CIS238RH or permission of Instructor.		Occ	L+L 4.0 5.0 5.0	T

CIS254	2022 Fall	Introduction to Kubernetes Application Development		Provides students skills and knowledge to perform the responsibilities of a Kubernetes application developer. Helps students prepare for the Certified Kubernetes Application Developer (CKAD) certificate.	Prerequisites: A grade of C or better in CIS126DL or CIS126RH or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS255	2022 Fall	Introduction to Kubernetes Security		Provide students with skills and knowledge on a broad range of best practices for securing container-based applications and Kubernetes platforms during build, deployment, and runtime. Helps students prepare for Kubernetes Security Specialist (CKS) Certification.	Prerequisites: A grade of C or better in CIS252 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS256	2021 Fall	Python Programming Level II		Advanced Python object-oriented programming concepts and applications. Emphasis on code documenting, versioning, unit testing strategies, and security practices for Python project/package development. Includes Python applications for data analysis, networking, database manipulation, and web application development.	Prerequisites: A grade of C or better in CIS156 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS256CN	2022 Fall	Python for Cybersecurity and Networking		Focus on practical applications of Python frameworks and libraries to support offensive and defensive cybersecurity operations and the management of network devices.	Prerequisites: A grade of C or better in (CIS156 and CNT140AB), or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS256DA	2022 Spring	Python for Data Analysis		Introduction to data analysis concepts using Python's rich set of tools, libraries, and packages. Includes basic data analysis, creation of meaningful data visualizations, and advanced topics such as supervised and	Prerequisites: A grade of C or better in CIS156 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T

				unsupervised machine learning techniques.					
CIS259	2006 Fall	Visual Basic Programming II		Use of the Visual Basic programming language to identify and solve advanced problems using suitable examples from business or other disciplines.	Prerequisites: A grade of C or better in CIS159 or permission of Instructor.		Occ	LEC 3.0 4.0 3.7	S
CIS260BI	2023 Fall	Data Visualization: Power Business Intelligence (BI)		This data visualization course covers the graphic representation of data and how to effectively and efficiently communicate it from singular and disparate data sources using Power Business Intelligence (BI). Helps students prepare for the Microsoft Power BI Data Analyst certification.	Prerequisites: A grade of C or better in CIS114DE, CIS215, and (CIS276DA or CIS276DB), or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS260TB	2023 Fall	Data Visualization: Tableau		This data visualization course covers the graphic representation of data and how to effectively and efficiently communicate it from singular and disparate data sources using Tableau. Helps students prepare for the Tableau Certified Data Analyst certification.	Prerequisites: A grade of C or better in CIS114DE, CIS215, and (CIS276DA or CIS276DB), or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS261	2022 Fall	Hyperledger Blockchain Application Development		Exploration of the theory behind Hyperledger blockchain technology and the development of Hyperledger smart contracts. In-depth emphasis on programming concepts relating to the creation and eventual deployment of smart contracts to the Hyperledger blockchain.	Prerequisites: A grade of C or better in CIS171 or permission of Instructor.	CIS156, CIS159, CIS162++, CIS163AA, or equivalent skills are recommended.	Occ	L+L 3.0 4.0 4.0	T
CIS262AB	2018 Fall	C++: Level II		Advanced level C++ programming with emphasis on arrays, data management, dynamic memory allocation, object-oriented programming concepts, input/output operations, libraries, and	Prerequisites: A grade of C or better in CIS162AB or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T

				debugging techniques. Includes overview of other advanced applications of C++.					
CIS262AD	2018 Fall	C# Level II		Advanced C# programming with emphasis on data structures, dynamic memory allocation, object-oriented programming, user interfaces, and database processing. Overview of web applications, network programming, and reporting tools	Prerequisites: A grade of C or better in CIS162AD or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS263AA	2018 Fall	Java Programming: Level II		Intermediate Java programming. Includes features needed to construct object-oriented programming, multithreading, multimedia, files, streams and data structure	Prerequisites: A grade of C or better in CIS163AA or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS265	2018 Fall	Advanced iOS Application Development		Advanced iOS device programming utilizing the Swift/XCode application, and the programming languages Objective-C and/or Swift, utilizing various iOS frameworks. Understand iOS hardware and feature basics. Go through entire design process from concept to final product delivery.	Prerequisites: A grade of C or better in CIS150++ and CIS165, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS265DA	2020 Fall	Advanced Android Application Development		Advanced Android device programming utilizing an Android Integrated Development Environment, and an Android-focused programming language such as Java or Kotlin, utilizing various advanced activity layouts, views, and intents. Covers advanced Object Oriented Programming (OOP) practices, local and cloud-based database backends, threading, incorporating device features and sensors, and unit testing.	Prerequisites: A grade of C or better in CIS165DA or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T

CIS266	2021 Fall	Network Integration Capstone		Application of project management, installation and troubleshooting to integrate multiple operating systems. Topics include: diagnostic and troubleshooting procedures, security vulnerability and penetration software to installation.	Prerequisites: A grade of C or better in [(CIS238DL or CIS238RH) and (CIS240DL or CIS240RH)], or CNT160AB, or [(MST155DC and MST157DC) and (CIS270 or CIS271DL or CIS271RH or CNT205)], or associated industry certifications, or permission of Instructor.		Occ	L+L 4.0 5.0 5.0	T
CIS267	2023 Fall	Pega System Architect Essentials		An overview of the Pegasystems low-code platform for Artificial Intelligence (AI)-powered decisioning and workflow automation. Topics covered will include case management, data and integration, security, Dev-Ops, the user experience, application development, reporting, and mobility. The course will prepare you to take the Certified Pega System Architect (CPSA) exam. Completing the CPSA exam is a requirement to pass the course.	Prerequisites: A grade of C or better in (CIS126DL or CIS126RH), CIS133DA, CIS263AA, and CIS276DA or permission of Instructor.		Occ	L+L 4.0 5.0 5.0	T
CIS270	2020 Fall	Essentials of Network and Information Security		Threats to security of information systems; responsibilities and basic tools for information security, including communication security, infrastructure security, organizational security and basic cryptography. Introduction to the language of network security and hardware, software and firmware components of an information	Prerequisites: A grade of C or better in BPC270 or CIS190 or CNT140AB or MST150++ or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T

				security system for local, metropolitan, enterprise, and wide area networks. Helps prepare participants for the Comptia Security+ exam and the GIAC Security Essentials Certificate (GSEC).					
CIS271DL	2018 Fall	Linux Security		Implementing in-depth security methods and techniques in a Linux-based network environment. Utilize programs, utilities and configuration techniques to provide user-level, file system, and network security. Gain knowledge in a variety of security cracking techniques and how to guard against them. In all aspects of security, the standard of practicing professional ethics seriously emphasized. Preparation for industry certifications such as the SAIR/GNU LCP and LCA certificates, CompTIA's Linux+, RHCT, RHCE, and LPIC	Prerequisites: A grade of C or better in CIS240DL or Permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS271RH	2021 Fall	Red Hat System Administration IV		Provides solid understanding on containers, containerized applications, and orchestration of containers using Kubernetes and Red Hat OpenShift on Red Hat Enterprise Linux.	Prerequisites: A grade of C or better in CIS238RH or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS275DL	2020 Fall	Linux Capstone		The Linux Capstone course aggregates the skills, knowledge, communication, and critical thinking skills from the Linux Program. This course is to emulate a production environment that prepares students to work as a Linux Systems Administrator. The course helps to prepare students for	Prerequisites: A grade of C or better in CIS240DL, or CIS240RH, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T

				Linux Industry certification exams.					
CIS276DA	2020 Fall	MySQL Database		A broad overview of the MySQL database. Includes Structured Query Language (SQL) instruction for data definition, data manipulation, and data retrieval. Develops knowledge and skills required to install MySQL, model and create new databases, manage users, authentication, and stored procedures, and develop backup/restore strategies.	Prerequisites: A grade of C or better in CIS105, or CIS117DM, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS276DB	2020 Fall	SQL Server Database		A broad overview of the Microsoft Structured Query Language (SQL) Server database. Includes SQL instruction for data definition, data manipulation, and data retrieval. Develops knowledge and skills required to install SQL Server, model and create new databases, manage users, authentication, and stored procedures, and develop backup/restore strategies.	Prerequisites: A grade of C or better in CIS105, or CIS117DM, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS276DC	2023 Fall	NoSQL		A broad overview of Not Only SQL (NoSQL) databases. Contrast NoSQL databases to the Structured Query Language (SQL) databases. Includes NoSQL instruction for data definition, data manipulation, and data retrieval. Develops knowledge and skills required to install NoSQL Servers, model and create NoSQL databases, manage users, authentication, and stored procedures equivalents, and develop backup/restore strategies.	Prerequisites: A grade of C or better in CIS215 and (CIS276DA or CIS276DB), or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T

CIS280	2018 Fall	Current Topics in Computing		Critical inquiry of current topics in computing. Application of industry trends to solve problems and/or investigate issues	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
CIS280AA	2018 Fall	Current Topics in Computing		Critical inquiry of current topics in computing. Application of industry trends to solve problems and/or investigate issues	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0	T
CIS280AB	2018 Fall	Current Topics in Computing		Critical inquiry of current topics in computing. Application of industry trends to solve problems and/or investigate issues	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0	T
CIS282AA	2023 Fall	Volunteerism for Computer Information Systems: A Service Learning Experience		Service learning field experience within private/public agencies, educational institution, and citizen volunteer groups.	Prerequisites: Permission of Instructor.	CIS282AA may be repeated for a total of six (6) CIS282 credit hours. Standard grading available according to procedures outlined in catalog.	Occ	LAB 1.0 1.0 0.0	L
CIS284	2018 Fall	Certified Internet Web (CIW) Associate Certification Preparation Course		Explain and implement Internet technologies, network infrastructure, and protocols. Utilize a variety of markup languages and web technologies to design web pages. Utilize job skills such as project management. Explore best practices/issues for web design, publishing, and e-commerce. Prepare for Certified Internet Web (CIW) Associate Examinations.	Prerequisites: A grade of C or better in CIS233DA or permission of Instructor.		Occ	L+L 4.0 5.0 5.0	T
CIS285	2020 Fall	Computer Information Systems Capstone Project		Students will create a capstone project with opportunities for individualized research and application of aggregate technology and professional knowledge and skills obtained throughout the student's program of study. Focus on communication, problem solving, critical thinking, and project management skills.	Prerequisites: Permission of Program Director or Instructor.		Occ	L+L 3.0 4.0 4.0	T

CIS286	2020 Fall	Technology Team Peer Mentorship		Students will have an opportunity to mentor other students and work as a team to develop and support a technology project related to their program of study paralleled by professional expertise and guidance from team members, faculty, and/or industry mentor. Focus on application of technology knowledge to the development of a team project to solve real world technology problems/needs with an innovative technology focus. Focus on the team experience and project and workforce development, management and research, as well as mentoring and collaborative professional behaviors needed to facilitate innovations for profitable commercial feasibility.	Prerequisites: A grade of C or better in EPS151. Corequisites: CIS285.		Occ	L+L 3.0 4.0 4.0	T
CIS288	2018 Fall	Digital Design Portfolio		Procedures for compiling, evaluating, and selecting prior learning experiences and artifacts for a digital portfolio. Covers techniques for the design, production, and publishing of an online portfolio documenting prior learning. Includes techniques for presenting the digital portfolio for evaluation.	Prerequisites: A grade of C or better in BPC/CIS133DA and (BPC/CIS120DB or BPC/CIS120DF or BPC/CIS138DA) or permission of Instructor.		Occ	L+L 2.0 3.0 3.0	T
CIS290AA	2011 Fall	Computer Information Systems Internship		Work experience in business or industry	Prerequisites: Permission of Instructor.		Occ	LAB 1.0 6.0 0.0	C
CIS290AB	2011 Fall	Computer Information Systems Internship		Work experience in business or industry	Prerequisites: Permission of Instructor.		Occ	LAB 2.0 12.0 0.0	C
CIS290AC	2011 Fall	Computer Information Systems Internship		Work experience in business or industry	Prerequisites: Permission of Instructor.		Occ	LAB 3.0 18.0 0.0	C
CIS296WB	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 2.0 10.0 0.0	Z

				related to the career objectives of the students. COMMON COMPETENCY COURSE	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.				
CIS296WC	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. COMMON COMPETENCY COURSE	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
CIS298AA	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	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z

				development. COMMON COMPETENCY COURSE					
CIS298AB	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z
CIS298AC	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z
CIS314	2023 Fall	Data Privacy and Integrity		Overview of data privacy and data integrity, history, concepts, and terminology, and the importance of each in the analytics and programming professions. Discussion of international, national, state and local regulations and guidelines pertaining to data privacy and data integrity. Use of office application software and	Prerequisites: A grade of C or better in CIS215 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T

				current technology. Exploration of relevant and emerging regulations, guidelines, and technologies.					
CIS315	2023 Fall	Data Protection		Overview of data protection concepts and terminology, and the roles of individuals and businesses with respect to the safeguarding of data and the mitigation of data corruption, data compromise and data loss. Use of word processing, spreadsheet, database and presentation software. Will demonstrate and use data protection frameworks, models and relevant tools.	Prerequisites: A grade of C or better in CIS156, CIS162AD, CIS215, and (CIS276DA or CIS276DB), or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS316	2023 Fall	Descriptive Analytics		Study of descriptive analytics and how to apply statistical tools and methods on historical and current datasets and multi-domain cases. Interpret current data, identify changes, trends and commonalities in data, and how to ascertain differences in performance over time while preparing data for advanced analysis.	Prerequisites: A grade of C or better in CIS114DE, CIS215, CIS256DA, and (CIS276DA or CIS276DB), or permission of Instructor. Prerequisites or Corequisites: CIS214DA or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS317	2023 Fall	Data Complexity		Intricacies of enterprise data and how to apply knowledge (background, concepts and experiences from prior courses) and skills (Integrated Development Environment (IDE) tools, and programming languages) on complex integrated and non-integrated disparate datasets, by testing, designing, and creating algorithms that lead to improved decision making.	Prerequisites: A grade of C or better in CIS214DA, CIS215, CIS256DA, CIS260BI, CIS260TB, CIS262AD, and (CIS276DA or CIS276DB), or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS318	2023 Fall	Predictive Analytics		Study of predictive analytics and how to apply statistical tools and methods on	Prerequisites: A grade of C or better in CIS215, CIS256, CIS256DA,		Occ	L+L 3.0 4.0 4.0	T

				historical and current datasets and multi-domain cases previously analyzed for the purposes of yielding accurate inferential and predictive analytic results. Apply advanced and emergent statistical tools and methods, while modeling practices and processes, that facilitate the maturation of organizational analytic capabilities toward a desired future state. Predict analytical outcomes that are repeatable, and consistent with hypotheses, which lead to improved business decisions.	CIS316 and GBS220, or permission of Instructor.				
CIS324	2023 Fall	Information Technology Project Management		Covers the general aspects of project management and emphasizes the important special considerations which apply to information technology projects. Covers principles for managing multiple IT projects and project portfolios, including use of waterfall and agile methodologies. Explores best practices for project management in information technology departments. Includes analysis of budgets, risk management, and cost estimation / justification techniques.	Prerequisites: A grade of C or better in CIS224.		Occ	LEC 3.0 3.0 3.0	S
CIS350	2023 Fall	Advanced Information Technology Management		Course expands upon fundamental concepts and focuses on management of information technology systems in organizations. Explores management processes and procedures for planning, implementation, and operation of information systems with an emphasis on operational management.	Prerequisites: A grade of C or better in CIS250.		Occ	LEC 4.0 4.0 4.0	S

				Examines real world successes and failures of technology management. Equips students with knowledge of current information technology management and decision support systems.					
CIS360	2023 Fall	Data Analysis		Introduces processes of obtaining, preparing, analyzing and presenting visualized data using appropriate software. Provides an understanding of data interpretation and its practical application in a business. Introduces data governance strategies ensuring data quality throughout the complete lifecycle of the data. Covers data analytics and mining techniques within the context of supporting data-driven decision making.	Prerequisites: A grade of C or better in CIS156, CIS215, and ((MAT140 or MAT141 or MAT142 or MAT145 or MAT146), or higher level mathematics course, or appropriate district placement).		Occ	LEC 4.0 4.0 4.0	S
CIS376	2023 Fall	Database Management and Security		Overview of the functional areas, concepts and techniques of database management and security. Topics include business and regulatory requirements, database architecture and design, access control, retrieval concepts, data auditing, incident response and optimal database system performance, security and availability. Explores new directions in database management and security.	Prerequisites: A grade of C or better in CIS119DO, or CIS276DA, or CIS276DB.		Occ	LEC 4.0 4.0 4.0	S
CIS390	2023 Fall	Network Management		Course explores principles of network management architecture within the Information Technology (IT) life cycle, including network management principles; network design and optimal	Prerequisites: A grade of C or better in CIS105, and (CNT140AB or CIS190).		Occ	LEC 4.0 4.0 4.0	S

				performance; network maintenance, common problems and solutions; business practices in network management; and effective stakeholder communication. Students will work individually and in teams to evaluate and design network systems and solutions to address business problems and end user needs.					
CIS411	2023 Fall	Ethics, Regulations, and Legal Issues in Information Technology		Covers ethical and regulatory issues in information technology (IT) and creates a foundation for analyzing and addressing evolving legal concerns. Provides an overview of laws concerning computer and network security, business policy, and legal boundaries for systems authorization. Examines ethical, legal, and professional ramifications on leadership practices in an organization's technology environment.	Prerequisites: A grade of C or better in CIS111 or ITS120.		Occ	LEC 3.0 3.0 3.0	S
CIS415	2023 Fall	Big Data		Study of the fundamentals and characteristics of Big Data. Evaluation of existing Big Data processing platforms and tools. Developing skills to handle and implement Big Data projects, including machine learning concepts.	Prerequisites: A grade of C or better in CIS256, CIS256DA, CIS262AD and CIS318, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS416	2023 Fall	Presentation of Analytics and Programming Results and Solutions		Use of data analytic tools, programming methods, nominal (components/elements), and ordered steps to proficiently and effectively deliver comprehensive results and understanding, ranging from simple to complex data. Guide technical and non-technical audiences in understanding data and establish	Prerequisites: A grade of C or better in CIS256, CIS260BI, CIS260TB, CIS262AD, (CIS276DA or CIS276DB), CIS317, and CIS318, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T

				opportunities for the audience to believe it. Mitigate the problems that can be caused by poor decision making due to mis-understandings, mis-interpretations, mis-representations and disconnections among organizational members with respect to the meaning of results.					
CIS470	2024 Fall	Enterprise Cyber Security		Provides overview of various concepts and principles in information technology (IT) security and the management of IT security plans to mitigate information security (IS/IT) related security risks. Covers evaluation of cybersecurity plans and policies and the impact of laws, regulations, and codes of professional behavior with respect to cybersecurity. Includes preparation of responses to cybersecurity incidents and overview of various concepts of IT security.	Prerequisites: A grade of C or better in CIS270.		Occ	LEC 4.0 4.0 4.0	S
CIS475	2023 Fall	Emerging Trends in Information Technology		Course focuses on identification of and research in the emerging trends in Information Technology (IT). Selected topics could be within the areas of Kubernetes, Edge Computing, Ethics in Artificial Intelligence (AI), Blockchain, Automation and AI, Telehealth Solutions, Internet of Things (IoT), Augmented Reality, Hyperautomation, Development Operations (DevOp), 5G, and/or other emerging issues. Course includes discussion of contemporary topics, research	Prerequisites: A grade of C or better in (CIS190 or CNT140AB) and CIS270.		Occ	LEC 4.0 4.0 4.0	S

				in selected areas, and course projects related to student interests.					
CIS480	2023 Fall	Data Analytics and Programming Capstone		Capstone project with opportunities for individualized research and application of aggregate technology and professional knowledge and skills obtained throughout the student's program of study. Focus on communication, problem solving, critical thinking, and project management skills.	Prerequisites: A grade of C or better in CLD120, CIS216, CIS224, CIS256, CIS262AD, CIS260BI, CIS260TB, (CIS276DA or CIS276DB), CIS315, CIS317, and CIS318, or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T
CIS490	2023 Fall	Applied Data Analytics and Programming Internship		Work experience in business or industry with an emphasis on data analytics and programming for business, not-for-profit, or industry. Application and aggregate of technical knowledge, communication, problem solving, and critical thinking with a data analytics and programming focus.	Prerequisites: Enrollment in final semester before award completion and permission of Department/Division Chair, or Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	C
CLD110	2021 Summer	Amazon Web Services Cloud Foundations		Provides a detailed overview of cloud concepts, Amazon Web Services (AWS) core services, security, architecture, pricing, and support. Intended for students who seek an overall understanding of cloud computing concepts, independent of specific technical roles. Helps to prepare students for the AWS Certified Cloud Practitioner exam.	Prerequisites: None. CIS105 suggested but not required.		Occ	L+L 3.0 4.0 4.0	T
CLD120	2021 Summer	Amazon Web Services Cloud Architect Associate		Fundamentals of building IT infrastructure on Amazon Web Services (AWS). Focus on how to optimize use of the AWS Cloud by understanding AWS services and best practices for the AWS Cloud	Prerequisites: A grade of C or better in CLD110 or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T

				and how they fit into cloud-based solutions. Covers design patterns for architecting optimal IT solutions on AWS, as well as strategies and services implemented on AWS.					
CLD130	2022 Spring	Amazon Web Services Cloud Developing		Designed to provide technical knowledge and skills in cloud technology that can be developed with Amazon Web Services (AWS) software development kit (SDK). Focus on best practices for building and deploying secure applications in the AWS Cloud. Helps to prepare students for the AWS Certified Developer - Associate examination.	Prerequisites: A grade of C or better in CLD120 or equivalent AAWS Certified Solutions Architect - Associate certification. CLD110 and CNT140AB recommended.	Knowledge of at least one programming language, such as Python, C++, JavaScript, Ruby, C# (C-Sharp), is recommended.	Occ	L+L 3.0 4.0 4.0	T
CLD140	2022 Spring	Amazon Web Services Cloud Operations		Designed to provide technical information and skills required to implement automatable and repeatable deployments of networks and systems on Amazon Web Services (AWS). Describes specific AWS features and tools related to configuration and deployment. Emphasis on best practices in the AWS Cloud and recommended design patterns, problem-solving and troubleshooting. Helps prepare students for the AWS Certified SysOps Administrator - Associate exam.	Prerequisites: A grade of C or better in CLD120 or equivalent AAWS Certified Solutions Architect - Associate certification. CLD110 and CNT140AB recommended.	Knowledge of at least one programming language, such as Python, C++, JavaScript, Ruby, C# (C-Sharp), is recommended.	Occ	L+L 3.0 4.0 4.0	T
CLD417	2023 Fall	Cloud Analytics		Conduct cloud analysis with practical, real-world examples. Analyze data sets and create visual representation of that data, using a case-study approach. Hands-on experience working with cloud data at scale.	Prerequisites: A grade of C or better in CLD120, CIS215, CIS156, CIS162AD, CIS260BI, CIS260TB, and (CIS276DA or CIS276DB), or permission of Instructor.		Occ	L+L 3.0 4.0 4.0	T

CNS102	2012 Spring	Foundations for Apprenticeship		The demographics and industry projections of the building and construction trades. Structure and purpose of registered apprenticeship. Apprenticeship roles and responsibilities. Overview of fluctuation in employment and finances inherent to the construction trades. Emphasis on preparation for periods of high and low employment debt management within registered apprenticeship.	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S
CNS110	2011 Fall	Green Construction Overview		Overview of 'green construction'. Green energy vs. green building, U.S. Green Building Council (USGBC) and the building life cycle, five main areas of green building standards, Leadership in Energy and Environmental Design (LEED) accreditation, and LEED certification.	Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator.		Occ	LEC 0.5 0.5 0.5	S
CNS182	2017 Summer	Construction Estimating and Print Reading		Analysis and interpretation of construction drawings (blueprint reading); interpretation of symbols, annotations, conventions, and terms of trade. Emphasizes learning quantities of material, equipment, and labor for a construction project. Includes a focus on procedures used to apply timely unit costs. Covers Occupational Safety and Health Administration (OSHA) Safety Standards and their impact on construction cost.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
CNS200	2018 Fall	Construction Management: Field Operation		Procedures and methods used by construction contractors to manage field operation during various phases of a project. Includes project team, job scheduling, personnel relations, use of the	Prerequisites: A grade of C or better in CON181 and CON244, or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0	S

				construction documentation on site, inspection techniques, safety issues, scope and supervision of the overall construction process.					
CNS201	2018 Fall	Construction Management: Office Operation		Skills and techniques required to manage construction office operations. Includes establishing and financing the business, marketing, office operations, and maintaining relationships with other construction industry entities through a systematic planning approach.	Prerequisites: A grade of C or better in (CON130, CON181, and CON244), or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0	S
CNS205	2010 Fall	Sustainable Construction/LEED Certification		Fundamentals of major components of sustainable design and construction, including energy, health care facilities, cultural and natural resources, and other environmental and economic issues of sustainable built environments. Importance of a collaborative team effort with owner, developers, architects, engineers, and constructors will be integrated into the course. Issues impacting schedule and budgets of sustainable construction projects will be analyzed. Prepares student for the Leadership in Energy and Environmental Design (LEED) Certification Exam.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
CNS230	2018 Fall	Computer Aided Design and Drafting (CADD) 3D for Construction & Architecture (CADD II)		Design, construction, and annotation of three-dimensional objects for construction and architecture industries using AutoCAD software.	Prerequisites: A grade of C or better in COM130 or permission of Department or Division.		Occ	L+L 3.0 6.0 6.0	T
CNS240	2018 Fall	Advanced Computer Aided Design and Drafting (CADD) for Construction & Architecture (CADD III)		Use of advanced AutoCAD two- and three-dimensional commands along with various customization codes and	Prerequisites: A grade of C or better in CNS230 or permission		Occ	L+L 3.0 6.0 6.0	T

				techniques specific to architecture and construction industries	of Department or Division.				
CNS250	2018 Fall	Civil Drafting I: Civil 3D		Application of civil drafting software (Civil 3D) for civil drafting and surveying. Use of coordinating geometry and survey point databases to create topographical maps. Interpreting and delineating topographical data and maps for site and route work. Applying the basics of coordinate geometry (COGO) to surveying language.	Prerequisites: A grade of C or better in CON130 or permission of Department or Division.		Occ	L+L 3.0 6.0 6.0	T
CNS251	2018 Fall	Civil Drafting II: Civil 3D		Advanced knowledge and skill in using civil drafting software (Civil 3D) in right-of-way improvement. Use of base maps in utility and street improvement; use of street improvements in creation of maps and profiles; use of map and profiles in utility improvements.	Prerequisites: A grade of C or better in CNS250, or permission of Department or Division.		Occ	L+L 3.0 6.0 6.0	T
CNS252	2018 Fall	Civil Drafting III: Civil 3D		Use of civil drafting software (Civil 3D) for site development. Includes use of engineering and surveying software in analysis and computation of earthwork and creation of site drawings.	Prerequisites: A grade of C or better in CNS251, or permission of Department or Division.		Occ	L+L 3.0 6.0 6.0	T
CNS271	2018 Fall	Home Inspection Structure		Home inspection practices for foundation, footings, roof, and framework, including floor, wall, and ceiling. Covers structural considerations and reporting practices.	Prerequisites: A grade of C or better in (CON244 and CON262) or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0	S
CNS272	2018 Fall	Home Inspection Plumbing, Electrical and HVAC		Home inspection practices for plumbing, electrical, heating, cooling, and air conditioning, and defects of exposed parts of these systems in a house structure. Includes components of systems and reporting practices.	Prerequisites: A grade of C or better in CON244 and CON262, or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0	S

CNS273	2018 Fall	Home Inspection: Insulation and Interiors		Home inspection practices for insulation and interiors, including walls, ceilings, floors, windows, and doors, and their possible defects. Covers reporting practices.	Prerequisites: A grade of C or better in CON244 and CON272, or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0	S
CNS274	2018 Fall	Home Inspection: Roofing and Exteriors		Home inspection practices for roofing and exteriors of a house, and their defects. Covers reporting practices.	Prerequisites: A grade of C or better in (CON244 and CON262) or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0	S
CNS282AA	2004 Spring	Volunteerism for Construction: A Service Learning Experience		Service-learning field experience within private/public agencies and citizen volunteer groups.	Prerequisites: Permission of Department or Division.	CNS282AA may not repeat specific assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in college catalog.	Occ	LAB 1.0 1.0 0.0	L
CNS282AB	2004 Spring	Volunteerism for Construction: A Service Learning Experience		Service-learning field experience within private/public agencies and citizen volunteer groups.	Prerequisites: Permission of Department or Division.	CNS282AB may not repeat specific assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in college catalog.	Occ	LAB 2.0 2.0 0.0	L
CNS282AC	2004 Spring	Volunteerism for Construction: A Service Learning Experience		Service-learning field experience within private/public agencies and citizen volunteer groups.	Prerequisites: Permission of Department or Division.	Standard grading available according to procedures outlined in college catalog.	Occ	LAB 3.0 3.0 0.0	L
CNS285	2018 Fall	Introduction to Residential Plan Review		Application of international model code (building, mechanical, plumbing, and electrical) to contract documents for one- and two-family dwelling residential construction.	Prerequisites: A grade of C or better in (CON244 and CON262) or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0	S
CNS286	2018 Fall	Introduction to Commercial Plan Review		Application of international model codes (building, mechanical, plumbing, and electrical) to contract documents for commercial construction.	Prerequisites: A grade of C or better in (CON244 and CON263) or permission of Department or Division.		Occ	LEC 3.0 3.0 3.0	S
CNS290AA	2019 Spring	Construction Internship	CON290AA	Construction internship office/field experience with private/public agencies or citizen volunteer groups. Eighty (80) hours of designated work experience.	Prerequisites: Permission of Department or Division.	CNS290AA may be repeated for a total of three (3) credits. Standard grading available according to procedures outlined in college catalog.	Occ	LAB 1.0 6.0 0.0	C

CNS290AB	2019 Spring	Construction Internship	CON290AB	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 Department or Division.	Standard grading available according to procedures outlined in college catalog.	Occ	LAB 2.0 12.0 0.0	C
CNS290AC	2019 Spring	Construction Internship	CON290AC	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 Department or Division.	Standard grading available according to procedures outlined in college catalog.	Occ	LAB 3.0 18.0 0.0	C
CNS290AE	2009 Fall	Construction Internship		Construction internship office/field experience with private / public agencies or citizen volunteer groups.	Prerequisites: Permission of Department or Division.		Occ	LAB 5.0 25.0 0.0	P
CNS296WA	2007 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. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and ability 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
CNS296WB	2007 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 ability to obtain a position related to students academic or career goals (students present job may qualify or permission of	COMMON COMPETENCY COURSE	Occ	LAB 2.0 10.0 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.				
CNS296WC	2007 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. COMMON COMPETENCY COURSE	Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and ability 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
CNS296WD	2007 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 ability 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.	COMMON COMPETENCY COURSE	Occ	LAB 4.0 20.0 0.0	Z
CNS298AA	2007 Fall	Special Projects		Organized and tailored around the interests and needs of the individual student. Structured	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z

				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. COMMON COMPETENCY COURSE					
CNS298AB	2007 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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z
CNS298AC	2007 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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z

CNT140AB	2020 Fall	Introduction to Networks		Focus on the architecture, structure, functions, components, and models of the Internet and other computer networks. Principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced. Students will build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes. Preparation for Cisco certification examination.	Prerequisites: None.		Occ	L+L 4.0 6.0 6.0	T
CNT150AB	2020 Fall	Switching, Routing, and Wireless Essentials		Focus on configuring switches and routers for use in small and medium size networks. Including Virtual Local Area Networks (VLANs), VLAN trunking, Inter-VLAN routing, Spanning Tree Protocol (STP), EtherChannel, Dynamic Host Configuration Protocol (DHCP), First Hop Redundancy, Local area Network (LAN) and Switch security, and Static routing. Knowledge and skills needed to implement a Wireless Local Area Network (WLAN) is also covered. Preparation for Cisco certification examination.	Prerequisites: A grade of C or better in CNT140AB or permission of Instructor.		Occ	L+L 4.0 6.0 6.0	T
CNT160AB	2020 Fall	Enterprise Networking, Security, and Automation		Focus on the configuration of routers and switches within small and medium size networks for advanced functionality including Open Shortest Path First (OSPF), Network security, Access Control Lists (ACLs), Network Address Translation (NAT), Wide Area Network (WAN) concepts, Virtual Private Networks (VPNs), Quality of	Prerequisites: A grade of C or better in CNT150AB or permission of Instructor.		Occ	L+L 4.0 6.0 6.0	T

				Service (QOS), network management, design, troubleshooting, virtualization, and automation. Preparation for Cisco certification examination.					
CNT168	2018 Fall	CCNA Discovery - Designing and Supporting Computer Networks		Networking design and customer support including gathering requirements, designing basic networks, establishing proof- of-concept, and performing project management tasks. Lifecycle services, including upgrades, competitive analyses, and system integration, in the context of pre-sale support	Prerequisites: A grade of C or better in CNT158.		Occ	L+L 4.0 6.0 6.0	T
CNT171	2021 Spring	CCNA Exam Prep		Preparation for renewal of CCNA certification by reviewing the Open Systems Interconnection (OSI) model and industry standards including network topologies, IP addressing, subnet masks, access control list, basic network design and cable installation. Practice the skills to configure, customize, maintain and troubleshoot Cisco routers and switches for Local Areas Networks (LANs) and Wide Area Networks (WANs) using Cisco IOS command set. Review any new material introduced since the last CCNA exam version.	Prerequisites: A grade of C or better in CNT160AB, or Cisco Certified Network Associate (CCNA) certification, or permission of Instructor.		Occ	L+L 1.0 2.0 2.0	T
CNT202	2021 Spring	Cisco Secure Firewall Appliance Configuration		Applications of Cisco Networking technologies in designing and implementing security solutions to reduce risk of revenue loss and vulnerability. Hands-on experience and skills in security policy design and management, security technologies, products and	Prerequisites: A grade of C or better in CNT160AB or permission of Instructor.		Occ	L+L 4.0 5.0 5.0	T

				solutions, secure firewall design, installation, configuration and maintenance, Authentication, Authorization, and Accounting (AAA), Failover, and Virtual Private Network (VPN) implementation using firewalls.					
CNT203	2020 Fall	CCNA Cybersecurity Operations		Uses virtual environments to simulate real-world cybersecurity threat scenarios and create opportunities for practice with ethical hacking, security monitoring, analysis and resolution. Introduces current technical concepts, such as classification of network attacks, monitoring, analysis of network intrusion data, cryptography, prevention and mitigation of network attacks and application of incident response models to manage network security incidents.	Prerequisites: A grade of C or better in CNT150AB or permission of Instructor.	CNT203 is designed to help students prepare for the Cisco Certified Network Associate (CCNA) Cybersecurity Operations Certification examination.	Occ	L+L 4.0 6.0 6.0	T
CNT205	2021 Spring	Cisco Certified Network Associate Security		Associate-level knowledge and skills required to secure Cisco networks. Development of a security infrastructure, identification of threats and vulnerabilities to networks. Mitigation of security threats. Core security technologies. Installation, troubleshooting and monitoring of network devices to maintain integrity, confidentiality and availability of data and devices. Competency in the technologies that Cisco uses in its security structure.	Prerequisites: A grade of C or better in CNT160AB, or Cisco Certified Network Associate (CCNA) certification, or permission of Instructor.		Occ	L+L 4.0 6.0 6.0	T
CNT206	2021 Spring	Cisco Certified Network Associate Wireless		Associate-level knowledge and skills required in Cisco wireless networks. Includes comprehensive hands-on labs	Prerequisites: A grade of C or better in CNT160AB or permission of Instructor.	Prepares students to earn Cisco Certified Network Associate Wireless (CCNA Wireless) designation by taking	Occ	L+L 4.0 6.0 6.0	T

				to design, plan, implement, operate, secure, and troubleshoot wireless networks.		the Implementing Cisco Unified Wireless Networks Essentials (IUWNE) exam.			
CNT240	2020 Fall	Cisco Certified Network Professional: Enterprise Core		Provides Cisco Certified Network Professional (CCNP) Enterprise knowledge and skills needed for professional-level networking technologies and architecture. Topics include virtualization, network assurance, security, and automation. Helps to prepare students to take 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.	Prerequisites: A grade of C or better in CNT160AB, or Cisco Certified Network Associate (CCNA) industry certification, or permission of Instructor.	Preparation for Cisco Certified Network Professional (CCNP) ENCOR exam.	Occ	L+L 8.0 12.0 12.0	T
CNT240AA	2020 Fall	Cisco Certified Network Professional: Enterprise Core I		Provides Cisco Certified Network Professional (CCNP) Enterprise knowledge and skills needed for professional-level networking technologies and architecture. Topics include virtualization, network assurance, security, and automation. Helps to prepare students to take 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.	Prerequisites: A grade of C or better in CNT160AB, or Cisco Certified Network Associate (CCNA) industry certification, or permission of Instructor.	Preparation for Cisco Certified Network Professional (CCNP) ENCOR exam.	Occ	L+L 4.0 6.0 6.0	T
CNT240AB	2020 Fall	Cisco Certified Network Professional: Enterprise Core II		Provides Cisco Certified Network Professional (CCNP) Enterprise knowledge and skills needed for professional-level networking technologies and architecture. Topics	Prerequisites: A grade of C or better in CNT240AA.	Preparation for Cisco Certified Network Professional (CCNP) ENCOR exam.	Occ	L+L 4.0 6.0 6.0	T

				include virtualization, network assurance, security, and automation. Helps to prepare students to take 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.					
CNT250	2020 Fall	Cisco Certified Network Professional: Enterprise Advanced Routing and Services		Provides Cisco Certified Network Professional (CCNP) Enterprise advanced knowledge and skills needed for professional-level networking technologies and architecture. Covers the implementation and troubleshooting of advanced routing technologies and services including Layer 3 VPN services, infrastructure security, and infrastructure services. Helps to prepare students to take the Implementing Cisco Enterprise Network Advanced Routing and Services (ENARSI) certification exam aligned with the CCNP Enterprise, Cisco Certified Specialist - Advanced Infrastructure Implementation certifications.	Prerequisites: A grade of C or better in CNT160AB, or Cisco Certified Network Associate (CCNA) industry certification, or permission of Instructor.		Occ	L+L 8.0 12.0 12.0	T
CNT250AA	2020 Fall	Cisco Certified Network Professional: Enterprise Advanced Routing and Services I		Provides Cisco Certified Network Professional (CCNP) Enterprise advanced knowledge and skills needed for professional-level networking technologies and architecture. Covers the implementation and troubleshooting of advanced routing technologies and	Prerequisites: A grade of C or better in CNT160AB, or Cisco Certified Network Associate (CCNA) industry certification, or permission of Instructor.		Occ	L+L 4.0 6.0 6.0	T

				services including Layer 3 VPN services, infrastructure security, and infrastructure services. Helps to prepare students to take the Implementing Cisco Enterprise Network Advanced Routing and Services (ENARSI) certification exam aligned with the CCNP Enterprise, Cisco Certified Specialist - Advanced Infrastructure Implementation certifications.					
CNT250AB	2020 Fall	Cisco Certified Network Professional: Enterprise Advanced Routing and Services II		Provides Cisco Certified Network Professional (CCNP) Enterprise advanced knowledge and skills needed for professional-level networking technologies and architecture. Covers the implementation and troubleshooting of advanced routing technologies and services including Layer 3 VPN services, infrastructure security, and infrastructure services. Helps to prepare students to take the Implementing Cisco Enterprise Network Advanced Routing and Services (ENARSI) certification exam aligned with the CCNP Enterprise, Cisco Certified Specialist - Advanced Infrastructure Implementation certifications.	Prerequisites: A grade of C or better in CNT250AA.		Occ	L+L 4.0 6.0 6.0	T
COM080	1999 Summer I	Conversation Circles		Practice in conversing in English for non-native speakers. Emphasis in developing conversational techniques to facilitate building and maintaining relationships.	Prerequisites: None.	COM080 may be repeated for a total of six (6) credit hours.	Acad	LEC 3.0 3.0 3.0	S

COM095	1998 Fall	Basic Oral Communication Skills		Listening, speaking, and related academic performance skills, including note taking. Emphasis on activities designed to improve and synthesize these skills	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
COM100	2018 Fall	Introduction to Human Communication		Introduces the theory and practice of human communication. Surveys communication topics related to interpersonal, small group, and public communication.	Prerequisites: None.	Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] Arizona Shared Unique Number SUN#: COM 1100	Acad	LEC 3.0 3.0 3.0	S
COM100AA	2018 Fall	Introduction to Human Communication Part I		Introduces the theory and practice of human communication. Surveys communication topics related to interpersonal, small group, and public communication.	Prerequisites: None.	Course Attribute(s): General Education Designation: Social-Behavioral Sciences - [SB] in combination with: COM100AB and COM100AC.	Acad	LEC 1.0 1.0 1.0	S
COM100AB	2018 Fall	Introduction to Human Communication Part II		Introduces the theory and practice of human communication. Surveys communication topics related to interpersonal, small group, and public communication.	Prerequisites: None.	Course Attribute(s): General Education Designation: Social-Behavioral Sciences - [SB] in combination with: COM100AA and COM100AC.	Acad	LEC 1.0 1.0 1.0	S
COM100AC	2018 Fall	Introduction to Human Communication Part III		Introduces the theory and practice of human communication. Surveys communication topics related to interpersonal, small group, and public communication.	Prerequisites: None.	Course Attribute(s): General Education Designation: Social-Behavioral Sciences - [SB] in combination with: COM100AA and COM100AB.	Acad	LEC 1.0 1.0 1.0	S
COM101	2023 Fall	Interpersonal Communication in the Workplace		Elements and functions of communication; perception of self and others; verbal and nonverbal communication; listening skills; effective verbal responses; communicating ideas and feelings; role of communication in relationships with others.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
COM102	2023 Fall	Group Discussion in the Workplace		Concept of a decision-making group; role requirements in group discussion; characteristics and responsibilities of small-group leaders; tools for problem	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S

				solving in a group; presenting proposals to management.					
COM105	1995 Fall	Relational Communication/ Senior Adults		Communication skills as they apply to personal relationships of older adults. Student's assessment of their individual communication skills in relations with family members, social and business acquaintances, and friends	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
COM110	2014 Spring	Interpersonal Communication		Theory and practice of communication skills which affect day-to-day interactions with other persons. Topics may include using verbal and nonverbal symbols, interactive listening, resolving interpersonal conflict, developing and maintaining personal and professional relationships	Prerequisites: None.	Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] Arizona Shared Unique Number SUN#: COM 1110	Acad	LEC 3.0 3.0 3.0	S
COM110AA	1995 Fall	Interpersonal Communication Part I		Theory and practice of communication skills which affect day-to- day interactions with other persons. Topics may include using verbal and nonverbal symbols, interactive listening, resolving interpersonal conflict, developing and maintaining personal and professional relationships	Prerequisites: None.	Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] in combination with: COM110AB and COM110AC	Acad	LEC 1.0 1.0 1.0	S
COM110AB	1995 Fall	Interpersonal Communication Part II		Theory and practice of communication skills which affect day-to- day interactions with other persons. Topics may include using verbal and nonverbal symbols, interactive listening, resolving interpersonal conflict, developing and maintaining personal and professional relationships	Prerequisites: None.	Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] in combination with: COM110AA and COM110AC	Acad	LEC 1.0 1.0 1.0	S
COM110AC	1995 Fall	Interpersonal Communication Part III		Theory and practice of communication skills which affect day-to-day interactions	Prerequisites: None.	Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB]	Acad	LEC 1.0 1.0 1.0	S

				with other persons. Topics may include using verbal and nonverbal symbols, interactive listening, resolving interpersonal conflict, developing and maintaining personal and professional relationships		in combination with: COM110AA and COM110AB			
COM120	2003 Fall	Pronunciation of American Speech		Analysis of American speech production problems due to accents produced by another language, correction of misarticulated American speech sounds, critical listening to sound production, understanding American English speech patterns, practicing American idioms and expressions, and preparing and delivering group and individual speech presentations	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
COM125	1995 Fall	Presentational Speaking		Techniques for developing oral presentations which include visual media. Principles of verbal message development and related visual design stressed. Techniques of managing the presentational environment including question and answer periods and the operation of common equipment	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
COM145	2018 Fall	Digital Storybook	ART145 STO145	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
COM150	2018 Fall	Digital Storytelling	ART150 STO150	Enables students to find and develop their personal stories. Emphasis on the use of digital technology to create, edit, produce and archive a digital story	Prerequisites: None.		Acad	L+L 3.0 6.0 6.0	T

COM163	2009 Fall	Intercultural Communication in Everyday Life		Provides knowledge to promote greater understanding and application of intercultural communication in social and organizational interactions. For advanced non-native English speakers.	Prerequisites: Appropriate English placement test score at the ENG101 or ENG107 level or a grade of C or better in ENG091 or ESL097 or permission of Instructor.	Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Global Awareness - [G] General Education Designation: Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S
COM177	2023 Fall	Experiential Group Activities Facilitation		Communication skills, tools, and strategies used to lead experiential learning activities. Designed to enhance the student's ability to facilitate experiential group learning activities.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
COM181	2021 Fall	Conflict Mediation		Develop communication skills necessary to conduct mediation in formal and informal settings. Applies principles and theories of message production and responding, listening, questioning, source and receiver factors, and emotion to conflict management communication. Emphasis on respecting diversity and empowering joint problem solving throughout	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
COM207	2009 Summer I	Introduction to Communication Inquiry		Overview of theory and methodological practice in communication with particular attention to scholarly writing skills. Emphasis on development of critical thinking skills through active participation in the research process.	Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent and COM100 or equivalent or permission of Instructor.	COM207 is recommended for the communication major.	Acad	LEC 3.0 3.0 3.0	S
COM215	1995 Fall	Listening		Emphasis on diagnosis of individual listening, corrective procedures, and reinforcement of improved habits through normal and speeded listening drills. Includes everyday communication experiences	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S

COM221	2011 Fall	Oral Fluency in American Speech		Designed for English Language Learner (ELL) students to develop greater oral fluency in spontaneous speaking contexts and presentational speaking. Emphasis on development of speech, language, and vocal clarity; basic skills in presentational speaking; and use of English to interact spontaneously with others.	Prerequisites: A grade of C or better in COM120 or permission of Instructor.		Acad	LEC 3.0 3.0 3.0	S
COM222	1999 Fall	Argumentation		Discussion and practice of the use of evidence, applied reasoning, recognition of fallacies, selection of arguments, and methods of analyzing issues	Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent.	Course Attribute(s): General Education Designation: Literacy and Critical Inquiry - [L]	Acad	LEC 3.0 3.0 3.0	S
COM225	2005 Summer I	Public Speaking		Designed to enhance the student's ability to present public speeches confidently and competently. Also designed to improve information literacy and critical thinking skills	Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent.	Course Attribute(s): General Education Designation: Literacy and Critical Inquiry - [L]	Acad	LEC 3.0 3.0 3.0	S
COM230	2014 Summer	Small Group Communication		Principles and processes of small groups and development of skills for participation and leadership in small group settings. Practice in problem solving, decision making, and information sharing.	Prerequisites: None.	General Education Designation: Social and Behavioral Sciences - [SB] Arizona Shared Unique Number SUN#: COM2271	Acad	LEC 3.0 3.0 3.0	S
COM241	2010 Fall	Oral Interpretation of Literature	THP241	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
COM250	2010 Spring	Introduction to Organizational Communication		Introduction to the study of communication in organizations including identification of variables, roles and patterns influencing communication in organizations	Prerequisites: None.	Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S

COM251	1995 Fall	Interviewing		Principles and techniques of interviewing, including practice through real and simulated interviews in informational, persuasive, and employee-related situations	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
COM259	2019 Fall	Communication in Business and Professions		Interpersonal, organizational, intercultural, group, and public communication in business and professional organizations. Emphasis on oral communication and the effective use of technology and new media.	Prerequisites: A grade of C or better in ENG101, or ENG107, or equivalent.		Acad	LEC 3.0 3.0 3.0	S
COM263	2018 Fall	Elements of Intercultural Communication		Diverse cultural contexts are explored through basic concepts, principles, and theories of intercultural communication. Discovering effective interaction and appropriate communication in a global community is emphasized.	Prerequisites: None.	Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Global Awareness - [G] General Education Designation: Social and Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S
COM270	2018 Summer	Health Communication		Theory and practice of interpersonal, intercultural, public, and team communication skills in a healthcare setting.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
COM271	1995 Fall	Voice and Diction	THP271	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
COM275	1995 Fall	Nonverbal Communication		Effects of space, time, body movements, environment, objects, and voice quality on human communication and interaction	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
COM277	2023 Fall	Group Facilitation Theory and Practice		Theory and practice of group facilitation skills. Emphasis on leading organizational groups in problem solving and decision-making.	Prerequisites: Associates degree or equivalent or 3 to 5 years work experience or permission of Instructor.		Acad	LEC 2.0 2.0 2.0	S

COM281	2018 Fall	Communication Activities		Designed to provide students with competence and confidence in a variety of speech situations beyond the classroom setting. May include presentations at speech competitions or at community organizations.	Prerequisites: None.	COM281 may be repeated for a total of six (6) credit hours.	Acad	L+L 1.0 3.0 3.0	T
COM281AA	2018 Fall	Communication Activities		Designed to provide students with competence and confidence in a variety of speech situations beyond the classroom setting. May include presentations at speech competitions or at community organizations.	Prerequisites: None.	COM281AA may be repeated for a total of six (6) credit hours.	Acad	L+L 2.0 4.0 4.0	T
COM281AB	2018 Fall	Communication Activities		Designed to provide students with competence and confidence in a variety of speech situations beyond the classroom setting. May include presentations at speech competitions or at community organizations.	Prerequisites: None.	COM281AB may be repeated for a total of six (6) credit hours.	Acad	L+L 3.0 5.0 5.0	T
COM282AA	2013 Fall	Service-Learning Experience in Communication		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	COM282AA 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
COM282AB	2013 Fall	Service-Learning Experience in Communication		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	COM282AB 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
COM282AC	2013 Fall	Service-Learning Experience in Communication		Unpaid Service-Learning (SL) experience, completed with approved community partner.	Prerequisites: Permission of Instructor.	COM282AC 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
COM296WA	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		Acad	LAB 1.0 5.0 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.				
COM296WB	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
COM296WC	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		Acad	LAB 3.0 15.0 0.0	Z

					or with permission of the Instructor.				
COM296WD	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
COM298AA	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0	Z
COM298AB	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.	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0	Z

				Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE					
COM298AC	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0	Z
CON100	2020 Summer	Introduction to Construction		Introduces students to all aspects of the construction industry such as how projects are delivered, reviewing the procurement process and how they are estimated, scheduled, and contracted. Introduces students to the individual roles that constructors fill in the delivery of a construction project.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
CON101	2018 Fall	Construction and Culture		The cultural context of construction, emphasizing the evolution and expansion of constructed environments as expressions of ethical and historical value systems.	Prerequisites: None.	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
CON103	2020 Summer	Foundation of Construction Safety		Occupational Safety and Health Act (OSHA). Common causes for accidents and fatalities in construction. Abatement techniques for construction-specific hazards. Use of personal protection	Prerequisites: None.		Occ	L+L 1.0 1.0 1.0	T

				and lifesaving equipment. Specific types of health hazards related to the construction industry. Proper methods for handling hazardous materials.					
CON104	2020 Summer	Hand and Power Tools, Equipment, and Workspace		Overview of the selection, use, maintenance and safety procedures for common hand tools, power tools and equipment used in the construction industry. Overview of the maintenance of workspace according to professional standards.	Prerequisites: None.		Occ	L+L 1.5 1.5 1.5	T
CON105	2022 Fall	Construction Calculations		Introduction to basic calculation skills in the construction environment including the four primary operations. United States standard and metric units of measure, geometric figures, and area and volume calculations for two and three-dimensional objects.	Prerequisites: None.		Occ	L+L 1.5 1.5 1.5	T
CON106	2018 Fall	Foundations of Concrete		Examines the effects of concrete-making materials (aggregates, cements, admixtures, etc.) on the properties of fresh and hardened concrete. Concrete mixture proportioning is discussed along with the calculations and statistical analysis of strength testing.	Prerequisites: None.		Occ	LEC 4.0 2.0 2.0 LAB 0.0 4.0 4.0	T
CON107	2020 Summer	Construction Drawings Introduction		Provides students with the information and skills needed to read and understand construction drawings.	Prerequisites: None.		Occ	L+L 1.0 1.0 1.0	T
CON110	2021 Fall	Carpentry: Floor Systems		Emphasis on the layout and construction procedures for floor systems, including: interpretation of construction drawings and specifications; selection of appropriate types of floor system components;	Prerequisites: None.		Occ	L+L 3.5 4.0 4.0	T

				and application of floor system materials. Includes estimation of the amount of materials needed for a floor assembly and some common alternative floor systems.					
CON111	2020 Summer	Carpentry: Wall Systems		Examines the layout and construction procedures for wall systems, including: interpretation of construction drawings and specifications; selection of appropriate types of wall system components; and application of wall system materials. Emphasis of the estimation of the amount of materials needed for a wall assembly and some common alternative wall systems.	Prerequisites: None.		Occ	L+L 3.5 4.0 4.0	T
CON112	2021 Fall	Carpentry Ceiling Joist and Roof Framing		Covers the layout and construction procedures for roof systems, including interpretation of construction drawings and specifications. Provides an overview of ceiling and roof construction methods, the different types of roofs used in residential construction, materials, estimation of materials, and the use of trusses in basic roof framing.	Prerequisites: None.		Occ	L+L 4.0 5.0 5.0	T
CON117	2019 Spring	Interpersonal Skills, Issues and Resolutions in Construction		Information about communication and human relations skills, the expectations of today's diverse workforce, and relationships with stakeholders. Leadership style, interview techniques, and professional development plans. Management skills in problem solving and negotiating.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
CON124	2020 Summer	Plumbing: Pipes and Fittings		Introduces the various types of plumbing materials, pipe	Prerequisites: None.		Occ	L+L 3.5 4.0 4.0	T

				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.					
CON125	2020 Summer	Plumbing: Fixtures		Introduces commonly used fixtures in plumbing systems. Select and operate each type of fixture for a variety of installations. Provides an overview of plumbing system installation, maintenance and water heating systems.	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0	T
CON126	2020 Summer	Plumbing: Drain, Waste, and Vent		Examine the drainage, waste movement and ventilation for construction application. Provides instruction in locating, installing, connecting, and testing a complete drain, waste, and vent (DWV) system.	Prerequisites: None.		Occ	L+L 3.5 4.0 4.0	T
CON127	2020 Summer	Plumbing: Water Distribution Systems		Discuss the processes through which potable water is distributed. Examine the identification of the components and functions of a water distribution system and explains the relationships among the components. Includes installation and testing of water distribution systems.	Prerequisites: None.		Occ	L+L 2.0 3.0 3.0	T
CON130	2018 Fall	Computer Aided Design and Drafting		Fundamental drafting and documentation topics and techniques related to construction, using both board and computer as tools. Concentration on various methods of two-dimensional and three-dimensional drawing, sketching, scaling,	Prerequisites: None.		Occ	L+L 3.0 6.0 6.0	T

				and dimensioning with computer and board.					
CON131	2020 Summer	Electrical Systems	HVA131	Electricity related to residential and light commercial applications, to include common electrical components, AC and DC circuits, and electrical safety. Provides an introduction to reading, interpreting, and creating wiring diagrams and the application of electrical power. Operation and use of specific meters, tools, and an introduction to National Electrical Code (NEC).	Prerequisites: None.		Occ	L+L 3.5 4.0 4.0	T
CON132	2020 Summer	Distribution Panels, Wiring, and Circuit Protection in Electrical Systems		Discuss construction drawings and code related to conductors and cables (types, ratings), residential and commercial applications, wire sizes, utilities, meters, disconnects, breakers, grounding and bonding, rough-in wiring and circuit safety protection.	Prerequisites: None.		Occ	L+L 3.5 4.0 4.0	T
CON133	2020 Summer	Conduit, Raceways, and Termination in Electrical Systems		Termination and implementation of electricity in a facility. Considers topics related to box capacities, raceways, conduit sizes, termination practices, wire trays, and finish wiring.	Prerequisites: None.		Occ	L+L 4.0 5.0 5.0	T
CON138	2019 Spring	Introduction to Project Management and Resource Control	IND138	Technical and management skills such as preconstruction planning, cost and risk control and policy development. Criteria for project layout purchasing, subcontractor management, project layout. Preparation process for project start up, close out and alternate project delivery methods. Major factors which affect production control and	Prerequisites: None.		Occ	LEC 1.0 1.0 1.0	S

				production control standards. Project manager's role.					
CON181	2018 Fall	Cost Estimating		Determining quantities of material, equipment, and labor for a construction project. Includes procedures used to apply unit costs to these items in a minimum of time. Occupational Safety and Health Administration Safety Standards and their impact on construction cost.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
CON213	2020 Summer	Carpentry: Steel Framing		The layout and construction procedures for steel framing, including: interpretation of construction drawings and specifications; selection of appropriate types of steel framing components; and application of materials. Includes estimation of the amount of materials needed for a steel assembly.	Prerequisites: None.		Occ	L+L 1.0 2.0 2.0	T
CON214	2020 Summer	Carpentry: Roof Systems and Building Envelopes		Safety, codes, and construction procedures for roof systems and building envelopes, including interpretation of construction drawings and specifications. Students construct conventional roof structures and ceilings, and install exterior finish materials.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
CON215	2020 Summer	Carpentry: Interior Finishes		The layout and construction procedures for interior finishes such as: drywall, trim, doors, cabinetry and stairs, including interpretation of construction drawings and specifications. Provides an overview of construction methods, the different types of materials, and estimation of materials.	Prerequisites: None.		Occ	L+L 4.0 5.0 5.0	T
CON216	2020 Summer	Carpentry: Concrete Forms		Safety, codes, and construction procedures for layout and construction of	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T

				concrete footers and post-tensioned slabs, wall forms, and columns. Includes interpretation of construction drawings and estimation of materials.					
CON220	2022 Spring	Statics Application for Construction		Emphasis on response of bodies to the action of forces. Elementary analytical and practical approach to the principles and physical concepts of statics. Focus on mastery of basic principles of trigonometry, application of vectors and forces, and moments, with analysis of basic structures and structural components, and statics application to construction.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
CON221	2022 Fall	Applied Statics		Emphasis on response of bodies to the action of forces. Elementary analytical and practical approach to the principles and physical concepts of statics, focuses on mastery of basic principles of trigonometry, application of vectors and forces, and moments, with analysis of basic structures and structural components, trusses, shear and moment diagrams, centroids, and moments of inertia.	Prerequisites: A grade of C or better in MAT15+, (MAT182 OR MAT187) and PHY111.		Occ	LEC 3.0 3.0 3.0	S
CON223	2018 Fall	Strength of Materials		Strength and application of materials of construction, including mechanics of beams, shafts, and bolted and welded connections under various loading conditions. Construction behavior of various materials externally and internally.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
CON224	2020 Summer	Plumbing: Pipe Systems and Controls		Examines applied calculations to determine size, types and service of pipe systems.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T

				Discusses the application of drawings, codes, and specifications for assembly and installation of gas, air, and water systems.					
CON225	2020 Summer	Plumbing: Water Disposal Systems		Examines water disposal and drainage systems, to include the types, components, functions, codes, safety, design, installation and repair.	Prerequisites: None.		Occ	L+L 4.0 5.0 5.0	T
CON226	2020 Summer	Plumbing: Fixtures and Appliances		Examines the safety, codes, installation, maintenance, and repair of appliances, fixtures, and gas piping.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
CON227	2020 Summer	Plumbing: Water Resource Solutions		Introduces water supply disinfection, filtration systems, and sustainable water practices.	Prerequisites: None.		Occ	L+L 2.0 2.0 2.0	T
CON234	2020 Summer	Electric Power Distribution		Theory and applications of distribution of power from utilities to residential and commercial sites, including transformers and commercial electrical distribution equipment and services. Includes safety, codes, and interpretation of construction drawings and specifications.	Prerequisites: None.		Occ	L+L 3.0 4.0 4.0	T
CON235	2020 Summer	Motors: Theory and Application		Describes motor and motor controls in electricity. Explains how to select and install relays and troubleshoot control circuits. Distinctions between AC and DC motors, motor speed control, and design and operation characteristics, connections and terminal markings.	Prerequisites: None.		Occ	L+L 4.0 5.0 5.0	T
CON236	2020 Summer	Industrial Wiring Applications		A broad variety of electrical wiring applications, including healthcare facility, heating, ventilation and air conditioning (HVAC), standby, emergency, and fire alarm systems.	Prerequisites: None.		Occ	L+L 3.0 3.0 3.0	T
CON241	2018 Fall	Surveying I		Fundamental surveying principles including theory and	Prerequisites: None.		Occ	LEC 3.0 2.0 2.0	T

				field work using the level and transit, horizontal measurement by tape or stadia, benchmark and profile leveling traverse surveys and computations, establishment of line and grade. Designed to develop semi-professional personnel working for private or government engineering agencies.				LAB 0.0 3.0 3.0	
CON243	2018 Fall	Heavy Construction Equipment, Methods, and Materials		Fundamentals of machine selection and production estimating, using computer-generated data to develop programs that speed the decision process or allow easy analysis of multiple options used in the heavy construction industry. Applications of engineering principles in analyzing economical approaches for heavy construction. Covers fleet operation, methods, maintenance, and programs for construction of dams, tunnels, roads, and excavations of buildings.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
CON244	2018 Fall	Working Drawing Analysis: Blueprint Reading		Detailed analysis and interpretation of construction drawings (blueprint reading); interpretation of symbols, annotations, conventions, terms of trade; and understanding of drawing, dimensioning, plan organization, and specifications.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
CON251	2018 Fall	Microcomputers for Constructors		Effective application of computers in support of construction management, administration, and technical aspects of the construction industry. Uses of the computer as a problem-solving tool,	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S

				including multimedia software, information management, and spreadsheet applications in construction.					
CON252	2018 Fall	Building Construction Methods, Materials, and Equipment		Comprehensive study of construction methods, materials, codes, and equipment used in building construction.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
CON262	2018 Fall	Introduction International Residential Code (IRC)		Covers International Residential Code for various trades, including building, mechanical, plumbing and electric, for one and two family residential construction. Preparation for voluntary certification (IRC building inspection).	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
CON263	2018 Fall	Building Codes		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.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
CON271	2018 Fall	Construction Safety		Overview of safety methods and procedures for accident prevention and equipment used by construction workers to maximize field safety during various phases of a construction project, including requirements and regulations for construction safety set by Occupational Safety and Health Administration (OSHA) standards along with biological aspects of construction safety.	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S
CON273	2018 Fall	Electrical Construction Fundamentals		General knowledge of electrical work related to	Prerequisites: None.		Occ	LEC 3.0 3.0 3.0	S

				construction management, administration, and technical aspects of the construction industry. Covers circuits and machinery, power transmission, and electrical distribution with emphasis on secondary distribution systems as well as measurement and instrumentation, Ohm's Law, low voltage, high voltage, temporary power, generators, service, systems, circuits, motors, transformers, electrical installations, codes, cogeneration, energy conservation, estimating, safety and related blueprint readings.					
CON290AA	2019 Spring	Construction Internship	CNS290AA	Construction internship office/field experience with private/public agencies or citizen volunteer groups. Eighty (80) hours of designated work experience.	Prerequisites: Permission of Department or Division.	CON/CNS290AA may be repeated for a total of three (3) credits. Standard grading available according to procedures outlined in college catalog.	Occ	LAB 1.0 6.0 0.0	C
CON290AB	2019 Spring	Construction Internship	CNS290AB	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 Department or Division.	Standard grading available according to procedures outlined in college catalog.	Occ	LAB 2.0 12.0 0.0	C
CON290AC	2019 Spring	Construction Internship	CNS290AC	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 Department or Division.	Standard grading available according to procedures outlined in college catalog.	Occ	LAB 3.0 18.0 0.0	C
CON298AA	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	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 1.0 1.0 0.0	Z

				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. COMMON COMPETENCY COURSE					
CON298AB	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 2.0 2.0 0.0	Z
CON298AC	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Occ	LAB 3.0 3.0 0.0	Z
COS104	2020 Fall 1	Hair Essentials I		Introduction to the basic theory and procedures in cosmetology hair essentials.	Prerequisites: Program Admission.		CLK	200	

COS106	2020 Fall 1	Hair Essentials II		Hair-shaping techniques and chemical application procedures in cosmetology hair essentials.	Prerequisites: COS104 or Program Manager's permission.		CLK	200	
COS114	2021 Fall 1	Student Salon 1		Continuation of cosmetology theory and practical concepts at an intermediate level. Theory will be focusing on professional development, salon ecology, anatomy and hair decisions. Practical skills will be demonstrated daily on clients and manikins. Rubrics on procedures are done monthly. One day a month on Arizona state board licensure focus.	Prerequisites: A grade of C or better in COS112, or COS106, or permission of Program Manager.		CLK	200	
COS116	2020 Fall 1	Student Salon 2		Apply concepts learned in the classroom and the student salon to develop real life scenarios while servicing a client and/or becoming a future business owner in the beauty industry.	Prerequisites: COS114 or Program Manager's permission.		CLK	200	
COS118	2020 Fall 1	Hair Stylist State Licensure Focus		This course is designed to prepare students for the written and practical examinations for the Arizona State Board of Cosmetology HAIRSTYLIST licensure only.	Prerequisites: COS116 or Program Manager's permission.		CLK	200	
COS119	2020 Fall 1	Nail Essentials		Introduction to nail services in the beauty industry.	Prerequisites: COS116 or Program Manager's permission.		CLK	200	
COS212	2020 Fall 1	Skin Essentials		Introduction to skin services in the beauty industry.	Prerequisites: COS119 or Program Manager's permission.		CLK	200	
COS214	2020 Fall 1	Student Salon 3		Prepares cosmetology students to be industry ready and prepared to perform services in their chosen field of expertise after licensure with the Arizona State Board of Cosmetology.	Prerequisites: COS212 or Program Manager's permission.		CLK	200	
COS218	2022 Spring	Cosmetology State Licensure Focus		This course is designed to prepare cosmetology students for the written and practical	Prerequisites: COS214 or Program Manager's permission.		CLK	100	

				examinations for Arizona State Board of Cosmetology licensure.					
COS250	2021 Fall 1	Instructor in Training Orientation		Students will be introduced to the Arizona State Board of Cosmetology instructor safety and sanitation, rules and regulations. This class is to prepare a student to become an instructor in their licensed field.	Prerequisites: 1. Must hold current Arizona State Board of Cosmetology License in good standing, in the appropriate field. 2. Must have one year of industry work experience.		CLK	80	
COS251	2019 Fall 1	Instructor in Training I		Students will train to become an instructor in their certified field of cosmetology or aesthetics. Students will learn the fundamentals of becoming an instructor by completing assigned work, shadowing instructors, creating lesson plans, coaching students and working hands-on with students and clients.	Prerequisites: COS250.		CLK	135	
COS252	2019 Fall 1	Instructor in Training II		Students will continue to train to become an instructor in their certified field of cosmetology or aesthetics. Student will learn the fundamentals of becoming an instructor by completing assigned work, shadowing instructors, creating lesson plans, coaching students and working hands-on with students and clients. State board preparation for licensing.	Prerequisites: COS251.		CLK	135	
COV110	1997 Summer I	The Seven Habits of Highly Effective People		Development of interpersonal habits that are used by successful people in their personal and professional lives. Seven Habits of Highly Effective People. Video-based lecture course.	Prerequisites: None.	Under the terms and conditions specified in the licensing agreement with the Franklin Covey Company and the the Maricopa Community College District, only those persons licensed are qualified to teach Covey prefix courses. These facilitators must be identified	Occ	LEC 2.0 2.0 2.0	S

						within the terms of the licensing agreement.			
COV112	2016 Fall	Great Leaders, Great Teams, Great Results		Overview of foundational characteristics of great teams and organizations. Process oriented approach to creating strategies for inspiring trust and building credibility, defining a purpose, aligning systems of success, and unleashing talents of teams.	Prerequisites: None.		Occ	LEC 2.0 2.0 2.0	S
CPD101	1994 Fall	Personal Development		Designed to assist students in developing confidence in making personal, social, and educational decisions. Examination and assessment of individual needs, interests, abilities and values to develop and strengthen interpersonal communication, enhance transitional skills and identify realistic life planning goals	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0	S
CPD102AA	2002 Summer I	Assertiveness Training		Designed to help students, differentiate assertive, non-assertive and aggressive behavior, overcome blocks to acting assertively, establish boundaries, and develop effective verbal and nonverbal assertive behavior. Group discussion, role playing, and videotape feedback are used to enable students to express feelings, beliefs, and opinions in a direct appropriate manner	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0	S
CPD102AB	2019 Fall	Career Exploration		Designed to assist students make informed career decisions. Focuses on current occupational trends and outlook. Explores career-related interests, values, needs, preferences, skills, and strengths with the use of various assessments. Aids in the development of individualized	Prerequisites: None.	CPD102AB may be repeated for a total of six (6) credit hours.	Acad	LEC 2.0 2.0 2.0	S

				educational/career goals and action plan.					
CPD102AC	2017 Fall	Creative Job Hunting		Assists students in gaining skills and confidence necessary to compete in the job market. Emphasis on job search techniques and strategies, resume and cover letter writing, interviewing skills and professional etiquette.	Prerequisites: None.	CPD102AC may be repeated for credit.	Acad	LEC 2.0 2.0 2.0	S
CPD102AD	2018 Fall	Growth and Transformation Strategies		Designed to help students adopt a growth mindset within a holistic framework in order to transform patterns that prevent them from achieving their goals.	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0	S
CPD102AF	2019 Fall	Human Sexuality		Enables students to view gender and sexuality as dimensions of personal identity, and explores intersectionality between multiple identities. Examination of differences between identify expression, behavior, and biological influences, tracing social evolution from masculine-feminine dichotomy to non-binary perspectives.	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0	S
CPD102AH	2020 Fall	Stress Management		Reviews the sources of stress, the physiological effects and the psychological impact of stress on the individual. Provides strategies to manage and reduce stress. Helps students develop and understand behaviors to create a healthy balance in their lives by studying the biological, psychological, physiological, and social aspects of stress and wellness.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
CPD102AJ	2000 Spring	Personal Spiritual Development		Designed to encourage exploration of human	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0	S

				spirituality. Focus on personal values and individual belief systems. Emphasis on developing an integrated concept of spirituality and applying it to one's own life					
CPD102AN	2002 Fall	Anger Management		Provides an understanding of the emotion of anger, explores the types, origins and typical reactions to anger. Covers stress and the need for stress management in relation to anger. Examines personal anger patterns and feelings, and the use of effective interpersonal communications in effective anger management	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0	S
CPD102AR	1995 Summer I	Relaxation Training		Emphasis on specific relaxation techniques to alleviate dysfunctional tension. Use of progressive relaxation methods to reduce stress. Discussion of other modalities of relaxation	Prerequisites: Permission of Instructor.		Acad	LEC 1.0 1.0 1.0	S
CPD102AS	1998 Spring	Conflict Resolution		Developing new skills for dealing effectively with everyday conflict and improving quality of one's own life. Opportunity to discuss issues and seek cooperative resolutions	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0	S
CPD102AT	1998 Spring	Building Self-Esteem		Practice in specific methods for building and keeping self-esteem. Personal assessment of attitudes, values, support systems, and goals	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0	S
CPD102AU	2007 Fall	Introduction to Meditation: Vipassana Practice		Introduction to the practice of Vipassana (Insight) Meditation. Focus on the history, benefits and methodology of Vipassana meditation. Special emphasis on establishing a formal and informal meditation practice	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S

CPD103BA	2023 Fall	Women In Transition		Designed to assist and support women who are experiencing life transitions. Emphasis on assessing self-potential, increasing self-confidence, managing life change, and exploring education/career/life options in terms of the realities of roles for women today.	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0	S
CPD103BB	1995 Spring	Men in Transition		Designed to assist men who are experiencing life transitions. Emphasis on assessing potential, increasing self-confidence, managing change, exploring educational/career options, and exploring mens' roles in a changing society	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0	S
CPD103BC	2003 Fall	African American Cultural Pride and Awareness		Develop an awareness of cultural roots, history, and traditions with emphasis on the shaping of personal identity, social, career, and educational decisions	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0	S
CPD103BD	2003 Fall	Latino/Hispanic American Pride and Awareness		Develop an awareness of cultural roots, history, and traditions with emphasis on the shaping of personal identity, social, career, and educational decisions	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0	S
CPD103BE	2003 Fall	Native American Cultural Pride and Awareness		Develop an awareness of cultural roots, history, and traditions with emphasis on the shaping of personal identity, social, career, and educational decisions	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0	S
CPD103BG	2003 Fall	Asian American Cultural Pride and Awareness		Develop an awareness of cultural roots, history, and traditions with emphasis on the shaping of personal identity, social, career, and educational decisions	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0	S
CPD103BH	1994 Fall	Male-Female Communication		Designed to provide students with a better understanding of male-female characteristics	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0	S

				and how that along with a renewed emphasis on basic communication skills will improve communication between the sexes					
CPD103BJ	1996 Spring	Dynamic Parenting		Designed to provide students with an understanding of parenting dynamics and effective communication between parents and children. Emphasis on building self-esteem, developing coping skills, behavior modification, and other techniques for improving parenting and communication in a variety of circumstances	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0	S
CPD103BL	2012 Summer I	Dynamics of Leadership		Designed to provide strategies that may be used when assuming leadership roles. Focus on improving self-confidence through the development of appropriate behaviors, problem-solving skills, and techniques of leadership.	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0	S
CPD103BV	2007 Summer I	Personal Development for Military Veterans		Assist military veterans in examining role changes, values, strengths, resources, career, readjustment and lifestyle choices. Strategies for coping with life changes, stress, and other personal development needs in transitioning into civilian life	Prerequisites: None.		Acad	LEC 2.0 2.0 2.0	S
CPD104	2019 Fall	Career and Personal Development		An overview of the holistic process of career/life planning through self-awareness and understanding of the world of work. Exploration and application of behavioral, social, and cultural factors leading to college, career, and personal success with emphasis on assessment, applied behavior	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S

				management, motivation, self-care, and career development.					
CPD108	2006 Spring	Personal Money Management for College Students		Designed to assist students in examining values related to spending, borrowing and saving money. Identify financial priorities and responsibilities associated with debt. Develop and follow a personal budget plan and learn strategies for maintaining a financially balanced personal life	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CPD115	2007 Fall	Creating College Success	AAA115	Strategies to create success in college. Methods for selecting and developing effective academic strategies, increasing self-awareness and developing self-management strategies. Elements of college resources and relationships with others explored in support of students' educational experience	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CPD125	2023 Fall	Employee Development: Problem Solving/Decision Making		Development of decision-making skills as well as techniques for problem solving. Focus on values and value conflicts as related to decision-making. Also includes establishing short and long-term goals for personal and career development.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CPD150	2017 Spring	Strategies for College Success	AAA150	Focus on increasing student success through college orientation and personal growth, study skills development, and educational and career planning.	Prerequisites: None.		Acad	LEC 3.0 3.0 3.0	S
CPD150AA	2021 Fall	College Orientation and Personal Growth		Emphasis on increasing student success through college orientation, identification of learning style and the use of time	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S

				management, goal-setting, and interpersonal communication strategies					
CPD150AB	2021 Fall	Study Skills Development		Emphasis on increasing student success through the use of study strategies including materials organization, note-taking, reading, test-taking, memory, and critical and creative thinking	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CPD150AC	2019 Fall	Educational and Career Planning	AAA150AC	Emphasis on increasing student success through educational and career planning.	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CPD160	2013 Fall	Introduction to Multiculturalism		Examination of the multiple cultures and subcultures within the contemporary United States. Personal exploration of awareness and appreciation of multiculturalism. Activities for experiencing diverse cultural perspectives. Critical thinking skills for recognizing, analyzing, and mediating cultural and psychological factors impacting conflict and accord between diverse cultures through written and oral discourse.	Prerequisites: A grade of C or better in ENG101, or ENG107, or permission of Instructor.	Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Literacy and Critical Inquiry - [L]	Acad	LEC 3.0 3.0 3.0	S
CPD180	2021 Fall	Human Resilience: Cognitive, Emotional, and Behavioral Applications		Exploration of human resilience and well-being within the context of personal, academic, and career life. Focus on enhancing quality of life, and improving academic performance and career success through awareness of behavior, cognition, and emotion as well as the practice of self-regulation. Topics include mindfulness, positive psychology, motivation, effective thinking, applied neuroscience, mental	Prerequisites: None.	Course Attribute(s): General Education Designation: Social-Behavioral Sciences - [SB]	Acad	LEC 3.0 3.0 3.0	S

				and emotional health and self-care.					
CPD195AA	2001 Spring	Special Topics: Counseling and Personal Development		Introduction to current topics and contemporary issues related to promoting and enhancing personal development	Prerequisites: None.		Acad	LEC 0.5 0.5 0.5	S
CPD195AB	2001 Spring	Special Topics: Counseling and Personal Development		Introduction to current topics and contemporary issues related to promoting personal development. Focuses on a variety of techniques and strategies to improve personal and interpersonal effectiveness	Prerequisites: None.		Acad	LEC 1.0 1.0 1.0	S
CPD250	2018 Fall	Peer Mentor Training		Development and application of beginning skills and knowledge required to establish and maintain effective peer helping relationships in a college setting. Focus on the role, function, and responsibilities of the peer mentor; verbal and nonverbal communication skills; problem solving; and strategies and resources for first-year student success. Includes on-campus service-learning component.	Prerequisites: Completion of 24 credit hours (100-level or above) with a B grade point average or better and permission of Instructor.		Acad	L+L 3.0 4.0 4.0	T
CPD282AA	1993 Fall	Volunteerism for Counseling and PersonalDevelopment: A Service Learning Experience		Service-learning field experience within private/public agencies, and citizen volunteer groups.	Prerequisites: Permission of Instructor.	CPD282AA 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
CPD282AB	1993 Fall	Volunteerism for Counseling and PersonalDevelopment: A Service Learning Experience		Service-learning field experience within private/public agencies, and citizen volunteer groups.	Prerequisites: Permission of Instructor.	CPD282AB 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
CPD282AC	1993 Fall	Volunteerism for Counseling and PersonalDevelopment: A Service Learning Experience		Service-learning field experience within private/public agencies, and citizen volunteer groups.	Prerequisites: Permission of Instructor.	CPD282AC 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

CPD298AA	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 1.0 1.0 0.0	Z
CPD298AB	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. COMMON COMPETENCY COURSE	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 2.0 2.0 0.0	Z
CPD298AC	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	Prerequisites: Permission of Program Director or Instructor.		Acad	LAB 3.0 3.0 0.0	Z