MESA COMMUNITY COLLEGE

1833 W. Southern Avenue
Mesa, Arizona 85202

Inside pages of this catalog are printed on recycled paper containing 40% post-consumer waste. Soy-based inks are used throughout the entire catalog.

MCC
has multiple locations to better serve our community

MCC Southern & Dobson Campus
1833 W. Southern Avenue, Mesa
480.461.7000

MCC Red Mountain Campus
7110 E. McKellips Road, Mesa
480.654.7200

MCC Downtown Center
145 N. Centennial Way, Mesa
480.461.6100

MCC Online
www.mesacc.edu/mcconline
480.461.7928

Enrollment Information

By Phone:

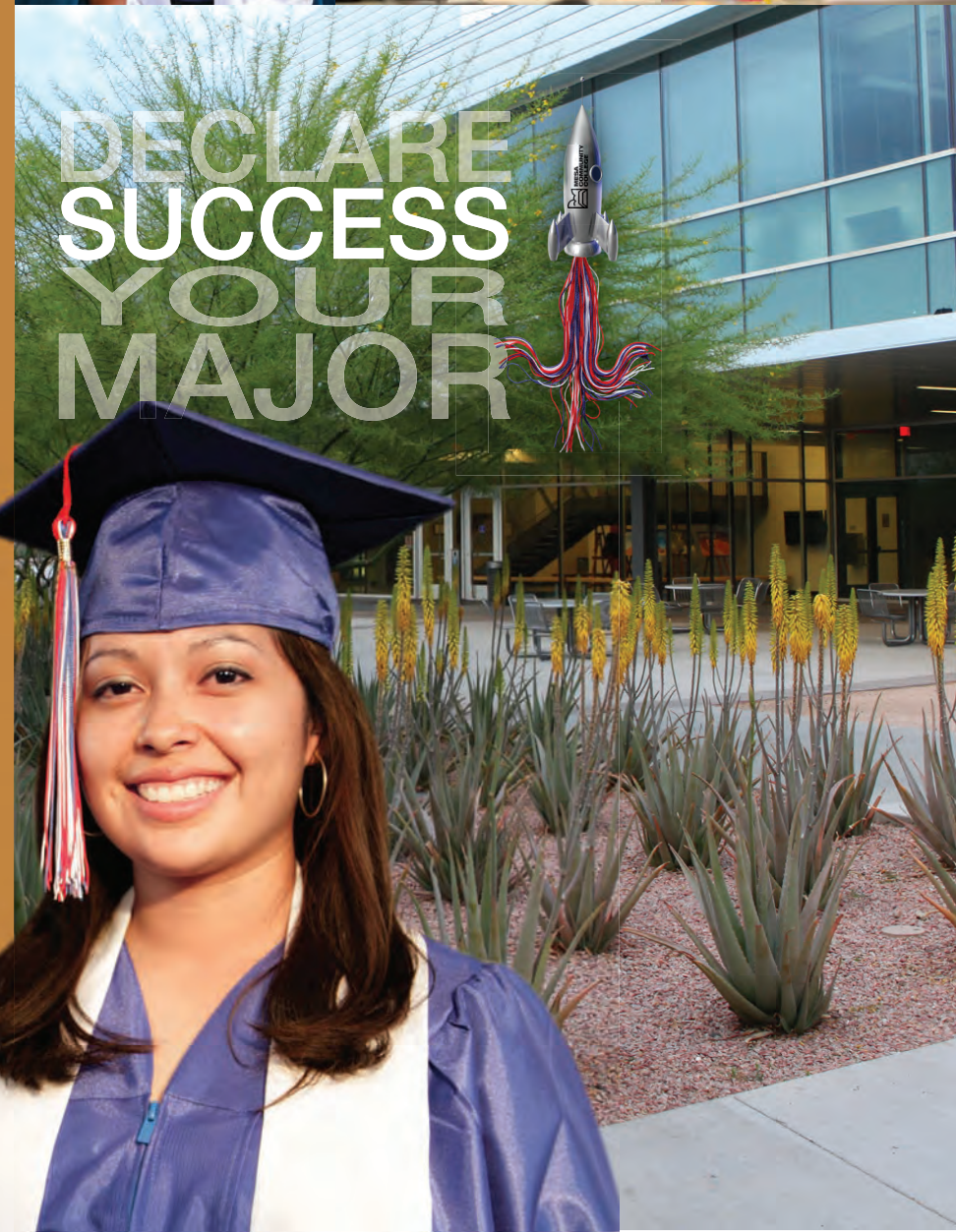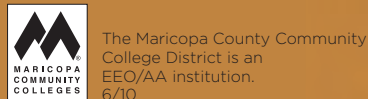**MCC Southern & Dobson Campus**
480.461.7700

MCC Red Mountain Campus
480.654.7600
Toll-free 1.866.532.4983
En Español 480.461.7455

Online: www.mesacc.edu

And In Person:

MCC Southern & Dobson Campus
Admissions Office

MCC Red Mountain Campus
Enrollment Services

The Maricopa County Community College District is an EEO/AA institution.
6/10

MESA COMMUNITY COLLEGE CATALOG 2010-11

DECLARE
SUCCESS
YOUR
MAJOR

2010-11

CATALOG

DECLARE
SUCCESS
YOUR
MAJOR

MESA COMMUNITY COLLEGE
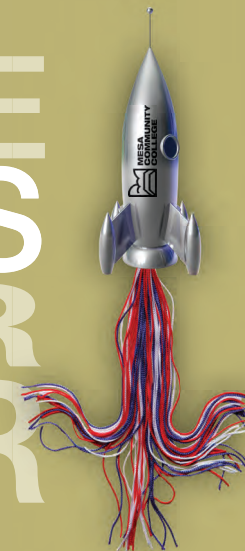
www.mesacc.edu

480.461.7700
1.866.532.4983

MESA COMMUNITY COLLEGE

VISION

MCC - leading the way to success in our local and global community.

MISSION

MCC excels in teaching, learning, and empowering individuals to succeed in our local and global community. We serve as a resource for college and career readiness, transfer education, workforce development, and life-long learning.

VALUES

INDIVIDUALS & COMMUNITY- MCC encourages active citizenship and embraces the diversity of people and ideas.

INNOVATION- MCC delivers cutting-edge instruction and service.

INTEGRITY- MCC upholds the highest standards of ethics and public stewardship.

LEARNING- MCC champions individual student success that reflects the highest academic standards.

SERVICE EXCELLENCE- MCC makes a positive difference in the lives of our students, community members, and each other through meaningful relationships.

2010-2011 MCC Academic Calendar

Colleges/Centers 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. Some courses may be offered over time periods for which these dates are not applicable.

2010 SUMMER SEMESTER

Tues	Jun 1	First 5-Wk/8-Wk Sessions Begin
Thur	Jul 1	First 5-Week Session Ends
Mon	Jul 5	Observance of Independence Day
Tues	Jul 6	Second 5-Week Session Begins
Thur	Jul 22	8-Week Session Ends
Thur	Aug 5	Second 5-Week Session Ends

2010 FALL SEMESTER

*		Registration*
Sat	Aug 21	Classes Begin
Mon	Sept 6	Observance of Labor Day
*		Application for December 2010 Graduation*
Fri	Oct 8	Last Day for Withdrawal without Instructor's Signature
Thur	Nov 11	Observance of Veterans' Day
Thur-Sun	Nov 25-28	Thanksgiving Holiday
Mon	Nov 29	Last Day Student Initiated Withdrawal Accepted
Sun	Dec 12	Last Day of Regular Classes
Mon-Thu	Dec 13-16	**Final Exams
Fri	Dec 17	Mid-Year Recess Begins for Students
Fri	Dec 17	Fall Semester Ends
Winter Break (Campus Closed) Dec 25 through Jan 2		

2011 SPRING SEMESTER

*		Registration*
Sat	Jan 15	Classes Begin
Mon	Jan 17	Observance of M L King Birthday
Mon	Feb 21	Observance of Presidents' Day
*		Application for May 2011 Graduation*
Fri	Mar 4	Last Day for Withdrawal without Instructor's Signature
Mon-Sun	Mar 14-20	Spring Break
Mon	Apr 25	Last Day Student Initiated Withdrawal Accepted
Sun	May 8	Last Day of Regular Classes
Mon-Thu	May 9-12	**Final Exams
Fri	May 13	Commencement
Fri	May 13	Spring Semester Ends
Mon	May 30	Observance of Memorial Day

2011 SUMMER SEMESTER

Tues	May 31	First 5-Wk/8-Wk Sessions Begin
Thur	Jun 30	First 5-Week Session Ends
Mon	Jul 4	Observance of Independence Day
Tues	Jul 5	Second 5-Week Session Begins
Thur	Jul 21	8-Week Session Ends
Thu	Aug 4	Second 5-Week Session Ends

* For specific information concerning registration dates, class start dates, application for graduation dates, and final exam dates, consult the class schedule for the college of intended enrollment.

** Classes meeting on Friday evening only, Saturday only or Sunday only will have final examinations during their last regular class meeting.

A

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H – K

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M

N

O – Q

R

S

T

U – Z

Three-Letter Prefix for Courses

History and Description of Mesa Community College

Mesa Community College is the largest of ten colleges
that make up the Maricopa Community Colleges in the metropolitan Phoenix, Arizona area. The roots of the Maricopa Community Colleges originate with the opening of Phoenix Junior College in 1920 with an enrollment of 15 students. Phoenix Junior College was part of the Phoenix Union High School District. In 1960, the Arizona legislature passed laws that established county-wide junior college districts to be administered by the Arizona State Board of Directors for Junior Colleges and by governing boards elected by the public. Two years later, Arizona voters enthusiastically created the Maricopa County Junior College District to expand affordable college education throughout the 9200-square-mile district. To achieve this mission,
the Maricopa governing board created three extensions
of Phoenix College – one in northeast Phoenix, one in northwest Phoenix, and one in Mesa in an old church building at the corner of Main Street and Extension Road.
In 1963, students began attending classes in the cramped quarters of the leased church building. Two years later,
the Maricopa governing board transformed the Mesa extension of Phoenix College into Mesa Community College.

The change from "junior" college to "community" college is significant because it recognizes the growing and changing nature of our community's educational needs. The junior college model had focused on providing general education courses that students could transfer to universities and apply toward a baccalaureate degree. The broader community college model recognizes that citizens have a wide range
of educational needs. While many do look to community colleges for general education courses, others seek career and technical training to improve their employment prospects or update skills they need in their current positions. Still other students come to the community college to seek lifelong learning opportunities for their
own edification.

In the fall of 1966, Mesa Community College opened its 160-acre campus at the corner of Southern and Dobson roads with four permanent buildings. As enrollment increased, temporary buildings housed classrooms and faculty offices and were eventually replaced by permanent buildings. Construction continues as MCC works to meet
the needs of its growing community.

Our expansion has also taken us to different locations, including Downtown Center/Centennial Way and Williams Field. MCC has opened a second full-service campus – MCC at Red Mountain – in northeast Mesa at Power and McKellips roads. This campus began at a site that formerly housed an extension of Rio Salado Community College, another of the Maricopa County Community College District (MCCCD) colleges. Three new buildings opened
in fall 2001 at the MCC at Red Mountain campus. Designed to fit into their beautiful desert surroundings near Red Mountain, these buildings reflect a commitment to environmental issues at the MCC at Red Mountain campus. From those original 15 students enrolled at Phoenix Junior College, Maricopa Community Colleges now serve more than 250,000 students annually. Approximately 40% of
all residents of Maricopa County have attended one or more of the Maricopa colleges. As the largest of those colleges,
MCC remains dedicated to providing education of the highest quality at the most affordable cost and in the most convenient locations to the members of our community.

MCC Vision, Mission, and Values

VISION
MCC – leading the way to success in our local and global community.

MISSION
MCC excels in teaching, learning, and empowering individuals to succeed in our local and global community. We serve as a resource for college and career readiness, transfer education, workforce development, and life-long learning.

VALUES
Individuals & Community - MCC encourages active citizenship and embraces the diversity of people and ideas.

- Innovation- MCC delivers cutting-edge instruction
  and service.

- Integrity- MCC upholds the highest standards of ethics   and public stewardship.

- Learning- MCC champions individual student success   that reflects the highest academic standards.

- Service Excellence- MCC makes a positive difference
  in the lives of our students, community members,
  and each other through meaningful relationships.

Accreditation

Mesa Community College is accredited by The Higher Learning Commission and is a member of the North Central Association. Website: **www.ncahigherlearningcommission.org**
Telephone: 312-263-0456

The Nursing Program is accredited by the National League
for Nursing Accrediting Commission, 61 Broadway, 33rd Floor, New York, NY, 10006, and approved by the Arizona State Board of Nursing.

The MCC Evelyn H. Warren Child Development Lab and
the MCC Children's Center are accredited by the National Association for the Education of Young Children (NAEYC).

The Mortuary Science Program is accredited by the American Board of Funeral Service Education, 3414 Ashland Ave., Suite G, St. Joseph, MO 64506, 816-233-3747, or online at **www.abfse.org**

The Veterinary Technology/Animal Health Program is provisionally accredited by the American Veterinary Medical Association (all initial accreditations are provisional for five years).

The Dental Hygiene and Dental Assisting Programs
have Initial Accreditation through the American Dental Association's Commission on Dental Accreditation (CODA).

Assessment of Student Outcomes

Student outcomes assessment is a term used to describe
the measurement and documentation of what MCC students are achieving in their studies at the college. Faculty members define the outcomes of college programs and develop measures to assess them. The program includes three primary assessment areas: general education, career and technical education, and developmental education.
For students pursuing their general education studies
at the college, seven areas are assessed: Written and Oral Communication, Arts and Humanities, Cultural Diversity, Information Literacy, Scientific Inquiry, Numeracy, and Problem Solving/Critical Thinking. The general education outcomes are assessed according to the following criteria:

Communication
1. Write a clear, well-organized paper using documentation and quantitative tools when appropriate.
2. Construct and deliver a clear, well-organized verbal presentation.
3. Interact in a collaborative, synergistic manner within a small group.
4. Maintain an interpersonally effective climate within a one-to-one interchange.

Numeracy
1. Identify and extract relevant data from given mathematical situations.
2. Select known models or develop appropriate models that organize data into tables or spreadsheets, graphical representations, or symbolic/equation format.
3. Obtain correct mathematical results, and state those results with the qualifiers.
4. Use the results.

Problem Solving/Critical Thinking
1. Identify a problem or argument.
2. Isolate facts related to the problem.
3. Differentiate facts from opinions or emotional responses.
4. Ascertain the author's conclusion.
5. Generate multiple solutions to the problem.
6. Predict consequences.
7. Use evidence or sound reasoning to justify a position.

Scientific Inquiry
Demonstrate scientific inquiry skills related to:
1. Hypothesis: Distinguish between possible and improbable or impossible reasons for a problem.
2. Prediction: Distinguish between predictions that are logical or not logical based upon a problem presented.
3. Assumption: Recognize justifiable and necessary assumptions based on information presented.
4. Interpretation: Weigh evidence and decide if generalizations or conclusions based upon given data are warranted.
5. Evaluation: Distinguish between probable and improbable causes, possible and impossible reasons, and effective

and ineffective action based on information presented.

Arts and Humanities

1. Demonstrate knowledge of human creations.

2.
Demonstrate an awareness that different contexts and/or world views produce different human creations.

3.
Demonstrate an understanding and awareness of the impact that a piece (artifact) has on the relationship and perspective of the audience.

4. Demonstrate an ability to evaluate human creations.

Information Literacy

1.
Given a problem, define specific information needed to solve the problem or answer the question.

2.
Locate appropriate and relevant information to match informational needs.

3.
Identify and use appropriate print and/or electronic information sources.

4.
Evaluate information for currency, relevancy, and reliability.

5. Use information effectively.

Cultural Diversity

1.
Identify and explain diverse cultural customs, beliefs, traditions, and lifestyles.

2.
Identify and explain major cultural, historical, and geographical issues that shape our perceptions.

3.
Identify and explain social forces that can effect cultural change.

4.
Identify biases, assumptions, and prejudices in multicultural interactions.

5.
Identify ideologies, practices, and contributions that persons of diverse backgrounds bring to our multicultural world.

For students enrolled in a career or technical program, seven workplace skills are assessed: Ethics, Interpersonal Communication, Critical Thinking, Organization, Team Work, Technology Literacy, Personal and Professional Responsibilities. (See Career and Technical Programs for more information.)

Students enrolled in developmental education classes,
which are designed to prepare students for college-level work, are assessed at the completion of the appropriate course sequence in English, mathematics, and reading.
(See Academic Departments, Programs, and Services
for more information.)

For general education, the performance of groups of students who are beginning their general education program of studies is compared to that of groups who are completing general education. For career and technical programs, students who are beginning and completing specific programs leading to AAS degrees or certificates are assessed on their workplace skills. Assessments are conducted in selected classrooms during an annual spring Assessment Week. Students participating in below-100-level courses are assessed in the last of the course sequence.

Using a statistical sampling method, approximately 200 class sections are selected to participate in the assessments each spring during Assessment Week. Students enrolled in these classes are asked to take one of the assessments during one class period. Individual student scores are not reported, and a student's grade or class standing is not affected by his or her performance. It is important for students to make an honest effort to complete the assessments to the best of their ability so that the information collected is meaningful.

The Mesa Community College Student Outcomes Assessment Program provides clear evidence of student learning at the college. The assessment program has been
in place for nine years.

Overall results show that completing students consistently have performed significantly better than beginning students in both general education and career and technical program assessments. When examining results across measures, students have the most difficulty with skills involving application and/or evaluation of knowledge or information.

Student participation in follow-up studies after graduation or transfer from MCC may also be requested. Students selected to participate should take seriously their participation in these assessments. The only cost to students is a small amount of time, and the benefits are improved programs
and instruction. Any information obtained will be used solely in determining the effectiveness of programs and student learning and in ways that do not reflect personally
on individual students.

The findings are published in an annual report each fall

and are used by MCC faculty to document student success and to determine how programs can be improved. Summaries of results are posted on the assessment website:
www.mc.maricopa.edu/about/orp/assessment

Community Partnerships with Mesa Community College

Mesa Community College values a sense of community – both the community we serve and the community we create within. As students, faculty, and staff, we have a civic responsibility to our community that is expressed through community involvement and volunteerism. We actively pursue collaborative partnerships with the community. We value our college community and encourage the engagement of all through participation, collaboration, and communication.

ALUMNI

The MCC Alumni Association (MCCAA) is committed to serving and uniting alumni to promote the interests of MCC, its alumni, current and future students, and the community. The Office of Alumni Relations collaborates with members of the Association's board and other MCC departments to keep alumni apprised of campus and association news, provide fellowship and networking opportunities, recognize the accomplishments of MCC's alumni, and identify opportunities for alumni to reconnect with the college and get involved.

All students who earn an associate degree, certificate of completion, or complete 48 credit hours or more at MCC are considered alumni and members in the MCCAA.

Contact Alumni Relations at 480-461-7792 for additional information or visit **www.mesacc.edu/alumni**

BUSINESS & INDUSTRY INSTITUTE

Mesa Community College's Business and Industry Institute (B&II) is located at the Downtown Center/145 N. Centennial Way, Fourth Floor, Mesa, 85201 (just east of the Mesa Public Library). Class offerings include training in network administration, database technologies, programming, fiber optic technologies, and organization and workplace skills. B&II programs are offered six days a week on a year-round basis.

The B&II offers degree and certificate programs for college credit through the Network Academy (NA). See Academic Departments, Programs, and Services for more information on these programs. B&II serves a diverse population of students by delivering courses that enable students to:
- Earn traditional college credit (offered as 16-week and short-term courses) through the Network Academy.
- Complete non-credit certification training in intensive one-week formats.
- Enjoy Internet-based delivery of credit and non-credit classes.

As MCC interfaces with the corporate community,
B&II maintains the highest standards of education and certification preparation. With a track record of 15 years, B&II leads the way in creating world-class training solutions for individuals and corporations alike. This brings state-of-the-art technologies and current business models to B&II curricular offerings.

The B&II offers programs under the following major industry partnerships:
- Sun Microsystems Authorized Sun Education Center: Offering technology courses specific to Sun Microsystems products and services
- Cisco Networking Academy Teacher Training Center – Mountain States: Provides teacher training for Cisco Networking academies in Arizona, Colorado, New Mexico, and Utah
- Oracle Workforce Development Partner: Providing workforce training in Oracle products and services
- Sair Linux and GNU Systems
- Ascendant Systems – Security Certified Professional Training Center: Providing training and workshops in Network Security

Please call B&II Customer Service at 480-461-6100 or
1-866-886-6872, or visit **bii.mc.maricopa.edu**

CENTER FOR COMMUNITY EDUCATION

A wide array of non-credit classes, workshops, seminars, and employment preparation courses are offered through MCC's Center for Community Education. Classes are
held at Mesa Community College campuses and online.
The diverse curriculum is available to those who seek opportunities for cultural enrichment, intellectual growth, career and professional development, as well as hobbies and other special interests. These courses provide access to MCC's resources and facilities for those not enrolled in traditional credit carrying classes. Instructors are drawn throughout the East Valley, and provide contemporary content in an adult learning environment.

There are no entry requirements for Community Education classes beyond an individual's interest in a subject. There is no limit to

the number of classes in which a person may enroll. Classes are published in the MCC non-credit schedule three times a year.

To receive a current schedule of non-credit classes,
please call the Center for Community Education at
480-461-7493 or visit
www.mc.maricopa.edu/community/communityed/

CENTER FOR SERVICE-LEARNING

The mission of the Center for Service-Learning is to promote excellence in teaching and learning through active service. We collaborate with the community, encourage servant leadership, promote personal growth, and foster social responsibility.

The goals of The Center for Service-Learning are:

-
To assist faculty with incorporating service-learning into their classes.
-
To help students find appropriate placement sites for service-learning assignments or as a volunteer.
-
To build working relationships with our community partners in developing reciprocal service opportunities for our students, faculty, and staff.

Service-Learning opportunities are incorporated into many classes throughout the college. Interested students can also enroll in 1, 2, or 3-credit service-learning classes in any one of 25 or more academic disciplines and serve at their choice of over 300 community agencies. We also administer some special programs: AmeriCorps, America Reads and The President's Volunteer Service Awards. See the Center for Service-Learning for more information regarding these special programs. For more information, please call 480-461-7393 or visit our website at
www.mc.maricopa.edu/academics/servicelearning

CHAIR ACADEMY
Our Mission is...

to design and promote world-class training programs
and services to advance academic and administrative leadership for post-secondary institutions world-wide
in an era of change.

Our Vision is...

to advance academic and administrative leadership for post-secondary institutions globally.

Our Value Statement

We are committed to excellence and continuous improvement in providing training to organizational leaders while recognizing the needs and respecting the diversity of our clients.

For additional information about the Chair Academy programs and offerings, please visit **www.chairacademy.com**

COMMUNITY COLLEGE NATIONAL CENTER FOR COMMUNITY ENGAGEMENT

The Community College National Center for Community Engagement (CCNCCE) is a leader in advancing programs and innovations that stimulate active participation of institutions in community engagement for the attainment of a vital citizenry. The Center serves community colleges and others in promoting and implementing service-learning and civic engagement as a means to improve teaching and learning to the ultimate benefit of students and the communities in which they live.

CCNCCE offers a complete battery of programs that
provide human, financial, and academic resources primarily to community colleges that are endeavoring to develop, sustain, or improve service-learning and civic engagement programs on campuses throughout the US and its territories. Through on-site, statewide, regional, and national training and technical assistance offerings, and through direct grants to community colleges and their community partners, CCNCCE works with thousands of community college administrators, students, and faculty to develop partnerships, service-learning courses, and many other activities to improve service-learning and civic engagement to create better communities and educational opportunities across the country. **www.mc.maricopa.edu/other/engagement**

CONTINUING EDUCATION FOR PRACTICING PROFESSIONALS

MCC provides continuing education opportunities to practicing professionals in a series of non-credit seminars available at the college. Opportunities to attain Continuing Education Units (CEU's) are currently available for practicing morticians and funeral personnel. Additional professional seminars are added to MCC's Continuing Education schedule as developed. Please call Continuing Education at 480-461-7493 for seminar availability.

DEVELOPMENT

The College actively seeks contributions from a variety
of public and private sources including individuals, corporations, organizations, and foundations. The Maricopa Community

Colleges Foundation acts as a trustee for donations to assure that gifts are distributed in the manner specified by the donor. Gifts administered by the Maricopa Community Colleges Foundation, the College's 501(c)(3) non-profit organization, are tax-deductible to the full extent allowed by law.

Current gifts provide immediate support for students
and educational programs. Making a gift is as easy as visiting our website: **www.mc.maricopa.edu/development**, where you will find helpful links for gifts via: cash, check, and credit card.

Continuing gifts can be made in installments over time, which helps make them convenient and affordable. They often involve a pledge of a certain amount or a commitment to make regular, equal payments (monthly, quarterly, annually) for a certain period.

Unrestricted gifts (no specified restrictions) can be made to the Annual Gift Fund, which financially assists the college through scholarships for students in need or funding college initiatives outlined by the President and Development Advisory Council.

For more information, contact the MCC Development Office at 480-461-7356 or visit
www.mesacc.edu/community/development

For more information on the Maricopa Community
Colleges Foundation, please visit
www.dist.maricopa.edu/foundation/

MCC ONLINE

MCC Online represents the college's dedication to enriching and expanding access to higher education through e-learning. Online courses allow students to participate in class anytime from almost anywhere. While online courses often require more time and attention than classroom-based courses,
they are ideal for students who are unable to come to campus. Online courses cover the same material and have the same transfer values as courses offered on campus. While offering flexibility in learning, most MCC online learning courses adhere to a set schedule and specific deadlines. Contact the instructor to get more information about their online learning class requirements.

In addition to online courses, MCC also offers a wide selection of hybrid courses. Hybrid combines classroom
and online instruction, meeting face to face less frequently.

A successful online learning student:
• is willing and able to communicate through writing
• is self-motivated, self-disciplined and organized
• seeks help and finds solutions when problems arise
• spends 6 to 15 hours per week on each class
• thinks critically and makes informed decisions
• has access to a reliable computer and Internet connection
• checks email and class site daily

Getting Prepared:
If you are new to online learning at MCC, take advantage of the online class orientation. This information can be found at **www.mesacc.edu/mcconline/orientation.html** and will assist you in getting started.

Register Early:
You are encouraged to register early for online classes
as they often fill quickly. This will give you time to gather the information needed to start the class and connect with your instructor.
For more information about e-learning
at MCC, go to the MCC Online web site at
www.mesacc.edu/mcconline/ or call **480-461-7928**.

Students registered for online classes should go to
www.mc.maricopa.edu/mcconline/current.html
for important "getting started" information, including
how to find your class.

NEW FRONTIERS FOR LIFELONG LEARNING

New Frontiers for Lifelong Learning (NFLL) is a peer led membership organization for older adults that offers opportunity for lifelong learning in a variety of settings. Members participate in interactive study groups as well as travel, social, and volunteer activities.

Current study groups and activities include:
• Computer Technology Courses
• Community Service Projects
• Hiking Adventures
• Literary Discussions
• Studio Art Groups
• Theater Parties
• And much more!

At NFLL, members learn in a pleasant social atmosphere facilitated by peers. The friendly peer-network environment eliminates the

need for grades, quizzes, and prerequisites! Interactive study groups are held at MCC at Southern & Dobson, Red Mountain campus (Power and McKellips Roads), the Downtown Center, and other community locations.

In the fall and spring semesters, free lectures are offered
on various afternoons at the college by MCC faculty and other speakers on a wide variety of topics. Please call
480-461-7497 for information about New Frontiers or go
to **www.newfrontiers-mesa.org**

MCC SUMMER YOUTH COLLEGE

Young people ages 4 to 18 can come to Mesa Community College for a variety of learning experiences designed to let students explore interest areas for now and for future pursuits. Workshops, classes, and camps are offered at the Southern & Dobson Campus in a safe, supervised environment.

Examples of these fun and interesting opportunities include: • Magic of Musical Theatre Workshops
• Rock Music Camp
• Mesa Youth Acting Academy
• Studio 180 Camp – Video Game Design
• Getting to Know "Alice" – Action Computing
• The Organic Animation Studio
• Fashion Design Camp
• Extreme Sciences & Stormchasing
• Youth Culinary Camp
• Leadership 101
• Future Leaders' Academy for the Gifted
• Kickstart for Kindergarten and First Grade
• Action Math and much more...

For additional information please go to
www.mc.maricopa.edu/communityed/summeryouth.html

Or call the Center for Community Education at 480-461-7493.

Student Support
Contact Phone Numbers

Academic Services/Learning Center 461-7678

Admissions.. 461-7600

Advisement and Transfer Services 461-7222

Alumni Relations 461-7792

American Indian Center.. 461-7931

Athletics 461-7542

Bookstore 461-7225

Career/Re-Entry Services...................................... 461-7592

Cashier Services.. 461-7400

Center for Teaching and Learning...................... 461-7331

Children's Center.. 461-7082

Community Education/Lifelong Learning 461-7493

Counseling.. 461-7588

Disability Resources and Services...................... 461-7447

Enrollment Services at Red Mountain 654-7600

ESL Support Services... 461-7898

Financial Aid.. 461-7441

Fitness Center.. 461-7555

Health Improvement Center 461-7556

Information - MCC at Red Mountain................... 654-7200

Information - MCC at Southern and Dobson .. 461-7000

International Education... 461-7758

Library Reference Desk 461-7682

Lost and Found.. 461-7046

Multicultural Services... 461-7453

Multi-Use Computer Lab 461-7098

Public Safety 461-7046

Records.. 461-7659

Registration 461-7700

Recruitment.. 654.7751

Student Life and Leadership................................. 461-7285

Testing Center Information Services 461-7336

Veterans' Services.. 461-7425

Writing Center... 461-7513

Area code for all numbers is 480

ADVISEMENT AND TRANSFER SERVICES

Academic advisors assist students with educational goal planning, selection of appropriate coursework, and guidance in the use of campus resources. They also provide transfer information, resource materials, and appointments with visiting university representatives.

New-to-college students must complete academic advising on campus, in-person or by phone. Continuing students are encouraged to meet with an advisor each semester.

For more information, please visit
www.mc.maricopa.edu/students/advisetransfer
or call **480-461-7222** at the Southern and Dobson campus and **480-654-7600** for Enrollment Services at the Red Mountain Campus.

For more information published by the Maricopa Community College District on this topic, please see the "MCCCD Policies and Procedures" section of this catalog.

ADMISSIONS
The Office of Admissions provides informational services to students, processes applications for admission to the college, determines residency for tuition purposes, processes name changes, evaluates transcripts from other colleges and posts received transcripts, processes and verifies credit by exam and credit by evaluation, and assists students through the enrollment process. Call **480-461-7600** for more information.

For student support services at our Red Mountain campus, contact Enrollment Services. The Office of Enrollment Services at Red Mountain provides students the opportunity to complete essential enrollment functions – admission, placement testing, academic advising, registration,
and tuition payment – all in a one-stop environment.
Enrollment Services at Red Mountain also provides Specialized Student Services in the areas of: veterans, financial aid, career and re-entry, and disability resources. Call **480-654-7600** for more information or visit **www.mc.maricopa.edu/redmountain/**

For more information published by the Maricopa Community College District on this topic, please see the "MCCCD Policies and Procedures" section of this catalog.

ALUMNI RELATIONS
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of completion, or complete 48 credit hours or more at MCC are considered alumni and members of the MCCAA.

Contact Alumni Relations at **480-461-7792** for additional information or visit **www.mesacc.edu/alumni**

AMERICAN INDIAN CENTER
The American Indian Center was established to address
the needs of American Indian students and to serve as a resource on campus and within the community to promote inter-group awareness and understanding. The Center's personnel encourage a strong working relationship between Mesa Community College and tribal groups in order to minimize transition difficulties a student may encounter when leaving his/her home area.

Services provided include: academic advisement, educational planning, career advisement, enrollment, retention, club advisement, peer support, individual counseling, personal growth experiences, study groups, and participation in cultural events. The center will also
aid in tribal scholarships. Support is offered to encourage students to complete associate's degree programs and also
to continue to pursue higher educational goals.

For more information, call **480-461-7931** or visit
www.mc.maricopa.edu/students/AIC

ASSESSMENT OF STUDENT OUTCOMES WITH STUDENT PARTICIPATION
Each spring during Assessment Week, groups of students are selected to participate in an assessment during a regular class period. Results do not affect students' standing in their course or their grade point average. Rather, overall results are used to document student learning and identify areas
for program improvement. Students may also be asked to complete opinion surveys related to academic and student services. In addition, graduate and alumni surveys are gathered. Through student participation in these activities, the college is able to determine the effectiveness of a wide range of programs and services.

ATHLETICS
Intercollegiate Athletics at Mesa Community College (MCC) is an integral part of the total student experience. MCC is a member of the Arizona Community College Athletic Conference (ACCAC) and the National Junior College Athletic Association (NJCAA) **www.njcaa.org/**

Athletic eligibility and scholarships require that a student athlete have a high school transcript or G.E.D. on file in the Office of Student Records. Contact the Athletic Department for more information on non-high school graduates. A first-year participant must be enrolled as a full-time student (minimum of 12 credits) and maintain a 2.0 grade point average (G.P.A.). A second-year participant must be enrolled as a full-time student and have passed 24 credits with a 2.0 G.P.A. prior to the start of the second season.

A student athlete should contact the head coach or athletic director for additional information regarding eligibility and athletic scholarships. For information, call **480-461-7542**.

Women's athletics offers teams in eight intercollegiate sports: basketball, cross country, golf, soccer, softball, tennis, track and field, and volleyball. Women desiring to participate in a particular sport should contact the head coach of that sport.

Men's athletics offers eight intercollegiate sports: baseball, basketball, cross country, football, golf, soccer, tennis, and track and field. Men desiring to participate in a particular sport should contact the head coach of that sport.

ATTENDANCE
For more information published by the Maricopa Community College District on this topic, please see the "MCCCD Policies and Procedures" section of this catalog.

BOOKSTORE
The Bookstore carries everything to make the most of
your college experience: used textbooks, school supplies, reference books, general reading books, MCC apparel and gifts, and academically priced software. Shop in-store and online at **www.mesa.bkstr.com**

The MCC Bookstores are Apple Authorized Dealers.
Stop by for everyday student and faculty discounts on
Apple computers and accessories (valid school ID required).

MCC Bookstore at Southern and Dobson **480-461-7225**
MCC Bookstore at Red Mountain **480-654-7696**

CAREER SERVICES
Career Services offers a variety of resources and assistance to those making decisions related to career and educational planning as well as employment and job searches. Services include computerized career guidance, a virtual Career Center at **www.mesacc.edu/students/career**, current labor market information, guidance on resume preparation, interviewing techniques, internship opportunities,
and job search strategies. In addition, job listings are available online through the Maricopa Career Network at **maricopa.jobing.com/**

For more information on career services, call **480-461-7592** or visit **www.mesacc.edu/students/career**

CASHIER SERVICES/BURSAR OFFICE

The Cashier/Bursar Office is responsible for collecting and posting payments on students' accounts. The Cashier/Bursar Office oversees monthly tuition payment plans, financial
aid disbursement, and the collection of past-due debts.
It is important for students to know their payment
deadline dates and to familiarize themselves with the
refund policy. The refund policy can be found by visiting
www.maricopa.edu/publicstewardship/governance/adminregs/studenys/2_2php#refund. For additional information about services call **480-461-7400** or visit
www.mc.maricopa.edu/students/cashiers/index.html

CHILDREN'S CENTER

The Children's Center at Southern and Dobson provides quality child care for the children of MCC students and employees. The Center is licensed by the Arizona Department of Health Services to provide care for children three years (must be potty-trained) to twelve years of age. The Children's Center offers a variety of experiences in
a fun environment for preschool and older children.

The center has a contract with the Department of
Economic Security (DES) for students who are DES-eligible for child care subsidy. The Children's Center is accredited
by the National Association for the Education of Young Children. For more information on childcare services,
call **480-461-7082** or visit **www.mc.maricopa.edu/children**

CLUBS AND ORGANIZATIONS

Clubs and organizations are set up to enhance the learning experience at Mesa Community College. Students may interact with peers at leadership programs, on educational field trips, during meetings, and at various other events.

Clubs are an important and vital component of the total educational experience. Students may participate in programs that enhance their occupational training or social activities and reflect special interests including cultural events, community service projects, and forums dealing with today's issues. Students may join a club at any time
by contacting the listed advisor or signing up during club-sponsored events. For additional questions, please contact the Office of Student Life and Leadership at **480-461-7285** or for the Red Mountain campus call **480-654-7759**.

Active clubs are listed at **www.mc.maricopa.edu/students/life/clubs**

COMPUTER LAB FOR MULTI-USE

The multi-use computer lab requires that students must
be currently enrolled in a computer-based class and have
a current MCC ID card properly bar-coded to access the
lab. For more information please call **480-461-7098**.
The Multi-Use Computer Lab is located just northeast
of the clock tower in the center of campus.

Fall and Spring Hours:

Monday - Thursday	7:00 AM - 10:20 PM
Friday	7:00 AM - 8:20 PM
Saturday	7:00 AM - 4:20 PM

All computer lab equipment is available on a
first-come-first-served basis.
1.
Help us maintain a library-like atmosphere by keeping noise levels to a minimum.

2.

Turn off beepers and cell phones. Hold quiet conversations.

3.

Conserve paper and toner! Limit yourself to 10 copies of a document and refrain from printing large jobs, especially heavily graphical websites.

4.

Don't bring any food or drinks into the lab. This includes leaving drinks on the tables and filing cabinets by the doors. Keep it all outside. Bottled water with cap is acceptable.

5.

Please ask your guests to wait in the student lounge. Guests are not allowed in the lab. Only registered MCC students are permitted inside the lab. This includes children.

6.

Group projects need to be scheduled with computer lab if space is available.

7. Never install software on any of the computers.

8.

Practice good desktop housekeeping. Close all programs you've opened. If you've changed the desktop, please put the settings back to the lab defaults when you leave.

COUNSELING

The Counseling Department offers students a variety of services to help them address personal, social, educational, and career concerns. Through the department's support and guidance, students are empowered to complete educational and personal endeavors successfully. Academic success, personal well-being, and emotional well-being are interrelated. Students are invited to take advantage of free, confidential services offered to help them achieve their full potential.

Students are best served through an appointment system to arrange for quality personalized sessions. In crisis situations, no appointment is necessary.

Southern and Dobson Campus
Counseling Center
Building 36
480-461-7588

Red Mountain Campus
Palo Verde Building
Office 212
480-654-7210

Services provided by the Counseling Department include:
- Student Opportunities for Success Workshops (SOS)
- First-Year Experience Programs and Workshops
- Math Avoidance Reduction Activities
- Academic Counseling
- Career Counseling
- Academic and Behavioral Interventions
- Conflict Resolution
- Crisis Intervention
- Community Resource Counseling
- Substance Abuse Prevention
- Life Skills Coaching
- Individual and Group Counseling
- Classroom Instruction
- Personal counseling to enhance study experiences
-

Volunteerism programs that create supportive relationships among students
-

Special events, seminars, workshops, and programs to promote personal safety and well-being, and enhance peer support

DEVELOPMENTAL EDUCATION

MCC is committed to supporting and promoting student success in a variety of ways. Students who may not be prepared for college-level work can enroll in developmental courses (those numbered below the 100-level) in mathematics, English, and reading. These courses are designed to provide students with the review and skills needed to engage in college-level coursework.

The college offers free tutoring in mathematics, English, and reading. For specific area contact the department:

Mathematics **480-461-7076**
English **480-461-7643**
Reading **480-461-7020**
Learning Enhancement **480-461-7678** Dobson & Southern,
   Center **480-654-7735** Red Mountain
Academic Skills Center **480-461-7989**.

DISABILITY RESOURCES AND SERVICES

The Office of Disability Resources and Services (DRS) provides assistance to students with disabilities, including those with learning, physical, psychological, and other disabilities. Services include advisement, registration, academic accommodations, and coordination with campus and community services. For more information, call our Southern and Dobson campus at **480-461-7447** or fax **480-461-7907**. For DRS information at our Red Mountain campus, please call **480-654-7771**. **www.mc.maricopa.edu/services/disability**

Some of the services offered, depending upon individual need, include the following: scribes and note takers, interpreters, specialized adaptive equipment, emergency wheelchair loan, classroom aides, special testing arrangements, community referral, guidance advisement, and registration assistance. To receive services and accommodations through Disability Resources and Services, students need to provide documentation stating a diagnosis or disability. This documentation must be obtained from a licensed psychologist, psychiatrist, or medical doctor and printed on official letterhead of that person's office.
The documentation is submitted to Disability Resources and Services. The documentation is confidential and will be used for the sole purpose of determining which accommodations are appropriate. Please call **480-461-7447**, fax **480-461-7907**, or visit **www.mc.maricopa.edu/services/disability**

For more information published by the Maricopa Community College District on this topic, please see the "MCCCD Policies and Procedures" section of this catalog.

The Adaptive Lab, located on the first floor of the Paul A. Elsner Library on the Southern and Dobson campus, is a unit of the MCC Disability Resources & Services Department. The Lab provides ADA-compliant computers for access to information and resources needed by students with disabilities. The area's equipment and software includes screen magnification on large-screen monitors, voice recognition software, synthesized voice screen readers, software and equipment to convert text to electronic formats and Braille. In addition to the workstations in this lab, several workstations throughout the building are adjustable height workstations. Please call **480-461-7447** or fax **480-461-7907**.

Disability parking spaces are available and designated in all parking lots on campus. In addition, wider spaces for loading and unloading from vans are available in several parking lots. Please note that students with disabilities with a properly identified vehicle may park in any faculty or staff space as well as in those designated as handicapped areas. Special parking permits and information on location of special parking

areas are available through Disability Resources and Services. Students whose impairments
are not obvious may be required to provide substantiation from a physician of the need for disabled parking privileges.

For more information, please visit

www.mc.maricopa.edu/services/disability/

DISCIPLINARY STANDARDS

For more information published by the Maricopa Community College District on this topic, please see the "MCCCD Policies and Procedures" section of this catalog.

ESL SUPPORT SERVICES

ESL (English as a Second Language) Support Services provides informational services to prospective students
who wish to enroll in ESL courses. The office assists students through the enrollment process by providing services for admission to the college, academic advisement, and course registration for ESL courses. ESL Support Services is located in the Administration Building #42 at the Southern and Dobson campus. Please call **480-461-7898** for additional information. For assistance in Spanish, please call **480-461-7455**.

FINANCIAL AID SERVICES

Students who are attending Mesa Community College and who meet the federal requirements of an eligible student for financial aid may apply for the following types of financial assistance: grants, loans, and work-study. To apply for financial aid, students must complete a FREE Application for Federal Student Aid available at **www.fafsa.ed.gov**. Please call **480-461-4441** or visit our website

www.mc.maricopa.edu/finaid

Students receiving federal financial aid have specific requirements for academic progress that are applied differently than scholastic standards. Specific information
is available at the Office of Student Financial Services.

For more information published by the Maricopa Community College District on this topic, please see the "MCCCD Policies and Procedures" section of this catalog.

GED EXAMS

(See Testing Center)

GRADUATION

Students must meet all requirements for graduation. Graduation requires a minimum grade point average. Some specific programs have higher grade requirements. It is the student's responsibility to be aware of these program requirements.

For more information published by the Maricopa Community College District on this topic, please see the "MCCCD Policies and Procedures" section of this catalog.

Graduation with Honors is possible after all courses used to fulfill graduation requirements, including courses from other accredited institutions, are entered in the grade point average calculation. Students who have the following grade point averages will graduate with the following designations:

3.5 to 3.69	With Distinction
3.70 to 3.89	With High Distinction
3.90 to 4.0	With Highest Distinction

GRIEVANCES

For more information published by the Maricopa Community College District on this topic, please see the "MCCCD Policies and Procedures" section AR 2.3.5 & Appendix S-6 of this catalog.

HEALTH IMPROVEMENT CENTER

The Health Improvement Center (HIC) at the Southern
and Dobson campus is designed to provide equipment, instruction, and individualized exercise programs.

The HIC offers extensive opportunities for weight training through the use of free Olympic platforms, dumbbells,
and Cybex and cardiovascular equipment. The HIC also provides personalized programs for physically challenged students. For more information, call the Health Improvement Center at **480-461-7556**.

HONORS

The Honors Program at Mesa Community College offers
a unique and challenging educational opportunity for our gifted and talented students. Honors courses are offered
in more than 20 curriculum areas on over 85 sections per semester. MCC's Honors Program provides an increasing opportunity for our students to participate in a challenging environment with small classes, one-on-one mentoring from faculty, and increased interaction with other gifted students.

The Honors Program provides funds to help defray the costs of attending college. The Presidential Scholarship currently provides funds to cover 15 credit hours of tuition per semester to the top 15% of the graduating class from any Maricopa County high school, for up to four consecutive semesters. This is an opportunity for recent high school graduates who are willing to make a commitment to their community and their own future.

Students with at least a 3.25 grade point average and
12 cumulative semester credit hours from the Maricopa Community Colleges may qualify for fee awards of up to $325.00 each semester. These students will be identified as Honors Students and will be eligible to take honors classes as long as they maintain a minimum 3.25 GPA.

A few other scholarships are distributed by the
Honors Department.

The Honors Office is located in the Social/Cultural Science Building on the south end of the Southern and Dobson campus. Honors students may register for classes at this location. Call for the registration schedule at **480-461-7079**. The Honors Co-Coordinators are: Betsy Hertzler at
480-461-7583 and Scott Russell at 480-461-7369. For more information visit our website at
www.mesacc.edu/honors

For more information published by the Maricopa Community College District on this topic, please see the "MCCCD Policies and Procedures" section of this catalog.

Phi Theta Kappa is the International Honor Society of the Two-Year Colleges.

"The purpose of Phi Theta Kappa shall be to recognize
and encourage scholarship among two-year college students. To achieve this purpose, Phi Theta Kappa shall provide opportunity for the development of leadership and service, for an intellectual climate for exchange of ideas and ideals, for lively fellowship for scholars, and for stimulation of interest in continuing academic excellence."

Phi Theta Kappa's mission is two-fold: 1) recognize and encourage the academic achievement of two-year college students and (2) provide opportunities for individual growth and development through participation in honors, leadership, service and fellowship programming. For more information go to **www.PTK.org** or call **480-461-7393**.

HOUSING/LIVING ACCOMMODATIONS

Mesa Community College has no on-campus housing. All housing arrangements are the responsibility of the individual student. The Office of Student Life and Leadership provides a free housing directory of local apartments and also provides a listing of roommates. The Housing Guide and Directory are available only to current Mesa Community College students. To view the Housing Guide, please visit
www.mc.maricopa.edu/students/pdfs/housing_guide.pdf

Students can also view current listings for rentals and roommates posted by other students. Listings are available in the Office of Student Life and Leadership in the Kirk Student Center at the Southern and Dobson location or in the Mesquite Building at the Red Mountain campus. For more information, please call

480-461-7285 or **480-654-7759** at the Red Mountain campus.

INTERNATIONAL EDUCATION

The mission of the International Education (IE) Office is
to foster global understanding by providing support services and programming that enhance the international efforts
of Mesa Community College. The IE Office offers services for international students and scholars, works with study abroad programs, provides cross-cultural training,
and serves as a resource for campus international
and intercultural initiatives. Please visit our website at:
www.mc.maricopa.edu/international/international

The International Education Office provides the following services to all current and prospective students who need assistance: academic and immigration advising, English as
a Second Language courses, health insurance, housing,
on-campus employment, social security number, income tax filing, and university transfer. The office provides support to student clubs such as the International Students Association (ISA) and Asian-Pacific Islander Coalition (APIC) and organizes cultural activities to enhance the cross-cultural understanding among the native and international students.

Education Abroad The International Education Office offers a variety of study abroad programs in different worldwide countries. These exciting programs are developed and led by our faculty, and provide a great opportunity to learn and travel at the same time. As a student, you can earn transferable college credit while living and experiencing
a foreign culture. The Coordinator of study abroad is here
to assist you from the application process, scholarship and financial aid, to departure. All programs require applications and have eligibility requirements. Those forms are available in the International Education Office, online under each program, or on our website at **www.mc.maricopa.edu/international/studyabroad/**.
For additional information, please call **480-461-7753**, visit our office (Building 41),
or contact us at **ie@mcmail.maricopa.edu**

LIBRARY AND HIGH TECHNOLOGY COMPLEX

The Paul A. Elsner and Red Mountain libraries support research and learning activities on both campuses by providing full service libraries, computer commons, writing centers, and learning enhancement centers that provide tutoring services.

The library collections include print and electronic resources. Web-based resources include the Online Public Access Catalog, which lists the holdings of all college libraries in the Maricopa Community Colleges District, electronic books, numerous periodical and reference databases, and online reference assistance.

In-house reference services offer individual, personalized assistance, and classroom instruction in library research skills. Faculty librarians are available for consultation during the libraries' scheduled hours.

Materials may be checked out at the library circulation desk. Included are materials that instructors have placed on reserve for short-term circulation, interlibrary loan materials obtained from other libraries, and materials from various special collections. A valid student identification card is required for checking out materials. Loan periods vary from three weeks for general circulation materials to three-day, overnight, or one-hour use for reserve materials. For convenience,
an outside book drop is available for returning materials
when the library is closed or during vacation periods.

Small group study rooms are available. The library's Southwest Studies Reading Room, located on the third floor of the Paul A. Elsner Library, houses the Southwest Collection and provides a peaceful and beautiful study space.

The Elsner Library also provides academic support for students using a variety of methods and technologies:

Computer work stations are available on both the first and the second floors of the Paul A. Elsner Library on the Dobson and Southern campus. In these work stations, students can access the Online Public Access Catalog (OPAC) which houses the collection of all Maricopa Community Colleges libraries as well as research
databases, the Internet, and college email.

Software is accessible on the first floor of the Paul A. Elsner Library, and it can support coursework. Students
can find programs in Anthropology, ESL, Math, Nursing, Physics, Reading, Spanish, and other subjects.

Learning Enhancement Center
(Tutoring and Other Academic Support Services)

The Learning Enhancement Center (LEC), located on
the first floor of the Paul A. Elsner Library, provides free tutoring in most subjects and other academic support services to help MCC students succeed and excel in their coursework. The Learning Enhancement Center provides one-on-one and group tutoring with professional and peer tutors, study skill workshops, computer-assisted instruction, and study groups. Tutoring is available by appointment or
on a drop-in basis at several locations, including the Elsner Library; the Music Building (Building 43); the Math/Science Learning Center/CSC Center (Building 7); the Physical Science Building Center (Building 8); and the PIRC Lab (Building 42) on additional tutoring and computer-assisted instruction for students taking Communication, English, English as a Second Language, and Reading courses below 100-level.

On the Red Mountain Campus, the Learning Enhancement Center is located on the first floor of the Desert Willow Building. For LEC information at Red Mountain,
call **480-654-7735**.

Evening and Saturday hours are available at some locations. Online tutoring in mathematics and some world languages
is also available from the Online Tutoring link on our website. Students are invited to explore the LEC website and learn more about our services. Hours of operation are posted at each location and on the website.

Students who wish to use tutoring services or ask questions about tutoring are welcome to stop by the Learning Enhancement Center. To pose a question by email,
they can go to the Ask a Tutor link on our website.

For more information on services, call **480-461-7678**
or visit **www.mc.maricopa.edu/library/LE**

LOST AND FOUND
(See College Safety)

MEDIA SERVICES

Media Services is located in the north wing of the Academic Support Building. The center provides video and DVD copies of theater productions, lectures, special events,
and some class materials for students for a fee. In addition, students may view programs from the academic video collection in the library. Titles of available videos can
be obtained from the library online public catalog.

If media equipment is needed for a student presentation
in the classroom, your instructor must request an AV equipment delivery from the Media Center. This equipment includes, but is not limited to, VHS/DVD players, computers, display devices, flip charts, overhead projectors, and audio equipment. To order equipment, your instructor must call **480-461-7678** at the Southern and Dobson Campus, or **480-654-7705** at the Red Mountain Campus at least 24 hours before your class presentation. Both centers are open from 7:00 a.m. to 10:00 p.m. Monday through Thursday and 7:00 a.m. to 4:00 p.m. on Friday.

MULTICULTURAL AND STUDENT
SUPPORT SERVICES

The Multicultural Services office works collaboratively

with other support services, academic departments,
and community groups to provide retention services and programs for historically under-represented groups.
The department provides such services as academic advisement, individual education plans, mentoring,
leadership training, and cultural events. For more information call **480-461-7453** or visit
www.mc.maricopa.edu/services/multicultural

PARKING
(See College Safety Department and/or Disability Resources)

Parking permits may be obtained in the Office of
Student Life and Leadership located in the Kirk Center
or Enrollment Services at the Red Mountain campus.
For your convenience, the parking permit form can
also be downloaded from the Student Life website at
www.mc.maricopa.edu/students/life/pdfs/permit.pdf prior to your visit to campus. Completed form
must be submitted to the Office of Student Life and Leadership
in the Kirk Student Center or Enrollment Services at the
Red Mountain campus. A student must have their enrollment verified and produce a valid photo ID, such as a
valid driver's license or other school ID. There is no charge for the permit.

PETITIONS
The guidelines and approval to circulate petitions may
be obtained in the Office of Student Life and Leadership
in the Kirk Center or in the Mesquite Building at the Red Mountain campus. Reservation form and
information can
be found on the Student Life website at
www.mc.maricopa.edu/students/life or call **480-461-7285**.

PUBLIC SAFETY DEPARTMENT
The Public Safety Department facilitates the college mission of promoting excellence in teaching and learning
by providing a safe and secure campus environment.

In compliance with federal law, MCC Public Safety compiles and reports annual crime statistics to the US
Department of Education. Those statistics are available at any time from our office or may be accessed on our
website at **www.mc.maricopa.edu/collegesafety**

Public Safety is staffed by state-accredited police officers and civilian security personnel. The office is open 24
hours
a day, seven days a week. All emergency matters should be directed to the Public Safety Department. For
assistance in an emergency, call **480-461-7777** at MCC at Southern and Dobson, or **480-654-7444** for
MCC at Red Mountain.

Proper identification may be requested by authorized public safety personnel, should the need arise.
Students failing or refusing to identify themselves properly:

- Will be asked to leave the campus (if conduct or behavior warrants such action)

- Will be reported to the Dean of Student Affairs

Securing personal property, including motor vehicles, bicycles, mopeds, and motorcycles, is the
student's responsibility. Mesa Community College assumes no responsibility for damage to a motor vehicle or
for any loss while vehicles are parked or operated on or near the campus. Motorcycles and mopeds can be
parked only on crossbars. Bicycles must be parked in existing bike racks only. Mopeds, bicycles, and/or
motorcycles that are found chained or affixed to trees, buildings, or light posts are subject to removal.
They will be secured in the Public Safety Office. Owners
will be responsible for the cost of the lock or chain cut.

Firearms, explosives, knives, or instruments that can be considered dangerous weapons are prohibited

on campus. Only certified police officers are permitted to carry firearms on campus. All persons desiring to bring firearms to campus for classroom demonstrations or any other academic reason are required to obtain permission first from the Public Safety Office and bring them to the Public Safety Office for examination prior to the demonstration.

Alcohol and illegal drugs are prohibited on campus.

Smoking is permitted in authorized areas only. Students failing to follow the smoking regulation after an appropriate warning will be reported to the Dean of Student Affairs.

Any accidents on campus should be reported to the Public Safety Office. Students can obtain an accident report from the Public Safety Office.

Security escorts are provided to and from parking lots when requested.

Minor vehicle assistance such as dead batteries
is rendered to motorists with disabled cars.

Lost and Found is located in the Public Safety Office. Lost and found items and inquiries should be directed to this office. MCC Public Safety is located at the west end of the Social/Cultural Science Building at the Southern and Dobson campus, and in the Ironwood Building at MCC at Red Mountain.

The campuses are normally closed between 11:00 PM and 6:00 AM daily. The Public Safety Office should be notified of any planned activity during those hours.

College traffic/parking regulations are under the jurisdiction of the college administration. Regulations apply to all members of the college community.

- Maximum speed limit on campus is 15 miles per hour.
-

Students, faculty, and staff members who operate motor vehicles on campus must register their vehicles with the Public Safety Office or Student Services and display a decal in accordance with current regulations. Registration is free of charge. Employees must register their vehicles in the Personnel Office. Decals remain in effect for five years from the semester of issue.

-

Stop signs, pavement arrows, right-turn-only signs, and other traffic control devices must be observed and complied with. Vehicles must stop at marked crosswalks to yield to pedestrian traffic within the crosswalks.

- Persons driving on campus must follow directions given by Public Safety officers and furnish student or other identification when requested.
-

Vehicles may be parked only in those spaces designated for their particular type of sticker.

-

Students may park in any marked parking space except those marked Employee, Handicapped, Maintenance, No Parking, or with a yellow or red curb.

-

Faculty and staff may park in any marked space including those marked Employee, but not in those marked Handicapped, No Parking, Maintenance, or with a red or yellow curb.

-

Persons having a Handicapped sticker on their vehicle may use any marked space on the campus, including those marked Handicapped. Vehicles having a Handicapped permit may not park on red curbs.

-

No vehicle other than an emergency vehicle may be parked along red curbs or in striped areas. These are fire hazard and safety zones, and violators may be towed away without warning.

-

No vehicle may be parked in driveways where signs indicate No Parking or in a place not specifically marked for parking.

-

Visitors may use visitor parking or any student parking space on a temporary basis.

- Backing into angled parking places is not permitted.
-
Skateboards, roller skates, rollerblades, and other similar devices shall not be ridden on the campus.
-
Vehicles parked on campus for longer than 72 hours will be towed at the owner's expense.

For more information on MCC parking and traffic policies, visit
www.dist.maricopa.edu/gvpolicy/adminregs/students/

Vehicle registration Each student who owns or drives
a motor vehicle on campus is required to register it and
any others that may be parked on campus. Students who purchase or trade a vehicle after the regular
registration period must register the new vehicle immediately, obtain
a new decal, and notify Public Safety of the sale of the former vehicle. Temporary parking decals are available
in the Public Safety Office for rented or borrowed vehicles.

Violation of these regulations may result in a citation and fine. In the case of unsafe and/or repeated
parking violations, vehicles may be towed at the owner's expense. All monetary fines shall be paid to the
college cashier in
the Fiscal Office. Payment may be made in person or by mail. Failure to pay or adjudicate a citation within 15
working days of issue date will result in the fine being doubled. In order to insure due process, fines may be
appealed to the hearing officer in the Public Safety Office
at MCC at Southern and Dobson campus.

Students with unpaid fines will not be able to obtain
their transcripts or register for classes. Unpaid fines may
be collected via the Arizona Department of Revenue Debt Setoff Program and/or sent to a collection agency.
Citations will be enforced for both students and employees. MCC assumes no responsibility for damage to a
motor vehicle
or for any loss while vehicles are parked or operated on or near the campus.

For more information, visit
www.mc.maricopa.edu/other/publicsafety/

*For more information published by the Maricopa Community College District on this topic, please see the
"MCCCD Policies and Procedures" section of this catalog.*

RECORDS AND REGISTRATION
The Office of Records and Registration maintains the official college transcripts for all students, coordinates
and assists in the registration process, provides enrollment verification, determines graduation eligibility,
establishes student athletic eligibility, and implements the probation and continued probation provision of the
academic standards policies. For more information, call **480-461-7659** or visit
www.mc.maricopa.edu/services/records_registration

Transcripts are issued upon written request only.
Students who wish to transfer to other institutions of higher education, including other Maricopa Community
Colleges, must request their transcripts be sent from the Records Office. Mesa Community College (MCC)
will not automatically send transcripts, nor will a university request them for the student. It is recommended
that the student maintain an unofficial copy of their transcripts for their records. There is no fee for an
unofficial transcript. A $5.00 fee is required for all official transcripts. Transcripts will be sent upon verification
of payment by Cashier Services.

Payment Options
-
Pay the fee at the Cashier's Office on campus, Building 42 (cash, check, money order, credit card, or debit
card).
-
Pay online when processing your online request (credit card or debit card).

- Mail a check or money order payable to Mesa Community College with your written and signed request.

- Call the Cashier's Office and pay over the phone
480-461-7400 (credit card or debit card).

There are Four Ways to Request Transcripts
1. Online: my.maricopa.edu
2.
In Person: Go to the Cashier's Office and fill out the transcript request form. You must have a photo ID to request an official or unofficial transcript.
3. US Postal Service (Mail):

Mesa Community College Records Office
Attn. Transcripts
1833 West Southern Ave.
Mesa, AZ 85202

Mail a written and signed request or transcript request form, including full name, social security number, date of birth, telephone number, dates of attendance at MCC, official or unofficial transcript request, name and address of institution where the transcript needs to be sent, sign and date the letter, $5.00 fee. You may pay by check, credit card, or money order.
4.
Fax: 480-461-7255. Be sure to include all the same information as in the mailed request.

Official transcripts will not be issued to students having outstanding debts to any of the Maricopa Community Colleges. For further information, visit
www.mc.maricopa.edu/services/records_registration

For more information published by the Maricopa Community College District on this topic, please see the "MCCCD Policies and Procedures" section of this catalog.

RECRUITMENT
College recruitment and outreach activities include high school visitation programs, campus tours, early outreach, MCC college preview days, and participation in educational and career fairs. For more information, please call
480-654-7751.

RE-ENTRY SERVICES
Re-Entry Services offers support services to assist nontraditional returning students with the registration process, academic planning, career planning, and adjustment to campus life. Re-entry advisement is available by appointment. For more information, call **480-461-7592**
or visit **www.mesacc.edu/students/reentry**

REFUNDS
Students who officially withdraw from credit classes within the withdrawal deadlines will receive 100% refund for tuition, class, and registration processing fees. It is the student's responsibility to know and adhere to payment deadlines for each class. Payment due dates vary by class.
A student may view their due dates online in the Student Services Center found at **www.my.maricopa.edu**

For more information published by the Maricopa Community College District on this topic, please see the "MCCCD Policies and Procedures" section of this catalog.

SCHOLARSHIPS
Mesa Community College offers a variety of scholarships for new and continuing students. Scholarships are not

linked to financial aid and require separate applications. Information, applications, resources, and helpful hints for scholarships are available in the Student Financial Services Office, which is located in the Student Services Village
in the center of campus on the east side of Building #37.
Also visit **www.mc.maricopa.edu/finaid/**

Additional scholarships are available at several departments on campus. In addition, private community organizations and Native American tribes offer scholarships.

The Maricopa Colleges Foundation scholarship
application can be accessed online at
www.dist.maricopa.edu/foundation/

SERVICE-LEARNING

The Center for Service-Learning provides students with educational opportunities in community service through placement in non-profit organizations, government agencies, educational entities, civic organizations, and citizen advocacy groups. The Center also helps identify community needs by building partnerships with the community, as well as providing assistance to faculty who are interested in developing service-learning components in their courses.

Service-learning opportunities, which integrate community service with academic curriculum, are part of many courses throughout the college. Interested students can also enroll
in a 1-2-or 3-credit independent, open-entry/open-exit service-learning class in any one of 28 different academic departments and serve their choice of over 300+ community partners. These individualized courses require a commitment of 50 contact hours per credit, reflection activities, and other course requirements.

Before enrolling in a service-learning class, students must receive the required orientation and submit an application
to the Center for Service-Learning. For more information, call **480-461-739**3 or visit
www.mc.maricopa.edu/services/servicelearning/

SMOKE-FREE POLICY

Smoking at all MCC campuses is restricted to designated locations only. Smoking is not allowed on walkways or any other common areas. For more information
visit **ohs@mcmail.maricopa.edu** or
www.mc.maricopa.employees/programs/smoking.html

STUDENT ACTIVITIES AND EVENTS

College activities are an important part of any student's college experience, regardless of age or background. These activities provide an opportunity for students to interact socially, develop leadership skills, and gain greater understanding of other cultures.

Student Life and Leadership All MCC students are welcome to participate in the diverse activities offered on campus during the year. MCC activities appeal to a variety of interests, from theatre to student clubs. It is not unusual during the year to hear free live music performed on campus, explore different cultures during the various cultural days, or enjoy social activities at either MCC campus. Membership in some organizations is competitive; others by invitation, but the majority are open to any student who is interested. Students interested in becoming a part of any MCC activity may visit the Office of Student Life in the Kirk Student Center at MCC at Southern and Dobson, or in the Mesquite Building at MCC at Red Mountain campus, where a comprehensive listing is available. Services include: housing information, student identification cards, student health insurance information, volunteer projects, parking permits, bus schedules, child care information, food service, and general information. For more information about services offered by the Office of Student Life and Leadership,
please visit **www.mc.maricopa.edu/students/life**

Leadership Opportunities The Office of Student Life
and Leadership offers various opportunities for leadership development for currently enrolled MCC students. Opportunities include a variety of one-day, weekend and week-long leadership retreats and programs. For more information, contact the Office of Student Life and Leadership in the Kirk Student Center or the

Mesquite Building at the Red Mountain campus. Information on various leadership training opportunities can also be
found at **www.mc.maricopa.edu/students/life/opp**
or call **480-461-7285**.

Student Government (ASMCC) The student body elects the Associated Students of MCC (ASMCC) Executive Board each spring. The ASMCC officers work to serve the needs and interests of MCC students by promoting and maintaining a democratic form of government. Commissioners are appointed by the Executive Board and together form the ASMCC Cabinet. ASMCC strives to work with faculty, staff, students, and administration to accomplish this goal. ASMCC represents the student body on various college committees. They also plan activities to meet the intellectual and social needs of MCC students.

The ASMCC Senate includes the ASMCC Cabinet and a voting representative from each recognized active MCC club. The Senate meets biweekly, and all MCC students are invited to attend. Please call the Office of Student Life and Leadership for more details at **480-461-7285** for MCC at Southern and Dobson, or **480-654-7759** for MCC at Red Mountain. The ASMCC office is located in the Office of Student Life and Leadership in the Kirk Student Center.

To participate or get more information, please call **480-461-7278** or visit **www.mc.maricopa.edu/students/life/asmcc**

Dance In the MCC Dance Program, a student can choose from a variety of one-credit dance movement classes such as Ballet, Ballet Folklorico, Tap, Jazz, Modern, Hip Hop, Belly Dancing, Salsa, Swing, Tango, West African, and Scottish Highland dance. MCC also offers three-credit dance humanities lecture courses, such as Introduction to Dance and World Dance Perspectives. Choreography and Dance for Children classes are also available for three credits as lecture/movement classes. The MCC Dance Program gives experienced dance students an opportunity to perform in a formal dance production each semester. Non-audition classes are Dance Performance and Tap Dance Performance. Membership in the MCC Dance Company is by audition and requires Tuesday/Thursday 12:00-3:00 PM rehearsals. For more information, please contact Tina Rangel at
480-461-7597, or email **trangel@mail.mc.maricopa.edu**

Music Opportunities for the pursuit of musical interest may be found in the A Cappella Choir, Madrigal Singers, Music Theatre Orchestra, Vocal Chamber Workshop, Instrumental Ensembles, Band, and Jazz Ensemble. Recitals, competitions, and public appearances are made by vocal and instrumental soloists. Any MCC student is eligible for admission through audition. Consult the college schedule, or call the Music Department Office for audition dates at **480-461-7577**.

Intercollegiate sports at Mesa Community College are an integral part of the total student activity program. MCC is a member of the Arizona Community College Athletic Conference (ACCAC) and the National Junior College Athletic Association (NJCAA). The thirteen colleges that participate in the conference are: Arizona Western, Yuma; Central Arizona, Coolidge; Cochise, Douglas; Chandler-Gilbert Community College, Chandler; Eastern Arizona, Thatcher; Glendale Community College, Glendale; Mesa Community College, Mesa; Paradise Valley Community College, Phoenix; Phoenix Community College, Phoenix; Pima Community College, Tucson; Scottsdale Community College, Scottsdale; South Mountain Community College, Phoenix; Yavapai, Prescott; and Northland Pioneer, Holbrook.

Students desiring to participate in athletics should contact the head coach or the athletic director prior to the start of the season. Student athletes must conform to the eligibility rules established by the NJCAA, ACCAC, and the Maricopa Community Colleges.

The men's athletic program includes:
Fall: Basketball, Cross Country, Football, Soccer
Spring: Baseball, Golf, Tennis, Track/Field

The women's athletic program includes:
Fall: Basketball, Cross Country, Volleyball, Soccer
Spring: Softball, Tennis, Track/Field, Golf

Please visit **www.mc.maricopa.edu/services/athletics/**

STUDENT IDENTIFICATION (ID) CARD

All new students will be provided identification cards upon registration at no charge, with verification of enrollment and a valid photo ID, such as a driver's license or another school ID. This is a permanent MCC ID that provides access to college services and activities. Replacements will be provided for a $5.00 fee. Student IDs are available at the Office of Student Life and Leadership, located in the Kirk Center or in Enrollment Services at the Red Mountain campus. For information about Student ID cards, please call **480-461-7285** or **480-654-7600** at the Red Mountain campus.

For more information published by the Maricopa Community College District on this topic, please see the "MCCCD Policies and Procedures" section of this catalog.

STUDENT INSURANCE

Every registered MCC student who is enrolled in an approved credit and/or non-credit class or is engaged in school-sponsored, supervised, approved, and calendared activities in a college of the Maricopa County Community Colleges District is covered during the policy term. This plan applies only to college-related accidents. The student is automatically insured, and the cost is covered in the campus activity fee. Information on filing a claim, detailed brochures, and medical insurance information is available in the lobby of the Kirk Student Center and from the Dean of Student Affairs office located on the top floor of the Kirk Student Center at MCC at Southern and Dobson or in the Office of Student Life and Leadership in the Mesquite Building at the Red Mountain campus.

MCC students are also eligible to purchase an injury and sickness insurance plan for themselves and their family. Brochures can be obtained in the Office of Student Life in the Kirk Student Center or in the Mesquite Building at the Red Mountain campus. You can also view the brochure or enroll online at **www.renstudent.com/mcccd**. For more information, please call **480-461-7285** or **480-654-7759** at the Red Mountain campus.

TECHNOLOGY SUPPORT

Technology support services are available to students, faculty, and staff for technology related questions and assistance. Technology Support Services staff members assist students with use of their college email accounts. Students and employees are encouraged to call Technology Support Services if they have questions or need help with:

- Creating their email account
- Using their email account
- Resetting email passwords
- Configuration of email clients
-
Sending/receiving/reading email not related to other ISPs (Internet Service Provider)
- Accessing the MCC website
- General questions about email
- Browser usage

Assistance is available via the Internet on the Technology Support Services website at
www.mc.maricopa.edu/its/tss
or by email at **tss@mcmail.maricopa.edu** or by phone at **480-461-7217**.

TESTING CENTER/PLACEMENT TESTING

Students must submit a 'Student Information Form' form prior to placement testing. Apply in person or on-line at **my.maricopa.edu**

New-to-college students must complete English, Reading and Math placement testing prior to academic advisement and registration.

Placement testing is also highly recommended for
students enrolling in more than seven (7) credit hours,
or concurrently enrolled in high school and college at the same time. Placement testing is offered at both our Southern and Dobson and Red Mountain campuses. Students should allow 2-1/2 hours to complete all three placement tests. Photo ID and your Maricopa Student ID number are required for all testing services. Sample questions are available at our website: **www.mc.maricopa.edu/testing**

Placement testing is computer-based with no time limit. Allow enough time. The testing schedule hours may change during peak registration times. (NOTE: English as a Second Language is a paper and pencil test with a 45-minute time limit.)

Testing Center Hours:
Monday - Thursday   8:00 AM – 7:00 PM
Fridays   8:00 AM – 5:00 PM
(the last test is given out one hour before the office closes)

Red Mountain location is Enrollment Services,
Mesquite Building   **480-654-7600**

Southern and Dobson location is Building 38A,
east side of college campus   **480-461-7336**

For more information published by the Maricopa Community College District on this topic, please see the "MCCCD Policies and Procedures" section of this catalog.

GED pre-registration for the High School Equivalency Test
is available at MCC at Southern and Dobson Monday through Thursday from 8:00 AM to 6:00 PM. The High School Equivalency exam is administered by appointment only.
This is a community service available to anyone who is 16 years of age or older. Persons under 18 years of age require additional documentation. Two official forms government issued identification are required and a fee is charged.
The GED exam is available in English, Spanish, and large-print editions. Special accommodations may be approved
for people with physical and learning disabilities. The GED Testing Center is located at the Dobson and Southern location, Building 38A on the east side of campus. Certificates of Equivalency are issued by the Arizona State Department
of Education. Please call **480-461-7480** for more information. Refer to **www.mc.maricopa.edu/testing** for specific GED requirements.

Student make-up exams are available for students who miss an exam in class due to illness, schedule conflicts, personal circumstances, or the need for special accommodations. Students should work with their instructors to see if this is an option and to make arrangements to use this service. Photo identification is required for make-up exams. Exams can be taken:
Monday-Thursday   8:00 AM – 6:00 PM
Friday   10:00 AM – 4:00 PM

Private testing rooms, visual enlargers, and other services are available for students with special needs and arranged through the Office of Disability Resources.

THEATRE ARTS

Several dramatic productions are staged at MCC during
the year. Auditions for each production are open to all students in the college, whether or not they are enrolled
in theatre classes. Audition dates and times will be posted around the Theatre Outback at the south end of campus and are also available through the Theatre Office and website. Production rehearsals are usually held in the evenings, although some afternoon rehearsals may be required.

All rehearsals are at the discretion of the director.
Students interested in working on productions (acting,
stage construction, lighting, costuming, make-up, etc.) should contact the Theatre Office at **480-461-7170**
or the director at the time of the auditions.

The Stagedoor Players is the student theatre club at MCC.
It is devoted to developing, promoting, and publicizing
the theatre events at the college. Membership is attained
by working on the Theatre Department productions.
All students are invited to participate. For more information, call Kevin Dressler, Kara Thomson, or Marisa
Estrada in the Theatre Department or visit **www.mc.maricopa.edu/dept/d55/thp/**

To watch a variety of MCC plays, season tickets are available. Regular ticket prices are:
    MCC students $7.00   Seniors $8.00
    Faculty/Staff $10.00   General Public $12.00
    Children under 5 not allowed

TRAVEL FOR STUDENTS

As a college-sanctioned activity, students participating
in group travel are required to abide by set policies and procedures. Some of the regulations for students on
college-sponsored trips are listed below. All participating students will be required to adhere to established
policies and procedures.

-
Participants must complete all required college travel forms before taking a college-sponsored trip and in
some cases attend required orientations. Please contact the Office of Student Life and Leadership for
required forms.
-
All students officially representing the college are required to travel to and from the travel site with the
college group to which they belong.
-
The registered occupants of hotel rooms are financially responsible for any damage or theft that occurs in
their respective rooms. Such occupants are also responsible for charges against their room, such as telephone
calls, Internet services, etc.
-
All attendees are required to participate in each activity listed on the daily agenda. No deviations to the
schedule will be made by students without the approval of their advisor(s).
-
Participants are expected to conduct themselves in a manner which:
  -
Reflects positively on themselves, the club/organization/team, the college, and the district
  -
Reflects commitment to integrity in personal, social, and academic involvements
    - Is respectful of others and worthy of respect from others
-
The use of non-prescription drugs and/or alcohol is strictly forbidden according to the policies of the
MCCCD. Students are expected not only to refrain from consumption of alcohol and/or drugs, but also to
actively discourage others from consumption of these substances.
-
Any student violating these travel regulations and/or the student code of conduct may be sent home and may
be required to reimburse the college for the full cost of the trip and may result in disciplinary action.

Additional information on student travel is available from the Office of Student Life and Leadership and the
Dean of Student Affairs.

TUTORING
(See Library and High Technology Complex)

VETERANS' SERVICES

The Veterans' Services office assists qualified students with veteran/dependent educational benefits. Veterans' benefits are available to veterans and children or spouses of deceased or 100% permanently disabled veterans. To secure benefits, the student must apply through the Veterans', Services office.

The Veterans' Services office provides one-stop enrollment service. A veteran/dependent of a veteran has an opportunity to receive academic advisement, course registration, and assistance with financial aid. Please visit our office and complete the veterans'/dependent packet today. For more information call MCC at Southern and Dobson **480-461-7425** or MCC at Red Mountain **480-654-7600**. **www.mc.maricopa.edu/veterans**

For more information published by the Maricopa Community College District on this topic, please see the "MCCCD Policies and Procedures" section of this catalog.

THE WRITING CENTER

The Writing Center provides free tutoring by faculty for any class-related writing assignment and offers one-credit classes in spelling, vocabulary improvement, grammar, and mechanics. Students can also use computers and word processing software. The Writing Center, located on the ground floor of the Paul A. Elsner library, is open from 8:00 AM to 8:00 PM, Monday through Thursday, and from 8:00 AM to 4:00 PM on Friday. Appointments are required for tutoring; no appointments are needed to use the computers, which are available on a first-come/first-served basis.

For more information or to schedule an appointment, call: **480-461-7513** or visit **www.mc.maricopa.edu/dept/d13/eng/Writcter/WritingCenter.htm**

AAA - Advancing Academic Achievement

AAA150   Strategies For College Success
Focus on increasing student success through college orientation and personal growth, study skills development, and educational and career planning. *Prerequisites: None.*
3 Credits 3 Periods

ACC - Accounting

ACC107   Bookkeeping Theory And Practice
Fundamental accounting practices; application to retail stores, professional firms, and personal service operations. *Prerequisites: None. 4 Credits 5 Periods*

ACC109   Accounting Concepts
Introduction to accounting with emphasis on analysis and applications of financial information. *Prerequisites: None. GBS151 and reading ability equivalent to RDG091 suggested but not required. 3 Credits 3 Periods*

ACC111   Accounting Principles I
Fundamental theory of accounting principles and procedures. *Prerequisites: None. 3 Credits 3 Periods*

ACC115   Computerized Accounting
Mastery of a microcomputer accounting system including the general ledger, accounts receivable, accounts payable and payroll. *Prerequisites: ACC107, or higher level accounting course, or permission of Instructor. 2 Credits*
3 Periods

ACC121   Income Tax Preparation
Preparation of and practical experience in preparing individual federal income tax returns using computer software. *Prerequisites: None. 3 Credits 3 Periods*

ACC230   Uses Of Accounting Information I
Introduction to the uses of accounting information for internal and external purposes with emphasis on financial statement analysis. *Prerequisites: Grade of "C" or better in ACC111 or ACC211, or a grade of "C" or better in (ENG101 and MAT151 and CRE101), or equivalent, or satisfactory score on District placement exam. 3 Credits 3 Periods*

ACC240   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: ACC230. 3 Credits*
3 Periods

ACC250   Introductory Accounting Lab
Procedural details of accounting for the accumulation of information and generation of reports for internal and external users. *Prerequisites: None. 1 Credits 3 Periods*

ACC282   Volunteerism Accounting:
            Service Learning Experience
Service learning field experience within private/public agencies, educational institution, and citizen volunteer groups. May be repeated for a total of six (6) ACC282 credit hours. Standard grading available according to procedures outlined in catalog. *Prerequisites: ACC111 or (ACC230 and ACC250) and permission of Instructor. 1 Credits 1 Periods*

ACC298   Special Projects
            1-3 Credits See Page 292

AES - Aerospace Studies

AES101   Air Force Today I
Introduction to U.S. Air Force and AFROTC. Topics include: the Air Force mission and organization, customs and courtesies, officer opportunities, officership and professionalism. *Prerequisites: None. 2 Credits 2 Periods*

AES103   Air Force Today II
Introduction to U.S. Air Force and AFROTC. Topics include: the Air Force mission and organization, customs and courtesies, officer opportunities, officership, and professionalism. *Prerequisites: None. 2 Credits 2 Periods*

AES201
Evolution Of USAF Air
And Space Power I

Further preparation of AFROTC candidate. Topics include: Air Force heritage and leaders, communication skills, ethics, leadership, quality Air Force, and values. *Prerequisites: None*
2 Credits 2 Periods

AES203
Evolution Of USAF Air
And Space Power II
Topics include: the Air Force mission and organization, customs and courtesies, officer opportunities, officership, and professionalism. *Prerequisites: None. 2 Credits*
2 Periods

AES294   Air Force Physical Fitness
Beginning instruction in adapted physical activities and a variety of sports and sports activities to include calisthenics, sit-ups, push-ups, running, basketball, volleyball, and other physical events. *Prerequisites: None. AES294 may be repeated for credit. 1 Credit 3 Periods*

AFR - African American Studies

AFR110
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. 3 Credits 3 Periods*

AFR202   Ethnic Relations in the United States
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.*
3 Credits 3 Periods

AGB - Agribusiness

AGB132
Agribusiness Accounting
And Office Management
Practical uses of accounts and records with emphasis on accounting principles and analysis of the agricultural business. Business management procedures including appointment scheduling, client relations, fees, accounts, and daily bookkeeping. Includes resume writing and interview techniques. *Prerequisites: None. 3 Credits 3 Periods*

AGB139   Agribusiness Computer Operations
Agribusiness operations for solving, forecasting and projecting agribusiness problems, agribusiness communications, accounting systems and database use. *Prerequisites: None. 3 Credits 6 Periods*

AGB140   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 usage, and customer relations. *Prerequisites: None. 3 Credits 5 Periods*

AGB290   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. 3 Credits 6 Periods*

AGB296   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: Completed at least 12 credits, min 2.6 GPA and able to obtain a position related to student's academic/career goals or permission of Instructor. Corequisites: Enrolled in at least 1 class related to major/career interest or permission of Instructor. 1-3 Credits 5-15 Periods*

AGB298   Special Projects

AGL - Agricultural Landscape

AGL181   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. 3 Credits 6 Periods*

AGL188   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. 2 Credits 3 Periods*

AGL189   Landscape Design I

Beginning landscape design with emphasis on developing drawing and drafting skills needed to create freehand drawings, landscape graphics, detail views, symbols, legends, lettering specifications and drafting standards. Introduction to basic principles of landscape design. *Prerequisites: None. 3 Credits 6 Periods*

AGL190   Landscape Design II

Advanced study of the principles of landscape design. Emphasis on development and design of landscapes including patios, barbecues, bancos, water features,
and gazebos. Use of artistic elements including statuary, sculpture, ironwork and murals. Design and implementation of low-voltage landscape lighting. Solving design problems. Importance of texture, color, and form of plant materials used in design. Importance of form, composition, and function to design of landscape. *Prerequisites: AGL189.*
3 Credits 6 Periods

AGL296   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: Completed at least 12 credits, min 2.6 GPA and able to obtain a position related to student's academic/career goals or permission of Instructor. Corequisites: Enrolled in at least 1 class related to major/career interest or permission of Instructor. 1-3 Credits 5-15 Periods*

AGS - Agricultural Science

AGS164   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. 4 Credits 6 Periods*

AGS168   Grounds Equipment Management

Selection, use and maintenance of grounds equipment, including both manual and power equipment. *Prerequisites: None. 3 Credits 5 Periods*

AGS182   Gardening Practices And Techniques   Cultural practices of vegetables, fruits and ornamental plants as they relate to organic and inorganic gardening. *Prerequisites: None. 2 Credits 2 Periods*

AGS182AA Gardening Practices And Techniques

Cultural practices of vegetables, fruits and ornamental plants as they relate to organic and inorganic gardening. *Prerequisites: None. 2 Credits 4 Periods*

AGS183   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. 3 Credits 3 Periods*

AGS186
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.*
3 Credits 5 Periods

AGS187   Indoor Foliage Plants

Environmental and nutritional requirements for foliage plants used for interior decoration. Includes identification, nomenclature and uses. *Prerequisites: None. 3 Credits*
3 Periods

AGS192   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.*
3 Credits 5 Periods

AGS255   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: AGS164. 3 Credits*
5 Periods

AGS260   Origin And Composition Of Soils
Derivation, classification, and evaluation of soils; emphasizing their chemical, physical and biological properties in relation to plant growth. *Prerequisites: None.*
4 Credits 6 Periods

AGS261   Soil Fertility And Management
Relationship of soils, crops, and climatic factors to economic use of commercial fertilizer. *Prerequisites: None. 3 Credits 3 Periods*

AGS262
Irrigation Design, Installation, Operation, And Trouble Shooting
Design, installation, maintenance and trouble shooting
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: (AGS164 and AGL189) or permission of Instructor. 3 Credits 5 Periods*

AGS268   Insect, Weed And Pest Control
Interrelationship of insects, weeds and plant diseases with the environment as affected by soils, temperature, water and agricultural chemicals. Life cycles, biological interrelationships, identification and control. *Prerequisites: None. 4 Credits 6 Periods*

AGS284   Lawn And Turf Care
Factors that affect the establishment and maintenance of turf grasses. Includes budgets, schedules and selection of equipment. *Prerequisites: None. 3 Credits 3 Periods*

AGS290   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. 3 Credits 6 Periods*

AGS296   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: Completed at least 12 credits, min 2.6 GPA and able to obtain a position related to student's academic/career goals or permission of Instructor. Corequisites: Enrolled in at least 1 class related to major/career interest or permission of Instructor. 1-3 Credits 5-15 Periods*

AGS298   Special Projects
1-3 Credits See Page 292

AIS - American Indian Studies

AIS105
Introduction to American Indian Studies
Introduction to political, economic, and social structures of American Indian Nations. Provides overview of American Indian tribal cultures prior to contact, the impact of European contact, and the influence of western social systems on tribal nations. *Prerequisites: None. 3 Credits*
3 Periods

AIS110   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. 3 Credits*
3 Periods

AIS141   Sovereign Indian Nations
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. 3 Credits 3 Periods*

AJS - Administration of Justice

AJS101   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. 3 Credits 3 Periods*

AJS109 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 offenses and the essential elements of each offense. Required in AJS curriculum. *Prerequisites: None. 3 Credits 3 Periods*

AJS119
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. 3 Credits 4 Periods*

AJS123
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. Encourages critical thinking and value decision making in criminal justice system situations. *Prerequisites: None. 3 Credits*
3 Periods

AJS151 Firearms I

Moral aspects, legal provisions, safety precautions and restrictions covering the use of firearms, and the firing of sidearms and shotguns. *Prerequisites: None. 1 Credit*
1 Period

AJS153 Firearms II/Handguns

Advanced familiarization with handguns. Variations of basic shooting stance. Legal and moral repercussions of self-defense. Includes range practice. *Prerequisites: AJS151 or permission of Instructor. 1 Credit 1 Period*

AJS192 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. 3 Credits 3 Periods*

AJS200 Current Issues In Criminal Justice

Examines current issues, techniques and trends in the Criminal Justice System. *Prerequisites: None. 3 Credits*
3 Periods

AJS201 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, and recordings; corpus delicti; opinion evidence, circumstantial evidence, evidential privileges. Required in AJS curriculum. *Prerequisites: None. 3 Credits 3 Periods*

AJS205 Criminal Justice Report Writing

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.*
3 Credits 3 Periods

AJS212 Juvenile Justice Procedures

Examines the history and development of juvenile justice theories, procedures, and institutions. *Prerequisites: None.*
3 Credits 3 Periods

AJS215 Criminalistics: Physical Evidence

The scientific analysis and examination of physical 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. *Prerequisites: None. 3 Credits*
3 Periods

AJS216 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. 3 Credits 3 Periods*

AJS217 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. 3 Credits 3 Periods*

AJS225 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.*
3 Credits 3 Periods

AJS230   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.*
3 Credits 3 Periods

AJS240   The Correction Function

Examines the history and development of correctional theories and institutions. *Prerequisites: None. 3 Credits*
3 Periods

AJS241   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. 3 Credits 3 Periods*

AJS258   Victimology and Crisis Management

Focuses on victimology and techniques of crises intervention, and the importance of multicultural perspective. Includes coverage of sexual assault, family violence, child abuse, post-traumatic stress disorder, substance abuse, coping skills, stress management, and community resources. *Prerequisites: None. 3 Credits*
3 Periods

AJS260   Procedural Criminal Law

Concerned with the understanding of procedural criminal law. Examines the rationale underlying major court holdings, the procedural requirements that stem from these holdings, and their effect on the daily operations of the criminal justice system. *Prerequisites: None. 3 Credits*
3 Periods

AJS269AC   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. 3 Credits 15 Periods*

AJS270   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. 3 Credits*
3 Periods

AJS275   Criminal Investigation I

Introduction to the theory of criminal investigation. Examines crime scene procedures, case preparation, interviewing, and basic investigative techniques. *Prerequisites: None. 3 Credits 3 Periods*

AJS282
Volunteerism For Administration Of Justice: A Service-Learning Experience

Service learning field experience within private/public agencies and citizen volunteer groups. May be repeated for a total of six (6) AJS282 credit hours. Standard grading available according to procedures outlined in catalog. *Prerequisites: Permission of Instructor. 1-3 Credits*
1-3 Periods

AJS289AJ   Street Gangs I

Introduction to street gang identification, history, culture, and current trends, specifically in the western United States. *Prerequisites: Certified officer or permission of Instructor.*
1 Credit 1 Period

AJS290AI   Theories Of Criminal Behavior

Theories of human behavior and crime. Biological, sociological, and psychological approaches to the theories of criminal behavior. *Prerequisites: None. 1 Credit 1 Period*

AJS290AU   Child Abuse Investigation

Definition and investigation of the causes and effects of child abuse. *Prerequisites: None. 1 Credit 1 Period*

AJS290AW   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. 1 Credit 1 Period*

AJS290BE   Probation And Parole

Current issues in probation and parole, including sentencing, parole revocation, and administrative procedure. *Prerequisites: None. 1 Credit 1 Period*

AJS290BH   Sex Crimes Investigation

Investigative procedures employed by the police and courtroom procedures utilized by the prosecuting attorney in sex-related crimes. *Prerequisites: None. 1 Credit*
1 Period

AJS290BU   Family Violence

Family violence issues as they relate to the criminal justice response. *Prerequisites: None. 1 Credit 1 Period*

AJS290BV   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. 1 Credits 1 Periods*

ANH - Animal Health

ANH200   Veterinary Clinical Pathology Methods

Fundamental studies of laboratory techniques and procedures involved in evaluating veterinary clinical samples. Includes hematology, urinalysis, hemostasis, blood biochemistry and enzymology, serology, cytology, and parasitology. The veterinary technician's role in sample collection, sample storage and handling, and performance of analytic procedures. Use of laboratory equipment, laboratory safety and management, and quality control. *Prerequisites: (ANS223, BIO205, and admission to the second year of the Veterinary Technician/Animal program) or permission of Instructor. 3 Credits 6 Periods*

ANH205
Clinical Veterinary Anatomy
And Physiology

Focuses on unique anatomic structures and physiological processes which are clinically important in veterinary medicine. Anatomical and physiological bases of clinic procedures, animal disease processes, and veterinary treatments.   Intended for Veterinary Technology/Animal Health program students. *Prerequisites: ANS222 and ANS222LL. 3 Credits 6 Periods*

ANH210   Animal Nursing

Instruction in and hands-on application of techniques of veterinary nursing care, patient assessment, equipment operation, diagnostic sample collection, and medical treatment. Physical examination, clinical nutrition, and reproductive management of the dog and cat. Operation of E.C.G. and anesthetic machine. Fluid therapy, wound therapy, and bandaging. Surgical instruments and packs. Common diagnostic and therapeutic procedures on animals. *Prerequisites: (ANS112, ANH205, and admission to the Veterinary Technology/Animal Health program) or permission of Instructor. 2 Credits 4 Periods*

ANH220   Animal Pharmacology

Actions and uses of pharmacological agents used in veterinary medicine; drug classifications, modes of action, indications and contraindications, routes of administration, and mechanisms of elimination. Dispensing and pharmacy management, and laws regulating controlled substances. Solving medical math problems and calculating drug doses. *Prerequisites: ANS110, ANS213, ANS222, ANS223 and admission to the Veterinary Technician/Animal Health program. 3 Credits 5 Periods*

ANH230   Veterinary Radiography And Imaging

Veterinary and radiographic terminology; radiation and electrical protection; technical principles; radiographic equipment operations; fundamentals of latent and visible image formation, X-ray film characteristics, intensifying screens and film holders; theory and application of darkroom chemistry and processing; use and maintenance of veterinary X-ray processing equipment, and radiographic duties of the Veterinary Technician. Lab allows for practical application of theories and radiographic positioning as taught in lecture. *Prerequisites: (ANS112, ANS222, ANS222LL, and admission to the Veterinary Technician/Animal Health program) or permission of Instructor.*
3 Credits 6 Periods

ANH240
Veterinary Anesthesia, Surgery,
And Emergency Nursing

Veterinary surgical nursing skills associated with aseptic technique and proper protocol in the surgery suite. Pre- and post-op monitoring, record keeping, and client education skills. Procedures and techniques with intravenous and inhalation anesthetics, surgical asepsis, skin preparation, instrument sterilization techniques and monitoring veterinary patients for vital signs. *Prerequisites: ANS112, ANH210, ANH220, and admission to the Veterinary Technician/Animal Health program. 3 Credits 6 Periods*

ANH250AA Veterinary Technician Internship

Provides Veterinary Technology program students with off-campus clinical experience in a small animal general veterinary practice. Opportunity for practical application and development of knowledge, skills, and abilities acquired in program coursework. Exposure to practice philosophies, methodologies, and real-life situations requiring critical thinking and decision-making abilities. Includes instruction and evaluation by veterinarians or veterinary technicians guided by the American Veterinary Medical Association's Veterinary Technology Student Essential and Recommended Skills list. *Prerequisites: AGB132, ANH205, ANS112, and admission to the Veterinary Technology/Animal Health program. 0.5 Credit 0.5 Period*

ANH250AB Veterinary Technician Internship

Provides Veterinary Technology program students with

off-campus clinical experience in a large animal general veterinary practice. Opportunity for practical application and development of knowledge, skills, and abilities acquired in program coursework. Exposure to practice philosophies, methodologies, and real-life situations requiring critical thinking and decision-making abilities. Includes instruction and evaluation by veterinarians or veterinary technicians guided by the American Veterinary Medical Association's Veterinary Technology Student Essential and Recommended Skills list. *Prerequisites: ANH250AA. 0.5 Credit 0.5 Period*

ANH250AC Veterinary Technician Internship
Provides Veterinary Technology program students with off-campus clinical experience in an emergency veterinary clinic and in a veterinary specialty practice. The internship hours will be split equally between the emergency clinic and the specialty practice. Specialty practices may include surgery, ophthalmology, internal medicine, dentistry, dermatology, radiology, exotics, zoo, research, and others. Opportunity for practical application and development of knowledge, skills, and abilities acquired in program coursework. Exposure to practice philosophies, methodologies, and real-life situations requiring critical thinking and decision-making abilities. Includes instruction and evaluation by veterinarians or veterinary technicians guided by the American Veterinary Medical Association's Veterinary Technology Student Essential and Recommended Skills list. *Prerequisites: ANH250AB. 0.5 Credit 0.5 Period*

ANH250AD Veterinary Technician Internship
Continuing practical application and mastery of knowledge, skills, and abilities in the selected clinical setting. Exposure to practice philosophies, methodologies, and real-life situations requiring critical thinking and decision- making abilities. Includes instruction and evaluation by veterinarians or veterinary technicians guided by the American Veterinary Medical Association's Veterinary Technology Student Essential and Recommended Skills list.   ANH250AD allows the last-semester Veterinary Technology Program student to elect to repeat the off-campus clinical experience of either ANH250AA, ANH250AB, or ANH250AC, depending upon their career interest. *Prerequisites: ANH250AC. 0.5 Credit 0.5 Period*

ANS - Animal Science

ANS110 Introduction To Animal Science
Survey of the total animal industry, including the basis for genetic improvement, principles of nutrition and reproduction, and scientific analysis of meat, milk, and egg production. Study of local agricultural production businesses. *Prerequisites: None. 3 Credits 3 Periods*

ANS110AA Introduction To Animal Science
Survey of the total animal industry, including the basis for genetic improvement, principles of nutrition and reproduction, and scientific analysis of meat, milk, and egg production. Study of local agricultural production businesses. *Prerequisites: None. 3 Credits 5 Periods*

ANS112 Animal Science And Health Practices
Training in and supervised performance of skills necessary in the husbandry and clinical care and treatment of animals. Occupational hazards and safety in livestock, companion animal, and laboratory animal facilities. Introduction to medical terminology. Restraint and handling, feeding, and housing of a variety of animal species. Physical examination of various species of animals. Principles of sanitation, disinfection, sterilization, and aseptic technique. Principles and techniques of medication administration, fluid therapy, and vaccination. Familiarization with operation of various types of animal care equipment. Introduction to laboratory techniques. Professional ethics and the human-animal bond. *Prerequisites: ANS110. 3 Credits 5 Periods*

ANS212 Livestock Production And Management
Production and management of beef cattle, dairy cattle, sheep, swine, stock horses, goats, and poultry. Evaluation of livestock for agricultural purposes. Housing and care requirements of common livestock. *Prerequisites or Corequisites: ANS110 or permission of instructor. 3 Credits 3 Periods*

ANS222 Animal Anatomy And Physiology
Comparative evaluation of the anatomy and physiological functions of various body systems of livestock, companion animals, and laboratory animals. BIO100 or one year of high school biology with a grade of "C" or better is highly recommended. *Prerequisites: ANS110. Corequisites: ANS222LL. 3 Credits 3 Periods*

ANS222LL
Animal Anatomy
And Physiology Laboratory
Laboratory experience in support of ANS222. Includes dissection of preserved animal specimens. *Prerequisites: None. Corequisites: ANS222. 1 Credit 3 Periods*

ANS223AA Animal Diseases
Study of common infectious, parasitic, metabolic, immunologic, and degenerative diseases of domestic animals. Infectious disease transmission, mechanisms of disease, the host-parasite relationship, and host responses to disease agents. Clinical signs and management of common diseases. Life cycles of common parasites. Principles of disease prevention, environmental management, vaccination, and zoonosis. Diagnostic techniques including gross and microscopic identification of common animal pathogens. *Prerequisites: ANS222 and (BIO100 or one year of high school biology with a grade of "C" or better). 3 Credits 5 Periods*

ANS290 Internship

Supervised field training for Animal Science students with local industry businesses. *Prerequisites: Student shall be in final semester before graduation and permission of Department or Division. 3 Credits 6 Periods*

ANS296   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: Completed at least 12 credits, min 2.6 GPA and able to obtain a position related to student's academic/career goals or permission of Instructor. Corequisites: Enrolled in at least 1 class related to major/career interest or permission of Instructor. 1-3 Credits 5-15 Periods*

APT - Automotive Performance Technology

APT101   Automotive Service Operations

Basic principles of working in an automotive service area. Management-employee relations, resume writing, interviewing, shop practices, flat-rate system, equipment care, and tools. *Prerequisites: None. 2 Credits 2 Periods*

APT111   Internal Combustion Engines Theory

Study of construction and operating principles of internal combustion engines and related lubrication, cooling, fuel, and electrical systems. *Prerequisites: None. 3 Credits*
3 Periods

APT123AA Auto Transmission (Chrysler)

The fundamentals and principles of automatic transmissions presently in use by Chrysler Motor Company automobiles. Diagnosis, service, and reconditioning procedures necessary to maintain these units. *Prerequisites: None. 3 Credits*
5 Periods

APT131   Automotive Power Trains

Designed for beginning automotive students. Operation, diagnosis, service, and repair of the automotive power train. Includes clutches, torque converters, standard and automatic transmissions and transaxles, front and rear drive axles, drive shafts, differentials and transfer case. *Prerequisites: None. 6 Credits 10 Periods*

APT141   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 rebuilding. *Prerequisites: None. 6 Credits 10 Periods*

APT151   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.*
4 Credits 7 Periods

APT161   Auto 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.*
4 Credits 7 Periods

APT171   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. 4 Credits 7 Periods*

APT181   Engine Performance And Diagnosis I

Designed for beginning automotive students. Engine construction and operating principles, including lubrication, cooling, induction, exhaust, fuel, emission and ignition systems. Includes training in diagnosis, testing, service, and repair. *Prerequisites: None. 6 Credits 10 Periods*

APT262   Auto Electrical/Electronic Systems II

Designed for experienced students. Electrical accessory circuits including horns, wipers, defoggers, automatic door locks, power mirrors, power windows and power seats. Also introduction to body computers, advanced lighting circuits and intrumentation, and chassis electronic control systems. Includes training in diagnosis, testing, service, and repair. *Prerequisites: APT161 or instructor permission. 4 Credits*
7 Periods

ARB - Arabic

ARB101   Elementary Arabic I

Introduction to the basic alphabet, grammar, pronunciation and vocabulary of the Arabic language. Listening, speaking, reading and writing skills. *Prerequisites: None. 4 Credits*
5 Periods

ARB102 Elementary Arabic II

A continuation of ARB101. Continued study of grammar and vocabulary, with emphasis on pronunciation and speaking skills. *Prerequisites: ARB101 or equivalent.*
4 Credits 5 Periods

ARB201 Intermediate Arabic I

Review of essential grammar of the Arabic language and study of the Arabic culture. Continued practice and development of reading, writing, and speaking skills. Emphasis on both fluency and accuracy in the spoken language. *Prerequisites: ARB102 or permission of Department or Division. 4 Credits 5 Periods*

ARB202 Intermediate Arabic II

Advanced grammatical structures in Arabic. Further development of language skills with emphasis on speaking the language. *Prerequisites: ARB201 or permission of Department or Division. 4 Credits 5 Periods*

ARC - Architecture

ARC100 Introduction To Environmental Design

A survey of design through historical evaluation of built environments and works of well-known architects. Principles, concepts, and skills associated with designs of actual and imagined ideas and things. Emphasis on social, technical, environmental, and theoretical forces that impact design. *Prerequisites: None. 3 Credits 6 Periods*

ARC120 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. 3 Credits 6 Periods*

ARC140 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. 3 Credits 6 Periods*

ARC150 Architectural Desktop I

Residential construction drawing using Architectural Desktop (ADT). Includes preliminary workspace setups, configuration procedures, modules operations, and on-screen menus applicable for producing components of a building model. *Prerequisites: CNS130, or permission of Department or Division. 3 Credits 6 Periods*

ARC160 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: DFT122 or permission of Program Director.*
3 Credits 6 Periods

ARC161 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, building sections, framing plan, and exterior elevations. *Prerequisites: CNS130, or permission of Department or Division. 3 Credits 6 Periods*

ARC162
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 bathrooms; advanced instruction on framing and structural detail methods; foundation systems, support and layout; and other needed residential details and layouts. *Prerequisites: CNS130 and ARC161, or permission of Department or Division. 3 Credits 6 Periods*

ARC163 Commercial Architectural Drafting

Fundamental commercial drafting and documentation 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. *Prerequisites: CNS130, or permission of Department or Division. 3 Credits 6 Periods*

ARC164
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: (CNS130 and ARC163) or permission of Department or Division. 3 Credits 6 Periods*

ARC165

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. 3 Credits*
3 Periods

ARC225
Fundamentals of Architectural Detailing

Introduction to construction/architecture detailing. Examines functional, construction-related, and aesthetic applications of detailing. *Prerequisites: CNS130, or CNS180, or permission of Department or Division. 3 Credits*
3 Periods

ARC226   Advanced Architectural Detailing

Advanced methods of detailing major construction materials such as wood, steel, and concrete, ranging from simple residential to more complicated commercial structures. Includes detailing foundations, exterior and interior walls, roof and ceiling areas. *Prerequisites: CNS130, or CNS180, or permission of Department or Division. 3 Credits*
3 Periods

ARC251   Introduction to Revit

Introduction to the 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. 3 Credits*
6 Periods

ARC285   Sketchup I: Introduction to Sketchup   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. 3 Credits 6 Periods*

ARC282
Volunteerism For Architecture:
A Service-Learning Experience

Service-learning field experience within private/public agencies and citizen volunteer groups. May not repeat specific assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in college catalog. *Prerequisites: Permission of Department or Division. 1-3 Credits 1-3 Periods*

ARC290AC Architecture Internship

Architecture internship office and field experience with private agencies, public agencies, or citizen volunteer groups. May not repeat specific assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in college catalog. *Prerequisites: ARC282++, or permission of Department or Division.*
3 Credits 3 Periods

ARC296   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: Completed at least 12 credits, min 2.6 GPA and able to obtain a position related to student's academic/career goals or permission of Instructor. Corequisites: Enrolled in at least 1 class related to major/career interest or permission of Instructor. 1-3 Credits 5-15 Periods*

ARH - Art History/Humanities

ARH100   Introduction to Art

Understanding and enjoyment of art through study of painting, sculpture, architecture design, photography, and decorative arts. Emphasis on contemporary topics and cultural diversity in the arts. *Prerequisites: None. 3 Credits 3 Periods*

ARH101   Prehistoric Through Gothic Art

History of art from prehistoric through medieval period. *Prerequisites: None. 3 Credits 3 Periods*

ARH102
Renaissance Through
Contemporary Art

History of art from around the world from the Renaissance through contemporary period. *Prerequisites: None.*
3 Credits 3 Periods

ARH115   History of Photography

Survey of history of photography from beginning to present. Emphasizes medium's impact upon society and other visual arts. Technical developments, aesthetic concerns, and individual photographers studied. *Prerequisites: None.*
3 Credits 3 Periods

ART - Art

ART100   Introduction to Computer Graphic Art
Conceptualization, visualization, and production of art using the computer. *Prerequisites: None. 1 Credit 2 Periods*

ART111   Drawing I
Fundamental principles of drawing. Emphasis on composition and facility in objective and expressive representation, using variety of drawing media. *Prerequisites: None. 3 Credits 6 Periods*

ART112   Two-Dimensional Design
Study of fundamental elements and principles of two-dimensional design. *Prerequisites: None. 3 Credits 6 Periods*

ART113   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: ART/ADA112. 3 Credits 6 Periods*

ART115   Three-Dimensional Design
Fundamental principles of three-dimensional design. *Prerequisites: ART/ADA112. 3 Credits 6 Periods*

ART116   Life Drawing I
Use of form, structure and anatomy of draped and undraped human figure to develop basic principles of sound draftsmanship. *Prerequisites: None. 3 Credits 6 Periods*

ART117   Life Drawing II
Further study of form, structure, and anatomy of the draped and undraped human figure with emphasis on composition. *Prerequisites: ART116. 3 Credits 6 Periods*

ART118   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 or Corequisites: ART117 or permission of instructor. 3 Credits 6 Periods*

ART122   Drawing and Composition II
Emphasis on composition and exploration of drawing media. *Prerequisites: ART111. 3 Credits 6 Periods*

ART131   Photography I
Basic black and white photographic principles and techniques. Camera functions and controls. Darkroom experience in film processing and printmaking. Camera required. *Prerequisites: None. 3 Credits 6 Periods*

ART132   Photography II
Advanced camera and darkroom techniques. Aesthetic awareness with personal expression. *Prerequisites: ART131 or permission of Instructor. 3 Credits 6 Periods*

ART137   Alternative Photographic Processes
Emphasis on development of alternative photographic processes including technique, aesthetics, and creative imagery. Exploration of various types of non-silver photographic processes including cyanotype, Van Dyke, Polaroid imaging, and others. *Prerequisites: None. 3 Credits 6 Periods*

ART142   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. 3 Credits 6 Periods*

ART143   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.   Semi-adjustable, high-resolution digital camera is required. *Prerequisites: ART142 or permission of Instructor. 3 Credits 6 Periods*

ART161   Ceramics I
Introduction to ceramic materials and techniques of hand construction, decorating, glazing and throwing on potters' wheel. *Prerequisites: None. 3 Credits 6 Periods*

ART162   Ceramics II
Major emphasis on wheel throwing, glaze making and decorating techniques. *Prerequisites: ART161. 3 Credits 6 Periods*

ART165   Watercolor Painting I
Transparent and Gouache watercolor painting. *Prerequisites: (ART111 and ADA/ART112), or permission of Instructor. 3 Credits 6 Periods*

ART166   Watercolor Painting II

Painting in water-soluble media. Emphasis on individual techniques and design. *Prerequisites: ART165. 3 Credits 6 Periods*

ART167   Painting I

Exploration of technical and expressive possibilities of various painting media in easel painting. *Prerequisites: (ART111 and ADA/ART112), or permission of Instructor.*
3 Credits 6 Periods

ART168   Painting II

Continued refinement of painting skills and investigation of new possibilities in painting. *Prerequisites: ART167 or permission of Instructor. 3 Credits 6 Periods*

ART169   Two-Dimensional Computer Design

Generation of electronic two-dimensional images and traditional methods of visual problem solving. Understanding of computer techniques and art presentation methods. *Prerequisites or Corequisites: ART100 or permission of Instructor. 3 Credits 6 Periods*

ART177   Computer-Photographic Imaging

Introduction to the multiple elements of microcomputer-photographic imaging. Basic foundation in the use of the photographic manipulation of images using software programs. Special attention to aesthetic foundations underlying photographic composition. *Prerequisites or Corequisites: ART100 or permission of Instructor. 3 Credits 6 Periods*

ART183   Computer Aided 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. *Prerequisites or Corequisites: ART100 or permission of Instructor. 3 Credits 6 Periods*

ART190   Art of Web Site Design

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 (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. *Prerequisites: ART100, or permission of Instructor. CIS133DA recommended. 3 Credits 6 Periods*

ART192   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: ART/MMT190 or permission of Instructor. ART180AM and ART180AN suggested but not required. 3 Credits 6 Periods*

ART200   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 authorizing tools. Includes tools used by the creative industry for animation productions and interactive media. *Prerequisites: ART100 or permission of Instructor. 3 Credits 6 Periods*

ART202   Digital Arts Survey

Designed for broad overview of the digital arts. Experience in digital based media, creative problem solving, design and aesthetics. *Prerequisites: ART100 or permission of Instructor. 3 Credits 6 Periods*

ART203   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: ART/MMT190 or permission of Instructor.*
3 Credits 6 Periods

ART211   Drawing and Composition III

Advanced development of drawing skill with emphasis on compositional theory. *Prerequisites: ART122 or permission of Instructor. 3 Credits 6 Periods*

ART216   Life Drawing III

Advanced creative study from model in various painting and drawing media. *Prerequisites: ART117 or permission of Instructor. 3 Credits 6 Periods*

ART217   Life Drawing IV

Further development of skills in expressive drawing materials and techniques as applied to finished drawings of the human form. *Prerequisites: ART216 or permission of Instructor. 3 Credits 6 Periods*

ART222   Drawing and Composition IV

Further study of drawing techniques with emphasis on individual problems and techniques. *Prerequisites: ART211 or permission of Instructor. 3 Credits 6 Periods*

ART255   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. 3 Credits 3 Periods*

ART261   Ceramics III
Emphasis on wheel throwing skill and individual style development. *Prerequisites: ART162. 3 Credits 6 Periods*

ART262   Ceramics IV
Experimental work in clays and glazes. *Prerequisites: ART261. 3 Credits 6 Periods*

ART265   Watercolor Painting III
Continuation of watercolor painting with emphasis on control and expression. *Prerequisites: ART166. 3 Credits 6 Periods*

ART266   Watercolor Painting IV
Advanced problems directed toward more personal expression. *Prerequisites: ART265. 3 Credits 6 Periods*

ART267   Painting III
Development of materials and techniques of painting. Individual problem-solving. *Prerequisites: ART168 or permission of Instructor. 3 Credits 6 Periods*

ART268   Painting IV
Advanced problems in painting. Study with greater emphasis on personal expression. *Prerequisites: ART267 or permission of Instructor. 3 Credits 6 Periods*

ART270
Intermediate Computer
Photographic Imaging
Intermediate microcomputer-based photographic imaging techniques. Refinement of aesthetic awareness and personal expression. *Prerequisites: ADA/ART177 or (ADA/ART177AA and ADA/ART177AB). 3 Credits 6 Periods*

ART274
Advanced Computer
Photographic Imaging
Advanced microcomputer-based photographic imaging techniques. Advanced manipulation techniques of photographic images. Continued development of aesthetic awareness and personal expression. *Prerequisites: ART270. 3 Credits 6 Periods*

ART283   Computer Aided 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: ADA/ART183, or permission of Instructor. 3 Credits 6 Periods*

ART289   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. *Prerequisites or Corequisites: ART100 or permission of Instructor. 3 Credits 6 Periods*

ART290AC Studio Art
Studio course for art majors allowing continuation in a subject field. ART290AC may be repeated for credit. *Prerequisites: Permission of Instructor. 3 Credits 6 Periods*

ART295BC 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.
3 Credits 6 Periods

ART295GB 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.*
2 Credits 4 Periods

ART295LA Art Workshop/Seminar:
Glazing Techniques
Advanced level workshop seminar in art disciplines. *Prerequisites: Permission of Instructor.*
1 Credit 2 Periods

ASB - Anthropology:
Social/Behavioral Sci.

ASB102
Introduction to Cultural and Social Anthropology
Principles of cultural and social anthropology, with illustrative materials from a variety of cultures. The nature of culture; social, political, and economic systems; religion, aesthetics and language. *Prerequisites: None. 3 Credits*
3 Periods

ASB202   Ethnic Relations in the United States
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.*
3 Credits 3 Periods

ASB211   Women in Other Cultures
Cross-cultural analysis of the economic, social, political, and religious factors that affect women's status in traditional and modern societies. *Prerequisites: None. 3 Credits 3 Periods*

ASB214
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. 3 Credits 3 Periods*

ASB220   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. 3 Credits 3 Periods*

ASB222   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 tend to fragment societies. Examples drawn from Africa, Asia, Europe, the Pacific Islands, and Australia. *Prerequisites: None. 3 Credits 3 Periods*

ASB223
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. 3 Credits 3 Periods*

ASB231
Introduction to
Archaeological Field Methods
Excavation of an archaeological site; recording and interpreting data collected during the field experience. Overview of the cultures concerned; contemporary issues in archaeology. *Prerequisites: None. 4 Credits 8 Periods*

ASB234   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. 3 Credits 3 Periods*

ASB235   Southwest Archaeology
Anthropological perspective and comparative study of the cultures of prehistoric native peoples of the North American southwest. *Prerequisites: None. 3 Credits 3 Periods*

ASB245   Indians of the Southwest
Comparative study of the cultures, including the histories and present status, of Indians of the Southwest. *Prerequisites: None. 3 Credits 3 Periods*

ASB252   Anthropology of Sport
Cross-cultural examination of symbolic and social dimensions of sports, past and present. *Prerequisites: None. 3 Credits 3 Periods*

ASB282
Volunteerism for Anthropology:
A Service-Learning Experience
Service-learning field experience within private institutions or businesses, governmental agencies, and citizen volunteer groups. May

be repeated for a total of six (6) ASB282 credit hours; may not repeat specific agency assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in catalog. *Prerequisites: Permission of Instructor. 1-3 Credits 1-3 Periods*

ASM - Anthropology: Science/Mathematics

ASM104   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. 4 Credits 5 Periods*

ASM275   Introduction to Forensic Anthropology
Introduction to forensic anthropology. Survey of the role of forensic anthropologist, from the crime scene to the courtroom. Understand how a forensic anthropologist can determine life history of an individual. Contributions of forensic anthropology to crime scene and other legal investigations. How forensic anthropology is used to decipher historic cases, and how it is depicted in popular culture. Case studies involving criminal investigations, mass disaster incidents, and global human rights issues. *Prerequisites: None. 3 Credits 3 Periods*

AST - Astronomy

AST111   Introduction to Solar System   Astronomy
Introduction to astronomy for the non-science major. History of astronomy, properties of light, instruments, the solar system and nearby stars. *Prerequisites: MAT092 or equivalent. 3 Credits 3 Periods*

AST112   Introduction to Stars, Galaxies, and Cosmology
Introduction to astronomy for the non-science major. Structure and evolution of stars, star clusters, galaxies, and cosmology. *Prerequisites: MAT092 or equivalent.*
3 Credits 3 Periods

AST113   Introduction to Solar System   Astronomy Laboratory
Astronomical observations and exercises to supplement AST111. *Prerequisites or Corequisites: AST111. 1 Credit*
3 Periods

AST114   Introduction to Stars, Galaxies, and Cosmology Laboratory
Astronomical observations and exercises to supplement AST112. *Prerequisites or Corequisites: AST112. 1 Credit*
3 Periods

AUD - Audiology

AUD101   Hear Science
An overview of the perception of sound and the processing of sound by the auditory system. Focus on the physical properties of sound, how these properties are measured,
and the anatomy and physiology of the auditory system. *Prerequisites: None. 3 Credits 3 Periods*

AUD110   Basic Audiology Evaluation
Focuses on the skills necessary to complete a basic audiological evaluation. Includes an overview of the field of audiology and the human auditory system. Understanding of abnormal conditions to recognize site of lesion as related to overall hearing health care. *Prerequisites: None.*

AUT - Automotive Technology

AUT097   General Automotive Maintenance
A study of automotive systems operation and maintenance for the consumer. Purchasing service for cars and performing minor maintenance. *Prerequisites: None.*
3 Credits 3 Periods

AUT270AC Automotive Technology Internship
Automotive work experience in the automotive service industry. 80 hours of designated work per credit. Maximum of four (4) credits earned by taking combinations of AUT270AA, or AUT270AB, or AUT270AC. *Prerequisites: Permission of Department or Division. 3 Credits 3 Periods*

AUT282
Volunteerism Auto:
Service Learning Experience

Service learning field experience within private/public agencies, educational institution, and citizen volunteer groups. May be repeated for a total of six (6) AUT282 credit hours. Standard grading available according to procedures outlined in catalog. *Prerequisites: Permission of Instructor. 1-3 Credits 1-3 Periods*

AUT296   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: Completed at least 12 credits, min 2.6 GPA and able to obtain a position related to student's academic/career goals or permission of Instructor. Corequisites: Enrolled in at least 1 class related to major/career interest or permission of Instructor. 1-3 Credits 5-15 Periods*

AUT298   Special Projects
1-3 Credits See Page 292

BIO - Biology

BIO100   Biology Concepts
A one-semester introductory course covering basic principles and concepts of biology. Methods of scientific inquiry and behavior of matter and energy in biological systems are explored. Field trips may be required at students' expense. *Prerequisites: None. 4 Credits 6 Periods*

BIO105   Environmental Biology
Fundamentals of ecology and their relevance to human impact on natural ecosystems. Field trips may be required at students' expense. *Prerequisites: None. 4 Credits 6 Periods*

BIO107   Introduction to Biotechnology
Introduction to biotechnology and its global impact on society. Covers applications, laboratory techniques, limitations and the international economic benefits, risks, and legal and moral issues associated with biotechnology. *Prerequisites: None. 4 Credits 6 Periods*

BIO108   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. 4 Credits*
6 Periods

BIO109   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.   Field trips may be required. 4 Credits 6 Periods*

BIO145   Marine Biology
A survey of marine environments and their biotic communities with emphasis on the natural history of marine organisms. *Prerequisites: None. 4 Credits 6 Periods*

BIO160
Introduction to Human Anatomy
and Physiology
Principles of scientific method. Structural organization, homeostasis and control mechanisms of the body. Specific chemistry concepts. Structure and function of the major systems of the body. *Prerequisites: None. 4 Credits*
6 Periods

BIO181   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: None. One year of high school or one semester of college-level biology and chemistry is strongly recommended. 4 Credits 6 Periods*

BIO182   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.   Field trips may be required. *Prerequisites: A grade of "C" or better in BIO181. 4 Credits 6 Periods*

BIO201   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: (BIO156 or BIO181 with a grade of "C" or better) or (one year high school biology with a grade of "C" or better). (CHM130 or higher numbered CHM prefixed course) or (one year of high school chemistry) suggested but not*

required. 4 Credits 6 Periods

BIO202   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. 4 Credits 6 Periods*

BIO205   Microbiology
Study of microorganisms and their relationship to health, ecology, and related fields. *Prerequisites: (BIO156 or BIO181 with a grade of "C" or better) or (one year high school biology with a grade of "C" or better). (CHM130 or higher numbered CHM prefixed course) or (one year of high school chemistry) suggested but not required. 4 Credits 6 Periods*

BIO211AA
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. 1 Credit 1 Period*

BIO212AA   Biotechnology I
Intensive introduction to biotechnology, including media and solution preparation, routine manipulations of DNA, structural properties of DNA, and regulation of gene expression. *Prerequisites or Corequisites: BIO181, or BIO247, or permission of Instructor. 5 Credits 9 Periods*

BIO212AB   Biotechnology II
Intensive introduction to biotechnology, including protein biochemistry, techniques for handling and purifying proteins, recombinant deoxyribonucleic acid (DNA), sequencing deoxyribonucleic acid (DNA), testing deoxyribonucleic acid (DNA) fragments for promoter activity and analysis of deoxyribonucleic acid (DNA) for open reading frames, promoters, and homology. *Prerequisites: BIO212AA. 5 Credits 9 Periods*

BIO212AC   Biotechnology III
Intensive introduction to biotechnology, including techniques for working with proteins, especially antibodies. Testing for presence of and purifying antibodies. Techniques for working with eukaryotic cells. *Prerequisites: BIO212AB. 5 Credits 9 Periods*

BIO220   Biology of Microorganisms
Detailed study of microbial cells, their structure, genetics, physiology and taxonomy. *Prerequisites: BIO181. Corequisites: (CHM152 and CHM152LL) or (CHM154 and CHM154LL). 4 Credits 6 Periods*

BIO240   General Genetics
Intensive introduction to the field of genetics including historical perspective, Mendelian insights and patterns of inheritance, exceptions to expected Mendelian ratios, quantitative genetics, non-Mendelian inheritance, pedigree analysis, molecular levels of gene expression, genetic control of metabolic pathways, analytic dissection of molecular mechanisms behind DNA replication, transcription, translation, and gene regulation in both prokaryotes and eukaryotes, population genetics, genetics of behavior, and genetics of evolution and speciation. *Prerequisites: BIO181. 4 Credits 4 Periods*

BIO244   General Genetics Laboratory
Introductory laboratory course in support of BIO240. Designed to familiarize students with basic laboratory skills and equipment used in genetic research. *Prerequisites: BIO181. Corequisites: BIO240. 1 Credit 3 Periods*

BIO249
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. Requires a minimum of 320 clock hours in the biotechnology laboratory setting. *Prerequisites: BIO247 or permission of Instructor. 4 Credits 4 Periods*

BIO280   Animal Behavior
A study of the genetics, physiology, ecology, and evolutionary history of animal behavior. *Prerequisites: BIO100, or BIO105, or BIO181, or equivalent, or permission of Instructor. 3 Credits 3 Periods*

BIO297
Volunteerism for Biology:
A Service-Learning Experience
Service-learning field experience within private/public agencies and citizen volunteer groups. May be repeated for a total of six (6) BIO297 credit hours; may not repeat specific assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in catalog. *Prerequisites: Permission of Instructor. 1-3 Credits 1-3 Periods*

BIO298   Special Projects

BLT - Building Safety and Construction Technology

BLT121   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. 3 Credits 3 Periods*

BLT127   Plumbing Codes

Code requirements and construction practices. Topics include underground and above ground plumbing, venting and finish plumbing. *Prerequisites: None. 3 Credits 3 Periods*

BLT128   Mechanical Codes

Code requirements and construction practices. Topics include duct work, conductors and fuel supply, insulation, and controls. *Prerequisites: None. 3 Credits 3 Periods*

BLT140   Environmentally Responsible Building

An overview of environmentally responsible building and a historical survey of building methodologies. Introduces 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. *Prerequisites: None. 3 Credits 3 Periods*

BLT262
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. 3 Credits 3 Periods*

BLT263   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. 3 Credits 3 Periods*

BPC - Business-
Personal Computers

BPC100AA 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. 0.5 Credit 0.5 Period*

BPC100AB 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: BPC100AA or permission of Instructor. 0.5 Credit 0.5 Period*

BPC100AD Computing Fundamentals

Fundamental computer concepts and terminology for business and personal computers. *Prerequisites: None. 1 Credit 2 Periods*

BPC100BD Key Software Applications

Covers basic features of software applications for business and personal computers. *Prerequisites: None. 1 Credit 1 Period*

BPC100CD Living Online

Fundamental network and Internet concepts and terminology for business and personal computers. Covers basic features of electronic mail applications. *Prerequisites: None. 1 Credit 1 Period*

BPC100DD Internet And Computing Fundamentals

Fundamental computer and Internet concepts and terminology for business and personal computers. Covers basic features of software applications. *Prerequisites: None. 3 Credits 4 Periods*

BPC101AA 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. 1 Credit 2 Periods*

BPC106AH MS Outlook: Level I

Messaging and word processing functions of a Microsoft Outlook electronic work state. *Prerequisites: None. 0.5 Credit 0.5 Period*

BPC106BH 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: BPC106AH or permission of Instructor. 0.5 Credit 0.5 Period*

BPC110   Computer Usage And Applications

Introduction to business and personal computer operations and usage. Software applications for analyzing and solving business problems including word processing, spreadsheet, database, and presentation graphics. *Prerequisites: None. 3 Credits 4 Periods*

BPC111AA Computer Keyboarding I

Mastery of essential microcomputer keyboarding skills. Emphasis on touch typing of alphabetic and numeric keys and symbols. *Prerequisites: None. 1 Credit 1.7 Periods*

BPC114AE Excel: Level I

Computer spreadsheet skills for solving business problems using Excel, including calculations, forecasting, and projections. *Prerequisites: None. 1 Credit 2 Periods*

BPC114BE Excel: Level II

Additional Excel spreadsheet techniques, including macro programming, database searching, extraction, and linking to obtain prescribed reports and graphs. *Prerequisites: BPC/CIS114AE or permission of Instructor. 1 Credit 2 Periods*

BPC114CE Excel: Level III

Additional Excel spreadsheet techniques, including complex macros, statistics, and matrix manipulation. Project design using multiple, integrated spreadsheets. *Prerequisites: BPC/CIS114BE or permission of Instructor. 1 Credit 1 Periods*

BPC114DE 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. 3 Credits 5 Periods*

BPC117AM
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. 1 Credit 2 Periods*

BPC117BM
Database Management:
Microsoft Access - Level II

Exploration of additional components of the Microsoft Access database management program. *Prerequisites: BPC/CIS117AM or permission of Instructor. 1 Credit 2 Periods*

BPC117CM
Database Management:
Microsoft Access - Level III

Application of the features of the Microsoft Access program to some common database management problems. *Prerequisites: BPC/CIS117BM. 1 Credit 1 Period*

BPC117DM
Microsoft Access:
Database Management

Introduction to the basic elements, exploration of additional components and common database management problems related to the Microsoft Access program. *Prerequisites: None.   Combines the contents of BPC/CIS117AM and BPC/CIS117BM and BPC/CIS117CM. 3 Credits 5 Periods*

BPC118AB PowerPoint: Level I

Use of PowerPoint software to produce professional-quality presentation visuals. *Prerequisites: None. 1 Credit 2 Periods*

BPC118BB PowerPoint: Level II

Use of PowerPoint software add movement and sound to desktop presentations to enhance audience attention. *Prerequisites: BPC/CIS118AB. 1 Credit 2 Periods*

BPC120DB Computer Graphics: Adobe Illustrator

Provides students with the capability 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. 3 Credits 4 Periods*

BPC120DF Computer Graphics: Adobe Photoshop

Provides students with the capability to use Adobe Photoshop graphics software on a computer. Basic foundation course in the use of electronic techniques to select, manipulate, and edit images, for graphic design and image correction. *Prerequisites: None. 3 Credits 4 Periods*

BPC120DK Introduction To Digital Video Editing

Introduction to digital video editing comprises 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. 3 Credits 4 Periods*

BPC121AE 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. 1 Credit 2 Periods*

BPC125
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.). Troubleshoot (identify and repair or have repaired) microcomputer problems. *Prerequisites: None. 1 Credit 1 Period*

BPC128AF
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. 1 Credit 2 Periods*

BPC135DK Word: Level I

Using Word word processing software to create and name files, edit text, format, and print a variety of documents. *Prerequisites: None. 2 Credits 2 Periods*

BPC170
Computer Maintenance I:
A+ Essentials Prep

Technical aspects of the microcomputer, including system setup (hardware and software) and basic troubleshooting. Emphasis on basic troubleshooting, use of tools, hardware components and hardware/software interfacing. *Prerequisites: CIS105 or permission of Instructor. 3 Credits 4 Periods*

BPC210
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: BPC110 or permission of Instructor. 3 Credits 4 Periods*

BPC217AM
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: BPC/CIS117DM or BPC/CIS117CM. 3 Credits 4 Periods*

BPC220DF Advanced Photoshop

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: (BPC/CIS120AF, BPC/CIS120BF and BPC/CIS120CF) or BPC/CIS120DF, or permission of Instructor. 3 Credits 4 Periods*

BPC225
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: BPC125 or permission of Instructor. 1 Credit 2 Periods*

BPC235DK Word: Level II

Using Word word processing software features such as math, columns, macros, styles, graphics, sort, outlines, and table of contents. *Prerequisites: BPC/OAS135DK or permission of Instructor. 2 Credits 2 Periods*

BPC250
Post-Advanced Computer Usage And Applications

Post-advanced applications of software for business and personal computers including word processing, spreadsheet, database, and presentation. Includes integration of applications and Internet. *Prerequisites: BPC210 or permission of Instructor. 3 Credits 4 Periods*

BPC270
Computer Maintenance II:
A+ Technician Prep

Advanced technical aspects of maintaining and servicing computers. Emphasis placed on installation, periodic maintenance, diagnosis, and/or problem resolution. Helps prepare students for the CompTIA A+ technician examinations including Information Technology (IT) field technician, remote support technician and bench technician. *Prerequisites: BPC170 with grade of "C" or better, or permission of Instructor. 3 Credits 4 Periods*

BPC282
Volunteerism For Business Personal Computer: A Service-Learning Experience

Service learning field experience within private/public agencies, educational institution, and citizen volunteer groups. May be repeated for a total of six (6) BPC282 credit hours. Standard grading available according to procedures outlined in catalog. *Prerequisites: BPC110 and (BPC/OAS130DK, or BPC135 (any module)) and permission of Instructor. 1-3 Credits 1-3 Periods*

BPC298   Special Projects
1-3 Credits See Page 292

CCS - Chicana and Chicano Studies

CCS101   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: ENG101, or ENG107, or equivalent. 3 Credits 3 Periods*

CCS212   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. ENH112 suggested but not required. 3 Credits 3 Periods*

CCS298   Special Projects
1-3 Credits See Page 292

CET - Civil Engineering Technology

CET101   Surveying I

Fundamental surveying principles including theory and 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. *Prerequisites: DFT107, or GTC/MET108, or MAT182, or MAT187, or equivalent, or permission of Department or Division. 3 Credits 5 Periods*

CET102   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: CET101 or permission of Department or Division. 3 Credits 5 Periods*

CFS - Child/Family Studies

CFS101AH Art Activities For The Young Child

The creative use of art media and techniques at appropriate developmental levels. *Prerequisites: None. 1 Credit 1 Period*

CFS101AJ   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. 1 Credit 1 Period*

CFS101AP   Science Activities For The Young Child
Interpreting the study of science in early childhood education as a part of a dynamic growth process offered by the child's daily life experiences. *Prerequisites: None.*
1 Credit 1 Period

CFS101AR   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. 1 Credit 1 Period*

CFS123
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 and regulatory agencies; and current topics, resources, and innovative practices. *Prerequisites: None. 1 Credit 1 Period*

CFS125   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. 1 Credit*
1 Period

CFS157   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. 3 Credits 3 Periods*

CFS160
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. 1 Credit*
1 Period

CFS176   Child Development
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. 3 Credits 3 Periods*

CFS179   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. 1 Credit 1 Period*

CFS205   Human Development
Explores the growth and development process over the human life span. Research and theoretical approaches; physical, cognitive, social, and personality development from birth through adulthood and death. *Prerequisites: None. 3 Credits 3 Periods*

CFS298   Special Projects
1-3 Credits See Page 292

CHD - Chemical Dependency

CHD100   Foundations Of Chemical Dependency
Introduction to the foundations of the alcohol and drug abuse rehabilitation field. Emphasis on the roles and responsibilities of the addiction paraprofessional 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. 3 Credits 3 Periods*

CHI - Chinese

CHI101   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.*   *5 Credits 6 Periods*

CHI102   Elementary Chinese (Mandarin) II

Study of grammar and vocabulary along with the study of Chinese culture. Emphasis on pronunciation and speaking skills. *Prerequisites: CHI101 or equivalent. 5 Credits*
6 Periods

CHI115   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. 3 Credits*
3 Periods

CHM - Chemistry

CHM090   Preparation for Fundamental Chemistry

A developmental course designed to review basic math and chemistry principles for students deficient or insecure in these areas. Stresses individualized instruction and "hands-on" experience. Serves to prepare the student for CHM130. *Prerequisites: None. 1 Credit 1 Period*

CHM095   Review of General Chemistry I

A brief review of CHM151 concepts and problem-solving techniques most directly applicable to CHM152 or CHM154 topics. Recommended for students with a "C" or below in CHM151, and/or more than a year time lapse between CHM151 and either CHM152 or CHM154. *Prerequisites: CHM151 and (MAT120, or MAT122, or equivalent).*
1 Credit 1 Period

CHM107   Chemistry and Society

A survey of chemistry and its impact on the environment. Completion of CHM107LL required to meet the Natural Science requirement. *Prerequisites: None. 3 Credits*
3 Periods

CHM107LL Chemistry and Society Laboratory

Laboratory experience in support of CHM107. *Prerequisites or Corequisites: CHM107. 1 Credit 3 Periods*

CHM130   Fundamental Chemistry

A survey of the fundamentals of general chemistry for all students. It also serves to prepare the student for more advanced courses in chemistry. Emphasis on essential concepts and problem solving techniques. are emphasized. Many topics include the 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. Designed to meet needs of students in such diverse areas as agriculture, nursing, home economics, physical education and water technology *Prerequisites: Grade of "C" or better in CHM090, or MAT090, or MAT091, or MAT092, MAT093, or MAT102, (MAT103AA and MAT103AB), or satisfactory score on math placement exam. 3 Credits 3 Periods*

CHM130LL Fundamental Chemistry Laboratory

Laboratory experience in support of CHM130. *Prerequisites or Corequisites: CHM130. 1 Credit 3 Periods*

CHM138   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 MCCCD. May not be applicable to other allied health programs or transferable. *Prerequisites: Grade of "C" or better in CHM090; or one year of high school chemistry with a grade of "C" or better; or MAT092 or MAT102; or satisfactory score on placement exam. 3 Credits 3 Periods*

CHM138LL Chemistry for Allied Health Lab

Laboratory experience in support of CHM138, Chemistry for Allied Health. *Prerequisites: None. Corequisites: CHM138. 1 Credit 3 Periods*

CHM151   General Chemistry I

Detailed study of principles of chemistry for science majors and students in pre-professional curricula. Students may receive credit for only one of the following: CHM150 or CHM151. *Prerequisites: (CHM130 and CHM130LL) or (1 year of high school chemistry with a grade of "C" or better taken within the last 5 years) and completion of intermediate algebra or equiv. Completion of all prerequisites within the last two years is recommended. 3 Credits 3 Periods*

CHM151LL General Chemistry I Laboratory

Laboratory experience in support of CHM151. Prerequisites: CHM130LL or permission of instructor. *Prerequisites or Corequisites: CHM150 or CHM151. 1 Credit 3 Periods*

CHM152   General Chemistry II

A study of the chemical properties of the major groups of elements, equilibrium theory, thermodynamics, electrochemistry, and other selected topics. Completion of CHM152LL required to meet the Natural Science requirement. *Prerequisites: CHM150 or CHM151 and CHM151LL. Completion of CHM150 or CHM151 and CHM151LL within the last two years recommended.*
3 Credits 3 Periods

CHM152LL General Chemistry II Laboratory

Laboratory experience in support of CHM152. Prerequisites: CHM151LL or permission of Instructor. *Prerequisites or Corequisites: CHM152. 1 Credit 3 Periods*

CHM230   Fundamental Organic Chemistry

Chemistry of representative groups of organic compounds, emphasizing biological applications. 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. *Prerequisites: (CHM130 and CHM130LL), or (CHM150 or CHM151 and CHM151LL). Completion of (CHM130 and CHM130LL) or (CHM150 or CHM151 and CHM151LL) within the last two years recommended. 3 Credits 3 Periods*

CHM230LL Fundamental Organic Chemistry   Laboratory

Laboratory experience in support of CHM230. *Prerequisites: CHM130LL, or CHM151LL, or equivalent. Prerequisites or Corequisites: CHM230. 1 Credit 3 Periods*

CHM235   General Organic Chemistry I

Rigorous introduction to chemistry of carbon-containing compounds. Reaction mechanisms and recent methods of synthesis emphasized. *Prerequisites: CHM152 and CHM152LL, or CHM154 and CHM154LL. Completion of (CHM152 and CHM152LL) or (CHM154 and CHM154LL) within the last two years recommended. 3 Credits 3 Periods*

CHM235LL General Organic Chemistry I Laboratory

Laboratory experience in support of CHM235. *Prerequisites: CHM152LL, or CHM154LL, or equivalent. Corequisites: CHM235. 1 Credit 4 Periods*

CHM236   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: CHM235 and CHM235LL. Completion of CHM235 and CHM235LL within the last two years recommended. 3 Credits 3 Periods*

CHM236LL General Organic Chemistry IIA   Laboratory

Laboratory experience in support of CHM236. *Prerequisites: CHM235LL or equivalent. Corequisites: CHM236. 1 Credit 4 Periods*

CHM260   Fundamental Biochemistry

Structures, properties, and functions of proteins, enzymes, nucleic acids, carbohydrates and lipids; the utilization and synthesis of these materials by living systems and the relationship of the processes to energy production and utilization. Designed for students in agriculture, dental hygiene, home economics, nursing, and physical therapy. *Prerequisites: CHM230 and CHM230LL, or CHM236 and CHM236LL, or CHM238 and CHM238LL. Completion of CHM230 and CHM230LL, or CHM236 and CHM236LL, or CHM238 and CHM238LL within the last two years recommended. 3 Credits 3 Periods*

CHM260LL Fundamental Biochemistry Laboratory

Laboratory experience in support of CHM260. *Prerequisites: CHM230 and CHM230LL or permission of Instructor. Corequisites: CHM260. 1 Credit 3 Periods*

CHM298   Special Projects

1-3 Credits See Page 292

CIS - Computer Information Systems

CIS100   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. 0.5 Credit 0.5 Period*

CIS105
Survey of Computer Information Systems

Overview of computer technology, concepts, terminology, and the role of computers in society. Discussion of social and ethical issues related to computers. Use of word processing, spreadsheet, database, and presentation software. Includes programming and use of the Internet. Exploration of relevant emerging technologies. *Prerequisites: None. 3 Credits 4 Periods*

CIS107   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: CIS105 or permission of Instructor. 3 Credits 4 Periods*

CIS108   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: CIS105 or BPC110 or permission of Instructor. 1 Credit 2 Periods*

CIS114DE   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. 3 Credits 5 Periods*

CIS117DM
Microsoft Access:
Database Management
Introduction to the basic elements, exploration of additional components and common database management problems related to the Microsoft Access program. *Prerequisites: None.   Combines the contents of BPC/CIS117AM and BPC/CIS117BM and BPC/CIS117CM. 3 Credits 5 Periods*

CIS120DB   Computer Graphics: Adobe Illustrator
Provides students with the capability 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. 3 Credits 4 Periods*

CIS120DC   Flash: Digital Animation
Provides students with the ability to use Flash graphics software on microcomputers. Covers basic animation techniques used in the creation, manipulation, and editing of Flash animation graphics. *Prerequisites: None. 3 Credits*
4 Periods

CIS120DF   Computer Graphics: Adobe Photoshop
Provides students with the capability to use Adobe Photoshop graphics software on a computer. Basic foundation course in the use of electronic techniques to select, manipulate, and edit images for graphic design and image correction. *Prerequisites: None. 3 Credits*
4 Periods

CIS120DK   Introduction To Digital Video Editing
Introduction to digital video editing comprises 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. 3 Credits*
4 Periods

CIS124AA   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. 1 Credit 1.7 Periods*

CIS124BA   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: CIS124AA or permission of Instructor. 1 Credit 1.7 Periods*

CIS126DL   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.*
3 Credits 4 Periods

CIS130DA   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: CIS105. 3 Credits 4 Periods*

CIS131AA   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 Website. Some previous computer experience preferred. *Prerequisites: None.*
1 Credit 1 Period

CIS133AA   Internet/Web Development Level I-A
Overview of the Internet and its resources. Hands-on experience with various Internet communication tools. *Prerequisites: None. 1 Credit 2 Periods*

CIS133DA   Internet/Web Development Level I
Overview of the Internet/WWW and its resources. Hands-on experience with various Internet/WWW communication, resource discovery, and information retrieval tools. Web page development also included. *Prerequisites: None.*
3 Credits 4 Periods

CIS150AB   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. *Prerequisites: CIS105 or permission of Instructor. 3 Credits 4 Periods*

CIS151 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 Windows-based object oriented developments tools. *Prerequisites: CIS105 or permission of Instructor. 3 Credits 4 Periods*

CIS159 Visual Basic Programming I
Use of the Visual Basic programming language to solve problems using suitable examples from business or other disciplines. *Prerequisites: CIS105 or permission of Instructor. 3 Credits 4 Periods*

CIS162AB 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: CIS105 or permission of Instructor. 3 Credits 4 Periods*

CIS162AD 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: CIS105 or permission of Instructor. 3 Credits 4 Periods*

CIS163AA 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: CIS105 or permission of Instructor. 3 Credits 4 Periods*

CIS166AA Introduction To Javascripting
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: BPC/CIS133CA, or BPC/CIS133DA, or permission of the Instructor. 3 Credits 4 Periods*

CIS166AC
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 Structured Query Language (SQL). *Prerequisites: (BPC/CIS133CA or BPC/CIS133DA) and (CIS159 or CIS162AD), or permission of Instructor. 3 Credits 4 Periods*

CIS166AE
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: BPC/CIS133CA, or BPC/CIS133DA, or permission of the Instructor. 3 Credits 4 Periods*

CIS175DB
Implementing Microsoft Windows 2000 Professional
Implementation of Microsoft (MS) 2000 Professional including MS 2000 Advanced Server. Covers installation, configuration and management of MS 2000 systems. User accounts, security policies, printing and mobile computing as well as disaster protection and recovery also included. *Prerequisites: CCT121. 3 Credits 4 Periods*

CIS217AM
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: BPC/CIS117DM or BPC/CIS117CM. 3 Credits 4 Periods*

CIS220DC
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: BPC/CIS120DC or permission of Instructor. 3 Credits 4 Periods*

CIS220DF Advanced Photoshop
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: (BPC/CIS120AF, BPC/CIS120BF and BPC/CIS120CF) or BPC/CIS120DF, or permission of Instructor. 3 Credits 4 Periods*

CIS220DK
Advanced Digital Video Production: 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: BPC/CIS120DK, or permission of Instructor. 3 Credits 4 Periods*

CIS224
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. 3 Credits 4 Periods*

CIS226AL
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: (CIS126 (any module) and BPC/CIS133DA), or permission of Instructor.*
3 Credits 4 Periods

CIS233DA   Internet/Web Development Level II
Design and create pages on the World Wide Web with a variety of markup languages, programming languages, scripts, and multimedia. Hands-on experience authoring and preparing sophisticated web documents. Exploration of best practices/issues for web design and publishing and careers in web development and e-commerce. *Prerequisites: BPC/CIS133CA, or BPC/CIS133DA, or permission of the Instructor. 3 Credits 4 Periods*

CIS233DC
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. *Prerequisites: BPC/CIS133CA, or BPC/CIS133DA,*
or permission of the Instructor. 3 Credits 4 Periods

CIS235   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 transactions covered. Also includes current issues in e-commerce. *Prerequisites: BPC/CIS133CA, or BPC/CIS133DA, or permission of the Instructor. 3 Credits*
4 Periods

CIS236   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: CIS133CA, or CIS133DA, or permission of the Instructor. 2 Credits*
3 Periods

CIS237   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: CIS236, or permission of Instructor. 3 Credits 4 Periods*

CIS238DL   Linux System Administration
Managing Linux Operating Systems 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. Preparation for industry certifications such as the SAIR/GNU LCP and LCA certificates, CompTIA's Linux+, RHCT, RHCE, and LPIC. *Prerequisites: (CIS126AL, CIS126BL and CIS126CL), or CIS126DL or, permission of Instructor. 3 Credits 4 Periods*

CIS239DL   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: CIS238DL or permission of Instructor.*
3 Credits 4 Periods

CIS240DL 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 SAIR/GNU LCP and LCA certificates, CompTIA's Linux+, RHCT, RHCE, and LPIC. *Prerequisites: (CIS126AL, CIS126BL and CIS126CL), or CIS126DL, or permission of Instructor. 3 Credits 4 Periods*

CIS243 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 accessibility optimization, and intuitive user interfaces. *Prerequisites: CIS233DA, or permission of Instructor. 3 Credits 4 Periods*

CIS244 Testing Software Tools

Overview and implementation of GUI test automation using IBM Rational Functional Tester. Hands-on application using tools to test automation code and effectively use test software. *Prerequisites: CIS159, or CIS162AB, or CIS162AD, or CIS163AA, or permission of Instructor.*
3 Credits 4 Periods

CIS246 Software Quality

Overview of methods for managing and improving software quality. Topics critical to efficient development of high- quality software and techniques to improve software quality. Standards and best practices for producing and analyzing software quality.
Prerequisites: CIS150AB, or CIS159, or CIS162AB, or CIS162AD, or CIS163AA, or permission of Instructor. 3 Credits 4 Periods

CIS247DA Cyber Forensics And Incident Handling

Forensic and advanced incident handling techniques in a lab setting with hands-on skills in incident response, forensic preparation, Windows forensics, UNIX and Linux forensics, data recovery and analysis, malicious code analysis, law enforcement interaction and case law, corporate and managerial legal concerns and direction. Prepares students for GIAC Certified Forensic Analyst (GCFA) Certification and IACIS Certified Forensic Computer Examiner (CFCE) certification. *Prerequisites: CIS270. 3 Credits 4 Periods*

CIS248
Engineering Quality In Software Development

Overview of software development methodologies as well as software development phases and activities. Description of techniques to improve software quality including: analyzing requirements, effective designs, unit test, static analysis and code inspections. Overview of development planning, risk analysis techniques, and effective use of metrics for reporting. *Prerequisites: CIS150AB, or CIS159, or CIS162AB, or CIS162AD, or CIS163AA, or permission of Instructor. 3 Credits 4 Periods*

CIS249 Software Testing For Quality Assurance

Analyzing requirements as inputs to test cases; designing, documenting, implementing, executing tests; and analyzing test results. Overview of test planning, risk analysis and test management practices, and discussions of effective use of metrics for reporting.
Prerequisites: CIS159, or CIS162AB, or CIS162AD, or CIS163AA, or permission of Instructor.
3 Credits 4 Periods

CIS250 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: CIS105. 3 Credits 4 Periods*

CIS259 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: CIS159 or permission of Instructor. 3 Credits 4 Periods*

CIS266 Network Service And Support

Troubleshooting, servicing and supporting computer networks. Hands-on experience in supporting, expanding, servicing, diagnosing and troubleshooting networked computers of multiple architectures and configurations. Use of diagnostic equipment, common troubleshooting procedures and documentation necessary to maintain networks. *Prerequisites: (CIS191, or CIS191DB, or CIS191DC, or CIS191DD) or permission of Instructor.*
4 Credits 5 Periods

CIS270
Essentials Of Network
And Information Security

Threats to security of information systems; responsibilities and basic tools for information security, including commmunication security, infrastructure security, organizational security and basic cryptography. Introduction to the language of network security and hardware, software and firmware components of an information 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). *Prerequisites: CNT150, or (MST150 or MST150 any module), or permission of Instructor. 3 Credits 4 Periods*

CIS271DL 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: CIS240DL or permission of Instructor. 3 Credits 4 Periods*

CIS282
Volunteerism For Computer Information Systems: A Service-Learning Experience

Service-learning field experience within private/public agencies, educational institution, and citizen volunteer groups. May be repeated for a total of six (6) CIS282 credit hours. Standard grading available according to procedures outlined in catalog. *Prerequisites: Permission of Instructor.*
1-3 Credits 1-3 Periods

CIS284
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: CIS233DA, or permission of Instructor. 4 Credits 5 Periods*

CIS290
Computer Information Systems Internship

Work experience in business or industry. *Prerequisites: Permission of Instructor. 1-3 Credits 6-18 Periods*

CIS298   Special Projects
1-3 Credits See Page 292

CNS - Construction

CNS101   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. 3 Credits 3 Periods*

CNS130   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, and dimensioning with computer and board. *Prerequisites: None. 3 Credits 6 Periods*

CNS175
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. 3 Credits 3 Periods*

CNS180
Building Construction Methods, Materials, And Equipment

Comprehensive study of construction methods, materials, codes, and equipment used in building construction. *Prerequisites: None. 3 Credits 3 Periods*

CNS181   Cost Estimating I

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. 3 Credits 3 Periods*

CNS182
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.   4 Credits 4 Periods*

CNS200
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 construction documentation on site, inspection techniques, safety issues,

scope and supervision of the overall construction process. *Prerequisites: CNS175 and CNS181, or permission of Department or Division. 3 Credits 3 Periods*

CNS201
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: (CNS130, CNS175, and CNS181), or permission of Department or Division. 3 Credits 3 Periods*

CNS205
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. 3 Credits 3 Periods*

CNS221
Applied Engineering Mechanics - Statics

Emphasizes applied treatment of the basic physical principles of statics. Focuses on application of vectors, forces and moments, force systems, and equilibrium. Analysis of basic structures and structural components, moment of inertia, friction, and centroids. *Prerequisites: MAT221. 3 Credits 3 Periods*

CNS230
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: CNS130, or permission of Department or Division. 3 Credits 6 Periods*

CNS240
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 techniques specific to architecture and construction industries. *Prerequisites: CNS230, or permission of Department or Division. 3 Credits 6 Periods*

CNS243
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. 3 Credits 3 Periods*

CNS250　　Civil Drafting I: Land Development

Application of civil drafting software (Land Development) 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: CNS130, or permission of Department or Division. 3 Credits 6 Periods*

CNS251　　Civil Drafting II: Land Development

Advanced knowledge and skill in using civil drafting software (Land Development) 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: CNS250, or permission of Department or Division. 3 Credits 6 Periods*

CNS252　　Civil Drafting III: Land Development

Use of civil drafting software (Land Development) for site development. Includes use of engineering and surveying software in analysis and computation of earthwork and creation of site drawings. *Prerequisites: CNS251, or permission of Department or Division. 3 Credits 6 Periods*

CNS260　　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: CNS221 or permission of Instructor. 3 Credits 3 Periods*

CNS261　　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, including multimedia software, information management, and spreadsheet applications in construction. *Prerequisites: None. 3 Credits 3 Periods*

CNS263　　Electrical Construction Fundamentals

General knowledge of electrical work related to 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. *Prerequisites: None. 3 Credits*
3 Periods

CNS271   Home Inspection Structure
Home inspection practices for foundation, footings, roof, and framework, including floor, wall, and ceiling. Covers structural considerations and reporting practices. *Prerequisites: (BLT262 and CNS175), or permission of Department or Division. 3 Credits 3 Periods*

CNS272
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: (BLT262 and CNS175), or permission of Department or Division.*
3 Credits 3 Periods

CNS273
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: (BLT262 and CNS175), or permission of Department or Division. 3 Credits 3 Periods*

CNS274
Home Inspection: Roofing And Exteriors
Home inspection practices for roofing and exteriors of a house, and their defects. Covers reporting practices. *Prerequisites: (BLT262 and CNS175), or permission of Department or Division. 3 Credits 3 Periods*

CNS282
Volunteerism For Construction:
A Service-Learning Experience
Service-learning field experience within private/public agencies and citizen volunteer groups.   May not repeat specific assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in college catalog. *Prerequisites: Permission of Department or Division. 1-3 Credits 1-3 Periods*

CNS285   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: (BLT262 and CNS175), or permission of Department or Division. 3 Credits 3 Periods*

CNS286
Introduction To Commercial Plan Review
Application of international model codes (building, mechanical, plumbing, and electrical) to contract documents for commercial construction. *Prerequisites: (BLT263 and CNS175), or permission of Department or Division.*
3 Credits 3 Periods

CNS290   Construction Internship
Construction internship office/field experience with private/ public agencies or citizen volunteer groups. May not repeat specific assignment for more than (3) credit hours. Standard grading available according to procedures outlined in college catalog. *Prerequisites: CNS282, or permission of Department or Division. 1-3 Credits 5-15 Periods*

CNS296   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: 12 college credits, 2.6 GPA min & ability to obtain a position related to academic or career goals; or permission of Instructor. Corequisites: Enrolled in at least 1 class related to major or career interest or permission of Instructor.*
1-3 Credits 5-15 Periods

CNT - Cisco Network Technology

CNT140AA Cisco Networking Fundamentals
Introduction to the computer networking field. Covers network terminology and protocols, communication fundaments in data networks and the Internet. Includes study of the Open Systems Interconnection (OSI) model, using a top-down approach, cabling and cabling tools, basic Cisco router, configuration, Ethernet technologies, Internet Protocol (IP) addressing, and overview of Internet Protocol version 6 (IPv6), basic configuring and testing of the network, and network standards. Preparation for the Cisco Certified Network Associate (CCNA) examination. *Prerequisites: None. 4 Credits 6 Periods*

CNT148
CCNA Discovery -
Working At A Small-To-Medium Business Or Internet Service Provider
Prepares students as network technicians. Develops skills for computer and help desk technicians including soft skills. Provides overview of routing, remote access, addressing, and security. Provides familiarity with e-mail, web, and authenticated access servers. Presents network monitoring and basic troubleshooting skills in context. *Prerequisites: CNT138. 3 Credits 5 Periods*

CNT150AA Cisco Routing Protocols And Concepts
Knowledge of skills to install, configure, customize, maintain and troubleshoot Cisco routers utilizing Advanced Internet Protocol (IP) addressing techniques, Variable Length Subnet Masking (VLSM), distance vectored and Link State dynamic routing protocols, Routing Internet Protocol version 1 (RIPv1) and version 2 (RIPv2), Enhanced Interior Gateway Routing Protocol (EIGRP), Single-area Open Shortest Path First (OSPF), and understanding the structure and behavior of routing tables. Preparation for Cisco certification examination. *Prerequisites: CNT140 or permission of Instructor. 4 Credits 6 Periods*

CNT160AA
Cisco Local Area Networking (LAN) Switching And Wireless
Comprehensive, theoretical, and practical approach to learning the technologies and protocols needed to design and implement a converged switched network. Learn about the hierarchical network design model and how to select devices for each layer. Configure a switch for basic functionality and implement Virtual Local Area Networks (VLAN), VLAN Trunking Protocol (VTP), and Inter-VLAN routing in a converged network. Implementation of Spanning Tree Protocol (STP) in a converged network and a Wireless LAN (WLAN) in a small to medium network. Comprehensive hands-on labs. Preparation for Cisco certification examination. *Prerequisites: CNT140AA or permission of Instructor. 4 Credits 6 Periods*

CNT170AA
Cisco Accessing The Wide-Area Network (WAN)
Wide-Area Network (WAN) technologies and network services required by converged applications in Enterprise Networks. Cisco Enterprise Composite model (ECM) to introduce integrated network services and selection of appropriate devices and technologies to meet ECM requirements. Implement and configure common data link protocols and apply WAN security concepts, principles of traffic management, access control and addressing services. Detect, troubleshoot, and correct common enterprise network implementation issues. Includes comprehensive hands-on labs. Preparation for Cisco certification examination. *Prerequisites: (CNT140AA, CNT150AA, and CNT160AA), or permission of Instructor. 4 Credits 6 Periods*

CNT175
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: CNT170 or CNT170AA or Certified Cisco Networking Associate (CCNA) certification or permission of Instructor. 4 Credits 6 Periods*

CNT186   Fundamentals of Wireless LANs
Associate-level knowledge and skills required in Cisco wireless networks. Includes comprehensive hands-on labs to design, plan, implement, operate, secure, and troubleshoot wireless networks. CNT186 prepares students to earn Cisco Certified Network Associate Wireless (CCNA Wireless) designation by taking the Implementing Cisco Unified Wireless Networks Essentials (IUWNE) exam. *Prerequisites: CNT170, or CNT170AA, or permission of Instructor. 4 Credits 6 Periods*

CNT200
CCNP: Building Scalable Cisco Internetworks (BSCI)
Development of knowledge and skills needed to manage Internet Protocol (IP) traffic and access, understand scalable internetworks and Quality of Service (QoS), configure advanced routing protocols Border Gateway Protocol (BGP), Intermediate System to Intermediate System (IS-IS), Enhanced Interior Gateway Routing Protocol (EIGRP), Open Shortest Path First (OSPF), as well as multicast routing, Internet Protocol (IPv6), and perform advanced IP addressing configuration (Dynamic Host Configuration Protocol (DHCP). Preparation for Cisco Certified Network Professional (CCNP) exam. *Prerequisites: CNT170 or CCNA industry certification, or permission of Instructor. Corequisites: CNT210 and CNT220. 4 Credits 6 Periods*

CNT220
Cisco CCNP:
Building Multilayer Switched Networks
Development of knowledge and skills in building campus networks using advanced and multi-layer switching technologies. Preparation for Cisco Certified Network Professional (CCNP) exam. *Prerequisites: CNT170 or CCNA industry certification, or permission of instructor. Corequisites: CNT200 and CNT210. 4 Credits 6 Periods*

CNT230
Cisco CCNP IV:
Optimizing Converged Networks
Introduction to optimizing and providing effective Quality of Service (QoS) techniques in converged networks operating voice,

wireless and security applications. Topics include implementing a Voice over Internet Protocol (VoIP) network, implementing QoS on converged networks, specific Internet Protocol (IP) QoS mechanisms for implementing the DiffServ QoS model, AutoQ0S, wireless security and basic wireless management. Preparation for Cisco Certified Network Professional (CCNP) exam *Prerequisites: CNT170 or CNT170AA or CCNA industry certification, or permission of Instructor. CNT200, CNT210, and CNT220 suggested but not required. 4 Credits 6 Periods*

CNT240   Cisco Voice Over IP

Introduction to packet telephony for both Enterprise and Service Provider networks. Covers Packet Voice Technologies, Configuring Voice Interfaces, Voice Dial Peers, VoIP Signaling and Call Control. Includes data and voice integration solutions at the network-access level. *Prerequisites: CNT170 or permission of Instructor. 4 Credits 5 Periods*

COM - Communication

COM100   Introduction to Human Communication

Theory and practice of communication skills in public, small group, and interpersonal settings. Includes study of the speech communication process. *Prerequisites: None.*
3 Credits 3 Periods

COM110   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. 3 Credits 3 Periods*

COM120   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. 3 Credits 3 Periods*

COM207   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.   Recommended for the communication major. *Prerequisites: ENG101 or ENG107 or equivalent, and COM100 or equivalent, or permission of Instructor. 3 Credits 3 Periods*

COM221   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: COM120. 3 Credits 3 Periods*

COM225   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: ENG101, or ENG107, or equivalent. 3 Credits 3 Periods*

COM230   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. 3 Credits 3 Periods*

COM250
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. 3 Credits 3 Periods*

COM259
Communication in Business and Professions

Interpersonal, group, and public communication in business and professional organizations. Emphasis on oral communication. *Prerequisites: ENG101, or ENG107, or equivalent. 3 Credits 3 Periods*

COM263
Elements of Intercultural Communication

Basic concepts, principles, and skills for improving oral communication between persons from different minority, racial, ethnic, and cultural backgrounds. *Prerequisites: None. 3 Credits 3 Periods*

COM271   Voice and Diction

Exercises and techniques to free the voice and improve projection, resonance, and articulation. Covers international phonetic alphabet and standard stage speech. *Prerequisites: None. 3 Credits 3 Periods*

COM275   Nonverbal Communication

Effects of space, time, body movements, environment, objects, and voice quality on human communication and interaction. *Prerequisites: None. 3 Credits 3 Periods*

COM282
Volunteerism for Speech Communication:
A Service-Learning Experience
Service-learning field experience within private/public agencies, educational institutions, and citizen volunteer groups. May be repeated for a total of four (4) COM282 credit hours; may not repeat specific agency assignment for more than two (2) credit hours. Standard grading available according to procedures outlined in catalog. *Prerequisites: Permission of Instructor. 1-3 Credits 1-3 Periods*

COM296   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: Completed at least 12 credits, min 2.6 GPA & able to obtain a position related to student's academic/career goals or permission of Instructor. Corequisites: Enrolled in at least 1 class related to major/career interest or permission of Instructor. 1-2 Credits 5-10 Periods*

COM298   Special Projects
> *1-3 Credits See Page 292*

CPD - Counseling and Personal Development

CPD102AB Career Exploration
Designed to assist students making career choices. Focuses on self-assessment in terms of educational and career opportunities and reasonable possibilities in the world of work. Includes assessment for personal/career interests, values, needs, attitudes, skills, and other potential, and exploration of occupational information to establish career and educational goals. *Prerequisites: None. 2 Credits 2 Periods*

CPD102AD Eliminating Self-Defeating Behavior
Designed to help students change behaviors that work against their potential, i.e., inferior feelings, shyness, nervousness, stage fright, underachievement etc. Focus on identifying undesirable thoughts, emotions and behaviors, for the purpose of developing alternative, and more desirable thoughts, emotions and behaviors. *Prerequisites: None.*
2 Credits 2 Periods

CPD102AH Stress Management
Reviews the sources of stress, the physiological effects and the psychological impact of stress on the individual. Provides strategies to reduce stress. *Prerequisites: None.*
2 Credits 2 Periods

CPD103BA 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.*
2 Credits 2 Periods

CPD103BB 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. 2 Credits 2 Periods*

CPD150   Strategies For College Success
Focus on increasing student success through college orientation and personal growth, study skills development, and educational and career planning. *Prerequisites: None.*
3 Credits 3 Periods

CPD160   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. Skills for recognizing, analyzing, and mediating cultural and psychological factors impacting conflict and accord between diverse cultures. Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. *Prerequisites: None. 3 Credits 3 Periods*

CPD282
Volunteerism for Counseling and Personal Development:
A Service-Learning Experience
Service-learning field experience within private/public agencies, and citizen volunteer groups. May be repeated for a total of six (6) CPD282 credit hours. Standard grading available according to procedures outlined in catalog. *Prerequisites: Permission of Instructor. 1-3 Credits*
1-3 Periods

CPD298   Special Projects
> *1-3 Credits See Page 292*

CRE - Critical Reading

CRE101   College Critical Reading
Emphasis on applying critical inquiry skills to varied and challenging reading materials. Includes analysis, synthesis, and evaluation through written discourse. *Prerequisites: (ENG101 or ENG107) and (appropriate reading placement score or grade of "C" or better in RDG091). 3 Credits*
3 Periods

CRW - Creative Writing

CRW150   Introduction to Creative Writing
Introduces the student to elements and techniques of creative writing in a variety of genres; teaches terminology and concepts needed for successful participation in writing workshops; facilitates writing practice and evaluation; offers individual guidance on the student's development as a writer. *Prerequisites: None. 3 Credits 3 Periods*

CRW160   Introduction to Writing Poetry
Prewriting (invention and discovery); writing; analyzing and evaluating (in workshop); and revising to practice manipulating various elements of poetry, critique one's own and the poetry of others, and produce a portfolio of finished, marketable poems. *Prerequisites: None. CRW150 recommended but not required. 3 Credits 3 Periods*

CRW170   Introduction to Writing Fiction
Practice in writing fiction through a process of prewriting (invention and discovery), writing, analysis and evaluation (in workshop), and revision; practice in manipulating various elements and forms of fiction; production of marketable quality short fiction. *Prerequisites: None. CRW150 recommended but not required. 3 Credits 3 Periods*

CRW190   Introduction to Screenwriting
Overview of screenwriting elements; introduction to screenwriting techniques. *Prerequisites: None. CRW150 recommended but not required. 3 Credits 3 Periods*

CRW200   Readings for Writers
Analysis and evaluation of selected readings to raise an individual's level of writing using print and online reference materials and resources; selection of important texts and research techniques to compose and annotate a reading list in areas of interest. May be repeated for a total of six (6) credits. *Prerequisites: CRW150 or permission of Instructor. 1 Credit 1 Period*

CRW260   Intermediate Poetry Writing
Emphasis on writing a series of original poems; analysis and evaluation of the functions and effects of established works of poetry; concentration on evaluation and revising students' poetry through intensive workshopping. *Prerequisites: CRW160 or permission of Instructor. 3 Credits 3 Periods*

CRW270   Intermediate Fiction Writing
Writing a series of original short stories; analysis of established works of fiction; concentration on revising students' fiction through intensive workshopping. *Prerequisites: CRW170. 3 Credits 3 Periods*

CRW271   Topics in Writing: Fiction
Analysis, writing, and revision of genre or element within fiction. *Prerequisites: CRW150 or permission of Instructor. 3 Credits 3 Periods*

CSC - Computer Science

CSC100AB
Introduction To Computer Science (C++)
Concepts of problem solving, structured programming in C++, fundamental algorithms and techniques, and computer system concepts. Social and ethical responsibilities. Intended for majors other than Computer Science. *Prerequisites: MAT120, or MAT121, or MAT122. 4 Credits*
4 Periods

CSC110AB
Introduction To Computer Science (Java)
Concepts of problem solving, structured and object-oriented programming in Java, fundamental algorithms and techniques and computer system concepts. Social and ethical responsibilities. Intended for Computer Science and Computer Systems Engineering Majors. *Prerequisites: MAT120, or MAT121, or MAT122. 4 Credits 4 Periods*

CSC120   Digital Design Fundamentals
Number systems, conversion methods, binary and complement arithmetic, Boolean switching algebra and circuit minimization techniques. Analysis and design of combinational logic, flip-flops, simple counters, registers, ROMs, PLDs, synchronous and

asynchronous sequential circuits, and state reduction techniques. Building physical circuits. *Prerequisites: CSC100, or CSC110, or CSC181, or ELE181, or NET181, or equivalent, or permission of Instructor. 4 Credits 6 Periods*

CSC205AB
Object-Oriented Programming
And Data Structures
Covers object-oriented design and programming, elementary data structures, arrays, lists, stacks, queues, binary trees, recursion, searching and sorting algorithms. *Prerequisites: CSC100, or CSC110, or permission of Instructor. 4 Credits 4 Periods*

CSC230
Computer Organization
And Assembly Language
Assembly language programming including input/output (I/O) programming and exception/interrupt handling. Register-level computer organization, I/O interfaces, assemblers, and linkers. Processor organization and design, data path, control, pipelining, and input/output. Memory organization with cache and virtual memory. *Prerequisites: (CSC100 or CSC110) and CSC/EEE120, or permission of Instructor.*
4 Credits 5 Periods

CSC240AA
Introduction To Different
Programming Languages
Introduction to procedural (C/C++), applicative (LISP), and declarative (Prolog) languages. *Prerequisites: CSC210 or permission of Instructor. 4 Credits 4 Periods*

CTT - Caterpillar Technician Training

CTT202   Engine Diagnostics And Repair
In-depth study of engine diagnostics and repair techniques used to troubleshoot and repair engine problems in Caterpillar machines. Selection and use of Caterpillar diagnostic tools. Covers oil, air, cooling, and fuel systems. *Prerequisites: CTT113. 3 Credits 5 Periods*

CTT203   Machine Diagnostics
Failure analysis, troubleshooting logic, and diagnostic tooling and processes used to diagnose and repair the complex systems installed in Caterpillar machines. Use of Caterpillar's Applied Failure Analysis. Introduction to Service Technician Workbench (STW) applications. *Prerequisites: None. 3 Credits 5 Periods*

CTT204   Machine Specific Systems
Introduction to machine-specific systems. Machines covered include compact construction equipment, agricultural combines and challengers, 325B Excavator, off-highway trucks, wheel tractor scrapers, and motor graders. *Prerequisites: None. 3 Credits 5 Periods*

CTT206   Caterpillar Dealer Internship IV
Application of skills and knowledge gained in CTT coursework in an internship in a dealership environment. Develops professional skills required of Caterpillar service technician. Provides experience in lubrication systems, engine air induction systems, cooling systems, fuel systems, timing systems, failure analysis, diagnosis, and troubleshooting of specific types of Caterpillar equipment. Requires intern to complete a list of learning objectives, keep a logbook, and be evaluated by dealership supervisor and internship coordinator. *Prerequisites: CTT205. 3 Credits 3 Periods*

CWE - Career Work Experience

CWE198   Career/Work Experience
Participation in a work experience, gaining on-the-job training, and/or exploring a career or field of choice. Helps students relate their education to the real work world. Resume writing and interviewing skills. Development of employability skills. *Prerequisites: None. 1-3 Credits*
1-3 Periods

DAH - Dance Humanities

DAH100   Introduction to Dance
Overview of the field of dance focusing on origins, historical development, and cultural characteristics of the various styles of dance. *Prerequisites: None. 3 Credits 3 Periods*

DAH201   World Dance Perspectives
Exploration, analysis, synthesis, and evaluation of the role of dance in various cultures around the world. *Prerequisites: None. DAH100 strongly suggested but not required.*
3 Credits 3 Periods

DAH210   History of Ballet and Modern Dance

Overview of the history of ballet and modern dance from the early roots in European court dance to contemporary dance. Emphasis on the 20th and 21st centuries. *Prerequisites: DAH100 or permission of the Instructor. 3 Credits 3 Periods*

DAN - Dance - Performing Arts

DAN115AA Contemporary Dance Trends: Hip Hop
Theory and practice of Hip Hop dance. Development of movement quality and performance skills. *Prerequisites: None.   May be repeated for a total of two (2) credits.*
1 Credit 3 Periods

DAN120AA World Dance: African Dance
Theory and practice of African dance. Development of movement quality and performance skills, individually or in a group setting. May include African, Caribbean or Afro-fusion dance. *Prerequisites: None. May be repeated for a total of two (2) credits. 1 Credit 3 Periods*

DAN120AE World Dance: Middle Eastern Dance
Theory and practice of Middle Eastern dance. Development of movement quality and performance skills. *Prerequisites: None.   May be repeated for a total of two (2) credits.*
1 Credit 3 Periods

DAN120AK World Dance: Capoeira
Theory and practice of Capoeira. Development of movement quality and performance skills. *Prerequisites: None.   May be repeated for a total of two (2) credits. 1 Credit*
3 Periods

DAN125   Social Dance
Theory and practice of social dance. Development of movement quality and performance skills individually, with a partner or in a group setting. *Prerequisites: None. May be repeated for a total of four (4) credits. 1 Credit 2 Periods*

DAN125AC Social Dance: Latin
Theory and practice of Latin dance. Development of movement quality and performance skills individually, with a partner or in a group setting. May include Salsa, Mambo, Cha Cha Cha, Merengue, Rumba, Bachata, International Latin Ballroom, or Latin Ballroom Performance. *Prerequisites: None. May be repeated for a total of four (4) credits. 1 Credit 2 Periods*

DAN129   Musical Theatre Dance I
Introduction to the theory and practice of musical theatre dance at the beginning level. Development of movement quality and performance skills. *Prerequisites: None.   May be repeated for a total of two (2) semester credit hours. 1 Credit 3 Periods*

DAN130   Musical Theatre Dance II
Theory and practice of musical theatre dance at the advanced beginning level. Development of movement quality and performance skills. May be repeated for a total of two (2) semester credit hours. *Prerequisites: DAN129 or permission of Instructor. 1 Credit 3 Periods*

DAN131   Ballet I
Introduction to the theory and practice of ballet at the beginning level. Development of movement quality and performance skills. *Prerequisites: None. May be repeated for a total of two (2) credit hours. 1 Credit 3 Periods*

DAN132   Modern Dance I
Introduction to the theory and practice of modern dance at the beginning level. Development of movement quality and performance skills. *Prerequisites: None. May be repeated for a total of two (2) credit hours. 1 Credit 3 Periods*

DAN133   Modern Jazz Dance I
Introduction to the theory and practice of modern jazz dance at the beginning level. Development of movement quality and performance skills. *Prerequisites: None. May be repeated for a total of two (2) credit hours. 1 Credit 3 Periods*

DAN134   Ballet II
Theory and practice of ballet at the advanced beginning level. Development of movement quality and performance skills. May be repeated for a total of two (2) credit hours. *Prerequisites: DAN131 or permission of Instructor.*
1 Credit 3 Periods

DAN135   Modern Dance II
Theory and practice of modern dance at the advanced beginning level. Development of movement quality and performance skills. May be repeated for a total of two (2) credit hours. *Prerequisites: DAN132 or permission of Instructor. 1 Credit 3 Periods*

DAN136   Modern Jazz Dance II
Theory and practice of modern jazz dance at the advanced beginning level. Development of movement quality and performance skills. May be repeated for a total of two (2) credit hours. *Prerequisites: DAN133 or permission of instructor. 1 Credit 3 Periods*

DAN140   Tap Dance I

An introduction to the theory and practice of tap dance. May be repeated for a total of two (2) semester credit hours. *Prerequisites: None. 1 Credit 3 Periods*

DAN141   Dance Workshop
An intensive experience in the process of choreography, performance, and production elements. May be repeated for a total of two (2) semester credit hours. *Prerequisites: None. 1 Credit 3 Periods*

DAN145   Tap Dance II
Theory and practice of tap dance at an advanced beginning level.   DAN145 may be repeated for a total of two (2) credits. *Prerequisites: DAN140 or permission of instructor.*
1 Credit 3 Periods

DAN146   Tap Dance Ensemble
Introduction to the process and practice of dance performance, specific to the genre of tap dance. *Prerequisites: DAN140 or permission of instructor.*
1 Credit 3 Periods

DAN150   Dance Performance I
An introduction to the process and practice of dance performance. May be repeated for a total of two (2) semester credit hours. *Prerequisites: None. 1 Credit 3 Periods*

DAN155   Dance Performance II
Continued study of the process and practice of dance performance at a level II. DAN155 may be repeated for a total of two (2) semester credit hours. *Prerequisites: DAN150 or permission of Instructor. 1 Credit 3 Periods*

DAN221   Rhythmic Theory For Dance I
Exploration of the ways in which music, time, pitch, and energy work with the art of dance. Emphasis on reading and writing music notation and performing movement that correlates to the notation and vice versa. *Prerequisites: None. 2 Credits 3 Periods*

DAN222   Rhythmic Theory For Dance II
Study at the intermediate level of the ways in which music, time, pitch, and energy work with the art of dance with an emphasis on small group movement projects and their relationship to musical time and structure. *Prerequisites: DAN221 or permission of instructor. 2 Credits 3 Periods*

DAN231   Ballet III
Theory and practice of ballet at the beginning intermediate level. Development of movement quality and performance skills. May be repeated for a total of two (2) credit hours. *Prerequisites: DAN134 or permission of Instructor.*
1 Credit 3 Periods

DAN232   Modern Dance III
Theory and practice of modern dance at the beginning intermediate level. Development of movement quality and performance skills. May be repeated for a total of two (2) credit hours. *Prerequisites: DAN135 or permission of instructor. 1 Credit 3 Periods*

DAN233   Modern Jazz Dance III
Theory and practice of modern jazz dance at the beginning intermediate level. Development of movement quality and performance skills. May be repeated for a total of two (2) credit hours. *Prerequisites: DAN136 or permission of instructor. 1 Credit 3 Periods*

DAN234   Ballet IV
Theory and practice of ballet at the intermediate level. Development of movement quality and performance skills.   May be repeated for a total of two (2) credit hours. *Prerequisites: DAN231 or permission of Instructor.*
1 Credit 3 Periods

DAN235   Modern Dance IV
Theory and practice of modern dance at the intermediate level. Development of movement quality and performance skills.   May be repeated for a total of two (2) credit hours. *Prerequisites: DAN232 or permission of Instructor.*
1 Credit 3 Periods

DAN236   Modern Jazz Dance IV
Theory and practice of modern jazz dance at the intermediate level. Development of movement quality and performance skills. May be repeated for a total of two (2) credit hours. *Prerequisites: DAN233 or permission of Instructor. 1 Credit 3 Periods*

DAN250   Dance Performance III
Continued study of the process and practice of dance performance at a level III. DAN250 may be repeated for a total of two (2) semester credit hours. *Prerequisites: DAN155 or permission of Instructor. 1 Credit 3 Periods*

DAN255   Dance Performance IV
Culmination of the process and practice of dance performance at a level IV. DAN255 may be repeated for a total of two (2) semester credit hours. *Prerequisites: DAN250 or permission of Instructor. 1 Credit 3 Periods*

DAN264   Choreography I
Study of basic dance choreography to include construction of a phrase, structure and form in a composition, and the basic elements of time, space and energy. *Prerequisites: None. 3 Credits 3 Periods*

DAN265 Choreography II

Exploration of the craft of choreography at the intermediate level. Experimentation with the various approaches to contemporary choreography as established by 20th-century artists. *Prerequisites: DAN264. 3 Credits 3 Periods*

DAN280 Dance Practicum

A culmination of coursework for the dance major requiring completion of an extended choreographic work from conception to performance. Also requires a final evaluative paper on the successes and challenges encountered throughout the project. *Prerequisites: Permission of Instructor. 2 Credits 6 Periods*

DFT - Drafting Technology

DFT100 Introduction To Drafting

Provides experience and explores career opportunities in three major areas of drafting: mechanical, electronics and construction. Provides basic skills including multiview and pictorial drawing and freehand sketching. *Prerequisites: None. 3 Credits 6 Periods*

DFT105AA Computer Aided Drafting I: Autocad

Industrial use of AutoCAD equipment (hardware and software) in the areas of mechanical, electronic and construction drawings. *Prerequisites: None. 3 Credits*
6 Periods

DFT110 Technical Drafting I

Fundamentals of drafting including lettering, basic drawing concepts, geometric construction and multiview projection. *Prerequisites: None. 3 Credits 6 Periods*

DFT111 Technical Drafting II

Dimensioning and tolerancing, sectional views and auxiliary views. *Prerequisites: DFT/MET105AA, or DFT110, or equivalent. 3 Credits 6 Periods*

DFT112 Technical Drafting III

Detail and assembly drawings, dimensioning and tolerancing per current manufacturing standards. *Prerequisites: (DFT111 and DFT254AA) or equivalent.*
3 Credits 6 Periods

DFT113 Technical Drafting IV

Advanced uses of computer-aided drafting (two-dimensional and three dimensional) as a tool for producing working drawings and assembly drawings in weldment design and jig and fixture design. *Prerequisites: DFT112 or equivalent. 3 Credits 6 Periods*

DFT114 Machine Trades Blueprint Reading

Analysis and interpretation of technical drawings common to manufacturing and the machine trades. *Prerequisites: None. 3 Credits 3 Periods*

DFT115
Geometric Dimensioning
And Tolerancing

Principles and application of the latest techniques in geometric dimensioning and tolerancing in accordance with current American Society of Mechanical Engineers (ASME) Y14.5M. Recommended for all manufacturing personnel who read or produce engineering drawings related to contracts with the U.S. Government. *Prerequisites or Corequisites: DFT110, or MET109, or permission of Department or Division. 3 Credits 3 Periods*

DFT223 Structural Steel Detailing

Study of the manufacture of structural steel and its application in the construction field. Includes study of plates, girders, roof trusses, latticed girders, and beams. Emphasis on drawing and detailing of erection plans and diagrams using board and/or CAD (computer aided drafting) skills and techniques. *Prerequisites: DFT122, or equivalent, or permission of Department or Division. 3 Credits 6 Periods*

DFT245AA Integrated Circuit Design - CMOS Ia

Entry-level integrated circuit layout design in CMOS (Complimentary Metal Oxide Silicon) Technology. Use of drafting techniques for layout and drafting of logic diagrams, schematic diagrams, circuit planning, and integrated circuit drawings. *Prerequisites: (DFT/MET105AA, DFT110, ELE113 and ELE131) or equivalent or permission of Instructor. 3 Credits 6 Periods*

DFT245AB Integrated Circuit Design - CMOS Ib

CMOS(Complimentary metal oxide silicon). Layout drawings of a complex nature, cell concepts and putting together major sub-assemblies of an integrated circuit. Other integrated circuit components such as resistors, capacitors, bonding pads. *Prerequisites: DFT245AA. 3 Credits 6 Periods*

DFT252AA Computer Aided Drafting I: Autocad

Industrial use of AutoCAD equipment (hardware and software) in the areas of mechanical, electronic and construction drawings. *Prerequisites: DFT110, or DFT121, or permission of Department or Division. 3 Credits 6 Periods*

DFT254AA Computer Aided Drafting II: Autocad

Advanced AutoCAD techniques in constructing three-dimensional objects and symbols, dimensioning and text; advanced techniques for projection, rotation, and translation of objects; advanced plotter use. *Prerequisites: DFT105AA, or DFT252AA, or equivalent, or permission of Department or Division. 3 Credits 6 Periods*

DFT256AA Computer Aided Drafting III: Autocad
Use of industrial AutoCAD CAD (computer aided drafting) equipment and programs; advanced concepts; customized CAD usage. Creation and use of three-dimensional components and symbols to design complex objects. File management techniques, file archival, custom command creation, and use of macro programs to solve design problems. *Prerequisites: DFT254AA or equivalent. 3 Credits 6 Periods*

DFT296   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: Completed at least 12 credits, min 2.6 GPA and able to obtain a position related to student's academic/career goals or permission of Instructor. Corequisites: Enrolled in at least 1 class related to major/career interest or permission of Instructor. 1-3 Credits 5-15 Periods*

DHE - Dental Hygiene Education

DHE110   Pharmacology
Study of the principles of pharmacology and drugs affecting dental treatment. Topics include drug interactions, oral manifestations, drugs used in dentistry and complementary medicine. *Prerequisites: Admission to the Dental Hygiene Program or permission of Instructor. 3 Credits 3 Periods*

DHE112   Oral Pathology
Identification, classification, etiology and treatment of lesions of the oral mucosa and atypical conditions of the oral cavity and supporting structures. Understanding of abnormal conditions to recognize the parameters of comprehensive dental hygiene care. Multimedia resources are used extensively for identification of oral lesions. *Prerequisites: Admission to the Dental Hygiene Program or permission of Instructor. 3 Credits 3 Periods*

DHE115   Emergency Medicine
Introduction to recording and interpreting medical history. Additional topics include: recognition of signs and symptoms of medical emergencies, procedures and techniques introduced to prevent emergencies and management of emergency situations in the dental environment. *Prerequisites: Admission to the Dental Hygiene Program. 2 Credits 2 Periods*

DHE117   Dental Radiography
Physics of radiography, theory of radiation production, exposure techniques, radiation protection, film processing, mounting, and interpretation of radiography. Course activities include multimedia resources. *Prerequisites: Admission to the Dental Hygiene Program or permission of Instructor. 2 Credits 2 Periods*

DHE119   Head And Neck Anatomy
Study of the structures of the head and neck relevant to dental hygiene. Topics include: osteology, musculature, blood supply, glandular tissue, cranial nerves and routes of infection. Course activities include use of skulls, models and multimedia resources. *Prerequisites: Admission to the Dental Hygiene Program or permission of Instructor.*
3 Credits 3 Periods

DHE120   Pre-Clinical Dental Hygiene
Introduction to the dental hygiene profession and the process of care. Infection control, patient assessment, preventive treatment and dental hygiene instrumentation are practiced. Students are introduced to self-assessment skills and quality improvement. *Prerequisites: Admission to the Dental Hygiene Program or permission of Instructor. 6 Credits*
12 Periods

DHE121
Dental Anatomy, Embryology
and Histology
Includes the histology and embryology of oral tissues; developmental disturbancs of the face, oral cavity, and related structures; tooth composition and morphology; eruption patterns and occlusal evaluation. Use of skulls, models and multimedia resources also covered. *Prerequisites: Admission to the Dental Hygiene Program.*
2 Credits 3 Periods

DHE125   Dental Radiography Laboratory
Radiation safety and infection control procedures for operator and patient. Film placement, exposure, development, mounting and evaluation of dental radiographs. Operation and maintenance of X-ray and processing equipment. Interpretation of radiographic findings. *Prerequisites or Corequisites: (DHE117 and admission to the Dental Hygiene Program) or permission of Instructor. 1 Credit 3 Periods*

DHE127   Prevention Of Dental Disease
Introduction of preventive concepts to help clients achieve control of oral diseases and injury. Topics include etiologic agents, caries process, nutrition, fluorides, sealants and patient/client motivation techniques. Multimedia resources used extensively. *Prerequisites: Admission to the Dental Hygiene Program or permission of Instructor. 3 Credits*

3 Periods

DHE132   Dental Hygiene Theory I

Study of the dental hygiene process of care with emphasis on assessment, planning and implementation. Topics include instrumentation, adjunct dental hygiene services, instrument sharpening, computer technology, dental specialties and professional accountability. *Prerequisites: (DHE120 and admission to the Dental Hygiene Program) or permission of Instructor. Corequisites: DHE133. 3 Credits 5 Periods*

DHE133   Dental Hygiene Clinic I

Application of the dental hygiene process of care with emphasis on assessment, planning, and implementation. Introduction to evaluation of dental hygiene therapy. *Prerequisites: DHE120 and admission to the Dental Hygiene Program. Corequisites: DHE132 and current CPR card.*
3 Credits 9 Periods

DHE212   Dental Hygiene Theory II

Study of the dental hygiene process of care with emphasis on comprehensive care planning, case presentation, and clinical decision making. Introduction to advanced periodontal instrumentation. *Prerequisites: DHE132 and DHE133 and admission to the Dental Hygiene Program. Corequisites: DHE213. 2 Credits 2 Periods*

DHE213   Dental Hygiene Clinic II

Application of the dental hygiene process of care with emphasis on comprehensive care planning, case presentation, clinical decision making, advanced instrumentation and improved time utilization. *Prerequisites: DHE132 and DHE133 and admission to the Dental Hygiene Program. Corequisites: DHE212. 5 Credits 15 Periods*

DHE219   Practice Management

Integration of practice management concepts and comprehensive quality patient care in preparation for future collaborative practice between dental hygienists and dentists. Students are challenged with practice situations including productivity, conflict management, ethical and legal issues. *Prerequisites: Admission to the Dental Hygiene Program or permission of Instructor. 2 Credits 2 Periods*

DHE225   Periodontics

Principles of periodontology; etiology, microbiology, pathogenesis, classification and characteristics of healthy and diseased periodontal tissues. Surgical treatment of periodontal disease and the effects of dental hygiene therapy, surgical techniques and maintenance therapy. Evaluation of the scientific literature and multimedia resources are used extensively. *Prerequisites: Admission to the Dental Hygiene Program or permission of Instructor. 3 Credits 3 Periods*

DHE227   Dental Anesthesia

A comprehensive lecture and laboratory course providing concepts and techniques for the administration of local anesthetic agents and nitrous oxide. Experience gained in medical history review, record keeping, patient management and hands-on experience administering local anesthetics and nitrous oxide in a clinical setting. *Prerequisites: DHE119 and current CPR certification. 1 Credit 1 Period*

DHE229   Community Oral Health

An examination of methods used to assess the oral health status of the community and to plan, implement, finance and evaluate dental public health programs. Focus on community-based health promotion and disease prevention measures to improve the oral health of the population, as well as the characteristics of dental care delivery systems and the social, political, psychological and economic factors affecting utilization within the system. *Prerequisites: Admission to the Dental Hygiene Program or permission of Instructor. 3 Credits 3 Periods*

DHE232   Dental Hygiene Theory III

Study of the dental hygiene process of care with emphasis on the patient with special needs and advanced instrumentation. Students participate in field observations and present case documentations. *Prerequisites: (DHE212 and DHE213), and admission to the Dental Hygiene Program. Corequisites: DHE233. 2 Credits 3 Periods*

DHE233   Dental Hygiene Clinic III

Application of the dental hygiene process of care with emphasis on diverse populations. Students prepare for clinical practice using self-assessment, evaluation and critical thinking skills. *Prerequisites: (DHE212 and DHE213), and admission to the Dental Hygiene Program. Corequisites: DHE232. 5 Credits 15 Periods*

ECE - Engineering Science

ECE102
Engineering Analysis Tools
and Techniques

Learning culture of engineering, engineering use of computer tools, and computer modeling as applied to engineering analysis and design. *Prerequisites: Two years of high school algebra or MAT122 or permission of Department or Division. Corequisites: MAT151 or MAT182 or MAT187. 2 Credits 4 Periods*

ECE103
Engineering Problem Solving

and Design

Fundamentals of the design process: engineering modeling, communication and problem-solving skills in a team environment. Emphasis on process-based improvements to the design process. Introduction to engineering as a profession. *Prerequisites: ECE102 and (high school physics or PHY111). 2 Credits 4 Periods*

ECE111   Bioengineering Systems

Introduction to biological concepts and application of engineering to biological and earth systems. Analysis of materials, structures, fluid mechanics, bioelectricity, and dynamics as applied to biological and environmental systems. *Prerequisites: None. 3 Credits 5 Periods*

ECE201   Introduction to Engineering Statics

Introduction to engineering statics, including force systems, resultants, equilibrium of particles and rigid bodies, introduction to centroids and centers of mass, area moments of inertia, distributed loading, and friction. *Prerequisites: (ECE103 or ECE103AB), and (MAT230 or MAT231), and (PHY115 or PHY121). 2 Credits 3 Periods*

ECE202   Introduction to Engineering Dynamics

Introduction to engineering dynamics, including kinematics and kinetics of particles, mass moments of inertia, introduction to kinematics and kinetics of rigid bodies, introduction to energy and momentum principles for rigid bodies. *Prerequisites: ECE201. Corequisites: MAT240 or MAT241. 2 Credits 3 Periods*

ECE214   Engineering Mechanics

Foundations of engineering mechanics, including force systems, resultants, equilibrium of particles and rigid bodies, centroids and centers of mass, area and mass moments of inertia, friction, internal forces in structures, kinematics and kinetics of particles, kinematics and kinetics of rigid bodies, energy and momentum principles. *Prerequisites: (ECE103 or ECE103AB), (MAT230 or MAT231), and (PHY115 or PHY121). Corequisites: MAT240 or MAT241. 4 Credits 6 Periods*

ECE215   Mechanics of Materials

Designed to provide students with a strong fundamental foundation in the mechanics of solids. Includes the concepts of stress and strain applied to the analysis and design of members subjected to axial and torsional loads and members subjected to shear and bending, applications and transformation of plane stress and plane strain, deformation of beams, and elastic buckling of columns. *Prerequisites: ECE214 or (ECE211 and ECE212) and MAT262. 3 Credits 5 Periods*

ECH - Early Childhood Education

ECH126AB Play Lab-Toddlers

Participant observation within a laboratory play environment with children 13-35 months of age. Focus on preparation, management and evaluation of developmentally appropriate activities. *Prerequisites: None. 1 Credit 2 Periods*

ECH126AC Play Lab-Preschoolers

Participant observation within a laboratory play environment with children 3-5 years of age. Focus on preparation, management and evaluation of developmentally appropriate activities. *Prerequisites: None. 1 Credit 2 Periods*

ECH270   Observing Young Children

Introduction to techniques of observing young children. Recording methods, interpretation and use of collected information including legal and ethical implications. *Prerequisites: None. 1 Credit 1 Period*

ECH273   Math For The Young Child

Methods and techniques for encouraging the beginnings of mathematical/logical thought with young children. Focus upon the theory of Jean Piaget. *Prerequisites: None. 1 Credit 1 Period*

ECN - Economics

ECN110   Economics of Sports

Basic microeconomics principles applied to traditional product and factor market theory and analysis of contemporary economic issues in sports. Topics include market structures and outcomes, the market for franchises, barriers to entry, rival leagues, player productivity, and competitive and collusive behavior among participants. *Prerequisites: None. 3 Credits 3 Periods*

ECN160   Economic History of the United States

A description of the trends of American population, industry, and wealth through examination of major American institutions, historical events, and economic thought. Emphasis on the roles of technology and natural resources in agriculture and industry, the labor force, the monetary system, market structures, and the economic impact of government. *Prerequisites: None. 3 Credits 3 Periods*

ECN161
Economic History of the United States 1600-1870

Trends of American population, industry, and wealth through examination of major American institutions, historical events, and economic thought. Emphasis on the roles of technology and natural resources in agriculture and industry, the labor force, the monetary system, market structures, and the economic impact of government. *Prerequisites: None. 3 Credits 3 Periods*

ECN204   Macroeconomics Issues
Macroeconomic principles applied to current problems of economic policy, e.g., inflation, unemployment, gross national product (GDP), forecasting, ramifications for the international system. *Prerequisites: None. 3 Credits*
3 Periods

ECN208   Microeconomics Issues
Microeconomic principles applied to current problems of market structure, consumer preference, supply and demand, and the theory of the firm. Topics will include contemporary events that are suitable for application of the economic way of thinking. *Prerequisites: None. 3 Credits 3 Periods*

ECN211   Macroeconomic Principles
A descriptive analysis of the structure and functioning of the American economy. Emphasis on basic economic institutions and factors that determine national income and employment levels. Consideration given to the macroeconomic topics of national income, unemployment, inflation and monetary and fiscal policies. *Prerequisites: None. 3 Credits 3 Periods*

ECN212   Microeconomic Principles
Microeconomic analysis including the theory of consumer choice, price determination, resource allocation and income distribution. Includes non-competitive market structures such as monopoly and oligopoly; and the effects of government regulation. *Prerequisites: None. 3 Credits*
3 Periods

ECN263
The Economics of Natural Resources, Population and the Environment
Applies economic analysis to both the causes and possible remedies of the problems of environmental deterioration and natural resource depletion. Includes discussion of the economic problems of urban communities and the relationship between population and economic growth and the depletion of natural resources and environmental pollution. *Prerequisites: ECN100, or ECN211, or ECN212. 3 Credits 3 Periods*

EDU - Education

EDU101AA Tutor Training And Practicum
Tutor training with an opportunity to gain insights into instructional support services through a minimum of 30 hours of supervised on-site experience within an educational setting. Overview of the role and responsibilities of instructional tutors as well as tutoring techniques, with particular focus on reading and writing strategies. *Prerequisites: None. 1 Credit 1 Period*

EDU101AB Tutor Training And Practicum
Tutor training with an opportunity to gain insights into instructional support services through a minimum of 60 hours of supervised on-site experience within an educational setting. Overview of the role and responsibilities of instructional tutors as well as tutoring techniques, with particular focus on reading and writing strategies. *Prerequisites: Permission of Instructor. 2 Credits 2 Periods*

EDU220
Introduction to Serving English Language Learners (ELL)
Rationale for and current educational and legal issues for serving English Language Learners (ELL). Comparison and evaluation of various types of language educational models including Structured English Immersion (SEI), English as a Second Language (ESL) and bilingual. Includes SEI, ESL, and bilingual strategies. *Prerequisites: None. Approved school-based practicum is required. EDU220 incorporates the 45-clock hour curricular framework for provisional SEI endorsement through the Arizona Department of Education. 3 Credits 3 Periods*

EDU221   Introduction To Education
Overview of the historical, political, economic, social, and philosophical factors that influence education and make it so complex. Opportunity for students to assess their interest and suitability for teaching. *Prerequisites: None.   Requires minimum of 30 hours of field experience in elementary or secondary classroom environment. 3 Credits 3 Periods*

EDU222
Introduction To The
Exceptional Learner
Overview of the exceptional learner, one who differs from the average or normal, with emphasis on factors relating to current practices, identification, characteristics, and educational adaptations. Issues related to mildly disabled, severely disabled, emotionally and behaviorally disordered, mentally retarded, and gifted students. Includes school-based practicum. *Prerequisites: None. 3 Credits 3 Periods*

EDU230   Cultural Diversity In Education
Examination of the relationship of cultural values to the formation of self-concept and learning styles. Examination of the role of prejudice, stereotyping and cultural incompatibilities in education. Emphasis on teacher preparation (preservice and/or inservice) to offer an equal educational opportunity to students of all cultural groups. *Prerequisites: None. 3 Credits 3 Periods*

EDU236   Classroom Relationships
Analysis of K-12 classroom interactions, classroom environment, and classroom management skills from a teacher's point of view. Focus on classroom as a multidimensional environment in which principles of classroom design, communication, management, and resources determine effectiveness. *Prerequisites: None. EDU221 suggested but not required. Requires a 20-hour field experience in a K-12 classroom. 3 Credits 3 Periods*

EDU250
Teaching And Learning
In The Community College
The history, functions, organization and current issues in the community/junior college with emphasis on the Arizona community colleges. Includes focus on the design and practice of effective community college teaching and learning with special emphasis on the Maricopa County Community College District. *Prerequisites: None. 3 Credits 3 Periods*

EDU270AA Elementary Reading And Decoding
Focus on the theories, methods and models of the teaching and learning processes of reading in the elementary grades. Approved school-based practicum required. *Prerequisites: None. 3 Credits 3 Periods*

EDU282
Volunteerism For Education:
A Service-Learning Experience
Service-learning field experience within educational systems, citizen advocacy groups, and human service organizations/agency. May be repeated for a total of six (6) EDU282 credit hours; may not repeat specific agency assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in catalog. *Prerequisites: Permission of Instructor. 1-3 Credits 1-3 Periods*

EDU291   Children's Literature
Review of folk and modern literature from a variety of world cultures, including application of literary criteria to folk and modern literature for children. *Prerequisites: None.*
3 Credits 3 Periods

EDU292   The Art of Storytelling
Explore the art and origin of storytelling. Provide a variety of storytelling techniques, styles and exercises to enhance the delivery of telling stories. Assist in the integration and application of storytelling to the learning environment in the classroom. *Prerequisites: None. 3 Credits 3 Periods*

EDU298   Special Projects
    1-3 Credits See Page 292

EED - Early Education

EED200
Foundations Of Early
Childhood Education

Overview of early childhood education (birth to age eight) in American society, including current issues and responsibilities. Emphasis on issues of professionalism, ethics and program types. Opportunities for students to explore potential career paths. Includes field experience. *Prerequisites: None. EED200 requires a minimum of 30 hours of field experience in birth to age eight environments. 3 Credits 3 Periods*

EED205
The Developing Child:
Prenatal to Age Eight
Examination of process of physical, social, emotional, cognitive, language, and literacy development of typical and atypical young children; prenatal through age eight. Includes practical application and fieldwork experience. *Prerequisites: None. 3 Credits 3 Periods*

EED212
Guidance, Management
And The Environment

Principles for guiding young children in early care and education environments. Exploration of guidance, management, and how the environment impacts the lives of young children. Includes observation of classrooms of children ages birth to age eight.
Prerequisites: None.
3 Credits 3 Periods

EED215
Early Learning: Health, Safety,
Nutrition And Fitness

Consideration of public health issues and safety procedures within early childhood settings, serving young children birth to age eight. Overview of nutritional needs and issues of physical fitness and well-being in young children. Includes field experiences. *Prerequisites: None. 3 Credits*
3 Periods

EED220   Child, Family, Community and Culture
Examines family, community and cultural influences on development of the young child (birth to age eight). Considers trends and threats to attachment, relationships and cultural identity. Includes social and emotional experiences and their impact on the developing brain. *Prerequisites: None. 3 Credits 3 Periods*

EED222
Introduction To The Exceptional Young Child: Birth To Age Eight
Overview of the exceptional learner (birth - age 5 eight), one who differs from the average or the norm, with emphasis on observation, techniques, characteristics, identification, types of programs, and work with families. Issues related to learning exceptionalities, sensory and communication disorders, social and emotional problems, physical and health related disorders, and giftedness. Includes field experience. *Prerequisites: None. 3 Credits 3 Periods*

EED255
Portfolio Development And Writing For The Profession
Portfolio development, completion, and presentation. Self- assessment and educational short-term and long-term planning, professional development, writing and critical learning included. *Prerequisites: Completion of twelve (12) credit hours of EED coursework and permission of Program Coordinator. 3 Credits 3 Periods*

EED260
Early Childhood Infant/Toddler Internship
Work experience with infants and toddlers in early care and education settings. 80 hours of designated work per credit.   May be repeated for a total of six (6) credit hours. *Prerequisites: Permission of Department or Division.*
1 Credit 1 Period

EED261   Early Childhood Preschool Internship
Work experience with preschoolers in early care and education settings. 80 hours of designated work per credit.   May be repeated for a total of six (6) credit hours. *Prerequisites: Permission of Department or Division.*
1 Credit 1 Period

EED270
Early Learning Development:
Birth To Age Eight
Teaching and early learning issues within a cognitive processes context. Covers emotion, memory, and recall as well as early brain development and its relationship to early learning for the young child, birth to age eight. *Prerequisites: CFS/ECH176, or CFS205, or CFS235, or EED205, or permission of Instructor. 3 Credits 3 Periods*

EED272
Early Childhood Educational Psychology
Focus on the study and application of psychological principles, theories, and methodologies related to early childhood teaching and learning. Emphasis on early childhood developmental, learning, and motivational theories. Current trends also covered. *Prerequisites: None.*
3 Credits 3 Periods

EED278
Early Learning: Curriculum And Instruction - Birth/Preschool
Considerations and evaluations of curriculum appropriate to the developmental characteristics of learners, birth through five years. Includes how early childhood standards, philosophies, and program settings relate to the teaching, learning, and assessment process. Includes field experience. *Prerequisites: EED200. 3 Credits 3 Periods*

EEE - Electrical Engineering

EEE120   Digital Design Fundamentals
Number systems, conversion methods, binary and complement arithmetic, Boolean switching algebra and circuit minimization techniques. Analysis and design of combinational logic, flip-flops, simple counters, registers, ROMs, PLDs, synchronous and asynchronous sequential circuits, and state reduction techniques. Building physical circuits. *Prerequisites: CSC100, or CSC110, or CSC181, or ELE181, or NET181, or equivalent, or permission of Instructor. 4 Credits 6 Periods*

EEE202   Circuits And Devices
Introduction to circuits and devices. Component models, transient analysis, steady state analysis, Laplace transform, and active and passive filter networks. Prerequisites: ECE103 or ECE103AB. *Prerequisites or Corequisites: (MAT261 or MAT262) and (PHY116 or PHY131). 5 Credits*
7 Periods

EEE230

**Computer Organization
And Assembly Language**

Assembly language programming including input/output (I/O) programming and exception/interrupt handling. Register-level computer organization, I/O interfaces, assemblers, and linkers. Processor organization and design, data path, control, pipelining, and input/output. Memory organization with cache and virtual memory. *Prerequisites: (CSC100 or CSC110) and CSC/EEE120, or permission of Instructor.*
4 Credits 5 Periods

ELE - Electronics

ELE100   Concepts Of Electricity And Electronics
Principles of electric circuits, magnetism and electromagnetism including basic motors and generators. Use of basic measuring instruments. Includes an overview of electronics in the modern world. *Prerequisites: None.*
3 Credits 4 Periods

ELE101   Beginning Algebra For Technology
Basic axioms of algebra, linear equations in one or two variables, operations on polynomials, rational expressions, simultaneous solutions of linear equations, laws of exponents. *Prerequisites: Score of 19 on Technical Mathematics placement test, or grade of "C" or better in GTC/MET107, or MAT082, or equivalent. 3 Credits*
3 Periods

ELE105   Algebra-Trigonometry
For Technology
Topics from college algebra and trigonometry essential to the study of electronics; polynomials, exponential and logarithmic functions, complex numbers, and trigonometric functions and identities. *Prerequisites: A grade of "C" or better in either ELE101, or MAT090, or MAT091, or MAT092, or equivalent, or score of 16 on Technical Algebra placement test. 5 Credits 5 Periods*

ELE111   Circuit Analysis I
Direct current (DC) and alternating current (AC) electric circuits. Ohm's law, Kirchoff's laws, series, parallel and series-parallel circuits, fundamentals of inductance and capacitance, and the transient behavior of circuits containing resistance and capacitance or resistance and inductance. *Prerequisites: None. Corequisites: ELE105, or MAT120, or MAT121, or MAT122, or equivalent. 4 Credits 6 Periods*

ELE112   Circuit Analysis II
Alternating current (AC) and direct current (DC) circuits containing resistance and reactance. Detailed coverage of AC/DC circuit parameters, including theorems, impedance matching, and resonance. *Prerequisites: ELE111. 4 Credits*
6 Periods

ELE121   Solid-State Devices And Circuits I
Theory of operation of semiconductor diodes and transistors. Bipolar junction transistor biasing and load-line analysis. Alternating current (AC) equivalent circuits applied to small signal amplifiers. Characteristics of large signal and power amplifiers. *Prerequisites: ELE111. 4 Credits 6 Periods*

ELE131   Digital Logic And Circuits
Number systems, binary arithmetic, and Boolean algebra, combinational and sequential logic circuits, and memory elements. *Prerequisites: Score of 19 on Technical Mathematics placement test, or grade of "C" or better in GTC/MET107, or MAT082, or equivalent. 3 Credits 6 Periods*

ELE181   Computer Programming For Technology
Elementary computer programming techniques. Hands-on computer usage. *Prerequisites: None. 3 Credits 5 Periods*

ELE222   Solid-State Devices And Circuits II
Theory and application of differential and operational amplifiers. Power supplies and regulators; special devices and circuits. *Prerequisites: ELE121. 4 Credits 6 Periods*

ELE241   Microprocessor Concepts
Architectures of selected microprocessors. Presentation of machine and assembly language programming. *Prerequisites: ELE131. 4 Credits 6 Periods*

ELE243   Microprocessor Applications
Presents the microprocessor in computing and control applications. System hardware and software used to control the microprocessor system to perform input/output operations. *Prerequisites: ELE241 or ELT241. 3 Credits*
5 Periods

ELE251   Electronic Measurements
Application and operation of common electronic and electrical test instruments including: oscilloscopes, analog and digital multimeters, digital counters and signal sources. Transducers, amplifiers, and filters, as they apply to instrumentation systems. Laboratory reports and documentation are emphasized. *Prerequisites: ELE121.*
3 Credits 5 Periods

ELE261   Communication Systems
Amplitude modulation (AM), frequency modulation (FM), single-sideband (SSB), radio receivers, pulse systems, radiation, antennas and wave propagation. *Prerequisites: ELE121 and ELE131. Corequisites: ELE222. 4 Credits 6 Periods*

ELE263   Digital Data Communications
Overview of modern telephone system. Telephone switching and modulation techniques. Familiarization with AM (amplitude modulation) and FM (frequency modulation) circuits. Operation of asynchronous and sychronous modems. *Prerequisites: ELE121 and ELE241. 4 Credits*
6 Periods

ELT - Electronics Technology

ELT298   Special Projects
   1-3 Credits See Page 292

EMT - Emergency Medical Technology

EMT101
Cardiopulmonary Resuscitation/
Basic Cardiac Life Support
Designed to train students in the skills of cardiopulmonary resuscitation to include mouth-to-mouth, mouth-to-mask, and cardiac compression, stabilization of adult, infant, and child victims with airway obstruction, respiratory, and cardiac arrest. *Prerequisites: None. 0.5 Credits 0.45 Periods*

EMT104   Basic Emergency Medical Technology
Techniques of emergency medical care in accordance with national and state curriculum. Study of the human body, patient assessment, treatment of medically or traumatically compromised patients, special hazards, and medical operations. IV monitoring, Sudden Infant Death Syndrome (SIDS), patient-assisted medication administration, automated external defibrillators, and blood-glucose monitoring. Includes participation in two eight-hour clinical rotations through a local emergency department scheduled during the semester outside normal class hours. Requires personal pocket mask, stethoscope, pen light, and trauma scissors. *Prerequisites: Must be at least 18 years of age prior to applying to the BLS (Basic Life Support) Training Program per Arizona Revised Statutes, and must have a current validation in Basic Life Support (BLS) Health Care Provider/Professional Rescuer. Minimum ninth-grade-level reading proficiency on the Nelson-Denney Examination or appropriate Reading course placement score. Proof of TB testing or chest x-ray with a negative result within 6 months prior to registration; immunity to rubella (German measles) and rubeola. 8 Credits 9.45 Periods*

EMT200
Refresher Course For Certified Emergency Medical Technicians
Designed to meet National and Arizona Department of Health Services (A-DHS) recertification for EMTs. Enhances the knowledge base of the Emergency Medical Technician (EMT) and reinforces basic skills competencies. *Prerequisites: Current validation in Basic Life Support (BLS) Health Care Provider/Professional Rescuer or permission of Instructor. 2 Credits 3 Periods*

EMT200AB
EMT-Basic Certification Expanded Refresher Challenge
Designed to contribute to Arizona Department of Health Services (A-DHS) Bureau of Emergency Medical Services (B-EMS) recertification requirements for Emergency Medical Technician Basic (EMTB) according to the
U.S. Department of Transportation (DOT) EMT-Basic National Curriculum and the Arizona EMT Basic Refresher Curriculum Guidelines. *Prerequisites: Current Basic Life Support, American Heart Association Healthcare Provider CPR or equivalent, and current EMT Basic certification in the state of Arizona. Must be currently functioning as an EMT Basic. 1 Credit 1 Period*

EMT272AA
Advanced Emergency Medical Technology
Designed to provide the emergency medical technician
with advanced knowledge about the acute critical differences in physiology, pathophysiology, and clinical symptoms, as they pertain to prehospital emergency care. Emphasis on developing diagnostic and advanced emergency treatment skills necessary to care for the acutely ill and seriously injured. *Prerequisites: ([MAT102 or equivalent, or a satisfactory score on the ASSET, or COMPASS, or Accuplacer placement exam], ENG101, EMT235, and EMT236), or permission of Program Director. Comprehensive written, oral and practical evaluation on all EMT272AA prerequisite courses. Valid Arizona certification and employment as an EMT for one full calendar year. Corequisites: EMT272AB and EMT272LL. 12.5 Credits*
17.3 Periods

EMT272AB Advanced Emergency Medical   Technology
Designed to provide the emergency medical technician
with advanced knowledge about the acute critical differences in physiology, pathophysiology, and clinical symptoms, as they pertain to prehospital emergency care. Emphasis on developing diagnostic and advanced emergency treatment skills necessary to care for the

acutely ill and seriously injured. *Prerequisites: ([MAT102 or equivalent, or a satisfactory score on the ASSET, or COMPASS, or Accuplacer placement exam], ENG101, EMT235, and EMT236), or permission of Program Director. Comprehensive written, oral and practical evaluation on all EMT272AB prerequisite courses. Valid Arizona certification and employment as an EMT for one full calendar year. Corequisites: EMT272AA and EMT272LL. 12.5 Credits*
17.3 Periods

EMT272LL Advanced Emergency Medical   Technology Practicum

Clinical and vehicular practicum in support of EMT272AA and EMT272AB. *Prerequisites or Corequisites: EMT272AA and EMT272AB. 7.5 Credits, 37.5 Periods*

ENG - English

ENG081   Basic Writing Skills

Emphasis on preparation for college-level composition with a focus on foundational skills. Establishing effective writing strategies through six or more writing projects comprising at least 1500 words in total. *Prerequisites: Appropriate writing placement test score, or a grade of C or better in ENG071 or ESL077, or permission of Department or Division. 3 Credits*
3 Periods

ENG091   Fundamentals of Writing

Emphasis on preparation for college-level composition with a focus on organizational skills. Developing effective writing strategies through five or more writing projects comprising at least 2000 words in total. *Course Note:Through five or more writing projects comprising at least 2000 words (final drafts), the student will demonstrate an understanding of writing as a process through the ability to complete the ENG091 competencies. Prerequisites: Appropriate writing placement test score, or a grade of C or better in ENG081 or ESL087, or permission of Department or Division. 3 Credits 3 Periods*

ENG100AA American-English Spelling System

American-English spelling system rules, mnemonic devices. *Prerequisites: Appropriate English placement test score, or a grade of "C" or better in ESL040, or (ESL040AA, ESL040AB, and ESL040AC), or ENG091, or permission of Instructor. 1 Credit 1 Period*

ENG100AB Vocabulary Development

Latin and Greek derivatives, development of competency and discrimination in word choice, specialized vocabulary. *Prerequisites: Appropriate English placement test score, or a grade of "C" or better in ESL040, or (ESL040AA, ESL040AB, and ESL040AC), or ENG091, or permission of Instructor. 1 Credit 1 Period*

ENG100AC The Mechanics of Written English

Review of the mechanics of written English, including punctuation, arbitrary marks and usages, capitalization, agreement, tense, and sentence patterns. *Prerequisites: Appropriate English placement test score, or a grade of "C" or better in ESL040, or (ESL040AA, ESL040AB, and ESL040AC), or ENG091, or permission of Instructor.*
1 Credit 1 Period

ENG100AD Grammar and Usage

The social aspects of grammar and usage, including appropriate levels of formal and informal language. *Prerequisites: Appropriate English placement test score*
or a grade of "C" or better in ENG081 or ENG091.
1 Credit 1 Period

ENG101   First-Year Composition

Emphasis on rhetoric and composition with a focus on expository writing and understanding writing as a process. Establishing effective college-level writing strategies through four or more writing projects comprising at least 3,000 words in total. *Prerequisites: Appropriate writing placement test score, or a grade of "C" or better in ENG091 or ESL097. 3 Credits 3 Periods*

ENG102   First-Year Composition

Emphasis on rhetoric and composition with a focus on persuasive, research-based writing and understanding writing as a process. Developing advanced college-level writing strategies through three or more writing projects comprising at least 4,000 words in total. *Prerequisites: Grade of "C" or better in ENG101. 3 Credits*
3 Periods

ENG107   First-Year Composition for ESL

Equivalent of ENG 101 for students of English as a Second Language (ESL). Emphasis on rhetoric and composition with a focus on expository writing and understanding writing as a process. Establishing effective college-level writing strategies through four or more writing projects comprising at least 3,000 words in total. *Prerequisites: Appropriate writing placement test score, or a grade of "C"*
or better in ENG091 or ESL097. 3 Credits 3 Periods

ENG108   First-Year Composition for ESL

Equivalent of ENG102 for students of English as a Second Language (ESL). Emphasis on rhetoric and composition with a focus on persuasive, research-based writing and understanding writing as a process. Developing advanced college-level writing strategies through three or more writing projects comprising at least 4,000 words in total.
Prerequisites: Grade of "C" or better in ENG107.

3 Credits 3 Periods

ENG111   Technical and Professional Writing

Covers analyzing, planning, organizing, researching, and writing correspondence, reports, and presentations for specific work-related audiences. Includes integrating data and graphics into work-related documents and presentations. *Prerequisites: ENG101 with a grade of "C", or better, or permission of Instructor. 3 Credits 3 Periods*

ENG200   Reading and Writing About Literature

Emphasis on critical analysis of various genres of literature; includes study of necessary terminology, introduction to methods of literary criticism, and practice in interpretation and evaluation. *Prerequisites: ENG102. 3 Credits 3 Periods*

ENG210   Creative Writing

Skills and techniques used in the production of marketable materials for contemporary publications that buy prose fiction, poetry, and expository articles. May be repeated for a total of six (6) credit hours with departmental approval. *Prerequisites: ENG102 with a grade of "C" or better, or permission of Department or Division. 3 Credits 3 Periods*

ENG211   Screenwriting

Principles and techniques necessary in planning, researching, and writing screenplays. May be repeated for a total of six (6) credit hours with approval of instructor. *Prerequisites: ENG101 and ENG102 with a grade of "C" or better or permission of Instructor. 3 Credits 3 Periods*

ENG213   Introduction to the Study of Language

Study of language as code; phonetics, phonology, morphology, syntax, semantics; language acquisition; historical and socio-linguistics. *Prerequisites: A grade of "C" or better in ENG102, or ENG111, or permission of Instructor. 3 Credits 3 Periods*

ENG215   Strategies of Academic Writing

Advanced course in techniques of analyzing and writing academic expository prose. Writing to be research based. *Prerequisites: A grade of "C" or better in ENG102, or ENG111, or permission of Instructor. 3 Credits 3 Periods*

ENG216   Persuasive Writing on Public Issues

Advanced course in techniques of analyzing and writing persuasive arguments addressing topics of current public interest. Papers research based. *Prerequisites: ENG102.*
3 Credits 3 Periods

ENG217   Personal and Exploratory Writing

Using writing to explore one's self and the world one lives in; emphasis on journal writing as a source and inspiration for public writing. *Prerequisites: ENG101, or ENG107, or equivalent. 3 Credits 3 Periods*

ENG270   Workplace Writing

Emphasizes rhetoric and composition with a focus on adapting writing to meet the needs of very specific workplace objectives and audiences. Uses primary and secondary research practices to investigate a variety of workplace discourse communities. Develops advanced college-level writing strategies through three or more writing projects comprising at least 4,000 words in total. *Prerequisites: Grade of "C" or better in ENG102 or ENG108. 3 Credits 3 Periods*

ENG282
Volunteerism for English:
A Service-Learning Experience

Service-learning field experience within private/public agencies, and citizen volunteer groups. Development of writing skills, analysis, and synthesis in on-site volunteer experience. May be repeated for a total of six (6) ENG282 credit hours. Standard grading available according to procedures outlined in catalog. *Prerequisites: ENG101*
and (RDG091 or higher) and permission of Instructor.
1-3 Credits 1-3 Periods

ENG297
Writing Program Portfolio

Emphasizes reflection and revision through compiling and critiquing student's own accumulated writings. Uses previously composed documents and projects to demonstrate a complex understanding of writing as a rhetorically situated process, to assess his or her strengths and weaknesses, and to address potential methods of writing improvement and growth. *Course Note: Develops advanced college-level writing strategies through the compilation of a portfolio which should include four or more composition projects comprising at least 4,000 words (final drafts) three or more writing projects comprising at least 4,000 words in total. Prerequisites: Grade of "C" or better in ENG270. 3 Credits 3 Periods*

ENG298   Special Projects
1-3 Credits See Page 292

ENH - English Humanities

ENH110   Introduction to Literature

Introduction to international literature through various forms of literary expression; e.g., poetry, drama, essay, biography,

autobiography, short story, and novel. Provides a global overview of literature with special emphasis on diverse cultural contributions of women, African Americans, Asian Americans, Hispanic Americans, and Native Americans. *Prerequisites: None. 3 Credits 3 Periods*

ENH111 Literature and the American Experience
Introduction to the foundations and diversity of American culture through a survey of its literature, including minority and women writers. Exploration of various facets of American culture including frontier, regional, rural, and urban life; ethnic, racial, and immigrant experience; and political and social philosophies. *Prerequisites: None.*
3 Credits 3 Periods

ENH112 Chicano Literature
Introduction to the works of Mexican-American writers of the Southwest. Samples poetry, fiction, and essays viewed in their relationship to American cultural heritage and to contemporary culture. *Prerequisites: None. 3 Credits*
3 Periods

ENH114 African-American Literature
Survey of major African-American writers from Colonial period through the present; analysis of trends and movements within African-American literary history; analysis of literary types and selected works. *Prerequisites: None. 3 Credits 3 Periods*

ENH190 Introduction to US Ethnic Literature
Introduction to the US ethnic literatures of African Americans, Arab Americans, Asian Americans, Latinas/os, Native Americans, Mixed Race, and other emerging ethnic groups through various expressions. Examines the interconnections of the various experiences of racialized groups living in the US. Provides ethnic US literature a global context through study of the interconnections with the literatures of Africa, Asia, Latin America, and Oceania. Focus on literary production of at least four specific US ethnic groups and relevant international literatures. *Prerequisites or Corequisites: ENG101 or ENG107. 3 Credits 3 Periods*

ENH212 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. ENH112 suggested but not required. 3 Credits 3 Periods*

ENH214 Poetry Study
Involves reading, discussing, and analyzing poetry of various forms and from selected periods. *Prerequisites: None. 3 Credits 3 Periods*

ENH221
Survey of English Literature
Before 1800
Emphasizes the social and political backgrounds as well as the form and content of English literature from Anglo-Saxon times to the end of the eighteenth century. *Prerequisites: ENG101, or ENG107, or equivalent. 3 Credits 3 Periods*

ENH222 Survey of English Literature After 1800
Emphasizes the social and political backgrounds as well as the form and content of English literature in the nineteenth and twentieth centuries. *Prerequisites: ENG101, or ENG107, or equivalent. 3 Credits 3 Periods*

ENH230 Introduction to Shakespeare
Introduces Shakespeare the playwright, the sonneteer, the linguist, and the citizen of the 17th century. Considers the major tragedies, comedies, histories, and sonnets; focuses on the use of language; and connects the writer to the time. Some emphasis on Shakespeare's influence through the centuries, noting parallels between the late 16th century and the late 20th century. *Prerequisites: None. 3 Credits*
3 Periods

ENH235 Survey of Gothic Literature
A study of the origins, common elements and characteristics, and historical development of Gothic literature with an exploration of the literary techniques and psychological aspects of the genre. *Prerequisites: None.*
3 Credits 3 Periods

ENH241 American Literature Before 1860
Includes literature written prior to 1860 in the United States. *Prerequisites: None. 3 Credits 3 Periods*

ENH242 American Literature After 1860
Includes literature written after 1860 in the United States. *Prerequisites: None. 3 Credits 3 Periods*

ENH251 Mythology
Deals with the myths and legends of civilizations with the greatest influence upon the development of the literature and culture of the English-speaking people, and compares those myths with myths from other cultures. *Prerequisites: None. 3 Credits 3 Periods*

ENH254 Literature and Film
Presents works of literature and their film versions and analyzes distinguishing techniques of each medium. *Prerequisites: ENG101, or ENG107, or equivalent. 3 Credits 3 Periods*

ENH255 Contemporary U.S. Literature and Film

Strengths and weaknesses of literature and film. Challenges of adapting literature to film. Addressing racial, ethnic, gender, class and religious differences between cultures and mediums. Use of narrative in each medium and how it translates various cultural values and assumptions. Specific genres present in literature and film. Cultural metaphors and symbols used in literature and film. *Prerequisites: ENG101. 3 Credits 3 Periods*

ENH275   Modern Fiction
Includes novels and short stories of modern writers which reflect significant themes of our time. *Prerequisites: None.*
3 Credits 3 Periods

ENH277AD Stuff Blows Up: Action Narrative
Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g., literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and reception. Focus on analysis of key texts and their contexts. *Prerequisites: None. ENG102 suggested but not required.*
3 Credits 3 Periods

ENH277AH Facing Fear: Horror Narrative
Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g., literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and reception. Focus on analysis of key texts and their contexts. *Prerequisites: None. ENG102 suggested but not required.*
3 Credits 3 Periods

ENH284   19th Century Women Writers
Investigates major themes in literature by women writing in the 19th century including the nature of women's lives in the family, in work situations, and in society. Poetry, prose, essays and drama are examined with an emphasis on common themes. *Prerequisites: None. 3 Credits 3 Periods*

ENH285   Contemporary Women Writers
Explores twentieth century literature (short stories, essays, plays, and poetry) written by women and about women. Focus on themes relevant to women's lives regardless of age, creed, or ethnic background. *Prerequisites: None. 3 Credits 3 Periods*

ENH291   Children's Literature
Review of folk and modern literature from a variety of world cultures, including application of literary criteria to folk and modern literature for children. *Prerequisites: None.*
3 Credits 3 Periods

ENH293   Critical Writing About US Ethnic   Literature
Provides an introduction to the literary and cultural theories related to the representations of race and ethnicity, as well as shared histories of resistance. Examines major writers and themes in US ethnic literatures. Emphasizes both written and oral assessment. *Prerequisites or Corequisites: ENG102 or ENG108. ENH190 suggested but not required. 3 Credits*
3 Periods

ENH295   Banned Books and Censorship
History, motivations, and effects of censorship in a democratic society. Censorship and book banning as a method of silencing diverse voices. Critical analysis of banned or challenged literature for children and adults. *Prerequisites: None. 3 Credits 3 Periods*

EPD - Education Professional Development

EPD220
Introduction to Serving the English Language Learner for Certified Teachers
Rationale for and current educational and legal issues for English Language Learners (ELL). Comparison and evaluation of various types of language educational models including Structured English Immersion (SEI), English as a Second Language (ESL) and bilingual. Includes SEI, ESL, and bilingual strategies. Approved school-based practicum is required. EPD220 incorporates the 45-clock hour curricular framework for SEI endorsement through the Arizona Department of Education. *Prerequisites: Provisional or standard elementary, or secondary, or special or career and technical education teaching certificate, or permission of Department or Division.*
3 Credits 3 Periods

EPD233
Structured English Immersion And English As A Second Language Teaching Method For Certified Teachers
Methods of planning, developing, and analyzing lesson plans in all content areas using English Language Learners (ELL) Standards. Emphasis on components of curriculum content, teaching strategies, development/evaluation/adaptation of teaching materials, and the role of culture in learning. Examines the alignment of ELL Proficiency Standards to
the Arizona Language Arts Academic Standards. Covers multiple assessment techniques, tracking of student progress using the state mandated English language proficiency assessment, and use of assessment results for placement and accommodation. Approved school-based practicum required. EPD233 incorporates curricular framework for the 45-clock hour requirement for SEI endorsement through the Arizona Department of Education. *Prerequisites: Provisional or standard elementary, or secondary, or special education or career and technical education teaching certificate and (EDU220 or EPD220 or EDU225), or permission of Department or Division.*

3 Credits 3 Periods

EPD244
Reading and Writing in SEI/ESL/Bilingual Settings

Introduction to Structured English Immersion (SEI)/English as a Second Language (ESL) terminology, second language acquisition theories, and reading terminology. Teaching and assessment strategies as well as reading comprehension and writing skills covered. EPD244 incorporates the 45-clock hour curricular framework for SEI endorsement through the Arizona Department of Education. *Prerequisites: Provisional or standard elementary, or secondary, or special education or career and technical education teaching certificate and (EDU220 or EPD220 or EDU225), or permission of Department or Division. 3 Credits 3 Periods*

EPD246
Teaching and Assessment of English Language Learners (ELL)

Teaching and assessment of English Language Learners (ELL). Covers differentiated instruction, special education needs vs. language needs, learning environments in multilingual and multicultural classrooms, identification, exiting, and ongoing assessment of student learning. Legal issues and historical perspectives also covered. Linking assessment to instruction and the review of methods and techniques employed for language and academic assessment included. Standards emphasized. *Prerequisites: (EDU220 or EPD220 or EDU225) and must hold a provisional or standard elementary, or secondary, or special education or career and technical education teaching certificate, or permission of Department or Division. 3 Credits 3 Periods*

EPD279   Reading Practicum K-12

Focus on the practical application of current philosophical theories, methods, and models of assessment and instruction for remediation of reading. *Prerequisites: EDU270AA or EDU270AB, and must hold a provisional or standard elementary, secondary or special education teaching certificate. 3 Credits 5 Periods*

EPS - Entrepreneurial Studies

EPS102   Rich Dad's Cashflow

Principles, processes, and tools that represent a new paradigm for financial literacy. Concepts and principles based upon Rich Dad Poor Dad, Cashflow Quadrant, and the Cashflow 101 game. (Copyright). *Prerequisites: None. 2 Credits 2 Periods*

EPS250   Introduction to Entrepreneurship

Fundamentals of starting or buying a new business. The nature of the entrepreneurial process and the skills required to be successful, including planning, financing, starting and managing the business. *Prerequisites: None. 2 Credits 2 Periods*

EPS295
The Business Plan
and Business Start-Up

Development of an integrated approach to strategic choice concerning new venture start-up. Includes development of a comprehensive business plan. *Prerequisites: None. 2 Credits 2 Periods*

EQS - Equine Science

EQS105   Principles Of Equine Science

Breeds, colors and markings; horse selection; basic conformation; form to function; structures of the hoof; footfall sequences; vision, managed health program; nutrition principles and management practices. *Prerequisites: None. 3 Credits 3 Periods*

EQS298   Special Projects

1-3 Credits See Page 292

ESL - English Second Language - General

ESL010
English As A Second Language I: Grammar

First level of English as a Second Language (ESL). Emphasis on basic conversational skills, pronunciation, vocabulary building and grammar. Some reading and sentence level writing. Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. May be repeated for a maximum of six (6) credits. *Prerequisites: Appropriate ESL placement test score. 3 Credits 3 Periods*

ESL011
English As A Second Language I: Listening And Speaking

Emphasis on listening and speaking skills involving survival skills. Asking and answering questions related to work, shopping, and personal safety. May be repeated for a maximum of six (6) credits. *Prerequisites: Appropriate ESL placement test score or ESL002. 3 Credits 3 Periods*

ESL012   ESL I-Writing With Oral Practice

Emphasis on basic conventions of writing in English. Includes introduction to the alphabet, capitalization, punctuation, and simple sentence structure. May be repeated for a maximum of six (6) credits. *Prerequisites: Appropriate ESL placement test score or permission of instructor.*
3 Credits 3 Periods

ESL020
English As A Second Language II: Grammar

Second level of English as a Second Language (ESL). Continued emphasis on conversational skills, pronunciation, vocabulary building and grammar with some reading and sentence level writing. Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. May be repeated for a maximum of six (6) credits. *Prerequisites: Appropriate ESL placement test score, or a grade of "P" or "C" or better in ESL010, or (ESL010AA, ESL010AB, and ESL010AC). 3 Credits 3 Periods*

ESL021
English As A Second Language II:Listening And Speaking

Emphasis on listening and speaking skills involving social exchange. Asking and answering questions, using tag questions. Practice with question and answer patterns.
Polite questions and responses. May be repeated for a maximum of six (6) credits. *Prerequisites: Appropriate ESL placement test score or ESL010 or ESL011 or ESL012 or RDG010. 3 Credits 3 Periods*

ESL022   ESL II-Writing With Oral Practice

Emphasis on basic writing skills, accompanied by recitation of short writings. Sentence patterns and introduction of paragraph writing. May be repeated for a maximum of six (6) credits. *Prerequisites: Appropriate ESL course placement score, or a grade of "C" or better in ESL012, or permission of i\Instructor. 3 Credits 3 Periods*

ESL030
English As A Second Language III: Grammar

Third level of English as a Second Language (ESL). Emphasis on sentence structure and paragraph building. Extensive grammar study and writing practice. Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. May be repeated for a maximum of six (6) credits. *Prerequisites: Appropriate ESL placement test score, or a grade of "P" or "C" or better in ESL020, or (ESL020AA, ESL020AB, and ESL020AC).*
3 Credits 3 Periods

ESL031
English As A Second Language III:Listening And Speaking

Emphasis on listening and speaking skills related primarily to the academic environment. Asking questions, working in small groups, using college resources, informal oral presentation. May be repeated for a maximum of six (6) credits. *Prerequisites: Appropriate ESL placement test score or ESL020, or ESL021, or ESL022, or RDG020. 3 Credits*
3 Periods

ESL032   ESL III-Writing With Oral Practice

Emphasis on complex sentence patterns in writing and speech. Introduction to the prewriting and writing process in a college setting. May be repeated for a maximum of six (6) credits. *Prerequisites: Appropriate ESL course placement score, or a grade of "C" or better in ESL022, or permission of instructor. 3 Credits 3 Periods*

ESL040
English As A Second Language IV: Grammar

Fourth level of English as a Second Language (ESL). Continued emphasis on sentence structure and paragraph building. Extensive grammar study and writing practice. Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. May be repeated for a maximum of six (6) credits. *Prerequisites: Appropriate ESL placement test score, or a grade of "P" or "C" or better in ESL030, or (ESL030AA, ESL030AB, and ESL030AC). 3 Credits 3 Periods*

ESL041
English As A Second Language IV: Listening And Speaking

Emphasis on academic skills. Listening to lectures, notetaking, peer interaction, accessing and using media resources, formal oral presentations. May be repeated for a maximum of six (6) credits. *Prerequisites: Appropriate ESL placement test score or ESL030 or ESL031 or ESL032 or RDG030. 3 Credits 3 Periods*

ESL042   ESL IV-Writing With Oral Practice

Emphasis on paragraph writing and oral recitation of complex sentences and paragraphs. Introduction to the prewriting and writing process for short essays. May be repeated for a maximum of six (6) credits. *Prerequisites: Appropriate ESL course placement score, or a grade of "C" or better in ESL032, or permission of Instructor. 3 Credits*
3 Periods

ESL051
Pronunciation Improvement
For ESL Speakers

Individualized pronunciation practice and drills for English as a second language (ESL) speakers. May be repeated for a maximum of six (6) credits. *Prerequisites: Appropriate ESL course placement score, or a grade of "C" or better in (ESL020 or ESL021 or ESL022*

or RDG020), or permission of Instructor. 3 Credits 3 Periods

ESL054   American Culture
Reading and writing about American culture including history, institutions and sports, and entertainment. *Prerequisites: Appropriate ESL placement test score, or a grade of "C" or better in ESL040, or (ESL040AA, ESL040AB, and ESL040AC), or RDG040, or permission of Instructor. 3 Credits 3 Periods*

ESL087
Basic Writing Skills
for English Language Learners
Emphasis on basic writing skills using Standard English in sentences and short paragraphs incorporating correct, clear, and idiomatic English in preparation for college-level composition. Establish effective writing strategies through six or more writing projects. *Prerequisites: Appropriate English placement score, or grade of "C" or better in ESL077, or permission of Department or Division. 3 Credits 3 Periods*

ESL097
Fundamentals of Writing
for English Language Learners
Emphasis on writing paragraphs and short essays using Standard English incorporating correct, idiomatic English in preparation for college-level composition with a focus on organizational skills. Developing effective writing strategies through five or more writing projects. *Prerequisites: Appropriate English placement score, or a grade of "C" or better in ESL087, or permission of Department or Division. 3 Credits 3 Periods*

ETL - Excellence/Teaching/Learning

ETL287   Teaching And Learning Seminar
Emphasis on enhancing teaching and learning through readings, discussions, presentations and synthesis of literature related to a selected topic relevant to current issues in higher education. ETL287 may be repeated for a total of sixteen (16) credit hours. *Prerequisites: Permission of Department or Division. 1 Credit 1 Period*

EXS - Exercise Science

EXS101
Introduction to Exercise Science, Kinesiology, and Physical Education
Introductory course that will provide the student with a general overview of the disciplines and professions associated with the fields of Exercise Science, Kinesiology and Physical Education. Basic history, philosophy, and theory of each discipline will be examined as well as relevant career potential and options. *Prerequisites: None.*
3 Credits 3 Periods

EXS112
Professional Applications
Of Fitness Principles
Basic principles of fitness for the prospective fitness professional. Planning and teaching in a fitness program. Topics include exercise risks and safety, weight control, components of fitness, fitness assessment, and exercise programming. *Prerequisites: None. 3 Credits 3 Periods*

EXS125   Introduction to Exercise Physiology
Principles of exercise science applied to teaching fitness/aerobics. Major factors related to the function of the human body. Emphasis on anatomy/physiology, exercise physiology, and biomechanics. *Prerequisites: None. BIO160 recommended but not required. 3 Credits 3 Periods*

EXS130
Strength Fitness-Physiological Principles And Training Techniques
Principles and techniques of strength training including strength physiology, performance factors, training recommendations, exercise techniques, and program design and management. *Prerequisites: None. 3 Credits 4.5 Periods*

EXS144   Strategies In Diabetes Management
Introduction to strategies in diabetes mellitus management and prevention for individuals diagnosed with diabetes and their caretakers. Includes a physical activity component. *Prerequisites: None. 3 Credits 5 Periods*

EXS145
Guidelines for Exercise Testing
and Prescription
Follows the current ACSM guidelines for health appraisal, risk assessment, safety of exercise, exercise testing, and exercise prescription. *Prerequisites: None. 4.5 Credits*
5 Periods

EXS212CR
Instructional Competency Laboratory: Cardiorespiratory Exercises And Activities
Fundamental methods of instructing and leading fitness activities including cardiorespiratory exercises and activities. Core competencies identified by professional certification agencies. *Prerequisites: None. 2 Credits 3 Periods*

EXS212FL
Instructional Competency Laboratory: Flexibility And Mind-Body Exercises
Fundamental methods of instructing and leading fitness activities including flexibility activities. Core competencies identified by professional certification agencies. *Prerequisites: None. 2 Credits 3 Periods*

EXS212SC
Instructional Competency Lab: Muscular Strength And Conditioning
Fundamental methods of instructing and leading fitness activities including strength and conditioning activities. Core competencies identified by professional certification agencies. *Prerequisites: None. 2 Credits 3 Periods*

EXS230

Introduction to Research Methods in Health and Exercise Science
Introduction to the general nature of research with specific application to accessing, reading, evaluating, and reporting research in health and exercise science. Introduce students to select, data-based literature in order to engender an appreciation for and ability to critically evaluate health/exercise science research. *Prerequisites: (ENG101 or ENG107) and MAT082 or permission of Instructor. 3 Credits 3 Periods*

EXS263BB   Officiating Basketball
Overview of responsibilities and legal rights of the basketball official, philosophy and psychological aspects of basketball officiating, mechanics and practical situations in basketball officiating, conditioning and nutrition for basketball officials. *Prerequisites: None. 3 Credits 4 Periods*

EXS265BB   Basketball Theory of Coaching
Reviews the principles, philosophy, strategies and theory of coaching basketball, as a competitive sport. *Prerequisites: None. 3 Credits 3 Periods*

EXS265SO   Soccer Theory of Coaching
Reviews the principles, philosophy, strategies and theory of soccer, as a competitive sport. *Prerequisites: None. 3 Credits 3 Periods*

EXS265TF   Track and Field Theory of Coaching
Reviews the principles, philosophy, strategies and theory of track and field, as a competitive sport. *Prerequisites: None. 3 Credits 3 Periods*

EXS275
Methods Of Enhancing Physical Performance
Theoretical and practical applications of performance enhancement methodologies and practices. Basic sport mechanics and exercise physiology. Training clients for speed, power, agility, balance, and endurance activities to enhance athletic performance. Application of training principles to specific sports and design of training programs. *Prerequisites: EXS125 or EXS130 or permission of Instructor. 3 Credits 3 Periods*

EXS281   Methods Of Coaching
Comprehensive overview of the art and science of coaching, including development of coaching philosophy, techniques of sport pedagogy, practical application of sports skill teaching, sport physiology, nutrition, sport/team management and self-management. *Prerequisites: None. PED265 suggested but not required. 3 Credits 3 Periods*

EXS281BB   Basketball Methods of Coaching
Overview of the art and science of coaching basketball including: identifying various coaching styles, elements of effective communication, methods and techniques of coaching basketball. *Prerequisites: None. 3 Credits 3 Periods*

EXS281FB   Football Methods of Coaching
Overview of the art and science of coaching football including: identifying various coaching styles, elements of effective communication, methods and techniques of coaching football. *Prerequisites: None. 3 Credits 3 Periods*

EXS281SB   Softball Methods of Coaching
Overview of the art and science of coaching softball including: identifying various coaching styles, elements of effective communication, methods and techniques of coaching softball. *Prerequisites: None. 3 Credits 3 Periods*

EXS281TF   Track and Field Methods of Coaching
Overview of the art and science of coaching track and field including: identifying various coaching styles, elements of effective communication, methods and techniques of coaching track and field. *Prerequisites: None. 3 Credits 3 Periods*

EXS285

Exercise Program Design And Instruction

Business aspects of the fitness profession such as program administration, quality assurance, and effective communication skills for the professional personal trainer and/or strength and conditioning coach. Implementation of behavioral strategies, progression of program planning, and development of programs for populations with special physical/medical needs. Designing exercise programs in an internship setting. *Prerequisites: EXS145 or permission of Instructor. 3 Credits 3 Periods*

FLA - Foreign Language Acquisition

FLA240　　Foreign Language Teaching Methods

Introduction to methods and techniques for second-language teaching. Principles and procedures for building language proficiency, including the assessment of practical experience through mini-teaching situations. *Prerequisites: None.*
3 Credits 3 Periods

FLA282
Volunteerism For Foreign Languages:
A Service-Learning Experience

Service-learning field experience within private/public agencies, and citizen volunteer groups specific to the language of study. May be repeated for a total of (4) FLA282 credit hours. 50 hours of service is required. Standard grading available according to procedures outlined in catalog. *Prerequisites: Permission of Instructor. 1-3 Credits*
1-3 Periods

FON - Food and Nutrition

FON100　　Introductory Nutrition

Basic nutrition concepts for health and fitness. Emphasizes current dietary recommendations for maximizing well-being and minimizing risk of chronic disease. Focuses on use of tables, food guides, and guidelines for making healthy food choices. Includes unique nutrition needs for selected stages of the lifecycle, methods for evaluating credibility of nutrition claims, principles of vegetarian nutrition, safe and economic use of supplements, principles of energy balance, basic elements of food safety, diet for exercise and sports, and personal dietary evaluation techniques. Not for predietetics or selected other preprofessional majors. May not be taken for credit if credit has been earned in FON100AA and/or FON100AC. *Prerequisites: None.*
3 Credits 3 Periods

FON102　　Menu Planning

Principles and techniques of menu planning for food service operations where food is served in quantity; includes applications for health care institutions, commercial kitchens, school cafeterias, and industrial facilities. *Prerequisites: None. 2 Credits 2 Periods*

FON104
Certification In Food Service Safety And Sanitation

Preparation for and certification in a national food sanitation and safety program. Emphasis on food from purchasing, receiving, and storing to preparation, holding, and serving. Focuses on safe and sanitary food service facilities and equipment, employee habits and personal hygiene, and role of management in safety and sanitation. Includes time-temperature principles, foodborne illnesses, pest control, accident prevention, standards for cleaning and sanitizing, and regional regulations and standards. *Prerequisites: None. 1 Credit 1 Period*

FON118　　Commercial Baking Techniques

Principles and techniques for preparation, storage, and serving of bakery products. Includes breads, cakes, pies, pastry, cookies, fillings, and icings. Emphasis on practical experiences in a commercial bakery. *Prerequisites: None.*
3 Credits 5 Periods

FON119　　Catering - Planning And Production

Focuses on the basic steps of the catering process in a commercial food setting. Includes a review of safety and sanitation principles. Emphasizes practical experiences in booking and record keeping, planning, ordering, production, and service set-up and break-down for both in-house and off-premise catered events. *Prerequisites: FON180.*
1 Credit 3 Periods

FON124　　Customer Service Practicum

Professional food and beverage experience in a commercial food service operation. Focuses on food server, host/hostess, cashier, and busperson. Includes beverage preparation, application of sanitation, and safety concepts. Stresses professionalism in service, demeanor, and appearance. *Prerequisites: FON104. 4 Credits 11 Periods*

FON125
Introduction To Professions In Nutrition And Dietetics

Introduction to professions in nutrition and dietetics, including history, current practice, and future trends. Emphasis on the integration of nutrition and dietetics within health care systems and public policy. Highlights professional ethics, standards of practice, education requirements and areas of practice. *Prerequisites: None.*
1 Credit 1 Period

FON135   Cooking Life

Basic cooking techniques for healthful and enjoyable eating. Emphasis on strategies for maximizing the use of whole, local, and nutrient-dense food while focusing on applying the dietary recommendations for optimal health to food choices. Opportunities to learn about sustainable food living, and identifying resources that enable people to be more in control of their food supply. *Prerequisites: None.*
3 Credits 4 Periods

FON142AB Applied Food Principles

Exploration and applications of scientific principles involved in food preparation; experiences with basic cooking methods; emphasis on the rationale of cooking techniques. *Prerequisites: None. 3 Credits 5 Periods*

FON143   Food And Culture

Understanding diet in the context of culture. Historical, religious, and socio-cultural influences on the development of cuisine, meal patterns, eating customs, cooking methods, and nutritional status of various ethnic groups. Traditional and contemporary food habits. Health and social impact of changes in diet. Preparation and serving of foods from many cultures. *Prerequisites: None. 3 Credits 3 Periods*

FON160   Modern Food Systems

Overview of today's food system. Covers historical events, the effects food systems have on the environment, health, and communities. Includes responsibilities of the Food and Drug Administration and the Department of Agriculture. Also covers conventional agriculture and food safety concerns. *Prerequisites: None. 3 Credits 3 Periods*

FON162   Organic Foods Production

Overview of alternative farming systems. Covers organic and alternatively grown foods production as well as the Organic Foods Production Act. Includes principles of sustainable agriculture and Fair Trade. National Organic Program also covered. *Prerequisites: FON160. 3 Credits*
3 Periods

FON179   Garde Manger

Prepares students for employment in garde manger pantry positions in restaurants and resorts. Includes costing out and ordering food products; food and safety factors; preparing and garnishing pantry product. Emphasis on classical food presentation. *Prerequisites: None. 3 Credits 5 Periods*

FON180
Principles And Skills
For Professional Cooking

Introductory principles and skills for professional cooking. Introduces organizational structure of kitchen staff in different types of kitchens. Includes basic principles of safety and sanitation, equipment and utensil use, French cooking terms, recipe use, measuring techniques, identification and use of seasoning agents, and basic cooking methods applied to stocks, sauces and soups, vegetables, starches, entrees, and eggs. Emphasis on practical experiences in a commercial kitchen. *Prerequisites: None.*
3 Credits 5 Periods

FON181   French Cuisine

Principles of French cooking applied to restaurant kitchens. Includes review of safety and sanitation principles, orientation to French culture, use of French terms and recipes, and reading French menus. Emphasis on practical experiences in preparing French meals in a restaurant kitchen. Introduces preparation of appetizers, hors-d'oeuvres, charcuterie items, pastries, and desserts. *Prerequisites: None. 3 Credits 5 Periods*

FON182   American Regional Cuisine

American regional food preparation applied to restaurants. Review principles of sanitation and safety. Explores history and customs, serving styles, and preparation techniques of foods unique to selected American regions. Emphasis on practical cooking experiences in a restaurant setting. American regions to include, but not limited to: Southern, Cajun/Creole, New England, Midwest, and Pacific Coast. *Prerequisites: None. 3 Credits 5 Periods*

FON183   International Cuisine

Gourmet international food preparation applied to restaurants. Review principles of sanitation and safety. Explores history and customs, serving styles, and preparation techniques of foods unique to selected international cultures. Emphasis on practical cooking experiences in a restaurant kitchen. Cultures to include, but not limited to: Italian, German, Oriental, Middle Eastern, and Spanish. *Prerequisites: None. 3 Credits 5 Periods*

FON190   Professional Cooking Practicum

Preparation of hot and cold foods in a commercial food service operation; experience in volume food production preparing salads, soups, stocks, sauces, entrees, starches, and vegetables; designed to develop knowledge and skills necessary to cook in a variety of commercial kitchens. *Prerequisites: FON104, FON180, or permission of Department or Division. 7 Credits 19 Periods*

FON202   Purchasing For Food Service Systems

Food purchasing for institutions: cost factors, quality standards, purchasing practices and controls. *Prerequisites: None. 3 Credits 3 Periods*

FON210
Sports Nutrition And Supplements

For Physical Activity
Principles of nutrition applied to fitness, exercise, and sports. Dietary fundamentals as applied to body fuels, hydration, and other unique needs for exercise and sports. Includes dietary guidelines for weight or endurance training, glycogen loading, the pre-game meal, and glycogen recovery. Emphasis on maximizing fitness, performance, and safety. Discussion of supplements and their effects on metabolic enhancement. Discussion of anabolic, catabolic, and energy-producing agents. Addresses current supplements on the market. *Prerequisites: FON100AA, or FON100, or equivalent, or permission of Instructor.*
3 Credits 3 Periods

FON218   Commercial Baking: Classical Desserts
Advanced principles and techniques in commercial baking and dessert preparation. Focus on fine pastries with European flair and on desserts served in better hotels, restaurants, and resorts. Preparation of macaroons, tarts, puff pastries, specialty cakes, and desserts such as Bavarian creams, mousses, custards, souffles, crepe desserts, and flammeries. Preparation and use of sauces, techniques for using nuts and chocolate, and exploration of new recipes. *Prerequisites: None. 3 Credits 5 Periods*

FON220   Advanced Pastry Arts
Advanced pastry arts and decorative work as applied to showpieces and special occasion cakes. Includes sugar work such as pulled, blown, and poured as well as the use of tempered and modeling chocolate. Design and execution of a three-tier wedding cake as well as work on a special occasion and team wedding cake using gumpaste, pastillage, chocolate, or marzipan. Includes desserts for special diets and spa desserts. FON220 may be repeated for a total of six (6) credits. *Prerequisites: (FON118 and FON218, or industry equivalent), or permission of Program Director.*
3 Credits 5 Periods

FON221   Commercial Wedding Cake Production
Basic and advanced execution for special occasion, wedding, and groom's cakes to include initial design work, baking, icing, and advanced finishing techniques to include the use of fondant and gum paste. Enhancement of cakes to include basic sugar, pastillage, and chocolate decoration. *Prerequisites: FON118 or permission of Program Director.*
3 Credits 5 Periods

FON225
Research In Complementary And Alternative Nutrition Therapies
Introduction to basic research methods and statistics as applied to complementary and alternative nutrition therapies. Emphasis on the analysis and interpretation of health-related research. *Prerequisites: MAT092 or equivalent, or satisfactory score on district placement exam. 3 Credits 3 Periods*

FON230   Nutrition For Special Populations
Managing and understanding the nutrition needs of special populations. These populations include people who are diagnosed with heart disease or diabetes, women who are pregnant, children who are suffering from obesity, and senior adults. *Prerequisites: FON100 or permission of Instructor. 3 Credits 3 Periods*

FON241   Principles Of Human Nutrition
Scientific principles of human nutrition. Emphasis on health promotion and concepts for conveying accurate nutrition information in a professional setting. Addresses therapeutic nutrition principles for treatment of common health conditions. Includes exploration of food sources of nutrients, basic metabolism of nutrients in the human body, relationship between diet and other lifestyle factors, use of supplements, current recommendations for food selection throughout the life cycle, and use of nutrition tools for planning food intake or assessment of nutritional status. *Prerequisites: None. 3 Credits 3 Periods*

FON241LL
Principles Of Human Nutrition Laboratory
Self-evaluative laboratory experience to complement FON241, Principles of Human Nutrition using anthropometric, biochemical, and dietary analysis. Includes the use of qualitative and quantitative methodology to determine nutritional status and evaluate methodological applications. *Prerequisites or Corequisites: FON241.*
1 Credit 3 Periods

FON247   Weight Management Theory
Comprehensive study of genetic, physiological, psychological, metabolic, and environmental influences on body weight. In-depth study of the theories of body weight with emphasis on distinguishing between behavioral and biological approaches. Focus on discovering successful healthful long-term weight management strategies. *Prerequisites: FON100 or FON241 or permission of Instructor. 3 Credits 3 Periods*

FON298   Special Projects
1-3 Credits See Page 292

FRE - French

FRE101   Elementary French I
Basic grammar, pronunciation and vocabulary of the French language. Includes the study of French culture, practice of listening, speaking, reading and writing skills. *Prerequisites: None. 4 Credits 4 Periods*

FRE102   Elementary French II
Continued study of grammar and vocabulary of the French language along with the study of French culture. Emphasis on speaking, listening, reading and writing skills. *Prerequisites: FRE101 or equivalent. 4 Credits 4 Periods*

FRE115   Beginning French Conversation I
Conversational French. Basic sentence structure, pronunciation and vocabulary necessary to develop speaking ability in French. Designed for students seeking speaking and listening abilities with little emphasis on grammar. *Prerequisites: None. 3 Credits 3 Periods*

FRE201   Intermediate French I
Review of essential grammar of the French language and study of French culture. Continued practice and development of reading, writing, and speaking skills. *Prerequisites: FRE102 with a grade of "C" or better, two years of high school French with an average of "C" or better, or permission of department or division. 4 Credits 4 Periods*

FRE202   Intermediate French II
Review of grammar, continued development of French language skills, and continued study of the French culture. *Prerequisites: FRE201 with a grade of "C" or better or three years of high school French with an average of "C" or better. 4 Credits 4 Periods*

FSC - Fire Science Technology

FSC097AD
Fire Department Entry Preparation Part IV
Skills and abilities required for entry-level position in the fire department, including physical agility and stamina. Students required to take physical agility test at the end of the module. Offered as credit (P) or no credit (Z) basis. Standard grading available according to procedures outlined in catalog. *Prerequisites: None. 1 Credit 1 Period*

FSC101   Intro To Fire Service Selection
Overview of the application and selection processes used by various fire departments and fire service organizations. Elements of fire service culture and their effects on personal growth and interpersonal relationships. Major components of written application processes, requirements, preparation of resumes and their effect on employment prospects. Preparation for the interview to include communications skills, mental preparation techniques, behaviors, and the importance of the interview in the pre-employment process. Preparation for on-site experiences at a fire station. General components of the selection process, the importance of general education, and components of lifelong learning in career choices. *Prerequisites: None. 3 Credits 4 Periods*

FSC102   Fire Department Operations
Introductory fire science course primarily designed for the fire department recruit. Includes firefighting skills, equipment, and administrative policies, fire department operations, personnel policies, and International Fire Service Accreditation Congress Practical Skills Testing. *Prerequisites: (EMT/FSC104, FSC105, and FSC130),*
and permission of Instructor. Corequisites: FSC134.
11 Credits 19.6 Periods

FSC105   Hazardous Materials/First Responder
Basic methods of recognition and identification based upon the chemical and physical properties of hazardous materials; basic safety procedures when utilizing specific types of protective clothing and equipment; basic tactical information relating to scene management. Confined space operations in accordance with the National Fire Protection Agency. *Prerequisites: None. 3 Credits 3 Periods*

FSC106   Introduction To Fire Protection
History and evaluation of fire department organization. Role of the fire service in the community. Responsibilities of the fire administrator including organization, departmental functions, interdepartmental relationships, management of buildings and equipment; techniques of fire-fighting. Also includes emergency medical services and fire prevention. *Prerequisites: None. 3 Credits 3 Periods*

FSC108   Fundamentals Of Fire Prevention
Fundamentals of fire prevention. Includes techniques, procedures, regulations, and enforcement. Also includes discussion of hazards in ordinary and special occupancies. Field trips and lectures from industry also included. *Prerequisites: None. 3 Credits 3 Periods*

FSC110   Wildland Firefighter
Basic-level course for individuals with little or no experience in the wildland environment. Preparation for performing as a beginning-level wildland firefighter with an organized fire department engine or hand crew. *Prerequisites: None.*
3 Credits 3 Periods

FSC111   Emergency Vehicle Driver Operator
Emergency vehicle operators training including the problems facing operators; the personal qualities of emergency vehicle operator candidates; legal responsibilities of operators; and physical forces involved in driving an emergency vehicle. Includes hands-on training in an emergency response vehicle. *Prerequisites: None. 2 Credits 2 Periods*

FSC113   Introduction To Fire Suppression
Characteristics and behavior of fire, fire hazard properties of ordinary materials, extinguishing agents, fire suppression organization and equipment, basic fire fighting tactics, and public relations as affected by fire suppression. *Prerequisites: None. 3 Credits 3 Periods*

FSC117   Fire Apparatus

Principles of care, maintenance and operation of fire apparatus and pumps. Includes pump construction and accessories, pumping techniques, power development, and transmission. Driving, troubleshooting and producing effective fire streams. *Prerequisites: None. 3 Credits*
3 Periods

FSC118   Fire Hydraulics

Review of basic mathematics. Hydraulic laws and formulas as applied to the fire service. Application of formulas and mental calculations to hydraulic problems, water supply variables, and discharge requirements for pumpers. *Prerequisites: None. 3 Credits 3 Periods*

FSC119   Introduction Fire Service Ethics

Ethical issues, standards, and philosophical consideration of moral problems encountered in fire service. Ethical responsibility of fire service personnel and those they serve. *Prerequisites: None. 3 Credits 3 Periods*

FSC130   Fitness For Firefighters/CPAT

Skills and abilities required for entry level position in the fire service including physical ability and stamina. Opportunity to take the International Association of Fire Fighters (IAFF) Candidate Physical Ability Test (CPAT) at the end of the course. *Prerequisites: None. Offered as credit (P) or no credit (Z) basis. Standard grading available according to procedures outlined in catalog. 1 Credit 1.5 Periods*

FSC134
Fitness And Conditioning For Firefighters

Overview of all aspects of fitness for current and prospective firefighters. Includes physical and mental aspects of performance for optimal achievement on fire department agility tests and fire fighting tasks; individual conditioning strategies, nutritional guidelines, protective clothing concepts, and basic exercise principles. Pre-employment, evaluation, and lifelong fitness and conditioning. *Prerequisites: None. 3 Credits 4.6 Periods*

FSC139   Emergency Response to Terrorism

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. 3 Credits*
3 Periods

FSC146   Disaster Recovery Operations

Specialized knowledge and skills for the emergency manager in developing programs and activities associated with disaster recovery assistance and mitigation actions that reduce losses from future disasters. *Prerequisites: None.*
3 Credits 3 Periods

FSC147   Emergency Preparedness

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. 3 Credits 3 Periods*

FSC148
Fundamentals of Emergency Management

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. 3 Credits 3 Periods*

FSC149   Hazard Mitigation

Knowledge and skills required to develop programs to reduce losses from future disasters, emergencies, and other extreme events caused by natural and manmade hazards. *Prerequisites: None. 3 Credits 3 Periods*

FSC202   Supervisory Training For Firefighters

Administrative methods applied to the fire service, departmental organization, and personnel management. Includes fire alarm signaling systems, fire service planning, and relationships with other city departments. *Prerequisites: None. 3 Credits 3 Periods*

FSC204   Firefighting Tactics And Strategy

Methods of coordinating personnel, equipment, and apparatus on the fireground. Practical methods of controlling and extinguishing structural and other types of fires. Includes simulation exercises. *Prerequisites: FSC113, or permission of Instructor, or equivalent. 3 Credits 3 Periods*

FSC208
Firefighter Safety And Building Construction

Actions necessary to provide for the safety of firefighters operating on the fireground. Effects that fire and heat may have on various types of building construction resulting in the loss of structural integrity. Includes signs and symptoms of structural damage. *Prerequisites: FSC113, or permission of Instructor, or equivalent. 3 Credits 3 Periods*

FSC215   Customer Service In The Public Sector

Examines the personal and practical skills needed to enhance customer service in the public sector with an emphasis on application,

basic management requirements, and training. *Prerequisites: None. 3 Credits 3 Periods*

FSC224 Incident Command Systems

Methods for managing emergency incidents including command, control and coordination of response to all types of incidents, including hazardous materials, natural hazards, fire and multiple causality incidents. Emphasis on stabilization and protecting life, property, and environment. *Prerequisites: None. 3 Credits 3 Periods*

FSC258 Victimology and Crisis Management

Focuses on victimology and techniques of crises intervention, and the importance of multicultural perspective. Includes coverage of sexual assault, family violence, child abuse, post-traumatic stress disorder, substance abuse, coping skills, stress management, and community resources. *Prerequisites: None. 3 Credits 3 Periods*

FSC298 Special Projects

1-3 Credits See Page 292

FUS - Future Studies

FUS101 Dimensions Of The Future

Significant changes taking place in society and the world and possible changes in the future. *Prerequisites: None. 3 Credits 3 Periods*

GBS - General Business

GBS104 Quality Telephone Techniques

Specific telephone communication techniques for delivering professional customer service. *Prerequisites: None. 1 Credit 1 Period*

GBS131 Business Calculations

Review of basic arithmetic and application of mathematics to business problems; includes percentage, interest, discount, and markups. *Prerequisites: None. 3 Credits 3 Periods*

GBS132 Personal And Family Financial Security

Principles and practices of personal and family financial planning; includes savings, budgeting, credit, buying versus renting, and general principles of consumerism. *Prerequisites: None. 3 Credits 3 Periods*

GBS151 Introduction to Business

Characteristics and activities of current local, national, and international business. An overview of economics, marketing, management and finance. *Prerequisites: None. 3 Credits 3 Periods*

GBS175 Professional Development

Examines personal qualities and professional skills needed to find a good job. Explores techniques required to build a successful career. *Prerequisites: None. 3 Credits 3 Periods*

GBS205
Legal, Ethical, and Regulatory Issues in Business

Legal theories, ethical issues and regulatory climate affecting business policies and decisions. *Prerequisites: None. 3 Credits 3 Periods*

GBS206 Business Law (UCC)

Legal and ethical aspects of contracts, sales, commercial paper, secured transactions, documents of title, letter of credit, bank deposits, and collections. *Prerequisites: None. 3 Credits 3 Periods*

GBS220 Quantitative Methods In Business

Business applications of quantitative optimization methods in operations management decisions. *Prerequisite: (Grade of "C" or better in MAT150, or MAT151, or MAT152) or equivalent, or satisfactory score on district placement exam. 3 Credits 3 Periods*

GBS221 Business Statistics

Business applications of descriptive and inferential statistics, measurement of relationships, and statistical process management. Includes the use of spreadsheet software for business statistical analysis. *Prerequisites: Grade of "C" or better in GBS220 or MAT217. 3 Credits 3 Periods*

GBS233 Business Communication

Internal and external business communications, including verbal and nonverbal techniques. *Prerequisites: ENG101 or ENG107 with grade of "C" or better, or permission of Department or Division. 3 Credits 3 Periods*

GBS261   Investments I

Evaluation of various investment forms including study of inflation, taxation, government securities, stocks and bonds, real estate and retirement plans. *Prerequisites: None.*
3 Credits 3 Periods

GBS270AC Business Internship

General business work experience in a business or industry. Eighty hours of designated work per credit. GBS270AC may be repeated for a total of six (6) credits. *Prerequisites: Permission of Department or Division. 3 Credits 3 Periods*

GBS282
Volunteerism General Business:
Service-Learning Experience

Service-learning field experience within private/public agencies, educational institution, and citizen volunteer groups. May be repeated for a total of six (6) GBS282 credit hours. Standard grading available according to procedures outlined in catalog.
Prerequisites: GBS151 and permission of Instructor. 1-3 Credits 1-3 Periods

GCU - Geography: Cultural

GCU102   Introduction to Human Geography

Systematic study of human use of the earth. Spatial organization of economic, social, political, and perceptual environments.
Prerequisites: None. 3 Credits 3 Periods

GCU121   World Geography I:
Eastern Hemisphere

Description and analysis of areal variations in social, economic, and political phenomena in major world regions. Emphasis on Europe, Russia, North Africa, and the Asian world. *Prerequisites: None. 3 Credits 3 Periods*

GCU122
World Geography II:
Western Hemisphere

Description and analysis of variations in social, economic, and political phenomena in major world regions. Emphasis on Sub-Saharan Africa, Latin America, and Anglo America. *Prerequisites: None. 3 Credits 3 Periods*

GCU221   Arizona Geography

The historical to modern development of Arizona. The interplay between the physical, cultural and economic factors affecting Arizona today. *Prerequisites: None.*
3 Credits 3 Periods

GER - German

GER101   Elementary German I

Basic grammar, pronunciation and vocabulary of the German language. Includes the study of German culture, practice of listening, speaking, reading and writing skills. *Prerequisites: None. 4 Credits 4 Periods*

GER102   Elementary German II

Continued study of grammar and vocabulary of the German language along with the study of German culture. Emphasis on German language skills. *Prerequisites: GER101 or equivalent. 4 Credits 4 Periods*

GER115   Beginning German Conversation I

Conversational German. Basic sentence structure, pronunciation and vocabulary necessary to develop speaking ability in German. Designed for students seeking speaking and listening abilities with little emphasis on grammar. *Prerequisites: None. 3 Credits 3 Periods*

GER201   Intermediate German I

Review of essential grammar of the German language and study of the German culture. Continued practice and development of reading, writing, and speaking skills. *Prerequisites: GER102, two years of high school German, or permission of Department or Division. 4 Credits 4 Periods*

GER202   Intermediate German II

Continued development of German language skills and continued study of the German culture. *Prerequisites: GER201, or equivalent, or permission of Department or Division. 4 Credits 4 Periods*

GLG - Geology

GLG101
Introduction To Geology I:
Physical Lecture
A study of the kind and arrangement of materials composing the earth's crust and the geological processes at work on and within the earth's surface. *Prerequisites: None. 3 Credits*
3 Periods

GLG102
Introduction to Geology II:
Historical Lecture
Outlines the origin and history of the earth with emphasis on North America—its dynamic, geographic, and climatic changes; animals and plants of the past; the evolution of life. *Prerequisites: None. 3 Credits 3 Periods*

GLG103   Introduction To Geology I: Physical Lab
May accompany GLG101. Study of common rock-forming minerals, rocks, and maps. *Prerequisites: None. 1 Credits*
3 Periods

GLG104
Introduction to Geology II:
Historical Lab
May accompany GLG102. Study of geological structures and rocks, fossils, and geologic maps. May require field trips. *Prerequisites: None. 1 Credit 3 Periods*

GLG105   Introduction to Planetary Science
A survey of solar system objects and their geologic evolution, surfaces, interiors, and atmospheres, and the methods used to study them; weekly laboratory for data analysis and experiments; possible weekend field trip. *Prerequisites: None. 4 Credits 6 Periods*

GLG110
Geologic Disasters and the Environment
Acquaints students with the use and importance of geological studies as they apply to the interactions between people and the earth. Includes geological processes and hazards such as floods, earthquakes, and landslides; use of fossil fuels; mining of raw materials. *Prerequisites: None.*
3 Credits 3 Periods

GLG111
Geological Disasters and the Environment Lab
May accompany GLG110. Basic geological processes and concepts. Emphasis on geology-related environmental problems concerning Arizona. Case histories and field studies. May require field trips. *Prerequisites: None.*
1 Credit 3 Periods

GLG121   Geology of the Grand Canyon
Introduction to the physiography and geology of the Grand Canyon. Includes a hiking field trip to the Grand Canyon. *Prerequisites: None. GLG103 suggested but not required.*
1 Credit 2 Periods

GLG230AA Field Geology of the Southwest
Field trips to selected areas in the Southwest, such as Arizona, Utah, California, and Sonora, to observe and interpret various geological features and phenomena. *Prerequisites: None. GLG103 suggested but not required*
1 Credit 5 Periods

GLG282
Volunteerism for Geology:
A Service-Learning Experience
Service-learning field experience within human service organizations, government offices, public schools, or hospitals. May be repeated for a total of six (6) GLG282 credit hours; may not repeat specific agency assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in catalog. *Prerequisites: Permission of Instructor. 1-3 Credits 1-3 Periods*

GLO - Global Citizenship

GLO298AA Special Projects

GPH - Geography: Physical

GPH111   Introduction to Physical Geography
Spatial and functional relationships among climates, landforms, soils, water, and plants. *Prerequisites: None.*
4 Credits 6 Periods

GPH113   Introduction to Physical Geography Lab
Laboratory experience in support of GPH112. *Prerequisites or Corequisites: GPH112. 1 Credit 3 Periods*

GPH210   Society and Environment
Principles of physical geography relating to environmental problems pertinent to contemporary society. Pollution, maladjusted land use, resource exploitation. *Prerequisites: ENG101, or ENG107, or equivalent. 3 Credits 3 Periods*

GPH211   Landform Processes
Geographic characterisitcs of landforms and earth-surface processes emphasizing erosion, transportation, deposition and implications for human management of the environment. *Prerequisites: ENG101, or ENG107,*
or equivalent 4 Credits 6 Periods

GPH212   Introduction to Meteorology I
Atmospheric processes and elements. General and local circulation, heat exchange and atmospheric moisture. *Prerequisites: None. 3 Credits 3 Periods*

GPH213   Introduction to Climatology
Study of atmospheric phenomena over periods of time measured in months, years or longer. Includes average weather conditions, infrequent and unusual types of weather, and the influence of weather on the cultural and human landscape. *Prerequisites: None. 3 Credits 3 Periods*

GPH214
Introduction to Meteorology I
Laboratory
Basic meteorological and climatological measurements. Prerequisites: None. *Prerequisites: None. Corequisites: GPH212. 1 Credit 3 Periods*

GPH215   Introduction to Climatology Laboratory
A mathematical, statistical, and spatial analysis of climatological phenomena. *Prerequisites: None. Corequisites: GPH213. 1 Credit 3 Periods*

GPH219   Introduction to GIS Using ArcGIS
An introduction to desktop Geographic Information Systems (GIS) technology using ArcGIS software. *Prerequisites: CIS105 or CSC180 or permission of Instructor. 3 Credits*
3 Periods

GPH220   Intermediate GIS Using ArcGIS
Further development of knowledge and skills in Geographic Information Systems (GIS), including evolution of GIS, GIS users, statistical applications, spatial databases, spatial analysis and related technology, and overview of spatial data. *Prerequisites: GPH219 or permission of Instructor.*
3 Credits 3 Periods

GPH240
Natural Hazards, Disasters,
and Catastrophes
Emphasis on interaction of physical and cultural geography in potentially hazardous atmospheric, oceanic, geologic, and astronomic processes. Exploration of hazard risk analysis. *Prerequisites: ENG101. 3 Credits 3 Periods*

GPH270
Introduction to Cartography and Geospatial Technologies
Overview of maps, map projections and cartography. Introduction to geospatial technologies, including remote sensing, Global Positioning System, Geographic Information System, and statistical analysis. *Prerequisites: None.*
3 Credits 3 Periods

GPH273   Advanced GIS Using ArcGIS
Advanced data and spatial analysis techniques in Geographic Information Systems (GIS), using ArcGIS. *Prerequisites: GPH220 or permission of Instructor.*
3 Credits 3 Periods

GPH275   Remote Sensing, GPS, and GIS
Uses and applications of remote sensing and imagery in Geographic Information Systems (GIS). Uses and application of Global Positioning Systems to GIS and Remote Sensing. *Prerequisites: None. 3 Credits 3 Periods*

GPH282

Volunteerism for Physical Geography:
A Service-Learning Experience
Service-learning field experience within private/public agencies and citizen volunteer groups. May be repeated for a total of six (6) GPH282 credit hours; may not repeat specific agency assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in catalog. *Prerequisites: Permission of Instructor. 1-3 Credits 1-3 Periods*

GPH298   Special Projects
1-3 Credits See Page 292

GTC - General Technology

GTC102
Machine Processes, Theory
And Application
Study and application of principles and theory of common metal removal processes including drilling, reaming, boring, milling, turning, and grinding. Cutting tool geometry and materials, cutting speeds and feeds, coolants, and precision measurement. *Prerequisites: None. 3 Credits 6 Periods*

GTC104   Manufacturing Processes
Introduces students to manufacturing processes used in conversion of raw materials into useful products. Presents the basic manufacturing processes in logical groups, based on similarities of purpose and applications. *Prerequisites: None.   4 Credits 7 Periods*

GTC106   Industrial Safety
Safety, health management and accident prevention in industrial work environment. Role of Occupational Safety and Health Administration (OSHA) Act, materials handling, electrical safety, machine safety, first response to fire and medical emergencies, safety signs and color codes, recognition of safety and health hazards, accident prevention, and management's responsibilities. *Prerequisites: None.*
2 Credits 2 Periods

GTC107   Technical Mathematics I
Mathematical principles to include basic operations, significant digits, exponents, square roots and order of operations. Solve problems using arithmetic, signed numbers, percentages, fractions, exponents, and square root. Use of handheld calculator. Technology-related problems. *Prerequisites: None. 3 Credits 3 Periods*

GTC108   Technical Mathematics II
Fundamental algebraic operations. Problem solving involving metric measurement, gears, pulleys, simple mechanism problems. Areas and volume calculations of geometric figures. Essentials of trigonometry for solving right and oblique triangles. *Prerequisites: GTC/MET107 or permission of Instructor. 3 Credits 3 Periods*

GTC127   Beginning Woodworking
Introduction to woodworking fundamentals and applications. Familiarization with the basic woodworking tools emphasizing the safe and proper use of woodworking hand tools and stationary and portable power tools. Class projects develop a working project plan, identify material needs, cost analysis, basic construction of the project, and basic finishing techniques. *Prerequisites: None. 3 Credits 4 Periods*

GTC130   Furniture Construction I
Process of building a piece of furniture including calculating and buying needed material, using tools properly and safely (hand tools and machines), jointery, wood preparation and basic finishing techniques. *Prerequisites: GTC128 or previous woodworking experience and permission of Instructor. 3 Credits 6 Periods*

GTC144   Introduction To Cabinetmaking
Techniques and projects to produce complex cabinet projects. Includes project planning, working from plans, material cost analysis, and advanced finishing techniques. *Prerequisites: GTC130 and permission of Instructor.*
3 Credits 5 Periods

GTC181   Introduction To Fluid Power
Develops an understanding of the fundamental laws and principles of fluids together with consideration of such fluid devices as valves, cylinders, pumps, sizes of lines, and simple hookups. Includes both hydraulics and pneumatics. *Prerequisites: ELE101 or equivalent. 3 Credits 6 Periods*

GTC185   Electro-Mechanical Devices
Concepts, principles, maintenance, and troubleshooting of mechanical and electro-mechanical devices; mechanical alignment of shafts, pillowblocks, gears, and couplers on mechanical breadboard; transmission devices including lead screws, linkages, worm and worm wheels, gear trains, speed reducers, chain drives, and belt drives; principles of lubrication; operation of DC (direct current), AC (alternating current), and stepping motors; application of tachometers, stepping motors, linear actuators, relays, solenoids, switches, contactors, starters, and fuses; selection and specification of components from manufacturer's catalogs. *Prerequisites: ELE101 or GTC/MET108 or MAT103AA or MAT103AB or permission of Instructor. 4 Credits 6 Periods*

GTC206   CNC Programming

CNC Programming of Word Address Language (G&M Code) for computer numerical control (CNC) machine tools. 2, 3 and 4-Axis CNC Programming for CNC controlled machines. Computer based tool path verification, CNC controller tool path verification and CNC machine tool program verification. Study of tooling, speeds, feeds and material removal as related to CNC machine tools and CNC controlled machines. *Prerequisites: MET231 or machine shop experience or permission of Program Director.*
3 Credits 4 Periods

GTC209   Automated Manufacturing

Evolution of automation in manufacturing from fixed (hard) automation to Computer Integrated Manufacturing (CIM) is presented with numerical control (NC); computer-aided design/computer-aided manufacturing (CAD/CAM); automated material handling; automation communication protocol. Manufacturing management strategies include statistical process control (SPC); material requirements planning (MRP); manufacturing resource planning (MRPII); and just-in-time (JIT). Hands-on experience with programmable logic controllers (PLC) and robotics included. *Prerequisites: ELT/SMT131, or ELE131, or GTC/MET206, or equivalent. 3 Credits 6 Periods*

GTC216   Properties Of Materials

Study of manufacturing properties of materials, the behavior of materials under load, stress and strain and torsion and qualities of materials other than strength. *Prerequisites: None. 3 Credits 3 Periods*

GTC223   Advanced Machine Tools

Advanced machining practices; emphasis on application of machines and tool theory. *Prerequisites: GTC102 or (MET101 and MET150). 3 Credits 6 Periods*

GTC236
CAD/CAM Computer Numerical Control (CNC) Programming

Programming of Computer Numerical Control (CNC) machine tools such as CNC milling machines and turning centers. Utilizing computer aided drafting and computer aided manufacturing (CAD/CAM) for design and generation of part geometry. Verification of tool path using CAM graphics. Generate program media using a CAM post processor. *Prerequisites: None. Prerequisites: GTC/MET206. 3 Credits 6 Periods*

GTC266   Solids Modeling-Solidworks

CAD modeling, solid part generation, assembly of parts, and working drawing creation. Applications of CAD/CAM in Computer Integrated Manufacturing (CIM). *Prerequisites: GTC246, DFT254, or permission of Instructor. 3 Credits 6 Periods*

GTC272
Automated Control Systems
(PLC Applications)

The programmable logic controller (PLC) as the control unit for the application of sensors, switches, and transducers. Motors, stepper motors, and other prime movers are controlled. Includes both on/off and analog devices. *Prerequisites: GTC/MIT209 or permission of Instructor. 3 Credits*
6 Periods

GTC273
Industrial Automation Controls
And System Integration

A study in application and implementation of industrial control systems including machine building and system integration. *Prerequisites: GTC272. 3 Credits 6 Periods*

GTC276   Solids Programming

Parametric modeling, CNC part production, model to CAM system integration, and solid model part representation. Applied CAD/CAM in the role of Computer Integrated Manufacturing (CIM). *Prerequisites: GTC266. 3 Credits*
6 Periods

GTC296   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: Completed at least 12 credits, min 2.6 GPA and able to obtain a position related to student's academic/career goals or permission of Instructor. Corequisites: Enrolled in at least 1 class related to major/career interest or permission of Instructor. 1-3 Credits 5-15 Periods*

GTC298   Special Projects
1-3 Credits See Page 292

HBR - Hebrew

HBR101   Elementary Biblical Hebrew I

Introduction to the basic alphabet, grammar, pronunciation and vocabulary of classical Hebrew. Listening, speaking, reading, and writing skills. *Prerequisites: None.   4 Credits 4 Periods*

HCC - Health Care

HCC130   Fundamentals In Health Care Delivery
Overview of current health care professions including career and labor market information. Health care delivery systems, third party payers, and facility ownership. Health organization structure, patient rights and quality care. Health care and life values. Definition and importance of values, ethics, and essential behaviors in the workplace. Worker rights and responsibilities. Healthful living practices to include nutrition, stress management and exercise. Occupational Safety and Health Administration (OSHA) standard precautions and facility safety. Use of principles of body mechanics in daily living activities. Basic communication skills which facilitate teamwork in the health care setting. Focus on development of personal communication skills and an understanding of how effective communication skills promote teamwork. Focus on intercultural communication strategies. *Prerequisites: None. 3 Credits 3 Periods*

HCC145
Medical Terminology
for Health Care Workers
Medical terminology used in health care, with special care populations and in special services. Body systems approach to terms related to structures, functions, diseases, procedures, and diagnostic tests. Building and analyzing terms using word parts. Medical abbreviations and symbols and term spelling. *Prerequisites: None. 3 Credits 3 Periods*

HCR - Health Care Related

HCR210   Clinical Health Care Ethics
An introduction to health care ethics with emphasis on analysis and ethical decision making at both the clinical and health policy levels for health care professionals. Theoretical foundation of bioethics reviewed within historical and contemporary contexts. *Prerequisites: ENG102. 3 Credits 3 Periods*

HCR220   Health Care Organizations
Overview of United States health care delivery systems; financing, health policy, impact of managed care, and basic principles of budgeting, cost-benefit analysis, and resource management. *Prerequisites: ENG102. 3 Credits 3 Periods*

HCR230   Culture And Health
Relation between cultures of diverse groups and health/illness. Emphasis on cross-cultural communication, including awareness of own cultural influences and indigenous and complementary healing practices. *Prerequisites: None. 3 Credits 3 Periods*

HCR240   Human Pathophysiology
Chemical, biological, biochemical, and psychological processes as a foundation for the understanding of alterations in health. The structural and functional pathophysiology of alterations in health; selected therapeutics considered. *Prerequisites: BIO202 or BIO205 or equivalent. 4 Credits 4 Periods*

HCR240AA Human Pathophysiology I
Chemical, biologic, biochemical, and psychological processes as a foundation for the understanding of alterations in health. The structural and functional pathophysiology of alterations in health; selected therapeutics considered. *Prerequisites: BIO202 or BIO205 or equivalent. Corequisites: HCR240AB or permission of Instructor. 2 Credits 2 Periods*

HCR240AB Human Pathophysiology II
Chemical, biologic, biochemical, and psychological processes as a foundation for the understanding of alterations in health. The structural and functional pathophysiology of alterations in health; selected therapeutics considered. *Prerequisites: BIO202 or BIO205 or equivalent. Corequisites: HCR240AA or permission of Instructor. 2 Credits 2 Periods*

HES - Health Science
& First Aid

HES100   Healthful Living
Health and wellness and their application to an optimal lifestyle. Explores current topics of interest such as stress management, nutrition, fitness, and environmental health. Evaluates common risk factors associated with modern lifestyles. *Prerequisites: None. 3 Credits 3 Periods*

HES106
Cardiopulmonary Resuscitation (CPR)/Automated External Defibrillator (AED)
Basic overview of Cardiopulmonary Resuscitation (CPR) and Automated External Defibrillator (AED). Covers choking procedures and the importance, guidelines, and techniques for performing CPR and utilizing an AED. *Prerequisites: None. 0.5 Credit 0.5 Period*

HES126   Women's Health Issues
Develops awareness of women's health issues across cultures, lifespan, socioeconomic status, education and addresses global

concerns and inequalities. The course introduces women's health issues through the history of the Women's Health Movement and the political climate and economic systems in the United States. Addresses women's health issues regarding sexual health and reproduction and examines many chronic diseases common to women. Explores predisposing and precipitating factors affecting women's health and reviews current treatment of disease. Identifies interpersonal and social issues related to women's health and focuses on the development of behaviors that promote a healthy and productive life. *Prerequisites: None. 3 Credits 3 Periods*

HES154
First Aid/Cardiopulmonary Resuscitation
Cardiopulmonary Resuscitation and first aid for the adult, child and infant patients includes Automated External Defibrillator (AED), rescue breathing, obstructed airway, and other first aid procedures. Designed to train citizen responders in skills and procedures required during emergency situation. *Prerequisites: None. 3 Credits*
3 Periods

HES201   Substance Abuse And Behavior
Principles and factual bases of drug use and abuse. Physiological and socio-psychological effects of drug use and law enforcement of drug abuse. Consultants used extensively to enrich course. *Prerequisites: None. 3 Credits 3 Periods*

HES271
Prevention And Treatment
Of Athletic Injuries
Prevention and care of athletic injuries, emphasizing use
of modern training techniques and support materials. Utilization of preventive taping, strapping, bandaging, cardiopulmonary resuscitation, massage, cryotherapy, hydrotherapy, and practical application of muscle reconditioning. *Prerequisites: None. 3 Credits*
3 Periods

HIS - History

HIS100
History of Western Civilization to Middle Ages
Survey of the origin and development of Western civilization and its institutions from prehistory through the Ancient World and the Middle Ages. *Prerequisites: None.*
3 Credits 3 Periods

HIS101
History of Western Civilization
Middle Ages to 1789
Survey of origin and development of Western civilization and its institutions from the Renaissance and Reformation through Age of Enlightenment. *Prerequisites: None.*
3 Credits 3 Periods

HIS102
History of Western Civilization
1789 to Present
Survey of origin and development of Western civilization and its institutions from French Revolution through the present.
Prerequisites: None. 3 Credits 3 Periods

HIS103   United States History to 1865
The political, economic, and social development of the United States from the pre-colonial period through the end of the Civil War (1865). *Prerequisites: None. 3 Credits*
3 Periods

HIS104   United States History 1865 to Present
The political, economic, and social development of United States from 1865 to the present time. *Prerequisites: None.*
3 Credits 3 Periods

HIS105   Arizona History
The prehistoric and contemporary Native American experience, Spanish colonial times, the Mexican National period, the U.S. federal territorial years, and Arizona's political and economic development during the twentieth century. *Prerequisites: None. 3 Credits 3 Periods*

HIS106   Southwest History
Survey of Hispanic, Anglo, African-American and Native cultures of the peoples who have settled the American Southwest. Emphasis on cattle, mining, fur trade and transportation industries and role development of the region. *Prerequisites: None. 3 Credits 3 Periods*

HIS107
Selected Issues in
United States History

Survey of selected major issues in history of United States from early times to present. *Prerequisites: None. 3 Credits 3 Periods*

HIS108
United States History
1945 to the Present

Survey of American history from 1945 to the present.Focuses on the political, social, economic and cultural history of the United States from the end of World War II to the present time. Includes domestic developments and foreign policy. *Prerequisites: None. 3 Credits 3 Periods*

HIS109   Mexican-American History and Culture

Examination of origins and development of Spanish-American and Mexican-American peoples and their contribution to culture, history and development of United States. Emphasis on Mexican-American War and its impact on educational, social, and economic conditions of the Mexican-Americans of the Southwest. *Prerequisites: None. 3 Credits 3 Periods*

HIS110   World History to 1500

Survey of the economic, social, cultural, and political elements of world history from the beginning of human civilization to 1500. *Prerequisites: None. 3 Credits 3 Periods*

HIS111   World History 1500 to the Present

Survey of the economic, social, cultural, and political elements of world history from 1500 to the present. *Prerequisites: None. 3 Credits 3 Periods*

HIS113   History of Eastern Civilizations to 1850

An examination of the characteristics and development of civilizations, religions and philosophies of the Middle East, India, Far East, and Southeast Asia from ancient times to the mid-nineteenth century. *Prerequisites: None. 3 Credits 3 Periods*

HIS114
History of Eastern Civilizations
1850 to Present

Examination of characteristics and development of civilizations of Middle East, India, Far East, and Southeast Asia, from mid-nineteenth century to present. *Prerequisites: None. 3 Credits 3 Periods*

HIS140   American Indian History

Survey of American Indian history with emphasis on the last 200 years including developments in the 20th century. Focuses on selected groups such as the Cherokee, Iroquois Confederation, Navajo, Sioux and Indians of the Southwest in relation to cultural, economic, political and social continuity and changes. Topics include development and influence of federal policies, past and present issues confronting Native Americans and how Native American individuals and communities maintain their identities as they confront social changes. *Prerequisites: None. 3 Credits 3 Periods*

HIS145   History of Mexico

Survey of the political, economic, and social forces which have shaped the development of Mexico from pre-Columbian times to the present. *Prerequisites: None. 3 Credits 3 Periods*

HIS173   United States Military History

Focuses on the impact of the United States military in both peace and war on American society, politics and foreign relations from the colonial period to the present. *Prerequisites: None. 3 Credits 3 Periods*

HIS201   History of Women in America

Introduction to women's history from the colonial period to the present. Deals chronologically with changes and developments which have influenced the lives of women. *Prerequisites: None. 3 Credits 3 Periods*

HIS203   African-American History to 1865

History and cultural heritage of African-Americans from their beginnings in Ancient Africa through the experience of chattel slavery in the Americas to their eventual emancipation and participation in the American Civil War. *Prerequisites: None. 3 Credits 3 Periods*

HIS204
African-American History
1865 to Present

Multifaceted experiences of African-American people from the post-Civil War period (1865) to the present, including the collective struggle for freedom, equality, and self-determination in the United States. *Prerequisites: None. 3 Credits 3 Periods*

HIS243   History of World Religions

Historical context for the development, practice and spread of various world religions. Focus on environmental factors (social, political, economic) influencing religious thought. Consideration of the changes in belief systems throughout different periods and social contexts. *Prerequisites: None. 3 Credits 3 Periods*

HIS251   History of England to 1700

History of England to 1660. Analysis of the major political, cultural, social, and intellectual, and social factors in English historical development from its earliest times till 1660. *Prerequisites: None. 3 Credits 3 Periods*

HIS252   History of England 1700 to Present

Analysis of the major political, cultural, social, and intellectual factors in English historical development from 1650 to present. *Prerequisites: None. 3 Credits 3 Periods*

HIS273   US Experience in Vietnam 1945-1975

Survey of the US experience in Vietnam, 1945-1975, in view of political, economic, and social forces of the Cold War. *Prerequisites: None. 3 Credits 3 Periods*

HIS277   The Modern Middle East

Survey of the political, religious and economic development of the Middle East since 1500. Emphasis on the decline of the Moslem empire(s), the resurgence of contemporary Pan- Arabism, the Palestinian-Israeli question, jihadism, fundamentalist terrorism, the Taliban and Al Qaeda, and the impact of oil production on the region and the rest of the world. *Prerequisites: None. 3 Credits 3 Periods*

HIS282
Volunteerism for History:
A Service-Learning Experience

Service-learning field experience within private public agencies such as museums and libraries, and citizen volunteer groups. Development of historical research and inquiry skills through on-site volunteer experience. May be repeated for a total of six (6) HIS282 credit hours; may not repeat specific assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in catalog. *Prerequisites: Permission of Instructor. 1-3 Credits 1-3 Periods*

HIS298   Special Projects
1-3 Credits See Page 292

HLR - Health Related

HLR286
Women and Health:
Body/Mind/Spirit Connection

Economic, sociopolitical, and demographic factors affecting women's health. Methods for optimizing physical, emotional, and spiritual health. Specific health concerns of women throughout the lifespan. Activism for health promotion. *Prerequisites: None. 3 Credits 3 Periods*

HRM - Hotel Restaurant Management

HRM110
Introduction To Hospitality
And Tourism Management

A fundamental overview of the hotel, restaurant, and tourism segments of the hospitality and tourism industry. Provides an overview of the operational sectors of the industry and reviews management components and skills. Contains components to develop communication skills and a professional career plan. *Prerequisites: None. 3 Credits 3 Periods*

HRM120   Hotel Facility Management

Fundamental duties and responsibilities of hotel facility management. Emphasis on detail tasks, including personnel, cleaning, purchasing, equipment, textiles, maintenance, and safety. Examines basic systems for hotel facility management record keeping. *Prerequisites: None. 3 Credits 3 Periods*

HRM130   Guest Services Management

Examines organization and management of the hotel front office and guest service operations. Explores key front office functions and related systems and skills necessary to ensure guest satisfaction and efficient operations. *Prerequisites: None. 3 Credits 3 Periods*

HRM145   Events Management

Introduction to organizing special events from concept through completion, including planning, coordination, marketing, financing and risk management. Overview of the critical stages and functions involved in staging and managing special events including meetings, conferences, entertainment, expositions, conventions and sporting events. *Prerequisites: None. 3 Credits 3 Periods*

HRM146
International Meetings,
Conventions And Exhibitions

Introduces the planning and executing of multinational and multicultural meetings, conventions and exhibitions. Emphasizes

coordination, logistics, venue selection, budgeting and cultural competencies critical to a global business environment. *Prerequisites: HRM110. 3 Credits 3 Periods*

HRM160   Tourism Principles And Practices
Introduces the fundamental principles and practices of tourism. Examines tourism sectors, consumer behavior, and factors that influence tourism. Focuses on the interaction of tourism with the economy, environment and people. *Prerequisites: None. 3 Credits 3 Periods*

HRM220   Hospitality Managerial Accounting
Study of financial statement analysis, asset management, ratio analysis, analytical techniques, and investment decision making. Emphasis on planning, budgeting, and management decisions. *Prerequisites: ACC211. 3 Credits 3 Periods*

HRM230   Beverage Management
Identification, production, purchasing, and service of spirits, wine and beer products. Marketing, menu development, and cost controls of a beverage operation. Special emphasis on staffing training, and legal regulations for beverage sales. *Prerequisites: None. 3 Credits 3 Periods*

HRM265
Financing Hospitality
And Tourism Development
Examines financial management concepts, analytical techniques and investment decision making processes essential to hospitality and tourism management. Provides an applied management approach to managing profitability, financing growth, and using financial analysis to make investment decisions. *Prerequisites: HRM110 and (MAT140 or MAT141 or MAT142). 3 Credits 3 Periods*

HRM270   Hospitality Marketing
Essential skills of defining a service market, developing a market plan, and directing personnel to follow the market plan. Emphasis on marketing in the hospitality industry and understanding segmentation, positioning and promotion in that market. *Prerequisites: HRM110. 3 Credits 3 Periods*

HRM275   Restaurant Management
Overview of restaurant industry with focus on the major segments. Emphasis on developing plans for: marketing, accounting system, staffing, training, menu development and cost controls for restaurant operation. Special emphasis on safety and sanitation, and legal regulations in the restaurant industry. *Prerequisites: None. 3 Credits 3 Periods*

HRM280   Hospitality And Tourism Law
Examines legal aspects of hotel, restaurant and tourism management. Uses case study approach to develop understanding of the laws and regulations governing guest relationships, contracts, employee relations, civil rights, alcoholic beverages, safety and product liability. *Prerequisites: HRM110. 3 Credits 3 Periods*

HUM - Humanities

HUM107   Humanities Through the Arts
Introduction to humanities including film, drama, music, literature, painting, sculpture, and architecture. *Prerequisites: None. 3 Credits 3 Periods*

HUM201   Humanities: Universal Themes
Origins and creation myths, the material world, and the spiritual world as themes in the humanities. *Prerequisites: None. 3 Credits 3 Periods*

HUM202   Humanities: Universal Themes
The hero/heroine, fool, the social world, and the future as themes in the humanities. *Prerequisites: None. 3 Credits 3 Periods*

HUM205   Introduction to Cinema
Survey of the history and development of the art of motion pictures, including criticism of aesthetic and technical elements. *Prerequisites: None. 3 Credits 3 Periods*

HUM209   Women and Films
Analysis of images of women in films from both historical and contemporary perspectives. *Prerequisites: None. 3 Credits 3 Periods*

HUM210   Contemporary Cinema
A study of contemporary films, directors and critics with emphasis on evaluating film as an art form. *Prerequisites: None. 3 Credits 3 Periods*

HUM211AA Foreign Films: Classics
Analysis of contributions of foreign directors to the art and history of motion pictures through a study of selected films. *Prerequisites: None. 3 Credits 3 Periods*

HUM214   African-Americans in Film

Study of films featuring African-American performers and directors from the Silent Era to the present. Emphasis on the historical and social elements of African Americans in film and basics of film analysis. *Prerequisites: None. 3 Credits 3 Periods*

HUM250   Ideas and Values in the Humanities
An historical analysis of the interrelationships of art, architecture, literature, music, and philosophy from the
early civilizations to the Renaissance, including Western
and non-Western cultures. *Prerequisites: ENG101.*
3 Credits 3 Periods

HUM251   Ideas and Values in the Humanities
An historical analysis of the interrelationships of art, architecture, literature, music, and philosophy from the Renaissance to modern period, including Western and
Non-Western cultures. *Prerequisites: ENG101. 3 Credits*
3 Periods

HUM292   The Art of Storytelling
Explore the art and origin of storytelling. Provide a variety of storytelling techniques, styles and exercises to enhance the delivery of telling stories. Assist in the integration and application of storytelling to the learning environment in the classroom. *Prerequisites: None. 3 Credits 3 Periods*

IBS - International Business

IBS101   Introduction To International Business
A basic overview of international business to introduce students to international trade concepts. Focus of the course is on international business environment issues that influence global business practices, decisions and applications. *Prerequisites: None. 3 Credits 3 Periods*

IBS109
Cultural Dimension
For International Trade
The importance of cultural sensitivity in international business relations investigated by studying the impact of geography, history, religion, politics, customs and cross-cultural communications on society. *Prerequisites: None.*
3 Credits 3 Periods

IBS123
U.S. Customs And Export Licensing Regulations
Requirements for importing into the United States, and for export clearance, licensing, and foreign entry. Includes role of customs brokers, duty rate structure and determination as well as Commerce Control List (CCL) and Export Control Commodity Numbering (ECCN), export licenses, and governmental requirements regarding exports. *Prerequisites: IBS101, or permission of Instructor.*
3 Credits 3 Periods

IBS140   International Financial Management
Development of foreign exchange and international banking, including methods of payment, export financing, and application for and administration of government loan programs, country risk analysis, and negotiation and processing of letter of credit and other payment methods. *Prerequisites: IBS101, or permission of Instructor. 3 Credits 3 Periods*

IFS - Information Studies

IFS101   Information Skills In The Digital Age
Development of skills and competency in accessing, evaluating and using information resources while examining the social and historical context, as well as the technological implications, of the use and organization of information. *Prerequisites: ENG101, or ENG107, or equivalent. 3 Credits 3 Periods*

INT - Interior Design

INT100   Interior Design Drafting
Basic manual drafting techniques used in the interior design industry. Focus on industry standards of equipment use, lettering, line work, dimensioning, scaling, and annotation. Introduction and practice of industry-specific drawing types, including floor plans, elevations, sections, details, multi- view projection, and paraline. Brief exploration of hand sketching and Computer-Aided Design (CAD) techniques as they relate to manual drafting. *Prerequisites: None.*
3 Credits 6 Periods

INT105   Introduction To Interior Design
Introduction to the profession of interior design, including design process, elements and principles of design, and basic concepts of

space planning and furniture layout. Development of design vocabulary relative to architectural details, furnishings, and finishes. *Prerequisites: None.*
3 Credits 3 Periods

INT115   Historical Architecture And Furniture

Historical survey of the development of furniture, interiors, and architecture from antiquity to the 19th Century. *Prerequisites: None.*
3 Credits 3 Periods

INT120   Modern Architecture And Furniture

Survey of the development of furniture, interiors, and architecture from the 19th Century to the present. Emphasis is on modern architects and designers. *Prerequisites: None. 3 Credits 3 Periods*

INT140   Introduction to CAD for Interior Design

Introduction to CAD tools for the interior designer with emphasis on industry-accepted standards for interior design following American Institute of Architects (AIA) guidelines. *Prerequisites: ARC121, or INT100. 3 Credits*
6 Periods

INT145   Drawing and Rendering

Development of basic freehand sketching and perspective drawing skills. Explores styles and techniques with emphasis on quick sketch and presentation type drawings as used by design professionals. *Prerequisites: ARC121, or INT100. 3 Credits 6 Periods*

INT150   Color And Design

Introduction to the theory and application of color as related to the elements and principles of design. Light and its effect on color. Emphasis on the development of presentation skills for the field of interior design. *Prerequisites: None.*
3 Credits 6 Periods

INT160   Fabrics For Interiors

Study of the properties, design, and performance characteristics of interior fabrics. Psychological and cultural impact of textiles on the built environment. Role of the interior designer in working with textiles. Introduction to regulations and codes within the textile industry. *Prerequisites: None. 3 Credits 3 Periods*

INT170   Interior Materials

Properties, performance, maintenance, sustainability and general characteristics of interior finishes, furnishings, and equipment. Emphasis on building a resource file of interior finishes, furnishings, and equipment sources. Prerequisites: INT105. *Prerequisites or Corequisites: INT160. 3 Credits 6 Periods*

INT175   Custom Design

Custom design for interiors. Creative problem solving using design theory and process. Visualization of concepts through sketching. *Prerequisites: INT105 and (ARC121*
or INT100). 3 Credits 6 Periods

INT190   Space Planning

Study of creative, critical, analytical and strategic thinking as it relates to human behavior and the built environment. Emphasis on design theory, process, and application. Stresses creative expression through the utilization of design elements and principles. Prerequisites: INT105 and (ARC121 or INT100). *Prerequisites or Corequisites: INT140 or ARC141. 3 Credits 6 Periods*

INT200   Advanced CAD For Interior Design

Continued development of skills in CAD for the interior designer focusing on current technology and trends in the interior design industry. Emphasis is placed on critical thinking skills. Experience in production techniques including rendering and manipulation of two- and three-dimensional space. *Prerequisites: INT140. 3 Credits 6 Periods*

INT205   Residential Design

Use of design process to create design solutions for residential spaces. Functional and aesthetic analysis of interior components. Includes kitchen and bath design; residential furnishings, fixtures and equipment (FF&E); and environment considerations. Refinement of presentation skills. *Prerequisites: INT145, INT170, and INT190. 3 Credits*
6 Periods

INT215   Professional Practices

Marketing and business processes used in interior design studios. Ethical issues facing interiors industry. Development of business plan. *Prerequisites: INT190.*
3 Credits 3 Periods

INT230   Presentation Techniques

Advanced freehand sketching and perspective drawing skills. Explores a variety of styles and techniques with emphasis on presentation type drawings and portfolio development techniques used by design professionals. *Prerequisites: INT145. 3 Credits 6 Periods*

INT240   Kitchen and Bath Design

Exploration into the specific requirements associated with kitchen and bath design. Emphasis on the design process and computer-based tools for interior design. *Prerequisites: INT190 and (ARC141 or INT140). 3 Credits 6 Periods*

INT260   Interior Codes and Regulations

Study of interior building codes, regulations, and standards and their impact on the health, safety, and welfare of the public. Emphasis on occupancy classifications, means of egress, fire protection, finish/furniture standards and testing, and Americans with Disabilities Act Accessibility Guidelines (ADAAG). *Prerequisites or Corequisites: INT190 or permission of Department or Division. 3 Credits 3 Periods*

INT265   Building Systems
Study of building systems and their impact on the health, safety and welfare of the public. *Prerequisites: AAS Degree in Interior Design or permission of Department or Division. 3 Credits 3 Periods*

INT270   Commercial Design
Creation of design solutions for commercial spaces. Focuses on issues affecting the health, safety and welfare of the public. *Prerequisites: AAS Degree in Interior Design or permission of Instructor. 3 Credits 6 Periods*

INT271AA Interior Design Internship
Interior design work experience in the interiors industry. Required to work 80 hours. Supervised and evaluated by a faculty coordinator. May be repeated for a total of four (4) credits with department permission. *Prerequisites: Permission of Department or Division. 1 Credit 5 Periods*

INT271AB Interior Design Internship
Interior design work experience in the interiors industry. Required to work 160 hours. Supervised and evaluated by a faculty coordinator. May be repeated for a total of four (4) credits with department permission. *Prerequisites: Permission of Department or Division. 2 Credits 10 Periods*

INT271AC Interior Design Internship
Interior design work experience in the interiors industry. Required to work 240 hours. Supervised and evaluated by a faculty coordinator. *Prerequisites: Permission of Department or Division. 3 Credits 15 Periods*

INT274AA Interior Design Study Tour
A tour of the interior design industry outside of the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance knowledge about this multi-faceted career. *Prerequisites: Permission of Department or Division. 1 Credit 5 Periods*

INV - Innovation

INV150   Innovation
Individual skill development for the innovation process. Includes the importance of imagination, experience, and situational awareness as well as emotional intelligence. *Prerequisites: None. INV110 is recommended. INV150 may be repeated for a total of six (6) credits. 3 Credits 3 Periods*

ITA - Italian

ITA101   Elementary Italian I
Introduction to basic grammar, pronunciation, and vocabulary of Italian. Development of speaking, listening, reading, and writing skills. Study of the Italian culture. *Prerequisites: None. 4 Credits 4 Periods*

ITA102   Elementary Italian II
Continued development of speaking, listening, reading, and writing skills in Italian. Study of Italian culture. *Prerequisites: ITA101, or equivalent, or permission of Department or Division. 4 Credits 4 Periods*

ITA201   Intermediate Italian I
Review of essential grammar of the Italian language and study of the Italian culture. Continued practice and development of reading, writing, and speaking skills. *Prerequisites: ITA102 or equivalent or permission of Department. 4 Credits 4 Periods*

ITA202   Intermediate Italian II
Continued development of Italian language skills and continued study of the Italian culture. *Prerequisites: ITA201 or equivalent or permission of Department or Division.*
4 Credits 4 Periods

JPN - Japanese

JPN101   Elementary Japanese I
Basic grammar, pronunciation, and vocabulary of Japanese. Study of Japanese culture. Development of speaking, listening, reading and writing skills. *Prerequisites: None.*
5 Credits 6 Periods

JPN102   Elementary Japanese II
Continued study of basic grammar, pronunciation and vocabulary of Japanese. Study of the Japanese culture. Intensive practice in oral communication and development of reading and writing skills. *Prerequisites: JPN101 or permission of Department or Division. 5 Credits 6 Periods*

JPN115   Beginning Japanese Conversation I

Conversational Japanese. Basic sentence structure, pronunciation, and vocabulary necessary to develop speaking ability in Japanese. Designed for students seeking speaking and listening abilities, with little emphasis on grammar, reading, or writing. *Prerequisites: None.*
3 Credits 3 Periods

JPN201   Intermediate Japanese I

Expansion of sentence structures through oral/aural practice. Increased emphasis on reading and writing in Japanese and study of Japanese culture. *Prerequisites: JPN102 or equivalent. 5 Credits 6 Periods*

JPN202   Intermediate Japanese II

Extensive review of Japanese grammar; development of vocabulary and idiomatic expressions through reading and writing. Continued practice of oral communication skills and study of Japanese culture. *Prerequisites: JPN201 or equivalent. 5 Credits 6 Periods*

JRN - Journalism

JRN125   Photo Editing

Basic techniques of photo composition and editing for media reproduction. Teach how to crop and size photographs. Use of photo editing and design software in paginating a newspaper page on the computer. The effect and impact of color vs. black and white photographs. Basic techniques of photo essay, photo page and photo story and/or multimedia news products and the impact of photos on typography. *Prerequisites: None. 3 Credits 3 Periods*

JRN201   News Writing

Writing news for the print media. Composing at the computer keyboard. Associated Press editing style, writing skills, and organizational structure for news. *Prerequisites: ENG101, or ENG107, or equivalent. 3 Credits 5 Periods*

JRN203   Writing for Online Media

Writing using the modes and resources available on the Internet. Use of information and resources available on the Internet in writing, as well as writing for the Internet itself. *Prerequisites: Placement into ENG101 on a District-approved writing placement test. 3 Credits 3 Periods*

JRN215   News Production

Writing, editing, and publishing the student newspaper. Emphasis on news judgment, page design, computer pagination, photo usage, headline writing, editorial writing, newsroom management, and legal and ethical considerations. Emphasis may vary according to student goals. *Prerequisites: None. 3 Credits 5 Periods*

JRN225   Photojournalism

Reporting the news as a photojournalist, with emphasis on the development and creation of news photographs. Experience in shooting, editing and transmitting digital photos using Photoshop, InDesign and QuarkXpress software. *Prerequisites: None. 3 Credits 3 Periods*

JRN235   Practicum: Public Relations

On-campus public relations experience, including writing media releases, designing and producing promotional materials, planning events, script writing, and developing presentations. *Prerequisites: BPC128, JRN133, JRN201, JRN215, MCO120, and MKT101. 3 Credits 5 Periods*

JRN236   Advanced Practicum: Public Relations

Off-campus public relations experience integrating skills developed in previous courses. Students placed in community public relations job sites. Writing media releases, designing and producing promotional materials, planning events, script writing and developing presentations. *Prerequisites: BPC128, JRN133, JRN234, JRN201, JRN215, JRN235, MCO120, and MKT101. 3 Credits 5 Periods*

JRN240   Journalism Internship

Journalism work experience with a newspaper or other news organization. 80 hours of designated work per credit. Maximum of 6 credits allowed. *Prerequisites: JRN215.*
1-3 Credits 1-3 Periods

JRN298   Special Projects

1-3 Credits See Page 292

JUD - Judicial Studies

JUD101   The Courts In Arizona

Comparative analysis of courts in Arizona and how they relate to each other, including the federal courts, the Arizona supreme court and court of appeals, juvenile courts, justice courts, municipal and town courts, and tribal courts. *Prerequisites: None. 1 Credit 1 Period*

JUD103   Role Of The Court Staff

Roles and responsibilities of court staff and other court personnel in Arizona. *Prerequisites: None. 1 Credit 1 Period*

JUD107   Civil Procedure In Arizona Courts

Rules of civil procedure as applied to both standard civil actions and small claims cases found in Arizona limited jurisdiction courts. Conduct of the typical civil trials and small claims hearings, and pretrial procedures in managing a civil calendar. *Prerequisites: None. 2 Credits 2 Periods*

JUD109   Judicial Writing

Judicial writing skills, including research skills, organization, grammar, and style. Goals and objectives of writing in courts. *Prerequisites: None. 1 Credit 1 Period*

JUD111   Sentencing Misdemeanants

Alternatives, methods, laws, rules and practices governing the sentencing of persons convicted of misdemeanors under Arizona law. *Prerequisites: None. 1 Credit 1 Period*

JUD113   Court Management

Organization and management of courts with emphasis on problems relating to personnel issues, case processing standards, staff organization, quality management, and court administration. Management of fines, fees, bonds, and restitution. *Prerequisites: None. 2 Credits 2 Periods*

JUD115   Injunctive Actions

Injunctive actions (Orders of Protection and Injunctions Prohibiting Harassment), including philosophy and practical applications of the governing statutes and judicial responsibilities and limitations of powers as related to injunctive orders. *Prerequisites: None. 2 Credits 2 Periods*

JUD119   Alternative Dispute Resolution

Techniques for conflict resolution. *Prerequisites: None. 1 Credit 1 Period*

JUD121   Appeals

Processing of appeals from limited jurisdiction to general jurisdiction courts. *Prerequisites: None. 1 Credit 1 Period*

LAT - Latin

LAT101   Elementary Latin I

Introduction to the basic grammar and vocabulary of the Latin language. Practice reading and translating Latin into English. *Prerequisites: None. 4 Credits 4 Periods*

LAT102   Elementary Latin II

Comparative study of English and Latin grammar. Emphasis on analytical thinking, memorization, and familiarization with new terminology. Translation from English and from original works in Latin. *Prerequisites: LAT101 or permission of Instructor. 4 Credits 4 Periods*

LAT202   Intermediate Latin II

Refinement of translation techniques using selections from Virgil's *Aeneid*; emphasis on use of language and meter. *Prerequisites: LAT201. 4 Credits 4 Periods*

LBS - Library Skills

LBS220   Information Literacy And The Internet

Exploration of the Internet as an informational resource. Development of basic information literacy skills. *Prerequisites: None. 1 Credit 1 Period*

LBT - Library Technology

LBT101
Foundations Of Libraries And Information Services

Introduction to evolving roles of library information paraprofessionals, including historical and philosophical foundations of libraries, and overview of the professional setting, including types of libraries, information centers and professional organizations. Evolution of information from books to digital information. Terminology associated with information and libraries. Services, functions, and organizational structure of libraries and the information industry. *Prerequisites or Corequisites: ENG101 or ENG107 or equivalent. 3 Credits 3 Periods*

LBT110
Introduction To Technical Services

And Collection Management

Types and nature of information management and organization, including core collections, reference and special collections. Introduction to technical services functions in libraries, including materials selection, acquisition, and collection management. *Prerequisites or Corequisites: LBT101 or permission of Instructor or Program Director. 3 Credits 3 Periods*

LBT130
Introduction To Reference Skills
And Resources

Introduction to the reference process and uses of various types of sources including traditional formats, online databases, CD-ROM databases, web-based resources, and other developing technologies. Basic concepts of fulfilling information needs and selecting appropriate sources, including selecting and managing electronic resources. *Prerequisites or Corequisites: LBT101 or permission of Instructor or Program Director. 3 Credits 3 Periods*

LBT140
Multi-Media For Libraries And Information Centers

Theory, function, and operation of audio equipment, video equipment, computer graphics and computer software, photography and media formats and their relationships to libraries and information services. *Prerequisites or Corequisites: LBT101 or permission of Instructor or Program Director. 3 Credits 3 Periods*

LBT150   Introduction To Public Services

The changing nature of information access and the role of library and information service paraprofessionals in public services in libraries and information centers. Principles of library public services and functions of the various departments including circulation systems, interlibrary loan, reserves, current periodicals, and other typical public service areas. Historic patterns, future trends, and ethical and professional standards. Working effectively with library users and staff in providing information access and customer service. *Prerequisites or Corequisites: LBT101 or permission of Instructor or Program Director. 3 Credits 3 Periods*

LBT160
Introduction To Library Information Systems

Introduction to information systems for libraries and the information industry, including the fundamentals of library systems such as online catalogs, computerized circulation systems, basic operating systems, LANs and networked databases. Evolution and future trends in library technology, integration of library online systems, and impact of computing on libraries and the information industry. *Prerequisites or Corequisites: LBT101 or permission of Instructor or Program Director. 3 Credits 3 Periods*

LBT215
Cataloging And Classification Of Library Materials

Principles and methods of bibliographic control of library materials. Library cataloging and classification systems, Machine-Readable Cataloging (MARC) records subject analysis, and authority control. Knowledge and skills underlying the processes of cataloging and classification and use of bibliographic utilities. The role of the paraprofessional in cataloging. *Prerequisites or Corequisites: LBT110, or permission of Instructor or Program Director. 2 Credits 2 Periods*

LBT218   Basic Materials Repair

Preservation management, including the repair program in general libraries; methods of performing basic repairs to book and nonbook materials; selecting materials for in-house repair; cost factors involved in in-house repair programs, including supplies, staffing, equipment, space, maintaining quality, and evaluating in-house repair programs. *Prerequisites: None. 1 Credit 1 Period*

LBT254
Library Services For Children And Young Adults

Introduction to library services for children and young adults. Principles and practices of effective services, including types of libraries with children's services, children's programming, materials selection, age-appropriate activities, reader's advisory, public relations, evaluation of programs, physical environment considerations, and special issues and trends. *Prerequisites or Corequisites: LBT150 or permission of Instructor or Program Director. 2 Credits 3 Periods*

LBT262
Computer Maintenance And Security For Libraries

Introduction to computer maintenance and security for libraries, including software and hardware, wiring and basic troubleshooting. Trends and issues in computer maintenance and security in libraries. *Prerequisites or Corequisites: LBT160 or permission of Instructor or Program Director. 1 Credit 1 Period*

LBT270   Practicum Projects

Practical experience organized 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 in professional-type facilities. LBT270 may be repeated for a total of three (3) credit hours. *Prerequisites: Permission of Program Director or Instructor. 1 Credit 5 Periods*

LBT271
Library Information Industry Careers And Portfolio Development

Professionals, organizations, and journals in the library information field. Resume writing, cover letters, career choices, interviews,

and job searching. Includes time management and coping with change. Development
of portfolio to document and showcase learning and achievement in the Library Information Technology program. *Prerequisites: Permission of Program Director*
or Instructor. 1 Credit 1 Period

LBT272AA
Library Internship In Technical Services
Supervised work experience in Technical Services in a public, school, academic, or special library. Daily log of activities required for discussion and evaluation of objectives in individual conferences. *Prerequisites: Permission of Program Director or Instructor. 1 Credit*
5 Periods

LBT272AB Library Internship In Public Services
Supervised work experience in Public Services in a public, school, academic, or special library. Daily log of activities required for discussion and evaluation of objectives in individual conferences. *Prerequisites: Permission of Program Director or Instructor. 1 Credit 5 Periods*

LBT272AC
Library Internship In Media Services
Or Information Services
Supervised work experience in media information services in a public, school, academic or special library. A daily log of activities required for discussion and for evaluation of objectives in regularly scheduled group sessions and individual conferences. *Prerequisites: Permission of Program Director or Instructor. 1 Credit 5 Periods*

LBT273
Special Topics In Library Information Services
Current topics and contemporary issues in library information services. Application of research and industry trends to solve problems and/or investigate issues. Topics chosen from any area of the LBT curriculum. LBT273 may be repeated for a total of three (3) credits. *Prerequisites: (LBT101, LBT110, LBT130, LBT140, LBT150 and LBT160)*
or permission of Instructor or Program Director. 1 Credit
1 Period

LBT274
Independent Study In Library Information Services
Independent study and individualized learning research activities organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized study guided by professional expertise. *Prerequisites: Permission of Program Director*
or Instructor. 1 Credit 5 Periods

LBT282   Volunteerism for Library Science:
A Service-Learning Experience
Service-learning field experience within private/public agencies, educational institutions, and citizen volunteer groups. May be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. *Prerequisites: Permission of Instructor. 1-3 Credits 1-3 Periods*

LDR - Leadership

LDR102   Emerging Leaders II
Focus on implementing collaborative practices and organizational leadership skills to promote positive social change. Apply value-based leadership behavior in diverse settings. *Prerequisites: LDR101 or permission of Instructor. 2 Credits 2 Periods*

MAT - Mathematics

MAT082   Basic Arithmetic
Primary emphasis placed on fundamental operations with whole numbers, fractions, decimals, integers, and rational numbers; proportions and percentages. Other topics include representations of data, geometric figures, and measurement. *Prerequisites: None. Students may receive credit for only one of the following: MAT081, MAT082, or MAT083. 3 Credits 3 Periods*

MAT090   Developmental Algebra
Linear behavior; linear equations and inequalities in one and two variables; graphs; systems of equations in two variables; function notation, graphs, and data tables; operations on polynomials; properties of exponents; applications.   May receive credit for only one of the following: MAT090, MAT091, MAT092, or MAT093. *Prerequisites: Grade of "C" or better in MAT082, or MAT102, or equivalent, or satisfactory score on District Placement exam. 5 Credits*
5 Periods

MAT092   Introductory Algebra
Linear behavior; linear equations and inequalities in one and two variables; graphs; systems of equations in two variables; function

notation, graphs, and data tables; operations on polynomials; properties of exponents; applications.   May receive credit for only one of the following: MAT090, MAT091, MAT092, or MAT093. *Prerequisites: Grade of "C" or better in MAT082, or MAT102, or equivalent, or satisfactory score on District Placement exam. 3 Credits*
3 Periods

MAT102   Mathematical Concepts/Applications
A problem solving approach to mathematics as it applies to life and the world of work. Development, demonstration, and communication of mathematical concepts and formulas that relate to measurement, percentage, statistics, and geometry. *Prerequisites: Grade of "C" or better in MAT082, or equivalent, or satisfactory score on District placement exam. 3 Credits 3 Periods*

MAT120   Intermediate Algebra
Quadratic, rational, radical, exponential, and logarithmic functions and equations; graphs of quadratic, exponential, and logarithmic functions; equations quadratic in form; operations on rational expressions, radical expressions, and complex numbers; rational exponents; applications.   May receive credit for only one of the following: MAT120, MAT121, or MAT122. *Prerequisites: Grade of "C" or better in MAT090, MAT091, MAT092, MAT093, or equivalent, or a satisfactory score on the District placement exam. 5 Credits 5 Periods*

MAT121   Intermediate Algebra
Quadratic, rational, radical, exponential, and logarithmic functions and equations; graphs of quadratic, exponential, and logarithmic functions; equations quadratic in form; operations on rational expressions, radical expressions, and complex numbers; rational exponents; applications.   May receive credit for only one of the following: MAT120, MAT121, or MAT122. *Prerequisites: Grade of "C" or better in MAT090, MAT091, MAT092, MAT093, or equivalent, or a satisfactory score on the District placement exam. 4 Credits 4 Periods*

MAT122   Intermediate Algebra
Quadratic, rational, radical, exponential, and logarithmic functions and equations; graphs of quadratic, exponential, and logarithmic functions; equations quadratic in form; operations on rational expressions, radical expressions, and complex numbers; rational exponents; applications.   May receive credit for only one of the following: MAT120, MAT121, or MAT122. *Prerequisites: Grade of "B" or better in MAT090, MAT091, MAT092, MAT093, or equivalent, or a satisfactory score on the District placement exam. 3 Credits 3 Periods*

MAT142   College Mathematics
Working knowledge of college-level mathematics and its applications to real-life problems. Emphasis on understanding mathematical concepts and their applications. Topics include set theory, probability, statistics, finance, and geometry. Appropriate for the student whose major does not require college algebra or precalculus. *Prerequisites: Grade of "C" or better in MAT120, or MAT121, or MAT122, or equivalent, or satisfactory score on District placement exam. 3 Credits 3 Periods*

MAT150   College Algebra/Functions
Analysis and interpretation of the behavior and nature of functions including polynomial, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions; systems of equations, modeling and solving real world problems. Additional topics may include matrices, combinatorics, sequences and series, and conics.   May receive credit for only one of the following: MAT150, MAT151, MAT152, or MAT187. *Prerequisites: Grade of "C" or better in MAT120, or MAT121, or MAT122, or equivalent, or satisfactory score on District placement exam. 5 Credits 5 Periods*

MAT151   College Algebra/Functions
Analysis and interpretation of the behavior and nature of functions including polynomial, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions; systems of equations, modeling and solving real world problems. Additional topics may include matrices, combinatorics, sequences and series, and conics.   May receive credit for only one of the following: MAT150, MAT151, MAT152, or MAT187. *Prerequisites: Grade of "C" or better in MAT120, or MAT121, or MAT122, or equivalent, or satisfactory score on District placement exam. 4 Credits 4 Periods*

MAT156   Mathematics for Elementary Teachers I
Focuses on numbers and operations. Algebraic reasoning and problem solving integrated throughout the course. *Prerequisites: Grade of "C" or better in MAT142, or MAT150, or MAT151, or MAT152, or equivalent, or satisfactory score on District placement exam. 3 Credits*
3 Periods

MAT157
Mathematics for Elementary
Teachers II
Focuses on measurement, geometry, probability and data analysis. Appropriate technologies, problem solving, reasoning, and proof are integrated throughout the course. *Prerequisites: MAT156 or equivalent. 3 Credits 3 Periods*

MAT172   Finite Mathematics
An introduction to the mathematics required for the study of social and behavioral sciences. Includes combinatorics, probability, descriptive statistics, matrix algebra, linear programming and the mathematics of finance. Includes applications of technology in problem-solving. *Prerequisites: Grade of "C" or better in MAT150, or MAT151, or MAT152, or MAT187 or equivalent, or satisfactory score on District placement exam. 3 Credits 3 Periods*

MAT182   Plane Trigonometry

A study of measures of angles, properties of graphs of trigonometric functions, fundamental identities, addition and half-angle formulas, inverse trigonometric functions, solutions of trigonometric equations, complex numbers and properties of triangle solution. May receive credit for only one of the following: MAT182 or MAT187. *Prerequisites: Grade of "C" or better in MAT150, or MAT151, or MAT152, or equivalent, or concurrent registration in MAT150, or MAT151, MAT152, or satisfactory score on District placement exam. 3 Credits 3 Periods*

MAT187   Precalculus
A precalculus course combining topics from college algebra and trigonometry. Preparation for analytic geometry and calculus. May receive credit for only one of the following: MAT150, MAT151, MAT152, or MAT187. Strongly recommended that students have some knowledge of trigonometry. *Prerequisites: Grade of B or better in MAT120, or MAT121, or MAT122, or equivalent, or satisfactory score on a placement test. 5 Credits 5 Periods*

MAT206   Elements of Statistics
Basic concepts and applications of statistics, including data description, estimation and hypothesis tests. *Prerequisites: (A grade of "C" or better in MAT140, or MAT141, or MAT142), or (a grade of "C" or better in MAT150, or MAT151, or MAT152), or equivalent, or satisfactory score on district placement exam. 3 Credits 3 Periods*

MAT212   Brief Calculus
Introduction to the theory, techniques and applications of the differential and integral calculus of functions with problems related to business, life, and the social sciences.   Students may receive credit for only one of the following: MAT212 or MAT213. *Prerequisites: Grade of "C" or better in MAT150, or MAT151, or MAT152, or MAT187, or appropriate Math placement test score. 3 Credits 3 Periods*

MAT218   Mathematical Analysis for Business
An introduction to the mathematics required for the study of business. Includes multivariable optimization, Lagrange multipliers, linear programming, linear algebra, probability, random variables, discrete and continuous distributions. *Prerequisites: Grade of "C" or better in MAT212 or MAT213. 4 Credits 4 Periods*

MAT220   Calculus with Analytic Geometry I
Limits, continuity, differential and integral calculus of functions of one variable. Students may receive credit for only one of the following MAT220 or MAT221. *Prerequisites: Grade of "C"or better in [MAT182 and (MAT150, MAT151 or MAT152)], or MAT187, or appropriate Math placement test score. 5 Credits 5 Periods*

MAT225   Elementary Linear Algebra
Introduction to matrices, systems of linear equations, determinants, vector spaces, linear transformations and eigenvalues. Emphasizes the development of computational skills. *Prerequisites: Grade of "C" or better in MAT212 or MAT220, or MAT221, or equivalent. 3 Credits 3 Periods*

MAT227   Discrete Mathematical Structures
Introduction to lattices, graphs, Boolean algebras, and groups. Emphasis on topics relevant to computer science. *Prerequisites: Grade of "C" or better in CSC100 and (MAT220, or MAT221, or equivalent) or permission of Instructor. 3 Credits 3 Periods*

MAT231   Calculus with Analytic Geometry II
Techniques of integration for both proper and improper integrals with applications to the physical and social sciences, elements of analytic geometry, and the analysis of sequences and series. Student may receive credit for only one of the following: MAT230 or MAT231. *Prerequisites: Grade of "C" or better in MAT220, or MAT221, or equivalent. 4 Credits 4 Periods*

MAT241   Calculus with Analytic Geometry III
Multivariate calculus including vectors, vector-valued functions, partial differentiation, multiple integration and an introduction to vector fields.   Student may receive credit for only one of the following: MAT240 or MAT241. *Prerequisites: Grade of "C" or better in MAT230 or MAT231. 4 Credits 4 Periods*

MAT262   Differential Equations
Ordinary differential equations with applications including LaPlace transforms with numerical methods. *Prerequisites: Grade of "C" or better in MAT230, or MAT231, or equivalent. 3 Credits 3 Periods*

MAT277   Modern Differential Equations
Introduces differential equations, theoretical and practical solution techniques with applications. Problem solving using MATLAB. *Prerequisites: Grade of "C" or better in MAT230, or MAT231, or permission of Department or Division. 3 Credits 3 Periods*

MAT282
Volunteerism for Mathematics:
A Service-Learning Experience
Service-learning field experience within private/public agencies, educational institutions, and citizen volunteer groups. May be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. *Prerequisites: Permission of Instructor.*
1-3 Credits 1-3 Periods

MAT298   Special Projects
1-3 Credits See Page 292

MCO - Mass Communication

MCO120   Media and Society
Study of historical and contemporary roles of media and its pervasiveness in society as it related to politics, education and culture. *Prerequisites: ENG101, or ENG107, or equivalent. 3 Credits 3 Periods*

MCO220   Cultural Diversity and the Media
Images of the diverse cultures and gender issues within the U.S. media. Exploration of racial and gender roles which shape the media as well as media roles which influence U.S. race relations and racial change. Roles, contributions, and challenges of the minority press in the United States. *Prerequisites: ENG101, or ENG107, or equivalent. 3 Credits 3 Periods*

MET - Manufacturing Technology

MET131   Lean Manufacturing
Lean manufacturing methodologies and application to a manufacturing organization. Identification of waste and application of cost to poor quality process within a manufacturing organization. Lean manufacturing tools and implementation. Organizational buy-in. *Prerequisites: None. 3 Credits 3 Periods*

MET207   CNC Mill: Operator Training I
Computer Numerical Control (CNC) Mill qualified setup and functioning program. Mill operations. Changing tool values. Replacing and qualifying tooling. CNC Mill operator training including machine controls, tooling and operations. Proper machine shop safety. *Prerequisites: (MET103AA, MET103AB, MET103AC, and MET103AD) or permission of Department or Division. 3 Credits 3 Periods*

MET208   CNC Lathe: Operator Training I
Computer Numerical Control (CNC) Lathe qualified setup and functioning program. Operation of lathe. Changing tool values. Replacing and qualify tooling. CNC Lathe operator training including machine controls, tooling and operations. Proper machine shop safety. *Prerequisites: (MET102 and MET203) or permission of Department or Division.*
3 Credits 3 Periods

MGT - Management

MGT105   Leadership For Citizenship
Characteristics and types of leaders, responsibilities of leadership, and ethics of leadership as related to citizenship. *Prerequisites: None. 1 Credit 1 Period*

MGT147   Supply Chain Management
Supply chain management, including basic concepts and underlying principles of logistics and inventory management. *Prerequisites: None. 3 Credits 3 Periods*

MGT229   Management And Leadership I
Covers management concepts and applications for business, industry, and government organizations. *Prerequisites: None. 3 Credits 3 Periods*

MGT242
Project Scope And Procurement Management
Scope management and procurement management in a project environment, including how a project's scope is planned, defined, and verified. Concepts of scope change management. Concepts of procurement management, including procurement planning, supplier solicitation, supplier selection, contract administration, and contract closeout. *Prerequisites: TQM240 or permission of Instructor. 2 Credits 2 Periods*

MGT243   Project Time And Cost Management
Time management and cost management in a project environment, including activity definition, sequencing and duration estimating. Schedule development and specific tools to support schedule creation and control. Project cost management including resource planning, cost estimation, cost budgeting, and cost control. *Prerequisites: TQM240 or permission of Instructor. 2 Credits 2 Periods*

MGT244   Project Risk And Quality Management
Risk management and quality management in a project environment, including risk identification, risk aversion, and risk response planning. Presents techniques to perform risk analysis and risk response planning on projects. Concepts of quality management including quality planning, quality assurance and quality control. Concepts of quality systems and their applicability to project management. *Prerequisites: None. 2 Credits 2 Periods*

MGT245
Project, Human Resources And Communications Management
Concepts of human resource management and communications management in a project environment, including project organizational planning, staff acquisition and team development. Concepts of project communications planning, information distribution, performance reporting, and project closeout. *Prerequisites: None. 2 Credits*

2 Periods

MGT246   Principles Of Project Management

Project Management principles expected of a Project Management Professional (PMP). Includes an overview of exam format, topics, and study techniques. Focus is on project scope, procurement, time, risk, cost, quality, human resource, communication, and integration management. *Prerequisites: TQM240 or permission of Instructor.*
3 Credits 3 Periods

MGT251   Human Relations In Business

Analysis of motivation, leadership, communications, and other human factors. Cultural differences that may create conflict and affect morale individually and within organizations. *Prerequisites: None. MGT101 or MGT175 or MGT229 suggested, but not required. 3 Credits 3 Periods*

MGT253
Owning and Operating
a Small Business

Starting, organizing, and operating a small business, including location, finance management processes, advertisement and promotion, credit, inventory control
and ethics*. Prerequisites: None. 3 Credits 3 Periods*

MGT270AC Management Internship

Management work experience in a business or industry. 80 hours of designated work per credit. MGT270AC may be repeated for a total of six (6) credits. *Prerequisites: Permission of Department or Division. 3 Credits 3 Periods*

MGT276
Personnel/Human Resources Management

Human resource planning, staffing, training, compensating, and appraising employees in labor management relationships. *Prerequisites: None. MGT101, or MGT175, or MGT229 suggested but not required. 3 Credits 3 Periods*

MHL - Music: History/Literature

MHL130   Herstory: Women in Popular Music

Overview of the contributions made by women in the evolution of popular music and its industry. *Prerequisites: None. 3 Credits 3 Periods*

MHL143   Music in World Cultures

Non-European musical traditions including the study of music in rituals, musical instruments and the impact of cultures on musical styles. *Prerequisites: None. 3 Credits*
3 Periods

MHL145   American Jazz and Popular Music

The study of cultural and social contributions to the evolution of American jazz and popular music from the mid-1800's to present. *Prerequisites: None. 3 Credits 3 Periods*

MHL146   Survey of Broadway Musicals

Survey of Broadway musicals traced from their origins to the present viewed in their cultural, political, and socio-economic contexts. Emphasis on stylistic periods, composers, lyricists, directors, and choreographers. *Prerequisites: None. 3 Credits 3 Periods*

MHL153   Rock Music and Culture

History of rock music and how cultural, social, political, and economic conditions have shaped its evolution. *Prerequisites: None. 3 Credits 3 Periods*

MHL155   Survey of American Music

History of the music of North America from the earliest American Indian music to the present. Introduction to the musical trends, composers, socioeconomic developments and trends, musical forms and styles that influence our modern American musical sense. *Prerequisites: None.*
3 Credits 3 Periods

MHL241   Music History and Literature to 1750

In-depth study of music history from the primitive era through the Baroque period. *Prerequisites or Corequisites: MTC155 and MTC156, or permission of Instructor. 3 Credits 3 Periods*

MHL242
Music History and Literature
1750 to Present

In-depth study of music history from the Classical period through the Contemporary period. *Prerequisites: MHL241 or permission of instructor. 3 Credits 3 Periods*

MIS - Military Science

MIS101   Introduction To The Military I
Overview of mission, organization and structure of the Army and its role in national defense, discussion of current military issues.
Prerequisites: None. 3 Credits 5 Periods

MIS102   Introduction To The Military II
Introduces problem-solving methods, critical thinking, decision making, and group cohesion as applied in a military environment.
Prerequisites: None. 3 Credits 5 Periods

MIS201   Introduction To Leadership Dynamics I
Introduces interpersonal dynamics involved in military team operations; theory and application of military leadership principles.
Prerequisites: None. 3 Credits 5 Periods

MIS202   Introduction To Leadership Dynamics II
Introduction to interpersonal dynamics involved in military team operations; theory and application of military leadership principles.
Prerequisites: None. 3 Credits
5 Periods

MKT - Marketing

MKT101   Introduction to Public Relations
Emphasizes public relations techniques used both within and outside the business organization, including operation of a PR counseling firm. *Prerequisites: None. 3 Credits 3 Periods*

MKT263   Advertising Principles
Introduces the advertising function within business, including media study, creative strategies, and advertising campaigns.
Prerequisites: None. MKT271 suggested, but not required. 3 Credits 3 Periods

MKT267   Principles Of Salesmanship
Analyzes and applies the steps and techniques used in personal selling. Highlights the role of the professional sales representative and his/her functions as they relate to the company's mission and customer expectations. *Prerequisites: None. 3 Credits 3 Periods*

MKT268   Merchandising
Surveys structure and operation of retail organizations. Emphasizes merchandising to include price, location, time, promotion and quantity. *Prerequisites: None. MKT271 suggested but not required. 3 Credits 3 Periods*

MKT271   Principles of Marketing
An analysis of the marketing process and environment with regard to the product, pricing, distribution, and communication in order to satisfy buyer needs. *Prerequisites: None. 3 Credits 3 Periods*

MKT273   Marketing Research
Planning and preparing for a marketing research effort and presentation of research findings in a professional manner. Includes the study of problem definition, sampling methods, statistical analysis, presentation techniques, and evaluation of data. *Prerequisites: MKT271 or permission of Instructor. 3 Credits 3 Periods*

MKT280   Marketing Internship
Marketing work experience in a business or industry. 80 hours of designated work per credit. Maximum of 8 credits allowed.
Prerequisites: Permission of Department or Division. 1-3 Credits 1-3 Periods

MKT296   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: Completed at least 12 credits, min 2.6 GPA, and able to obtain a position related to student's academic/career goals or permission of Instructor. Corequisites: Enrolled in at least 1 class related to major/career interest or permission of Instructor 1-4 Credits 5-20 Periods*

MSP - Mortuary Science

MSP101   Orientation To Funeral Service
Designed to orient prospective students to funeral service and its history, philosophy, educational requirements, apprenticeship, licensure examination, job descriptions for funeral directors and embalmers, employment outlook. *Prerequisites: None. 1 Credit 1 Period*

MSP201
History And Sociology
Of Funeral Service
Survey of history of funeral service from ancient to modern times. Sociological aspects of how various cultures deal with death.
Prerequisites: Admission to the Mortuary Science Program. 3 Credits 3 Periods

MSP202   Embalming
Study of the disinfection, preservation and restoration of the deceased human body by chemical means for the specific purpose of

funeralization. *Prerequisites: Admission to the Mortuary Science Program. 4 Credits 5 Periods*

MSP203   Microbiology For Funeral Service

Survey of the microbiological world as it pertains to the funeral service profession. Knowledge of those organisms that can cause death and safety precautions. *Prerequisites: Admission to the Mortuary Science Program. 3 Credits 3 Periods*

MSP204   Chemistry For Funeral Service

Basic principles of chemistry related to funeral service. Chemical principles of embalming, disinfection and public health. Sanitation practices regarding potentially harmful chemicals. *Prerequisites: Admission to the Mortuary Science Program. 3 Credits 3 Periods*

MSP205   Mortuary Administration I

Funeral directing and professional relationships with members of the clergy. Introductory information about the establishment of a funeral home. *Prerequisites: Admission to the Mortuary Science Program. 3 Credits 3 Periods*

MSP206   Mortuary Administration II

Operation of the established funeral home and product knowledge in the area of funeral service merchandising. *Prerequisites: MSP205. 3 Credits 3 Periods*

MSP207   Restorative Art

Care and restoration of the deceased human body to create natural form and appearance. Includes anatomical aspects and color theory. *Prerequisites: Admission to the Mortuary Science Program. 4 Credits 5 Periods*

MSP208
Legal, Regulatory, And Ethical Issues In Funeral Service

Mortuary law regulation by the Federal Trade Commission, and ethical issues in funeral service. Individual state laws as they pertain to the regulation of funeral establishments and funeral service personnel. *Prerequisites: Admission to the Mortuary Science Program. 3 Credits 3 Periods*

MSP209   Pathology For Funeral Service

Pathologic conditions which require special treatment and terminology associated with the causes of death. *Prerequisites: Admission to the Mortuary Science Program. 3 Credits 3 Periods*

MSP210   Counseling For Funeral Service

Knowledge for facilitating the mourning process after the death of a loved one and for referring bereaved persons to other sources of professional assistance. *Prerequisites: Admission to the Mortuary Science Program. 2 Credits 2 Periods*

MSP297
Volunteerism For Mortuary Science:
A Service-Learning Experience

Service-learning field experience within human service organization/agency. May be repeated for a total of six (6) credit hours; may not repeat specific agency assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in catalog. *Prerequisites: Permission of Instructor. 1-3 Credits 1-3 Periods*

MST - Microsoft Technology

MST150   Microsoft Windows Professional

Knowledge and skills necessary to perform day-to-day administration tasks in a Microsoft Windows-based network. Preparation for Microsoft certification examination. *Prerequisites: None. CIS190, or CNT140, or MST140 suggested but not required. 3 Credits 4 Periods*

MST152   Microsoft Windows Server

Knowledge and skills necessary to install, configure, customize, optimize, network, integrate, and troubleshoot Windows Server. Preparation for Microsoft certification examination. *Prerequisites or Corequisites: Any MST150 course or permission of instructor. 4 Credits 5 Periods*

MST155
Implementing Windows Network Infrastructure

Knowledge and skills to install, configure, maintain, and support a Microsoft Windows network infrastructure. Preparation for Microsoft certification examination. *Prerequisites or Corequisites: Any MST152 course or permission of Instructor. 3 Credits 4 Periods*

MST155DA Windows Server Network   Infrastructure Configuration

Information and skills necessary to design a Microsoft Windows networking services infrastructure design. Includes network foundation design, Internet and private networks connectivity, in addition to functionality security and performance features of networking services. MST155DA is a preparation for the Microsoft 70-642 certification exam. *Prerequisites: (MST150VI or MST150XP), or permission of Instructor. 4 Credits 5 Periods*

MST156DA Windows Server Applications   Infrastructure Configuration

Knowledge and skills necessary to install, configure, customize, optimize, network, integrate, and troubleshoot Windows Application Services. MST156DA is a preparation for Microsoft 70-643 certification examination. *Prerequisites: (MST150VI or MST150XP), or permission of Instructor. 4 Credits 5 Periods*

MST157
Implementing Windows Directory Services
Knowledge and skills to install, configure, and administer Microsoft Windows Active Directory directory services. Preparation for Microsoft certification examination. *Prerequisites: Any MST152 course or permission of Instructor. 3 Credits 4 Periods*

MST157DA Active Directory Windows Server   Configuration
Information and skills necessary to install, configure and administer Active Directory service. Covers tasks required to create users and groups, and to implement Group Policies which provide centralized management of users and computers. MST157DA is a preparation for the Microsoft 70-640 professional certification test. *Prerequisites: Any MST course or permission of Instructor. 4 Credits 5 Periods*

MST158DA Windows Server Administration
Knowledge and skills necessary to install, configure, customize, optimize, network, integrate, and troubleshoot Windows Server. MST158DA is a preparation for Microsoft 70-646 certification examination. *Prerequisites: MST155DA, MST156DA, and MST157DA. 4 Credits 5 Periods*

MTC - Music: Theory/Composition

MTC101   Introduction to Music Theory
Designed to develop written and aural skills necessary for advanced study of music theory and skills. Recommended for music majors. *Prerequisites: None. 3 Credits 3 Periods*

MTC103   Introduction To Aural Perception
An introduction to the aural skills necessary to hear relationships of intervals, rhythms, melody, and harmony in music. May be repeated for a total of four (4) credit hours. *Prerequisites: None. 2 Credits 2 Periods*

MTC105   Music Theory I
The chronological study of music theory including: harmony, melody, texture, structure and timbre through analysis, original compositions and basic exercises to demonstrate musical concepts. *Prerequisites: MTC100, or MTC101, or permission of Instructor. Corequisites: MTC106. 3 Credits 3 Periods*

MTC106   Aural Perception I
The development of listening and performing skills through dictation, sight singing and keyboard harmony. *Prerequisites: None. Corequisites: MTC105. 1 Credits 2 Periods*

MTC111   Lyric Writing
Lyric writing and its relationship to song structure and rhythm. Emphasis on basic poetic forms, meter, rhyme schemes, analysis of song lyrics for content and clarity, and use of lyric writing tools. *Prerequisites: MTC110 or permission of Instructor. 1 Credit 1 Period*

MTC112   Song And Melody Forms
Introduction to basic song forms and components, including introduction, verse, chorus, bridge, interlude or break. *Prerequisites: MTC110 or permission of Instructor. 1 Credit 1 Period*

MTC113   Songwriting Techniques
Introduction to pop melody writing and harmonic settings. Development of short ideas into complete songs with the use of contrast, variation, and repetition. Consideration of the pros and cons of writing songs with a partner or small group. *Prerequisites: MTC110 or permission of Instructor. 1 Credit 1 Period*

MTC120
Introduction to Sound Design for Film and Video
Basic principles of recording and mixing sound for film and video. Includes voiceover, automatic dialog replacement (ADR), foley, ambience, special effects and music. Emphasis on analog and digital recording techniques in the field as well as in a controlled environment. *Prerequisites: (TCM100 and TCM136) or permission of Instructor. 3 Credits 5 Periods*

MTC122   Fretboard Harmony
An in-depth study of functional and theoretical practice as applied to the fretboard of the guitar through understanding of chord symbols, intervals and rhythm. *Prerequisites: MTC100 or MTC101. 3 Credits 3 Periods*

MTC155   Music Theory II
A continuation of Music Theory I with emphasis on harmony and part-writing procedures. *Prerequisites: MTC105. Corequisites:*

MTC156 Aural Perception II

A continuation of Aural Perception I, including harmonic practices. *Prerequisites: None. Corequisites: MTC155.*
1 Credits 2 Periods

MTC180 Computer Literacy For Musicians

Instruction in basic computer literacy, including generic applications and music-specific programs with hands-on experience. Ability to read music notation required. *Prerequisites: None. 3 Credits 4 Periods*

MTC191 Electronic Music I

An introduction to producing music with Musical Instrument Digital Interface (MIDI) configurations consisting of computers, printers, synthesizers, and other compatible MIDI instruments. *Prerequisites: None.*
3 Credits 4 Periods

MTC192 Electronic Music II

Continued study of the production of music with Musical Instrument Digital Interface (MIDI) configurations. Emphasis on more complex configurations and their applications in song arrangements. *Prerequisites: MTC191.*
3 Credits 4 Periods

MTC203 Jazz Composition

Composition and analysis of standard song forms as well as other standard compositional practices and forms idiomatic to jazz. *Prerequisites: MTC155, or MUP165, or permission of Instructor. 3 Credits 3 Periods*

MTC205 Music Theory III

The study of chromatic harmony and melody, modulation techniques and expanded chords. The analysis of formal structure. *Prerequisites: MTC155. Corequisites: MTC206.*
3 Credits 3 Periods

MTC206 Aural Perception III

A development of listening and performing skills, including an introduction of chromatic harmonic techniques and concepts of style. *Prerequisites: None. Corequisites: MTC205. 1 Credit 2 Periods*

MTC220
Advanced Sound Design
for Film and Video

Explores techniques and advanced applications used
in designing sound using original student footage on
a non- linear editing system. *Prerequisites: MTC/TCM120 or permission of Instructor. 3 Credits 5 Periods*

MTC240 Composition

Introduction to the basics of music composition, stressing techniques and procedures for developing original ideas. May be repeated for total of twelve (12) credit hours. *Prerequisites: (MTC105 and MTC106, or equivalent), and permission of Instructor. 3 Credits 0.60 Period*

MTC255 Music Theory IV

A continuation of Music Theory III, including 20th century theories and techniques. *Prerequisites: MTC205. Corequisites: MTC256. 3 Credits 3 Periods*

MTC256 Aural Perception IV

A continuation of Aural Perception III, including extended chords. *Prerequisites: None. Corequisites: MTC255.*
1 Credit 2 Periods

MUC - Music: Commercial/Business

MUC109
Music Business:
Merchandising and the Law

Operation, scope, and career opportunities in the music business. Focuses on music in the marketplace, songwriting, publishing, copyright procedures, and business affairs, agents, artist management, and concert production. *Prerequisites: None. 3 Credits 3 Periods*

MUC110
Music Business:
Recording and Mass Media

The operation, scope, and career opportunities in the music business. Focuses on the record industry; environmental music; uses of music in radio, telecommunications, and film; and career options. *Prerequisites: None. 3 Credits 3 Periods*

MUC111 Digital Audio Workstation I (Daw I)

Use of digital mixing and automation software in conjunction with editing and recording. Includes computer operation,

troubleshooting, and file management. *Prerequisites: MUC195 or MUC195AA. 3 Credits 5 Periods*

MUC112   Digital Audio Workstation II (Daw II)

Use of digital mixing and automation software in conjunction with editing and recording. Includes computer operation, troubleshooting, and file management. *Prerequisites: MUC111. 3 Credits 5 Periods*

MUC194
Introduction To Audio Mixing Techniques

Approaches in final mixing for different musical genres. Develop critical listening skills, and applying these techniques to students' projects. Professional-type facilities and equipment available for student use. *Prerequisites: MUC112 and MUC195 or permission of instructor. 3 Credits 3 Periods*

MUC195AA Studio Music Recording I

Basic principles of studio sound recording. Emphasis on musical acoustics, operation of recording equipment, studio setups, and multitrack recording. Includes studio session process and musical production decisions. *Prerequisites: None. 3 Credits 5 Periods*

MUC196   Studio Music Recording II

Emphasis on signal-processing equipment, mixing consoles, and advanced musical recording session procedures, production, and engineering. Includes mix-down and resultant master tape of a musical recording session. *Prerequisites: MUC195 or MUC195AA. 3 Credits 5 Periods*

MUC197   Live Sound Reinforcement I

Basic principles of live sound engineering. Emphasis on signal flow, acoustic, sound reinforcement set-ups and installation, signal processing, microphone selections and placement. Includes setting up sound systems and mixing live music. *Prerequisites: None. 3 Credits 3 Periods*

MUC198   Live Sound Reinforcement II

Emphasis on musical production decisions. Front-of-house and monitor console placement, loudspeaker arrangements, power considerations, program material and sound pressure levels. Includes setting up of sound system and mixing live performances with various styles of music. In addition to mixing at alternate locations. *Prerequisites: MUC197. 3 Credits 3 Periods*

MUC209
Music Business: Industry Leadership and E-Commerce

Operation, scope, and career opportunities in the music business. Focuses on music in the areas of entrepreneurship, the digital age, e-commerce, industry leadership, visionary development and the collaboration process. *Prerequisites: MUC109 and MUC110 or permission of Instructor. 3 Credits 3 Periods*

MUC280   Recording Studio Maintenance

Introduction to the techniques, electronics, and tools used to perform basic recording studio, live sound, and electronic musical instrument equipment maintenance. *Prerequisites: MUC195AA, or MUC111, or permission of Instructor. 3 Credits 3 Periods*

MUC292   Sound Design

Sound Design Production for Multimedia: includes sound effects, music composition/arranging, and studio recording production for one or more mediums such as film, TV, gaming, theatre, and dance. Emphasis on computer assisted production using Digital Audio Workstations and acoustic forces. Structured to provide an atmosphere of team research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. *Prerequisites: MTC192, MTC/TCM220, MUC112, MUC196, MTC105, MTC106, and permission of Instructor. 3 Credits 6 Periods*

MUC295   Studio Music Recording III

Producing and engineering a recording project. Covers how recording studios work and how recording projects are organized from pre-production through delivery of the final mix. *Prerequisites: MUC196. 3 Credits 6 Periods*

MUC295AA Self-Promotion for Music

Career goal development. Includes self-presentation and communication skills, keeping files and records, and developing self-promotional materials. *Prerequisites: None. 1 Credit 1 Period*

MUC297AA Music Internship

Music internship work experience in a business or industry. Eighty (80) hours of designated work per credit. MUC297AA may be repeated for a total of twelve (12) credit hours. *Prerequisites: Permission of Department or Division. 1 Credit 1 Period*

MUC297AB Music Internship

Music internship work experience in a business or industry. Eighty (80) hours of designated work per credit. A maximum of 12 credits allowed. *Prerequisites: MUC110. 2 Credits 2 Periods*

MUC298   Special Projects

1-3 Credits See Page 292

MUE - Music: Education

MUE137   Class Brass I
Practical class with emphasis on techniques of playing and teaching brass instruments including embouchure, breath control, tone, and literature. *Prerequisites: None. 2 Credits*
3 Periods

MUE138   Class Brass II
Continuation of Class Brass I with additional focus on skills including ensemble performance, transposition, increasing range and solo literature. *Prerequisites: MUE137 or permission of instructor. 2 Credits 3 Periods*

MUE235   Class Percussion I
Practical class with emphasis on techniques of playing and teaching percussion instruments including hand position, rudiments, stick control, and elements of reading rhythms. *Prerequisites: None. 2 Credits 3 Periods*

MUE237   Class Woodwinds I
Practical class with emphasis on techniques of playing and teaching woodwind instruments including embouchure, breath control, tone, mouthpiece selection, and literature. *Prerequisites: None. 2 Credits 3 Periods*

MUE238   Class Woodwinds II
Continuation of Class Woodwinds I with additional emphasis on skills including ensemble performance, transposition, increasing range and literature. *Prerequisites: MUE237 or permission of instructor. 2 Credits 3 Periods*

MUE240   Introduction to Choral Methods
Overview of techniques, methods, materials, style characteristics, and repertoire used in directing choral music at the secondary level including simulated teaching, conducting, and the demonstration of vocal and choral performance practices. *Prerequisites: None. 2 Credits*
3 Periods

MUP - Music: Performance

MUP101AY Private Instruction: Baritone Horn
Private instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. May be repeated for credit. *Prerequisites: None. 1 Credit 0.60 Periods*

MUP102AY Private Instruction: Baritone Horn
Private instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. May be repeated for credit. *Prerequisites: None. 2 Credits 1.2 Periods*

MUP102BH Private Instruction: Oboe
Private instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. May be repeated for credit. *Prerequisites: None. 2 Credits 1.2 Periods*

MUP102BN Private Instruction: Bassoon
Private instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. May be repeated for credit. *Prerequisites: None. 2 Credits 1.2 Periods*

MUP123AA Studio Class/Piano
Performance and laboratory class for students enrolled in private piano instruction. Emphasis on demonstration and discussion of specific piano problems. *Prerequisites: None. MUP123AA may be repeated for credit. Corequisites: Private piano instruction. 0.50 Credit 0.50 Period*

MUP123AB Studio Class/Voice
Performance and laboratory class for students enrolled in private voice instruction. Emphasis on demonstration and discussion of specific vocal problems. *Prerequisites: None. MUP123AB may be repeated for credit. Corequisites: Private voice instruction. 0.50 Credit 0.50 Period*

MUP123AC Studio Class/Guitar
Performance and laboratory class for students enrolled in private guitar instruction. Emphasis on demonstration and discussion of specific guitar problems. *Prerequisites: None. MUP123AC may be repeated for credit. Corequisites: Private guitar instruction. 0.50*

Credit 0.50 Period

MUP123AD Studio Class: Instrumental

Performance and laboratory class for students enrolled in private instrumental instruction. Emphasis on demonstration and discussion of specific instrumental problems. *Prerequisites: None. MUP123AD may be repeated for credit.Corequisites: Private instrumental instruction.*
0.50 Credit 0.50 Period

MUP123AE Studio Class: Jazz Styles

Performance and laboratory class for students enrolled in private jazz styles instruction. Emphasis on demonstration and discussion of specific jazz styles problems. *Prerequisites: None. MUP123AE may be repeated for credit.Corequisites: Private Jazz Styles instruction. 0.50 Credit 0.50 Period*

MUP130   Beginning Group Piano

Basic introduction to playing piano through music reading, chords, rhythmic, and written activities. Designed for those with little or no piano experience. *Prerequisites: None.*
2 Credits 3 Periods

MUP131   Class Piano I

Development of beginning piano techniques and the fundamentals of music including basic hand position, music reading skills of melodic and harmonic material, major scales, transposition, and harmonizations including the I, IV, V7 chords. *Prerequisites: None. 2 Credits 3 Periods*

MUP132   Class Piano II

Continuation of Piano I with emphasis on elementary piano techniques including major and minor scales, transposition, improvisation, and sight reading. *Prerequisites: MUP131 or permission of instructor. 2 Credits 3 Periods*

MUP133   Class Voice I

Introduction to the fundamentals of vocal production. Emphasis on breathing techniques, tone production and performances in class of solo vocal literature. *Prerequisites: None. 2 Credits 3 Periods*

MUP134   Class Voice II

Continuation of Class Voice I including the elements of stage presence and diction. *Prerequisites: MUP133 or permission of instructor. 2 Credits 3 Periods*

MUP140   Elementary Piano Pedagogy

An overview of techniques, methods, materials, stylistic characteristics, and repertoire used in teaching piano to students at the early and late elementary levels including creating a studio policy, simulated teaching, and observing private instruction and group piano classes. *Prerequisites: Permission of Program Director or Instructor. 2 Credits 2 Periods*

MUP141   Intermediate Piano Pedagogy

Overview of techniques, methods, materials, stylistic characteristics, and repertoire used in teaching piano students at the intermediate and early advanced levels including simulated teaching, performance and competition preparation, and observing private instruction and group piano classes. *Prerequisites: Permission of Program Director or Instructor. 2 Credits 2 Periods*

MUP150   Community Chorus

A mixed chorus with emphasis on college/community participation and preparation of a variety of choral literature for public performance. Auditions may be required. May be repeated for credit. *Prerequisites: None. 1 Credit 3 Periods*

MUP151BN Private Instruction: Bassoon

Private instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. May be repeated for credit. *Prerequisites: MUP101BN.*
1 Credit 0.60 Period

MUP152AY Private Instruction: Baritone Horn

Private instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. May be repeated for credit. *Prerequisites: MUP102AY. 2 Credits 1.2 Periods*

MUP152BH Private Instruction: Oboe

Private instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. May be repeated for credit. *Prerequisites: MUP102BH. 2 Credits 1.2 Periods*

MUP152BN Private Instruction: Bassoon

Private instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. May be

repeated for credit. *Prerequisites: MUP102BN. 2 Credits 1.2 Periods*

MUP153   A Cappella Choir

A mixed choir designed to emphasize choral techniques and performance of all styles of choral literature. Public performances are scheduled during the year including a concert tour. Auditions may be required. May be repeated for credit. *Prerequisites: None. 2 Credits 5 Periods*

MUP154AA Jazz Vocal Ensemble

Practical and performing experience in vocal jazz. Includes music from the 1920's through the present. MUP154AA may be repeated for credit. *Prerequisites: Auditions required or permission of Instructor. 1 Credit 3 Periods*

MUP159   Community Orchestra

Emphasis on college/community participation and the preparation of orchestral literature for public performance. Auditions may be required. May be repeated for credit. *Prerequisites: None. 1 Credit 3 Periods*

MUP161   Community Band

Emphasis on college/community participation and the preparation of band literature for public performance. Auditions may be required. May be repeated for credit. *Prerequisites: None. 1 Credit 3 Periods*

MUP162   Band

A class designed to emphasize instrumental techniques and the preparation of all styles of band literature. Public performances are scheduled during the year. Auditions may be required. May be repeated for credit. *Prerequisites: None.   2 Credits 5 Periods*

MUP163   Jazz Ensemble

Practical and performance experience in various jazz styles. Open to all students on the basis of auditions. May be repeated for credit. *Prerequisites: None. 1 Credit 3 Periods*

MUP164   Jazz Improvisation I

Theoretical and performance skills in many styles of jazz improvisation. May be repeated for a total of six (6) credit hours. *Prerequisites: None. 2 Credits 3 Periods*

MUP165   Jazz Improvisation II

Intermediate theoretical and performance skills in many styles of jazz improvisation. May be repeated for a total of six (6) credit hours. *Prerequisites: MUP164 or permission of instructor. 2 Credits 3 Periods*

MUP166   Jazz Piano I

Introduction to basic jazz piano skills, including chord construction, chord voicings, accompanying and solo piano arrangements. May be repeated for a total of four (4) credits. *Prerequisites: MUP131 or permission of instructor. 1 Credit 2 Periods*

MUP167   Jazz Piano II

Continued development of jazz piano techniques with emphasis on voicing formulas for ninth, eleventh, thirteenth, and altered dominant chords. *Prerequisites: MUP166 or permission of instructor. 1 Credit 2 Periods*

MUP181   Chamber Music Ensembles

Practical and performance experience in instrumental, vocal, and mixed ensembles. May be repeated for credit. *Prerequisites: None. 1 Credit 2 Periods*

MUP182   Chamber Singers

Practical and performance experience in various styles of vocal music. Open to all students on the basis of auditions. May be repeated for credit. *Prerequisites: None. 1 Credit 3 Periods*

MUP185   Flute Choir

Ensemble of the entire flute family that may include piccolo, E flat flute, C flutes, alto flutes, and bass flute. Literature will include commissioned works, original works for standard flute choir, and transcriptions from various musical periods. MUP185 may be repeated for credit. *Prerequisites: Audition or permission of Instructor. 1 Credit 3 Periods*

MUP190   Percussion Ensemble

Practical and performance experience in various percussion styles. Percussion literature from a diverse number of world musical traditions. Western European art music; various African traditions; Indian music; Japanese music; Indonesian music; Mexican, Central, and South American music; and percussion compositions from the American Experimental Tradition rehearsed and performed. Concerts presented throughout the semester. Percussion techniques are studied and refined as they relate to the literature performed. Emphasis placed on reading and listening skills, increased aesthetic discrimination. Informed performance practice and skills on all percussion instruments and traditions. *Prerequisites: None. May be repeated for credit. 1 Credit 3 Periods*

MUP202BH Private Instruction: Oboe

Private instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. May be repeated for credit. *Prerequisites: MUP152BH. 2 Credits 1.2 Periods*

MUP202BN Private Instruction: Bassoon

Private instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. May be repeated for credit. *Prerequisites: MUP152BN. 2 Credits 1.2 Periods*

MUP209   Elements Of Conducting

Essentials of conducting techniques used in choral and instrumental ensembles including terminology, interpretation, and styles. *Prerequisites: None. 2 Credits*
2 Periods

MUP217   Music Theatre: Broadway Solos

Study and in-class performance of scenes and solos from Broadway musical literature. *Prerequisites: None.   MUP217 may be repeated for credit. 2 Credits 3 Periods*

MUP225   Class Guitar I

Emphasis on note-reading and folk-style harmonic accompaniment. Includes finger-style playing. Stresses development of efficient practice techniques and proper sitting and hand positions. *Prerequisites: None. 2 Credits*
3 Periods

MUP226   Class Guitar II

Note-reading range including second position and parts of higher positions. Classical, popular, Latin, and other styles of music. Theory including scales, keys, and chord construction. Technical exercises of both hands. *Prerequisites: MUP225 or permission of instructor.*
2 Credits 3 Periods

MUP227   Class Guitar III

Additional fingerboard positions. Ensemble techniques and performance. *Prerequisites: MUP226 or permission of instructor. 2 Credits 3 Periods*

MUP228   Class Guitar IV

Advanced fingerboard positions. Duet and trio performances. Advanced ensemble techniques.   MUP228 may be repeated for credit. *Prerequisites: MUP227 or permission of Instructor. 2 Credits 3 Periods*

MUP231   Class Piano III

Development of intermediate piano techniques including selected solo literature, transposition of harmonic patterns, and secondary dominants. *Prerequisites: MUP132 or permission of instructor. 2 Credits 3 Periods*

MUP232   Class Piano IV

Continuation of Piano III including modulation techniques, improvisation of piano accompaniments, advanced chromatic harmony, and sight reading of advanced literature. *Prerequisites: MUP231 or permission of instructor.*
2 Credits 3 Periods

MUP233   Class Voice III

Interpretive singing through a closer examination of coloring, tone production, dynamics, and tempo indications. *Prerequisites: MUP134. 2 Credits 3 Periods*

MUP234   Class Voice IV

Emphasis on the preparation of solo vocal literature for the purpose of evaluation and the integration of the music with the drama of the music. MUP234 may be repeated for credit. *Prerequisites: MUP233 or permission of Instructor.*
2 Credits 3 Periods

MUP240   Piano Literature

Survey of solo literature written for the piano or for other keyboard instruments (i.e., harpsichord, clavichord) but suitable for performance on the piano. Emphasis on stylistic characteristics information correlating the composer's life and period with compositional techniques used. *Prerequisites: MUP141 or permission of Instructor.*
2 Credits 2 Periods

MUP241   Piano Artistry

Overview of topics and issues including practice skills, rhythm, technique, musicianship such as dynamics, ornamentation, pedaling, touch, phrasing, articulation, voicing, balance, and the manipulation of time, necessary
for pianists and piano teachers in working for expression, finesse and artistry. *Prerequisites: MUP240 or permission of Instructor. 2 Credits 2 Periods*

MUP250AB
Survey Of Diction For Singers
(Italian/Latin)

Introduction to the use of phonetics in the study of Italian/Latin song literature. *Prerequisites: None. 1 Credit*
2 Periods

MUP250AC Survey Of Diction For Singers (German)

Introduction to the use of phonetics in the study of German song literature. *Prerequisites: None. 1 Credit 2 Periods*

MUP252AY Private Instruction: Baritone Horn

Private instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. May be repeated for credit. *Prerequisites: MUP202AY. 2 Credits 1.2 Periods*

MUP252BN Private Instruction: Bassoon

Private instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. May be repeated for credit. *Prerequisites: MUP202BN. 2 Credits 1.2 Periods*

MUP270 Musical Theatre Workshop

Workshop in the study and performance of Musical Theatre repertoire. Including audition techniques, talent evaluation criticism, rehearsal techniques, vocal acting styles, stage movement, and performance. May be repeated for credit. *Prerequisites: None. 2 Credits 5 Periods*

MUP282
Volunteerism For Music:
A Service-Learning Experience

Service-learning field experience within private/public agencies, citizen volunteer groups, and on-campus sites. 50 hours of designated work per credit. Standard grading available according to procedures outlined in catalog. *Prerequisites: None. May be repeated for a total of six (6) MUP282 credit hours; may not repeat specific agency assignment for more than four (4) credit hours. 1-3 Credits 1-3 Periods*

MUP289 Basics Of Piano Accompanying Instrument

Introduction to piano accompanying with emphasis on basic skills needed to accompany solo instruments, chamber music and musicals. May be repeated for a total of four (4) credits. *Prerequisites: MUP151AD, or MUP231, or permission of Instructor. 2 Credits 2 Periods*

NAV - Navajo

NAV101 Elementary Navajo I

Basic grammar, pronunciation, and vocabulary of the Navajo language. Practice of listening, speaking, reading, and writing skills. Includes the study of the Navajo culture with participation in an off-campus Navajo cultural event. *Prerequisites: None. 4 Credits 4 Periods*

NAV115 Beginning Navajo Conversation I

Beginning conversational Navajo with emphasis on basic listening and speaking skills, including basic pronunciation, vocabulary, sentence structure, and cultural awareness. *Prerequisites: None. 3 Credits 3 Periods*

NCE - Nursing: Continuing Education

NCE115
Nursing Healthcare Transition
And Safe Passage

Overview of American nursing practice, including historical and current perspectives. Key components of transitioning to Registered Nurse role in the United States. Contrasting Registered Nurse roles in US and in other countries. Career development and successful transitioning to role of nurse in the United States. *Prerequisites: NUR228 or permission of Instructor. 2 Credits 2 Periods*

NCE214CA Interpretation Of Cardiac Arrhythmias

Focuses on common cardiac arrhythmias. Includes abnormalities in regard to the major and minor effects on a patient's health, specific drug therapy and nursing implications. *Prerequisites: Permission of Instructor. 1 Credit 1 Period*

NCE214MO
Math/Methods For Beginning Nursing Students

Focus on basic mathematical concepts to calculate metric- apothecary conversion, dosage problems and intravenous flow rates. Includes calculation problems with oral, parenteral, and reconstitution medications. Emphasis on the ratio/proportion and dimensional analysis problem solving methods. *Prerequisites: Current student in Associate Degree Nursing program, or permission of Instructor. 0.50 Credit 0.50 Period*

NCE223 LPN-IV Therapy and Medication Skills

Terminology and anatomy related to intravenous therapy. Drug response factors, dosage, calculations, intravenous site dressing change, intravenous administration equipment, and initiating intravenous therapy. Documentation and procedures for laboratory checklists. Meets state nursing board requirements for initiating intravenous therapy and administrating intravenous medications. *Prerequisites: Current license as Practical Nurse or permission of Instructor. 3 Credits 4 Periods*

NCE282
Volunteerism For Nursing:
A Service-Learning Experience

Service-learning field experience within human service organization/agency. May be repeated for a total of six (6) NCE282 credit hours; may not repeat specific agency assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in catalog. *Prerequisites: Permission of Instructor. 1-3 Credits 1-3 Periods*

NUR - Nursing

NUR104AB Structured Nursing Review

Structured nursing tutorial assistance and nursing study skills to help students achieve success in their respective block of nursing courses. Nursing process and critical thinking application skills emphasized. *Prerequisites: None. Corequisites: Concurrent enrollment in the Nursing program or permission of Department Chair. Course offered as Credit (P) or No credit (Z) basis. NUR104AB may be repeated for a total of eight (8) credits. Corequisites: Concurrent enrollment in the Nursing program or permission of Department Chair. 1 Credit 1 Period*

NUR151 Nursing Theory And Science I

Introduction to fundamentals of nursing theory and practice utilizing critical thinking based on the nursing process and principles of evidence-based practice. Focus on meeting basic human needs within the wellness/illness continuum. Theoretical concepts related to holistic care of well, geriatric, and adult clients. Provides safe nursing care to clients with selected alterations in health. Introduction to professional nursing practice. Applies concepts of health promotion, disease/illness prevention. Provides care based upon integration of pathophysiology, nutrition, communication and physical, biological, and psycho-social sciences. Uses information technology in performing and evaluating client care. *Prerequisites: Admission into the Nursing Program. 10 Credits 15 Periods*

NUR158 Nurse Assisting

Introduction to the role of the nursing assistant for clients across the wellness/illness continuum within the nurse assisting scope of practice. Includes basic problem solving processes specific to meeting the basic and holistic needs of clients, therapeutic communication skills essential for the nursing assistant, interventions to ensure the needs and safety of the client, specific types of diseases, conditions and alterations in behavior of the client, and principles of nutrition and fluid balance. Focus is on special needs of the elder client in the acute and long-term care settings, and basic emergency care skills and procedures. Provides opportunity for the development of clinical competency in the performance of selected nurse assisting skills and procedures through participation in the care of clients. *Prerequisites: Complete Health and Safety Documentation Form (proof of immunity or immunizations for Rubella, Rubeola, Mumps, Varicella, Hepatitis B, Td, current TB testing, current HealthCare Provider CPR card and current Fingerprint Clearance Card) and completed Health Care Provider Signature form. 6 Credits 10 Periods*

NUR171 Nursing Theory And Science II

Application of nursing theory and practice utilizing critical thinking based on the nursing process and evidence based practice. Holistic nursing concepts of health promotion, disease/illness prevention, and health restoration for adult and geriatric clients. Role development as the professional nurse member of the health care team. Participation in client teaching and discharge planning. Application of previous knowledge of physical, biologic, psycho-social sciences, and the cultural and spiritual aspects of nursing care. Application of nursing concepts in the development of plan of care to include pathophysiology, nutrition, pharmacology, and skills in communication. Uses information technology in planning, documenting, and evaluating client care. *Prerequisites: NUR151 or permission of Nursing Department Chairperson. 8 Credits 16 Periods*

NUR228 Registered Nurse Refresher

Update of current principles of nursing theory and clinical skills for RNs returning to active nursing in a medical-surgical or specialty health care setting. Nursing pathways include medical-surgical, pediatric, obstetric, and psychiatric/mental health care. Concepts of caring, holism, critical thinking, and nursing process to provide safe nursing care for clients and their families. Application of professional nursing principles and theories related to health education and promotion for culturally diverse clients and families. *Prerequisites: None. 6 Credits 6 Periods*

NUR229 Registered Nurse Preceptorship

Application of theoretical and clinical nursing concepts to clients and families in health care settings working under the supervision of a registered nurse preceptor with faculty guidance. Emphasis on application of comprehensive nursing care concepts, nursing process principles, skills, and the caregiver role of the professional nurse. *Prerequisites: NUR228 and current or temporary registered nurse license. 4 Credits 12 Periods*

NUR251 Nursing Theory And Science III

Application of critical thinking strategies related to holistic care of the newborn, pediatric, and childbearing clients. Integration of concepts related to holistic care of adults and geriatric clients with selected acute and chronic alterations in health. Integration of professional nursing standards in role development. Utilization of previous knowledge of physical, biologic, psycho-social sciences,

and the cultural and spiritual aspects of nursing care. Integration of concepts of nutrition, pharmacology, communication, health promotion, and pathophysiology into nursing care. *Prerequisites: (BIO202, BIO205, and NUR171) or permission of Nursing Department Chairperson. 8 Credits 16 Periods*

NUR271   Nursing Theory And Science IV
Integration of critical thinking strategies for complex holistic needs of high-risk clients with multi-system health alterations. Application of strategies related to holistic care of the client with psychiatric/mental health disorders. Introduction to community based care. Assimilation of professional role into practice. Evaluation of care based on the knowledge of physical, biologic, psycho-social sciences, and the cultural and spiritual beliefs of clients. Development of nurse leadership and management roles. Integration of concepts of nutrition, pharmacology, communication, health promotion, and pathophysiology into nursing care. *Prerequisites: NUR251 or permission of Nursing Department Chairperson. 7 Credits 13 Periods*

NUR291   Nursing Clinical Capstone
Synthesis of the nursing process to facilitate role transition from student to graduate nurse within a preceptorship experience. Development of nurse leadership and management roles. *Prerequisites: NUR271 or permission of Nursing Department Chairperson. 2 Credits 6 Periods*

NUR298   Special Projects
  1-3 Credits See Page 292

NVH - Navajo Humanities

NVH245   Navajo Culture And Heritage
Survey of the Navajo people, including their history, culture/aesthetics, education, spirituality, and language. *Prerequisites: None. 3 Credits 3 Periods*

OAS - Office Automation Systems

OAS090   Touch Keyboarding
Introduction to computer keybording skills for personal use. Emphasis on touch keyboarding of alphabetic and punctuation keys only. *Prerequisites: None. 0.50 Credit*
0.50 Period

OAS101
Computer Typing I:
Keyboarding And Formatting
Keyboard mastery; letters, tables, and reports; office production; and manuscripts. *Prerequisites: None. 3 Credits 5 Periods*

OAS101AA Computer Typing I: Keyboard Mastery
Incorporates correct touch typing principles. *Prerequisites: None. 1 Credit 1.7 Periods*

OAS101AB
Computer Typing I:
Letters, Tables And Reports
Letter, table, and report formatting. *Prerequisites: OAS101AA or permission of department or division.*
1 Credit 1.7 Periods

OAS101AC
Computer Typing I:
Production And Manuscript
Simple office projects and manuscripts. *Prerequisites: OAS101AB or permission of department or division.*
1 Credit 1.7 Periods

OAS108   Business English
Comprehensive coverage of correct use of English grammar including spelling, punctuation, capitalization, and number style mechanics in a business context. *Prerequisites: None. 3 Credits 3 Periods*

OAS118   10-Key By Touch
Touch system of numeric keys on ten-key pads. *Prerequisites: None. 1 Credit 1.7 Periods*

PED - Physical Education Activities

PED101AD Aerobic Dance
A cardiovascular workout through dance. *Prerequisites: None. PED101AD may be repeated for credit. 1 Credit*
2 Periods

PED101AK Aikido

Covers the fundamentals of Aikido including rules, moves, and traditional discipline of the sport. *Prerequisites: None. PED101AK may be repeated for credit. 1 Credit 2 Periods*

PED101BB Basketball
Basic skills and game strategy of basketball. Class emphasis on competition and drills. *Prerequisites: None. PED101BB may be repeated for credit. 1 Credit 2 Periods*

PED101BC Boot Camp
Vigorous physical and mental conditioning incorporating cardiovascular, core fitness, strength training, and flexibility. Emphasis will be placed on proper body mechanics and safety. *Prerequisites: None. PED101BC may be repeated for credit. 1 Credit 2 Periods*

PED101BD Ballroom Dancing
Basic level instruction on ballroom dancing footwork, timing, techniques, and style. Partners rotate. *Prerequisites: None. PED101BD may be repeated for credit. 1 Credit 2 Periods*

PED101BE Belly Dance
Practice and demonstration of basic belly dance skills and movements. Basic posture and muscularity, primary upper and lower body isolations, footwork, simple combination movements. Rhythms broken down, and at least one prop demonstrated. Basic routine, improvisation, and current styles and trends in belly dance. Belly dance etiquette and attire. *Prerequisites: None. PED101BE may be repeated for credit. 1 Credit 2 Periods*

PED101BL Ballet
Basics of ballet incorporating steps, poses, and graceful movements including leaps and spins. *Prerequisites: None. PED101BL may be repeated for credit. 1 Credit 2 Periods*

PED101BP Backpacking
Covers basic skills and techniques of backpacking and the application of these to wilderness travel. *Prerequisites: None. PED101BP may be repeated for credit. 1 Credit 2 Periods*

PED101BS Body Sculpting
Stretch and strengthen. Emphasizes increasing fitness, muscle tone, and body flexibility. Great for reducing stress. *Prerequisites: None. PED101BS may be repeated for credit. 1 Credit 2 Periods*

PED101BW Bowling
Fundamental skills of bowling, including scoring and competition. *Prerequisites: None. PED101BW may be repeated for credit. 1 Credit 2 Periods*

PED101CY Cycling - Indoor
Basic skills for bike set up and proper body mechanics. Increase leg strength, lung capacity, and metabolism. *Prerequisites: None. PED101CY may be repeated for credit.   1 Credit 2 Periods*

PED101DF Self-Defense
Basic self-defense skills, ground-fighting skills, and stand-up fighting capabilities. Modified for all skill levels. Practice is based on real-life experiences and endurance enhanced drills. Develops self confidence. *Prerequisites: None. PED101DF may be repeated for credit. 1 Credit 2 Periods*

PED101FB Football
Basic skills and game strategy of football. Class emphasis on competition and drills. *Prerequisites: None. PED101FB may be repeated for credit. 1 Credit 2 Periods*

PED101FE Fencing
Introduction to the sport of fencing. Instruction and practice in proper body mechanics with the use of a foil, saber, and epee. *Prerequisites: None. PED101FE may be repeated for credit. 1 Credit 2 Periods*

PED101FL Fitness For Life
Learn the basics of designing and implementing a personalized fitness program to meet your needs in the areas of Cardiovascular Fitness, Weight Control, Muscular Strength and Flexibility. *Prerequisites: None. PED101FL may be repeated for credit. 1 Credit 2 Periods*

PED101FW Fitness Walking
Development of safe and effective walking skills through proper exercises and use of equipment to enhance a walking program. *Prerequisites: None. PED101FW may be repeated for credit. 1 Credit 2 Periods*

PED101GF Group Fitness/Aerobics
Group exercise incorporating a variety of equipment to increase respiration, heart rates, strength, and flexibility. *Prerequisites: None. PED101GF may be repeated for credit. 1 Credit 2 Periods*

PED101GO Golf
Instruction and practice for all skill levels, beginning through advanced. Assistance on shot making, club selection and etiquette on the course. *Prerequisites: None. PED101GO may be repeated for credit. 1 Credit 2 Periods*

PED101HH Hip Hop
Basic skills of hip hop with instruction, practice, and performance including proper body mechanics, choreography, and behavioral competencies. *Prerequisites: None. PED101HH may be repeated for credit. 1 Credit 2 Periods*

PED101HK Hiking
Develop safe and effective hiking skills. Essentials and requirements for safe hiking; proper hiking clothing and attire; impact of hiking on the environment. *Prerequisites: None. PED101HK may be repeated for credit. 1 Credit 2 Periods*

PED101JR Jogging/Running
Introduction to jogging/running. Learn proper technique to decrease injury and increase training distance. All skill levels welcome. *Prerequisites: None. PED101JR may be repeated for credit. 1 Credit 2 Periods*

PED101JS Japanese Swordsmanship
Vigorous martial arts swordsmanship training program utilizing historical principles that promotes the development of fitness, coordination, agility, balance, mindfulness/focus, and knowledge of strategy. *Prerequisites: None.   PED101JS may be repeated for credit. 1 Credit 2 Periods*

PED101KA Karate
Training emphasizes fundamentals, traditional form, and applied sparring that follows the theory of Karate. *Prerequisites: None. PED101KA may be repeated for credit.   1 Credit 2 Periods*

PED101KB Kickboxing
Techniques to increase muscular endurance and strength, enhance flexibility and increase body awareness and self-confidence. Jabs, kicks, and blocks will be used in this martial arts based workout. *Prerequisites: None. PED101KB may be repeated for credit. 1 Credit 2 Periods*

PED101LD Latin Dancing
Spicy, energetic style of dance. Cha Cha, Merengue, Salsa, Rumba, and Bolero. Partners rotate. *Prerequisites: None. PED101LD may be repeated for credit. 1 Credit 2 Periods*

PED101MB Mountain Biking The Southwest
Basic skills and techniques for mountain biking and the application as recreational and lifetime activity in the Southwest. Includes bicycle maintenance techniques, trail etiquette and safety considerations. *Prerequisites: None. PED101MB may be repeated for credit. 1 Credit 2 Periods*

PED101PS Pilates
Mat-based exercise system focused on improving flexibility and strength for the total body. Teaches core control and stabilization while improving postural alignment. *Prerequisites: None. PED101PS may be repeated for credit. 1 Credit 2 Periods*

PED101RC Rock Climbing
Beginning climbing skills including equipment, knots, anchoring, belaying, and climbing techniques in an indoor climbing gym. No previous experience needed. Develop strength and confidence. *Prerequisites: None. PED101RC may be repeated for credit. 1 Credit 2 Periods*

PED101SA Salsa
Basic moves for the popular, hot Latin dance Salsa. Partners rotate. *Prerequisites: None. PED101SA may be repeated for credit. 1 Credit 2 Periods*

PED101SD Social Dance
Introduction to various dances encountered in a social setting. Partners rotate. *Prerequisites: None. PED101SD may be repeated for credit. 1 Credit 2 Periods*

PED101SH Shinkendo
Martial art of Shinkendo, The Way of the Serious Sword. A vigorous physical training including coordination, focus, and spirit. *Prerequisites: None. PED101SH may be repeated for credit. 1 Credits 2 Periods*

PED101SO Soccer
Basic skills and game strategy of soccer. Class emphasis on competition and drills. *Prerequisites: None. PED101SO may be repeated for credit. 1 Credit 2 Periods*

PED101SR Stretch And Relaxation
A mat-based stretching class with guided meditation. Stretching increases flexibility and relieves stress, promoting an overall sense of well-being. *Prerequisites: None.PED101SR may be repeated for credit. 1 Credit 2 Periods*

PED101ST Strength Training
Introduction to techniques of basic weight training, concentrating on incorporating an exercise regimen for increased strength. *Prerequisites: None. PED101ST may be repeated for credit. 1 Credit 2 Periods*

PED101SU Scuba Diving
Introduction to the theory and practice of Scuba diving. Course includes lectures, pool dives, open water dives,

and Scuba Certification. *Prerequisites: None. PED101SU may be repeated for credit. 1.5 Credits 2.5 Periods*

PED101SW Swing Dancing
Popular Swing dance moves and rhythms, including basic Lindy. All students will rotate. *Prerequisites: None. PED101SW may be repeated for credit. 1 Credit 2 Periods*

PED101TC Tai Chi
Fundamentals of Tai Chi including moves, breathing and meditation. *Prerequisites: None. PED101TC may be repeated for credit. 1 Credit 2 Periods*

PED101TE Tennis
Basic skills and game strategy of tennis. Class emphasis on competition and drills. *Prerequisites: None. PED101TE may be repeated for credit. 1 Credit 2 Periods*

PED101TK Taekwondo
Fundamentals of Taekwondo including the moves, rules, and traditional discipline of the sport. *Prerequisites: None. PED101TK may be repeated for credit. 1 Credit 2 Periods*

PED101VB Volleyball
Basic skills and game strategy of volleyball. Class emphasis on competition and drills. *Prerequisites: None. PED101VB may be repeated for credit. 1 Credit 2 Periods*

PED101WT Weight Training
Access to Olympic and free weights with a qualified instructor. *Prerequisites: None. PED101WT may be repeated for credit. 1 Credit 2 Periods*

PED101WW   Weight Training For Women
Introduction for women to the use of free weights, strength machines and cardio equipment. *Prerequisites: None. PED101WW may be repeated for credit. 1 Credit 2 Periods*

PED101YG Gentle Yoga
A gentle body-work class of floor exercises done on a soft foam mat, with some standing postures taught after a few weeks of class. Learn how to release tension through diaphragmatic breathing and relaxing stretching. *Prerequisites: None. PED101YG may be repeated for credit.   1 Credits 2 Periods*

PED101YH Hatha Yoga
Combination of traditional and flow style yoga that utilizes breathing, yoga poses, relaxation and meditation to create balance and inner peace. *Prerequisites: None. PED101YH may be repeated for credit. 1 Credit 2 Periods*

PED101YK Kundalini Yoga
Energetically guided Yoga focusing on psycho-spiritual growth with special consideration of the spine and endocrine system. *Prerequisites: None. PED101YK may be repeated for credit. 1 Credit 2 Periods*

PED101YO Yoga
Promotion of overall health by strengthening muscles and stimulating glands and organs. Basic postures, breathing and relaxation techniques. *Prerequisites: None. PED101YO may be repeated for credit. 1 Credit 2 Periods*

PED101ZU Zumba Fitness
Zumba« dynamic fitness program. Fuses hypnotic Latin rhythms and easy to follow moves. Interval training sessions where fast and slow rhythms and resistance training are combined to tone and sculpt while burning fat. *Prerequisites: None. PED101ZU may be repeated for credit. The PED101ZU Zumba course does not qualify students to teach Zumba dance fitness. 1 Credit 2 Periods*

PED102BD Ballroom Dancing - Intermediate
Intermediate level instruction on ballroom dancing footwork, timing, techniques, and style. Partners rotate. *Prerequisites: None. PED102BD may be repeated for credit. 1 Credit 2 Periods*

PED102BE Belly Dance - Intermediate
Practice and demonstration of basic belly dance skills and movements at the intermediate level. Posture and muscularity, primary upper and lower body isolations, footwork, intermediate level combination movements. Rhythms broken down, and at least two props demonstrated. Routine, improvisation, and current styles and trends in belly dance. Belly dance etiquette and attire. *Prerequisites: None. PED102BE may be repeated for credit. 1 Credit 2 Periods*

PED102CH Cheerleaders - Intermediate
Intermediate skills of cheerleading with instruction, practice, and performance including proper body mechanics, choreography, and behavioral competencies. *Prerequisites: None. Prior experience recommended. PED102CH may be repeated for credit. 1 Credit 2 Periods*

PED102FB Football - Intermediate
Improve upon basic skills and game strategy of football at the intermediate level. Class emphasis on competition and drills. *Prerequisites: None. Prior experience recommended. PED102FB may be repeated for credit. 1 Credit 2 Periods*

PED102FE Fencing - Intermediate

Build upon the basic skills in the sport of fencing. Intermediate level instruction in the use of a foil, saber, and epee. Emphasis on skill practice and competition. *Prerequisites: None. Prior experience recommended. PED102FE may be repeated for credit. 1 Credit 2 Periods*

PED102GO Golf - Intermediate

Improving techniques of putting, chipping, the full swing, rules and scoring will be covered in this class. *Prerequisites: None. Prior experience recommended. PED102GO may be repeated for credit. 1 Credit 2 Periods*

PED102HH Hip Hop - Intermediate

Intermediate level dance instruction and practice in the skills of hip hop. Emphasis on performance including proper body mechanics, choreography, and behavioral competencies. *Prerequisites: None. Prior experience recommended. PED102HH may be repeated for credit.*
1 Credit 2 Periods

PED102JZ   Jazz - Intermediate

Intermediate dance skills for dancing Jazz. Not recommended for beginners. *Prerequisites: None. Prior experience recommended. PED102JZ may be repeated for credit. 1 Credit 2 Periods*

PED102LD Latin Dancing - Intermediate

Incorporate intermediate dance moves while performing Latin Dance. *Prerequisites: None. Prior experience recommended. PED102LD may be repeated for credit.*
1 Credit 2 Periods

PED102MD Modern Dance - Intermediate

Incorporate intermediate dance moves while performing Modern Dance. *Prerequisites: None. Prior experience recommended. PED102MD may be repeated for credit.*
1 Credit 2 Periods

PED102PS   Pilates - Intermediate

Intermediate level mat-based exercise system focused on improving flexibility and strength for the total body. Teaches core control and stabilization while improving postural alignment. *Prerequisites: None. Prior experience recommended. PED102PS may be repeated for credit.*
1 Credit 2 Periods

PED102RC Rock Climbing - Intermediate

Improve upon basic skills of climbing including, knots, anchoring, belaying, and climbing techniques in an indoor climbing gym. Develop strength and confidence. *Prerequisites: None. Prior experience recommended. PED102RC may be repeated for credit. 1 Credit 2 Periods*

PED102TC Tai Chi - Intermediate

Intermediate level techniques of Tai Chi including moves, breathing and meditation. *Prerequisites: None. Prior experience recommended. PED102TC may be repeated for credit. 1 Credit 2 Periods*

PED102TD Tap Dance-Intermediate

Tap dance steps at the intermediate level. Some experience welcomed. *Prerequisites: None. Prior experience recommended. 1 Credit 2 Periods*

PED102TF   Track And Field - Intermediate

To improve upon basic track and field event skills at the intermediate level. Class emphasis on competition and drills. *Prerequisites: None. Prior experience recommended. PED102TF may be repeated for credit. 1 Credit 2 Periods*

PED102TK Taekwondo - Intermediate

Intermediate level training in Taekwondo. *Prerequisites: None. Prior experience recommended. PED102TK may be repeated for credit. 1 Credit 2 Periods*

PED102VB Volleyball - Intermediate

Improve upon basic skills and game strategy of volleyball at the intermediate level. Class emphasis on competition and drills. *Prerequisites: None. Prior experience recommended. PED102VB may be repeated for credit. 1 Credit 2 Periods*

PED103AD Aerobic Dance

A cardiovascular workout through dance. *Prerequisites: None. PED103AD may be repeated for credit. 1 Credit*
1 Periods

PED103YO Yoga

Promotion of overall health by strengthening muscles and stimulating glands and organs. Basic postures, breathing and relaxation techniques. *Prerequisites: None. PED103YO may be repeated for credit. 1 Credit 1 Periods*

PED103ZU Zumba Fitness

Zumba Fitness fuses Latin rhythms and easy to follow choreographed moves. Applies interval training sessions where fast and slow rhythms and resistance training are combined to tone and sculpt while burning fat. *Prerequisites: None. PED103ZU may be repeated for credit. 1 Credit 0.50 Period*

PED115   Lifetime Fitness

Fitness activity and wellness study to help develop a lifetime of regular exercise, stress management, and proper nutrition. Workout includes warm-up/stretch, aerobic exercise, selected strength exercises, and cool down/stretch. *Prerequisites: None. PED115 may be repeated for credit.*
2 Credits 4 Periods

PED120AF
Special Emphasis Activities:
Weight Training

Intensive experience in weight training. *Prerequisites: None. PED120AF may be repeated for a total of 8 credits.*
2 Credits 4 Periods

PED124
Strength And Conditioning
For Sport Performance

Principles and training techniques of strength and conditioning for sport performance. Emphasis is placed on instructional techniques and safety of Olympic lifts; plyometrics; muscular endurance, strength and power development; anaerobic and aerobic capacity; and injury prevention. *Prerequisites: None. PED124 may be repeated for a total of eight (8) credit hours. 2 Credits 4 Periods*

PED133   Olympic Style Weight Lifting

Advanced study of the science, strategy, and techniques of Olympic Style Weightlifting. For the fitness professional who is interested in competing, or is seeking to incorporate advanced strength and conditioning modalities. Addresses current topics, theories and techniques. *Prerequisites: None.   2 Credits 4 Periods*

PED201BA Baseball - Advanced

To improve upon intermediate skills and game strategy of baseball at the advanced level. Class emphasis on competition and drills. *Prerequisites: None. Prior experience at competitive level recommended. PED201BA may be repeated for credit. 1 Credit 2 Periods*

PED201BB Basketball - Advanced

To improve upon intermediate skills and game strategy of basketball at the advanced level. Class emphasis on competition and drills. *Prerequisites: None. Prior experience at competitive level recommended. PED201BB may be repeated for credit. 1 Credit 2 Periods*

PED201FB Football - Advanced

Improve upon intermediate skills and game strategy of football at the advanced level. Class emphasis on competition and drills. *Prerequisites: None. Prior experience at competitive level recommended. PED201FB may be repeated for credit. 1 Credit 2 Periods*

PED201GO Golf - Advanced

Experienced golfers gain helpful hints and practice to improve their game. *Prerequisites: None. Prior experience at competitive level recommended. PED201GO may be repeated for credit. 1 Credit 2 Periods*

PED201SB Softball - Advanced

Improve upon intermediate skills and game strategy of softball at the advanced level. Class emphasis on competition and drills. *Prerequisites: None. Prior experience at competitive level recommended. PED201SB may be repeated for credit. 1 Credit 2 Periods*

PED201TD Tap Dance - Advanced

Advanced Tap dance steps. Experience recommended. *Prerequisites: None. Prior experience at competitive level recommended. 1 Credit 2 Periods*

PED201TE Tennis - Advanced

Advanced level skills and strategy of tennis. Class emphasis on competition and drills. *Prerequisites: None. Prior experience at competitive level recommended. PED201TE may be repeated for credit. 1 Credit 2 Periods*

PED201TF Track And Field - Advanced

Advanced level training in track and field events. Class emphasis on competition and drills. *Prerequisites: None. Prior experience at competitive level recommended. PED201TF may be repeated for credit. 1 Credit 2 Periods*

PED201WT Weight Training - Advanced

Advanced level training with a qualified instructor on the use of Olympic and free weights. *Prerequisites: None. Prior experience at competitive level recommended. PED201WT may be repeated for credit. 1 Credit 2 Periods*

PED287   Physical Education Of The Atypical

Individualized activities programs for students with limited physical capacities. May be repeated for credit. *Prerequisites: Permission of Instructor. 2 Credits 2 Periods*

PHI - Philosophy

PHI101   Introduction to Philosophy
General consideration of human nature and the nature of the universe. Knowledge, perception, freedom and determinism, and the existence of God. *Prerequisites: None. 3 Credits*
3 Periods

PHI103   Introduction to Logic
Informal logic, logical fallacies, elementary symbolic logic, analysis of argument forms, and construction of proofs for validity. *Prerequisites: ENG101, or ENG107, or equivalent. 3 Credits 3 Periods*

PHI105   Introduction to Ethics
Major theories of conduct. Emphasis on normative ethics, theories of good and evil from Plato to the present. *Prerequisites: None. 3 Credits 3 Periods*

PHI106   Critical Thinking and Problem-Solving
Commonly used informal fallacies; examination of emotive and unclear uses of language, including sexism and loaded terms; and methods for analyzing extended arguments. Application to news media, advertising, political speeches, and textbooks. *Prerequisites: ENG101, or ENG107, or equivalent. 3 Credits 3 Periods*

PHI201   History of Ancient Philosophy
Historical survey of the intellectual history of the Greco-Roman world, focusing on the philosophical tradition and social/historical context. *Prerequisites: None. 3 Credits 3 Periods*

PHI212   Contemporary Moral Issues
Philosophical consideration of such moral issues as civil disobedience, preferential treatment, abortion, privacy, sexual morality, and poverty and hunger. *Prerequisites: None. 3 Credits 3 Periods*

PHI213   Medical and Bio-Ethics
A philosophical consideration of moral problems that arise in relation to medicine and biology, e.g., death, patient's rights and biological experimentation. *Prerequisites: None. 3 Credits 3 Periods*

PHI216   Environmental Ethics
Philosophical consideration of diverse theories and perspectives on the environment, and application of these theories to global moral issues such as animal rights, preservation of wilderness and species, population, world hunger and poverty, and air and water pollution. *Prerequisites: ENG101, or ENG107, or equivalent. 3 Credits 3 Periods*

PHI218   Philosophy of Sexuality
Philosophical examination of sexuality in human life. Historical and critical survey of philosophical and theological views. Comparison and evaluation of contemporary theories about the nature of sexual desire and sexual acts. Implications of theories for contemporary moral problems. *Prerequisites: None. 3 Credits 3 Periods*

PHI224   Political Philosophy
Predominant figures and theories in Euroamerican political philosophy from Plato to contemporary social/political philosophers. *Prerequisites: None. 3 Credits 3 Periods*

PHI234AA Plato
The ideas of Plato and Socrates and their impact on Western thought. *Prerequisites: None. 3 Credits 3 Periods*

PHI244   Philosophy of Religion
Religious language, the existence of God, miracles, and human destiny. *Prerequisites: None. 3 Credits 3 Periods*

PHS - Physical Science

PHS110   Fundamentals of Physical Science
Survey of the principles of physics and chemistry. *Prerequisites: Grade of "C" or better in MAT090, or MAT091, or MAT092, or MAT093, or equivalent, or satisfactory score on Math placement exam. 4 Credits 6 Periods*

PHY - Physics

PHY101   Introduction to Physics
A survey of physics emphasizing applications of physics to modern life. Students may receive credit for only one of the following: PHY101 or PHY101AA. *Prerequisites: Grade of "C" or better in MAT090, or MAT091, or MAT092, or MAT093, or equivalent, or satisfactory score on Math placement exam. 4 Credits 6 Periods*

PHY111   General Physics I
Includes motion, energy, and properties of matter.   PHY111 is recommended for preprofessional and suggested for certain other majors. Students may receive credit for only one of the following: PHY111 or PHY111AA. *Prerequisites: MAT182, or MAT187, or one year high school Trigonometry with a grade of "C" or better, or permission of Department or Division. 4 Credits 6 Periods*

PHY112   General Physics II
Includes electricity, electromagnetism, and modern physics. *Prerequisites: PHY105 or PHY111. 4 Credits 6 Periods*

PHY121   University Physics I: Mechanics
Kinematics, Newton's laws, work, energy, momentum, conservation laws, dynamics of particles, solids, fluids, mechanical waves, and sound. *Prerequisites: MAT220, or MAT221, or department consent. One year of high school physics or PHY111 and PHY112 suggested but not required.*
4 Credits 6 Periods

PHY131
University Physics II:
Electricity and Magnetism
Electric charge and current, electric and magnetic fields in vacuum and in materials, and induction. AC circuits, displacement current, and electromagnetic waves. *Prerequisites: MAT230, or MAT231, or department consent, and PHY121. Corequisites: MAT241 or department consent. 4 Credits 6 Periods*

PHY282
Volunteerism for Physical Science:
A Service Learning Experience
Service-learning field experience within human service organizations, government offices, public schools, or hospitals. May be repeated for a total of six (6) PHY282 credit hours; may not repeat specific agency assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in catalog. *Prerequisites: Permission of Instructor. 1-3 Credits 1-3 Periods*

POR - Portuguese

POR101   Elementary Portuguese I
Basic grammar, pronunciation, and vocabulary of the Portuguese language. Includes study of Lusophone culture. Practice in listening, speaking, reading, and writing skills. *Prerequisites: None. 5 Credits 6 Periods*

POR102   Elementary Portuguese II
Continued study of basic grammar, pronunciation, and vocabulary of the Portuguese language. Includes study of Lusophone cultures and practice in listening, speaking, reading and writing skills. *Prerequisites: POR101 or permission of Department or Division. 5 Credits 6 Periods*

POR202   Intermediate Portuguese II
Review of grammar, continued development of language skills with emphasis on speaking the language. *Prerequisites: POR201, or permission of the Department or Division. 5 Credits 6 Periods*

POS - Political Science

POS100   Introduction to Political Science
Introduction to the discipline of political science and its relation to other disciplines with emphasis on the major philosophies and institutions of government. *Prerequisites: None. 3 Credits 3 Periods*

POS110   American National Government
Study of the historical backgrounds, governing principles, and institutions of the national government of the United States. *Prerequisites: None. 3 Credits 3 Periods*

POS115   Issues in American Politics
Examination of major issues in current affairs in the fields of politics, economics, social relations, foreign affairs, aesthetics, and others through the reading and viewing of secondary information sources. *Prerequisites: ENG101, or ENG107, or equivalent. 3 Credits 3 Periods*

POS120   World Politics
Introduction to the principles and issues relating to the study of international relations. Evaluation of the political, economic, national, and transnational rationale for international interactions. *Prerequisites: None. 3 Credits 3 Periods*

POS125   Issues in World Politics
Contemporary issues and factors in international relations. Stress conditions in civil order, trade, and international institutions. May be repeated for a total of six (6) credit hours. *Prerequisites: None. 3 Credits 3 Periods*

POS130   State and Local Government
Survey of state and local government in the United States. Special attention on Arizona State government. *Prerequisites: None. 3 Credits 3 Periods*

POS140   Comparative Government
Overview and evaluation of the sub-field of comparative politics. Covers various national governments from around the world: their structure, system, method of governance. Examines methods of assessing these governments. *Prerequisites: None. 3 Credits 3 Periods*

POS210   Political Ideologies
Survey of twentieth century nondemocratic ideologies and movements with emphasis on Marx, Lenin, Mussolini, Hitler, Stalin and Mao. *Prerequisites: None. 3 Credits*
3 Periods

POS220   U.S. and Arizona Constitution
Examination of the United States Constitution and the constitution and government of the State of Arizona. *Prerequisites: None. 3 Credits 3 Periods*

POS221   Arizona Constitution
Examination of the Constitution of the State of Arizona.Equivalent to the second part of POS220. May not enroll in POS220 and POS221 concurrently. *Prerequisites: None.*
1 Credit 1 Period

POS222   U.S. Constitution
Examination of the United States Constitution. Equivalent
to the first part of POS220. May not enroll in POS220 and POS222 concurrently. *Prerequisites: None. 2 Credits*
2 Periods

POS223   Civil Rights
The historic background and current status of major civil rights issues in the United States. *Prerequisites: None.*
3 Credits 3 Periods

POS280   Internship Orientation
Preparation for an internship experience and appropriate intern behavior. *Prerequisites: Permission of Instructor.*
1 Credit 1 Period

POS281   Public Policy/Service Internship
Field experience in community service, public policy
or public service. May be repeated for a total of nine (9) POS281 credit hours; may not repeat specific internship assignment. *Prerequisites: Minimum of 15 credit hours at college granting internship with minimum GPA of 3.0 and permission of Instructor. Prerequisites or Corequisites: POS280. 2-4 Credits 2-4 Periods*

POS282
Volunteerism for Political Science:
A Service-Learning Experience
Service-learning field experience within government agencies, political organizations, citizen advocacy groups, and human service organizations/agency. May be repeated for a total of four (4) POS282 credit hours; may not repeat specific agency assignment for more than two (2) credit hours. Standard grading available according to procedures outlined in catalog. *Prerequisites: Permission of Instructor.*
1-3 Credits 1-3 Periods

POS298   Special Projects
      1-3 Credits See Page 292

PSY - Psychology

PSY101   Introduction to Psychology
To acquaint the student with basic principles, methods and fields of psychology such as learning, memory, emotion, perception, physiological, developmental, intelligence, social and abnormal. *Prerequisites: None. 3 Credits 3 Periods*

PSY102   Introduction to Psychology Laboratory
Optional laboratory designed to accompany PSY101. Application of psychological principles in areas such as learning, memory, emotion, motivation, cognition, language, development, personality, and intelligence. *Prerequisites or Corequisites: PSY101 or permission of instructor. 1 Credit*
1 Period

PSY123   Psychology of Parenting
The demonstration and application of psychological principles to the development and guidance of children and adolescents. *Prerequisites: None. 3 Credits 3 Periods*

PSY132   Psychology and Culture
Presents current knowledge about human diversity in behavior and culture using examples from a variety of contexts and nations. Highlights topics in cross-cultural psychology, such as intergroup relations, ethnocentrism, gender, personality, emotion, language, communication, work and health. Emphasis on applications of behavioral and cognitive principles to enhance interactions in a multicultural world. *Prerequisites: None. 3 Credits 3 Periods*

PSY156   Understanding Death and Dying
Designed to give the student an understanding of the research and theories of death, dying and the bereavement process.

Prerequisites: None. 3 Credits 3 Periods

PSY215　Introduction to Sport Psychology

Application of the physiological, behavioral, social, cognitive, and humanistic perspectives in psychology
to sport. Includes topics such as optimal performance, correlation, motivation, co-action effect, self-actualization, psycho-behavioral
techniques, self-efficacy, and the general health benefits of sport participation. *Prerequisites: PSY101 with a grade of "C" or better, or
permission of Instructor.*
3 Credits 3 Periods

PSY225　Psychology of Religion

Provides an introduction to the history, varieties and theories of the psychology of religion from an empirical, research-based
perspective. Specific areas of study include the role of gender, age, socioeconomic status, and personality on religious experience, the
effects of religion and prayer on mental and physical health, the development of religious thought and behavior over the lifespan, and
the social psychology of new religious movements. In addition, the role of cultural differences on religious attitudes both within the
USA and around the world is also addressed. *Prerequisites: PSY101 or permission of Instructor. 3 Credits 3 Periods*

PSY230　Introduction to Statistics

An introduction to basic concepts in descriptive and inferential statistics, with emphasis upon application to psychology.
Consideration given to the methods of data collection, sampling techniques, graphing of data, and the statistical evaluation of data
collected through experimentation. Required of psychology majors. *Prerequisites: PSY101 with a grade of "C" or better and MAT092
or equivalent, or permission of Instructor.*
3 Credits 3 Periods

PSY231　Laboratory for Statistics

Applications of inferential and descriptive statistics to computers in the field of psychology. *Prerequisites: None.　　Corequisites:
PSY230. 1 Credit 2 Periods*

PSY235　Psychology of Gender

To assess historical and psychological perspectives on women and men and to evaluate contemporary viewpoints regarding the
psychology of women and men. *Prerequisites: PSY101 with a grade of "C" or better, or permission of Instructor. 3 Credits 3 Periods*

PSY240　Developmental Psychology

Human development from conception through adulthood. Includes: physical, cognitive, emotional and social capacities that develop
at various ages. Recommended for students majoring in nursing, education, pre-med, and psychology. *Prerequisites: PSY101 with a
grade of "C" or better, or permission of Instructor. 3 Credits 3 Periods*

PSY248　Psychology of Adolescent Development

Explores the highly specialized developmental stage of adolescence. Includes biological, cognitive, psychosexual, and sociocultural
factors as well as current theories and research. *Prerequisites: PSY101 with a grade of "C" or better, or permission of Instructor. 3
Credits 3 Periods*

PSY250　Social Psychology

The scientific study of how people's thoughts, feelings, and behaviors are influenced by other people and situations. Includes how we
think about ourselves and others, persuasion and influence, sexual and romantic attraction, friendship and helping others, aggression
and prejudice. *Prerequisites: PSY101 with a grade of "C" or better, or permission of Instructor. 3 Credits 3 Periods*

PSY266　Abnormal Psychology

Distinguishes between normal behavior and psychological disorders. Subjects may include stress disorders, problems with anxiety
and depression, unusual and abnormal sexual behavior, schizophrenia and addictive behaviors. Causes and treatments of
psychological problems and disorders are discussed. *Prerequisites: PSY101 with a grade of "C" or better, or permission of Instructor.
3 Credits 3 Periods*

PSY267　Introduction to Forensic Psychology

Overview of the practice of psychology in the law, by the law, and of the law. Focuses on the complementary functions and
distinctions between psychology and the legal justice system. Topics include, but are not limited to, criminal investigations, risk and
level of danger, competency, interrogations, confessions, assessment, eyewitness testimony, child custody, and domestic violence.
Prerequisites: PSY101. 3 Credits 3 Periods

PSY275　Biopsychology

Biological foundations of sensation, perception, motivation, emotion, cognition and psychopathology. Designed for students in the
life sciences. *Prerequisites: PSY101 with*
a grade of "C" or better, or permission of Instructor.
4 Credits 5 Periods

PSY277　Psychology of Human Sexuality

Survey of psychological and physiological aspects of human sexual behavior. Emphasis placed on the integration of the cognitive,
emotional, and behavioral factors in sexual functioning. *Prerequisites: PSY101 with a grade of C or better, or permission of
Instructor. Student must be 18 years or older. 3 Credits 3 Periods*

PSY282
Volunteerism Service-Learning Experience in Psychology

Service-learning field experience within private/public agencies, and citizen volunteer groups. May be repeated for a total of three (3) PSY282 credit hours. Standard grading available according to procedures outlined in catalog. *Prerequisites: PSY101 and permission of Instructor.*
1-3 Credits 1-3 Periods

PSY290AC   Research Methods
Planning, execution, analysis, and written reporting of psychological research using American Psychological Association guidelines (APA). Surveys the literature, procedures, and instruments in representative areas of psychological research. *Prerequisites: ENG101, or ENG107. Prerequisites or Corequisites: PSY230 with a grade of "C" or better, or permission of Instructor. 4 Credits 5 Periods*

PSY298   Special Projects
1-3 Credits See Page 292

RDG - Reading

RDG008   Phonics
Designed for students who are learning English as a second language. Includes the study of the speech sounds used in English as represented by the written symbols of the alphabet; recognition of spelling patterns and resulting pronunciation; and diacritical markings. *Prerequisites: Reading placement score (CELSA). 3 Credits 3 Periods*

RDG010

Reading English
As A Second Language I
Designed for students who are learning English as a second language. Provides students with skills needed to become proficient readers in English. Teaches sound symbol relationships of the English alphabet. Expands essential vocabulary for daily communication both in isolation and context. Includes development of reading comprehension skills. *Prerequisites: Appropriate ESL placement test score. 3 Credits 3 Periods*

RDG020
Reading English
As A Second Language II
Designed for students who are learning English as a second language. Includes continued development of vocabulary and reading comprehension skills. *Prerequisites: Appropriate ESL placement test score, or grade "C"*
or better in RDG010, or permission of Instructor. 3 Credits 3 Periods

RDG030
Reading English
As A Second Language III
Designed for students who are learning English as a second language. Includes instruction for more advanced vocabulary and reading comprehension skills. *Prerequisites: Appropriate ESL placement test score, or grade of "C" or better in RDG020, or permission of Instructor. 3 Credits*
3 Periods

RDG040
Reading English
As A Second Language IV
Developed for students of English as a second language. Includes development of advanced vocabulary, comprehension skills, and culture awareness. *Prerequisites: Appropriate ESL placement test score, or grade of "C" or better in RDG030, or permission of Instructor. 3 Credits*
3 Periods

RDG081   Reading Improvement
Designed to improve basic reading skills. Includes word recognition, interdisciplinary vocabulary development, recognizing patterns of organization, interpreting inference. Reviews interpreting graphic materials. Emphasis on identifying main ideas and related details. *Prerequisites:Appropriate reading placement test score, or grade of "C" or better in RDG071. 3 Credits 3 Periods*

RDG091   College Preparatory Reading
Designed to improve basic reading and study skills, vocabulary and comprehension skills. Recommended to all students whose placement test scores indicate a need for reading instruction. *Prerequisites: Appropriate reading placement test score, or grade of "C" or better in RDG081.*
3 Credits 3 Periods

REA - Real Estate

REA179   Real Estate Principles I

Basics of real estate principles including introduction to the profession and license law, definition of real property, legal descriptions, rights and interests in property, ownership, contracts, real estate economics, financing and foreclosure, land use, and valuation. *Prerequisites: None. 3 Credits*
3 Periods

REA180   Real Estate Principles II
Advanced work in real estate including escrow procedures and title insurance, liens and encumbrances, advanced contracts, water rights, toxic waste and environmental hazards, agency, ethics and professional relationships, real estate code and the Commissioner's rules, investment, property management, and government restrictions. *Prerequisites: REA179 or permission of Instructor. 3 Credits 3 Periods*

REA270   Basic Appraisal Principles
Overview of real property concepts and characteristics, legal considerations, value influences, real estate finance, types of value, economic principles, real estate markets and analysis, and ethics in appraisal practice. *Prerequisites: None.*
2 Credits 2 Periods

REA271   Basic Appraisal Procedures
Overview of real estate appraisal approaches to valuation procedures, value, property description, residential applications, commercial applications, improvement construction, home inspection, and appraisal math. Practical application of appraisal procedures including case studies, and examples. *Prerequisites: REA270 or permission of Instructor. 2 Credits 2 Periods*

REA273
Residential Market Analysis Highest And Best Use
Recognize and evaluate market conditions affecting the buyers' and sellers' activities in understanding and reporting values. Gather and evaluate market data. Markets, sub-markets, market segmentation, supply side analysis, demand analysis and the importance of market examination to the appraisal process. *Prerequisites: None. 1 Credit 1 Period*

REA274
Residential Appraiser Site Valuation And Cost Approach
Learn theories and methodologies for arriving at residential site values and applying the Cost Approach for new and reproduction factors. The advantages and disadvantages of using the cost methods for estimating accrued depreciation. Reading of residential building plans and specifications. *Prerequisites: None. 1 Credit 1 Period*

REA275
Residential Sales Comparison And Income Approaches
Basic understanding and knowledge of the residential sales comparison and income approaches to appraisal including valuation principles and procedures applicable to these approaches. Development of market analysis, including the application and use of matched pairs and capitalization rates, and gross rent multipliers. Includes organizing market data and reconciling value indications. *Prerequisites: Permission of Instructor. 2 Credits 2 Periods*

REA276AA
Residential Report Writing And Case Studies I
Exposes appraiser to realistic writing skills essential to producing realistic appraisal reports in their practice. Includes study of writing techniques, grammar, punctuation, and analytical techniques. Actual report writing and case studies are applied. *Prerequisites: None. 1 Credit 1 Period*

REA283   Property Management
Emphasizes realty laws, survey of rentals, housing needs, and rents in Phoenix metropolitan area. *Prerequisites: REA179 or permission of Instructor. 3 Credits 3 Periods*

REA285   Real Estate Selling
Covers obtaining listings, buyer behavior, markets, competition and psychology of sales techniques. *Prerequisites: REA179 or permission of Instructor. 3 Credits 3 Periods*

REA290AH Real Estate Seminar: Contract Writing
Contract writing skills, techniques, and requirements. Writing of basic real estate contracts, including purchase offers, counter offers, sales listing agreements, and riders. *Prerequisites: None. 0.50 Credit 0.50 Period*

REC - Recreation

REC120   Leisure And The Quality Of Life
Overview of the historical, psychological, social, and cultural aspects of play, leisure, and recreation and their role in contemporary society. Nature of play and leisure behavior in human development within different cultures and the contribution play, recreation, and leisure make to the quality of life for individuals in today's society. *Prerequisites: None. 3 Credits 3 Periods*

REC150AA
Outdoor Adventure Skills Field Experience
Practical application of camping and outdoor skills including camping, equipment selection and use, cooking, fire building, camp programs, backpacking, and safety. *Prerequisites: None. Course may be repeated for a total of four (4) credits. 1 Credit 2 Periods*

REC150AB Outdoor Adventure Skills
Camping and outdoor skills including types of camping, equipment selection and use, cooking and fire building, camp programs, backpacking, and safety. *Prerequisites: None. 3 Credits 3 Periods*

REC155AA Canyoneering
Basic canyoneering skills. Includes hydrology, navigation, safety systems, climbing and hiking skills, wading/swimming techniques and flood/weather identification. *Prerequisites: None. 1 Credit 2 Periods*

REC210 Leisure Delivery Systems
Systematic study of Delivery of Leisure Services in public, commercial, and independent sectors; particular emphasis placed on the urban setting. *Prerequisites: None. 3 Credits 3 Periods*

REC230 Programming Of Recreation Services
Foundations for designing, planning, delivering and managing recreational and leisure events. Emphasis on application of recreation programming concepts and practices in a variety of settings and situations for a diversity of participants. *Prerequisites: None. 3 Credits 3 Periods*

REC250 Recreation Leadership
An examination of roles and methods of leadership in leisure services settings. Overview of theories and models of leadership, group dynamics, participant motivation, communication, and face-to-face leadership. Exploration of leadership contexts, including coaching and officiating sports, leading community groups and volunteers, working with persons in various life stages and with varying abilities, and leading different recreation activity areas. *Prerequisites: None. 3 Credits 3 Periods*

REC282
Volunteerism For Recreation:
A Service-Learning Experience
Service-learning field experience within private/public agencies, educational institution, and citizen volunteer groups. May be repeated for a total of six (6) REC282 credit hours; may not repeat specific assignment for more than two (2) credit hours. Standard grading available according to procedures outlined in catalog. *Prerequisites: Permission of Instructor. 1-3 Credits 1-3 Periods*

REL - Religious Studies

REL200 Religion and Film
A course examining the relationships between religion and film, with particular attention to representations of religious beliefs, institutions, and practices in film and their reception by various audiences. *Prerequisites: None. 3 Credits 3 Periods*

REL202 Classics of Asian Religions
Academic study of selected works from Hindu, Buddhist, Taoist and Confucian traditions. Study of cultural and concepts of the world, history, culture, and human nature as represented in these works. *Prerequisites: None. 3 Credits 3 Periods*

REL203 American Indian Religions
Tribal traditions of the peoples native to North America, and pan-Indian religions in the twentieth century. *Prerequisites: ENG101, or ENG107, or equivalent. 3 Credits 3 Periods*

REL205 Religion and the Modern World
Introduction to the nature and role of religious beliefs and practices in shaping the lives of individuals and societies, with particular attention to the modern world. *Prerequisites: ENG101, or ENG107, or equivalent. 3 Credits 3 Periods*

REL206 Religion in America
Introduction of the rich tapestry of religious traditions and movements that have helped to shape the United States of America. Investigate how religion has impacted American culture and institutions, and how the United States has in turn transformed long-standing religious traditions. *Prerequisites: None. 3 Credits 3 Periods*

REL212 Introduction to Islam
Introduction to history, scriptures, practices and impact of Islam. *Prerequisites: None. 3 Credits 3 Periods*

REL213 Introduction to the Qur'an
Historical context, development, canonization, historical transmission, translation and interpretation of the Qur'an. *Prerequisites: None. 3 Credits 3 Periods*

REL223 Spiritual But Not Religious
Explore the historical, social, and cultural context for the emergence of spiritual but not religious segment, and examine who identifies with this movement and why. Identify what variety of attitudes and beliefs this group holds, and explore the varieties of private and public spiritual practices and civic engagement this group participates in. *Prerequisites: None. 3 Credits 3 Periods*

REL240 Religion and Science
Consideration of the relationship of religion and science from the beginnings of the historical period to the present. Includes

consideration of various contemporary religious perspectives on current scientific issues. *Prerequisites: None. 3 Credits 3 Periods*

REL243   World Religions

The development of various religions from the prehistoric to modern times. Political, economic, social and geographic relationships among world religions. Consideration of both Eastern and Western religions. *Prerequisites: None.*
3 Credits 3 Periods

REL270   Introduction to Christianity

The nature and content of the Christian tradition developed over time, with overview of the New Testament, major historical trends and figures, major Christian ideas and practices, and survey of denominations. *Prerequisites: None. 3 Credits 3 Periods*

REL280   Myth, Symbol, and Ritual

Introduction to the academic study of religion through the study of myths, religious symbols and rituals. Study of major methods and theoretical models used by scholars to study this diverse and complex subject. Investigation of how myths and symbols—projected ideologies—relate to ritual and other practical activities. *Prerequisites: None. 3 Credits 3 Periods*

REL290   Women and Religion

The role of women in several organized religions and/or religious sects, including a study of myth and symbols as they are used to establish, maintain, and enforce sex roles within specific religions. *Prerequisites: None. 3 Credits*
3 Periods

REL291   Religion and Sexuality

Exploration of the perspectives of various religious traditions on human sexuality. Includes consideration of all aspects of sexual practice as well as its incorporation into religious discourse and practice and its impact on social norms and structures. *Prerequisites: Student must be 18 years or older. 3 Credits 3 Periods*

REL294   Religion in Community Service

Consideration of the history and nature of the involvement of religious tradition in transformative social action. Incorporates student involvement in some dimension of community service with subsequent integrative classroom activities. *Prerequisites: None. REL294 students must complete twelve (12) hours of community service in a site approved by the instructor and provide documentation. 3 Credits 3 Periods*

REL295   Capstone: The Story of Belief

Analysis of both the process and results of human belief, in various stages of the human experience. Incorporates materials from multiple disciplines to form an overarching narrative that integrates the variations of human belief. *Prerequisites: A grade of "C" or better in any four (4) REL courses. 3 Credits 3 Periods*

RES - Respiratory Care

RES109AB
Heartsaver Automated External Defibrillator

Designed for the first responder to emergencies in the workplace. Adult cardiopulmonary resuscitation (CPR), relief of foreign body airway obstruction and use of an automated external defibrillator (AED). *Prerequisites: None.   Successful completion of the RES109AB course content meets requirements for an American Heart Association (AHA) Heartsaver AED card. 0.25 Credit 0.25 Period*

RUS - Russian

RUS101   Elementary Russian I

Basic grammar, pronunciation, and vocabulary of the Russian language. Practice of listening, speaking, reading, and writing skills. *Prerequisites: None. 4 Credits 4 Periods*

RUS102   Elementary Russian II

Continued study of grammar and vocabulary, with emphasis on speaking, reading, and writing skills. *Prerequisites: RUS101, or permission of department or division. 4 Credits*
4 Periods

RUS202   Intermediate Russian

Continued development of Russian language skills. *Prerequisites: RUS201, or equivalent, or permission of department or division. 4 Credits 4 Periods*

SBS - Small Business Management

SBS204
Small Business Marketing
And Advertising

Introduction to marketing and advertising strategies and methods including business image, target market analysis, and customer buying behavior profile. Analysis and selection of advertising/business promotion methods and timing. Methods of deciding product

and market segment focus included. Design of an individual marketing and advertising/promotion plan. *Prerequisites: None. 2 Credits 2 Periods*

SBS213   Hiring And Managing Employees

Methods and techniques for managing employees in a small business. Includes supervisor's role, leadership styles, interpersonal communications, staff planning, employee work styles, techniques for handling problem employees, and employee motivation. Focuses on real-life situations
to enable the business owner to gain high performance
from their employee team. Includes segment on hiring,
new-employee orientation, training, benefits, and developing future staffing needs assessment. *Prerequisites: None. 1 Credit 1 Period*

SBS214   Small Business Customer Relations

Developing and improving customer relations for the small business. Planning and delivering quality customer service. Includes topics on attitude of employees, customer perceptions and motivations, handling customer dissatisfaction, and developing customer, supplier, vendor, and distributor loyalty. *Prerequisites: None. 1 Credit 1 Period*

SBS216   Planning For A Small Business

Relates business management issues to a specific small business through development of an individual study plan. Provides on-site review of business operation by trained instructor. *Prerequisites: SBS200 and SBS204 or permission of Instructor. 2 Credits 2 Periods*

SBS230
Financial and Tax Management for Small Business

An overview of accounting and record-keeping for the successful management of a small business. Develops an understanding of the accounting cycle and preparation of financial statements. Includes section on tax consequences and the choice of legal entity choice based on taxation. *Prerequisites: None. 2 Credits 2 Periods*

SBU - Society and Business

SBU200   Society and Business

The study and scientific inquiry of issues and demands placed on business enterprise by owners, customers, government, employees and society. Included are social, ethical and public issues and analysis of the social impact of business responses. *Prerequisites: None. 3 Credits 3 Periods*

SLC - Studies in Language and Culture

SLC201   Introduction to Linguistics

Introduction to the study of language. Study of the nature and diversity of world languages, linguistic structures and functions of language, language variation, pragmatics and the learning/acquisition of first and second languages. *Prerequisites: None. 3 Credits 3 Periods*

SLG - Sign Language

SLG101   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, and culture related to American Sign Language (A.S.L.). *Prerequisites: None. SLG103 suggested as a corequisite but not required. 4 Credits 4 Periods*

SLG102   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: SLG101, with a grade of "C" or better, or permission of department or division. 4 Credits 4 Periods*

SLG105   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. 3 Credits 3 Periods*

SLG201   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: SLG102 with a grade of
"C" or better, or permission of Department or Division. Suggested but not required: (ENG101 or ENG107) and, (CRE101 or CRE111 or exemption by score on the reading placement test (ASSET)). 4 Credits 4 Periods*

SLG202   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: SLG201 with "C" or better, or permission of Department or Division. ENG101, SLG200, and (CRE101, or CRE111, or exemption by score on the reading placement test) suggested but not required.*
4 Credits 4 Periods

SLG298   Special Projects
1-3 Credits See Page 292

SOC - Sociology

SOC101   Introduction to Sociology
Fundamental concepts of social organization, culture, socialization, social institutions and social change. *Prerequisites: None. 3 Credits 3 Periods*

SOC130   Human Sexuality
Examination of the physical, social, cultural, and institutional contributions to human sexuality. Examination of facts and myths, literature, and changing mores regarding human sexuality to acquire knowledge about cultural and social events and processes. Explores the sexuality of males and females in contemporary society. *Prerequisites: Student must be 18 years or older. 3 Credits 3 Periods*

SOC140   Racial and Ethnic Minorities
Contemporary/historical racial and ethnic intergroup relations emphasizing cultural origins, developments, and problems of minority groups in the United States. *Prerequisites: None. 3 Credits 3 Periods*

SOC141   Sovereign Indian Nations
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. 3 Credits 3 Periods*

SOC157   Sociology of Marriage and Family
The study of courtship, marriage, and family patterns, their historical development, their adaptation to a changing culture, and their impact on individuals. *Prerequisites: None. 3 Credits 3 Periods*

SOC212   Gender and Society
A study of the way culture shapes and defines the positions and roles of both men and women in society. Major emphasis on social conditions which may lead to a broadening of gender roles and a reduction of gender role stereotypes and the implications of these changes. Open to both men and women. *Prerequisites: None. 3 Credits 3 Periods*

SOC220   Sport and Society
Applies the sociological perspective to the study of sport. Emphasizes how hierarchies of race, class, and gender in the United States impact the sport experience of both the fan and the athlete, as well as how both professional and amateur sport have at times played a transformative role in society. *Prerequisites: None. 3 Credits 3 Periods*

SOC266   Sociology Through Film
Examines movie-going and the experience of spectatorship. Studies how motion pictures reflect, influence, and are influenced by American culture and societal institutions. Explores the role of the movie industry as a vehicle for social commentary, analysis, and criticism. *Prerequisites: None.*
3 Credits 3 Periods

SOC282
Volunteerism for Sociology:
A Service-Learning Experience
Service-learning field experience within private/public agencies, and citizen volunteer groups. May be repeated for a total of six (6) SOC282 credit hours; may not repeat specific assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in catalog. *Prerequisites: SOC101 and permission of Instructor. 1-3 Credits 1-3 Periods*

SPA - Spanish

SPA055   Fundamentals of Spanish Grammar
Introduces basic concepts of Spanish pronunciation and grammar for successful study of the language. Emphasis on grammar, sentence structure, and practice of simple dialogues. *Prerequisites: None. 1 Credits 1 Periods*

SPA085AA Speedy Spanish I
Basic vocabulary and grammar to develop conversational skills in Spanish. Emphasis on speaking skills. *Prerequisites: None. 1 Credit 1 Period*

SPA085AB   Speedy Spanish II

Intermediate development of vocabulary and grammar to develop conversational skills in Spanish. Emphasis on speaking skills. *Prerequisites: SPA085AA. 1 Credit*
1 Period

SPA085AC   Speedy Spanish III

Advanced development of vocabulary and grammar to develop conversational skills in Spanish. Emphasis on speaking skills. *Prerequisites: SPA085AB. 1 Credit*
1 Period

SPA101   Elementary Spanish I

Basic grammar, pronunciation and vocabulary of the Spanish language. Includes the study of the Spanish-speaking cultures. Practice of listening, speaking, reading, and writing skills. *Prerequisites: None. 4 Credits 4 Periods*

SPA102   Elementary Spanish II

Continued study of grammar and vocabulary of the Spanish language and study of the Spanish-speaking cultures. Emphasis on speaking, reading, and writing skills. *Prerequisites: SPA101 or permission of Department or Division. 4 Credits 4 Periods*

SPA115   Beginning Spanish Conversation I

Basic pronunciation, vocabulary, sentence structures, and cultural awareness, necessary to develop speaking and listening skills in Spanish. *Prerequisites: None. 3 Credits*
3 Periods

SPA116   Beginning Spanish Conversation II

Continued study of basic pronunciation, vocabulary, sentence structures, and a cultural awareness necessary to develop speaking and listening skills in Spanish. *Prerequisites: SPA115, or permission of Department or Division. 3 Credits 3 Periods*

SPA117   Health Care Spanish I

Basic conversational Spanish for health care workers or students. Emphasis on basic sentence structure, pronunciation and vocabulary used in health care settings. *Prerequisites: None. 3 Credits 3 Periods*

SPA201   Intermediate Spanish I

Continued study of essential Spanish grammar and Spanish-speaking cultures. Continued practice and development of reading, writing, and speaking skills in Spanish. Emphasis on fluency and accuracy in spoken Spanish. *Prerequisites: SPA102, or SPA111, or permission of Department or Division. 4 Credits 4 Periods*

SPA202   Intermediate Spanish II

Review of grammar, continued development of Spanish language skills with continued study of the Spanish-speaking cultures. *Prerequisites: SPA201, or permission of Department or Division. 4 Credits 4 Periods*

SPA241   Spanish and Spanish-American Film I

Analysis of Spanish and Spanish-American film as art form and as social commentary. Includes documentary, biography, and films based on works of literature. All films, coursework, class participation, and oral and written reports conducted in Spanish. *Prerequisites: SPA202, or permission of Department or Division. 3 Credits 3 Periods*

SPA265   Advanced Spanish I

Introduction and study of Spanish and Spanish-American literature. Selected readings from most Spanish-speaking countries. All discussions, oral reports, and written assignments are in Spanish. *Prerequisites: SPA202, or permission of Department or Division. 3 Credits 3 Periods*

SPA282
Volunteerism for Spanish:
A Service-Learning Experience

Service-learning field experience within private/public agencies, and citizen volunteer groups. May be repeated for a total of four (4) SPA282 credit hours. Standard grading available according to procedures outlined in catalog. *Prerequisites: Permission of Instructor. 1-3 Credits*
1-3 Periods

Special Projects

The following course is available under any prefix listed in this catalog. Interested students should consult with the appropriate faculty member.

*___298   1-3 Credits

Organized 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.*

**Prefix will be determined by departmental designation.

SWU - Social Work

SWU101AC
Intervention Assessment for Paraprofessional Helpers
Introduction for the paraprofessional helper to intervention techniques, beginning communication skills, community resources, and development of action plans. *Prerequisites: SWU101AB. 1 Credit 1 Period*

SWU130   Chemical Dependency
Sociological, psychological and physiological aspects of chemical abuse. Consideration of a variety of treatment programs offered in community agencies. *Prerequisites: None. 3 Credits 3 Periods*

SWU171   Introduction to Social Welfare
Analysis of contemporary social welfare services and professional social work. *Prerequisites: None. 3 Credits 3 Periods*

SWU215
Counseling Addictions
Among Diverse Families
Counseling techniques for working with the diverse addicted family. Assessment and development of treatment plans that reflect diversity of culture, race, ethnicity, sexual orientation, community and family systems. *Prerequisites: BHS/SWU130 or SWU292 or permission of Instructor.*
3 Credits 3 Periods

SWU225
Statistics for Social Research/
Justice and Government
Introductory course in descriptive and inferential statistics for social research. Designed to serve as preparation for interpreting and understanding research related to Justice and Government related agencies. *Prerequisites: MAT092 or completion of higher level mathematics course. 3 Credits*
3 Periods

SWU258   Victimology and Crisis Management
Focuses on victimology and techniques of crises intervention; and the importance of multicultural perspective. Includes coverage of sexual assault, family violence, child abuse, post-traumatic stress disorder, substance abuse, coping skills, stress management, and community resources. *Prerequisites: None. 3 Credits*
3 Periods

SWU282
Volunteerism for Social Work:
A Service-Learning Experience
Service-learning field experience within private/public agencies, and citizen volunteer groups. May be repeated for a total of six (6) SWU282 credit hours; may not repeat specific assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in catalog. *Prerequisites: Permission of Instructor. 1-3 Credits 1-3 Periods*

SWU291   Social Service Delivery Systems
Purposes, structures, and delivery systems of human service agencies. Includes 40 hours of volunteer experience in local human service agencies. *Prerequisites or Corequisites: SWU102, or SWU171, or Permission of Department or Division. 3 Credits 3 Periods*

SWU292   Effective Helping in a Diverse World
Introduction to professional helper communication skills with respect to cross-cultural practice and diversity issues, in a social work setting. *Prerequisites: None. (SOC101 and SWU102) or SWU171 suggested but not required. 3 Credits 3 Periods*

TCM - Telecommunications

TCM120
Introduction to Sound Design
for Film and Video
Basic principles of recording and mixing sound for film and video. Includes voiceover, automatic dialog replacement (ADR), foley, ambience, special effects and music. Emphasis on analog and digital recording techniques in the field as well as in a controlled environment. *Prerequisites: (TCM100 and TCM136) or permission of Instructor. 3 Credits*
5 Periods

TEC - Clothing & Textiles

TEC105   Cultural Aspects of Clothing

Psychological, aesthetic, and economic factors applied to the selection of clothing in relation to personality and figure type. *Prerequisites: None. 3 Credits 3 Periods*

TEC106　History of Fashion
Consideration of historic factors influencing fashion and fashion change with special emphasis on historic costume. *Prerequisites: None. 3 Credits 3 Periods*

TEC109　Introduction to Fashion Merchandising
Explores the various levels and specialized segment of the fashion industry, the principles of fashion, the fundamentals of merchandising apparel, consumers' influence on demand and marketing activities. *Prerequisites: None. 3 Credits 3 Periods*

TEC110　Basic Sewing Skills
Basic clothing construction techniques. Use of commercial patterns and sewing machine in the construction of basic garments. *Prerequisites: None. 3 Credits 4 Periods*

TEC111　Clothing Construction
Construction of garments applying basic construction principles and techniques using patterns suitable for the individuals and their capabilities. *Prerequisites: None. If student has no previous sewing experience, TEC110 Basic Sewing Skills should be taken prior to and not during this course. May be repeated for a total of 12 credit hours with permission of instructor. 3 Credits 5 Periods*

TEC112AB　Alteration of Ready Made Garments
Knowledge, skills, and techniques of altering ready made garments for personal or professional use. Experience using a sewing machine assumed. *Prerequisites: None. 2 Credits 2 Periods*

TEC113　Textiles: Dyeing
Demonstrations and projects emphasizing skills and techniques in creating decorative textiles for the home and apparel; tie dye and batik. *Prerequisites: None. May be repeated for a total of three (3) credits. 1 Credit 1.5 Periods*

TEC114　Textiles: Block Printing/Silk Screening
Skills and techniques in creating decorative textiles for the home and apparel; block printing and silk screening. *Prerequisites: None. May be repeated for a total of three (3) credits. 1 Credit 2 Periods*

TEC115　Textiles: Hand Painting
Materials and techniques used to hand paint designs on textiles. Includes color theory and design development. *Prerequisites: None. May be repeated for a total of three (3) credits. 1 Credit 1.5 Periods*

TEC120　Intermediate Clothing Construction
Application of intermediate clothing and fitting techniques. Emphasis on improving basic construction skills. May be repeated for a total of 8 credit hours with permission of instructor. *Prerequisites: TEC111 or permission of Instructor. 2 Credits 4 Periods*

TEC122　Sewing with Knits
Skills and techniques used in the construction of garments made from knit fabrics. *Prerequisites: None. 3 Credits 3 Periods*

TEC124　Advanced Clothing Construction
Advanced garment construction techniques, pattern alteration and fit and techniques used on specialty fabrics. May be repeated for a total of 12 credit hours with permission of instructor. *Prerequisites: TEC111 or permission of Instructor. 3 Credits 5 Periods*

TEC125　Fashion Design
Practical techniques of fashion sketching, pattern drafting and draping. Design apparel. *Prerequisites: None. TEC106 and TEC111 suggested but not required. 3 Credits 3 Periods*

TEC126　Sewing for the Home
Emphasizes techniques used in producing household textile goods such as slip covers, bedspreads, window treatments, linens, accessories, pillows, etc. Experience using a sewing machine assumed. May be repeated for a total of 9 credit hours with instructor permission. *Prerequisites: None. 3 Credits 3 Periods*

TEC129　Sewing with a Serger
Operation of a home serger. Use in constructing, finishing, and decorating garments and home decorations. Home serger required. *Prerequisites: None. 2 Credits 2 Periods*

TEC134　Fashion Illustration I
Proportions and techniques used in drawing fashion figures and clothing. Introduction of media and illustrative styles for portfolio design, trade sketches, and fashion advertisements. *Prerequisites: None. 3 Credits 5 Periods*

TEC135　Fashion Illustration II
Advanced study of proportion and techniques used in drawing fashion figures and flats. Continued study of garments, fabric textures and patterns. Development of skills in presentation drawing and commencing fashion design portfolio illustrations. *Prerequisites: TEC134, or permission of Instructor. 3 Credits 5 Periods*

TEC136   Fashion Illustration III

In-depth study of illustrative styles, silhouettes, and interpretations. Advanced work with fabric textures and patterns; concentration on garment details. Continued development of a fashion design portfolio. *Prerequisites: TEC135, or permission of Instructor. 3 Credits 5 Periods*

TEC141   Fashion Design: CAD

Use of computer-assisted design (CAD) in the fashion design industry. Create and illustrate fashion designs using these applications. Color and design principles applied in creating an apparel line and developing a portfolio. *Prerequisites: None. TEC141 may be repeated for a total of six (6) credits. 2 Credits 2 Periods*

TEC151   Display and Visual Merchandising

An examination of the principles of design including line, color, balance, and texture as they relate to the display of merchandise. Participation in displays, field trips, and individual projects. *Prerequisites: None. 3 Credits 4 Periods*

TEC160   Draping Form Construction Laboratory

Creation of a draping form utilizing the exact measurements of the student for use in fashion design. *Prerequisites: None. TEC160 may be repeated for a total of six (6) credits. 1 Credit 2 Periods*

TEC161   Digital Machine Embroidery Laboratory

Use of the sewing machine and computer for development of decorative designs for garment and fabric design. *Prerequisites: None. TEC161 may be repeated for a total of six (6) credits. 1 Credit 2 Periods*

TEC200   Retail Buying

Examines management/buyer role in investment, pricing, planning, controlling sales and inventories. *Prerequisites: None. Any BPC/CIS spreadsheet course recommended. 3 Credits 3 Periods*

TEC221   Computer-Assisted Fashion Design

The use of computer hardware and software in the fashion design industry. Create and illustrate fashion designs using computer hardware and software. Color and design principles applied in creating an apparel line and developing a portfolio. *Prerequisites: TEC125 or permission of Instructor. 3 Credits 5 Periods*

TEC222   Textiles

Study of textile fibers and fabrics, their properties, identification, selection, use and care. *Prerequisites: None. 3 Credits 3 Periods*

TEC223   Tailoring

Principles of tailoring as applied in the construction of a coat or suit. Alteration of patterns and fitting techniques.   TEC223 may be repeated for a total of 12 credit hours with permission of instructor. *Prerequisites: TEC124 or permission of Instructor. 3 Credits 6 Periods*

TEC225   Pattern Design I

Creative expression through flat pattern in applying principles of art to clothing design. Various resources for design inspiration. *Prerequisites: TEC110 or TEC111 or permission of Instructor. 3 Credits 5 Periods*

TEC226   Draping for Fashion Design

Manipulation of fabrics on a dress form and/or live figure to create designs and patterns. Use of a variety of woven/knit fabrics and an exploration of the many possibilities of draping to allow a creative and accurate expression of ideas. *Prerequisites: TEC110 or TEC111 or permission of Instructor. 3 Credits 5 Periods*

TEC227   Couture Sewing

Construction techniques used in couture sewing. Includes fabric selection, fitting, fabric preparation, hand sewing, garment shaping, edge finishes, embellishments, and closures. Emphasis on couture techniques used in the construction of skirts, pants, blouses, dresses, sleeves, pockets, jackets, coats, and evening wear. May be repeated for a total of 12 credit hours with permission of instructor. *Prerequisites: TEC111 or permission of Instructor. 3 Credits 5 Periods*

TEC228   Advanced Draping for Fashion Design

Advanced draping techniques for fashion design. Includes draping jackets, coats, slacks, and trousers in woven fabrics and draping a variety of garments in knit fabrics. Drape and construct an original design. *Prerequisites: TEC226 or permission of Instructor. Corequisites: TEC225, TEC226 or permission of Instructor. 3 Credits 5 Periods*

TEC229   Advanced Serging

Operation of a home serger in advanced application of construction and embellishment for garments and home decoration projects. Home serger required. *Prerequisites: TEC129 or permission of Instructor. 2 Credits 2 Periods*

TEC230   Pattern Design II

Practical application in designing clothing/patterns using flat pattern method. Principles of flat pattern and use of sloper reviewed. Includes pattern grading, sizing for figure differences, and creation of an original design.   May be repeated for a total of twelve (12) credits. *Prerequisites: TEC225 or permission of Instructor. 3 Credits 5 Periods*

TEC236   Portfolio Development

Design, produce, and present a professional portfolio. Includes material selection and techniques, customer focus, contents and organization, presentation formats, flat sketching techniques, presentation boards, and writing a resume and cover letter for potential employers. *Prerequisites: (TEC135 and TEC221), or permission of Instructor. 1 Credit 1.5 Periods*

TEC241
Advanced Computer-Assisted
Fashion Design

Advanced techniques and use of computer hardware and software in the fashion design industry. Create and illustrate fashion designs using multiple computer applications. Create advanced textile surface pattern design using color and design principles on the computer. Manipulate CAD pattern design for original patterns, grading, and markers. Create storyboards for product development and personal portfolio. *Prerequisites: TEC124 and TEC221. 3 Credits 5 Periods*

TEC245   Wardrobe Strategies

Methods of clothing selection, coordination, evaluation, and planning to meet men's and women's wardrobe needs. *Prerequisites: None. 3 Credits 3 Periods*

TEC250   Apparel Quality Analysis

Quality analysis of construction components that affect the appearance, function, and cost of ready-to-wear apparel. *Prerequisites: None. 3 Credits 3 Periods*

TEC255   Fashion Retail Merchandising

Surveys the structure and operation of fashion retail organizations. Emphasizes the global nature of fashion merchandising and techniques of merchandising for the fashion merchandising major. *Prerequisites: MKT/TEC109. 3 Credits 3 Periods*

TEC260   Fashion Sales Management

Emphasizes the fashion aspects of sales, and the application and management of a sales force for the fashion industry. *Prerequisites: MKT/TEC109. 3 Credits 3 Periods*

TEC271   Fashion Design Internship

Work experience in fashion design business or industry. Five hours of work weekly. Supervision and evaluation by an internship coordinator. May be repeated for a total of three (3) credits. *Prerequisites: Permission of Department or Division. 1-3 Credits 5-15 Periods*

TEC272   Retail Merchandising Internship

Retail merchandising work experience in a fashion retail business or industry. Supervision and evaluation by an internship coordinator. Eighty hours of designated work per credit per semester. *Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify); or permission of Instructor. 1-3 Credits 1-3 Periods*

TEC274   Fashion Merchandising Study Tour

A tour of the fashion merchandising industry outside the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance awareness of this multifaceted career. *Prerequisites: Permission of Department or Division. 1-3 Credits 5-15 Periods*

TEC275   Image Consultant Internship

Image consultant work experience in a fashion retail business or industry. Supervision and evaluation by an internship coordinator. Eighty hours of designated work per credit per semester. *Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify); or permission of Instructor. 1-3 Credits 1-3 Periods*

TEC277   Alteration Internship

Alteration work experience in a business or industry. Supervision and evaluation by an internship coordinator. Eighty hours of designated work per credit per semester. *Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify); or permission of Instructor. 1-3 Credits 1-3 Periods*

THE - Theatre -
Performing Arts

THE111   Introduction to Theatre

A survey of theatre, including basic elements and principles of production, styles, and/or historical perspectives of theatre, dramatic literature, and criticism. *Prerequisites: None. 3 Credits 3 Periods*

THE118   Playwriting

Practice and study of theories and techniques of writing for the stage; creating characters, dialogue, and plot for monodramas, scenes, and plays. *Prerequisites: None.*
3 Credits 3 Periods

THE205   Introduction to Cinema

Survey of the history and development of the art of motion pictures, including criticism of aesthetic and technical elements.

Prerequisites: None. 3 Credits 3 Periods

THE210 Contemporary Cinema
A study of contemporary films, directors and critics with emphasis on evaluating film as an art form. *Prerequisites: None. 3 Credits 3 Periods*

THE220 Modern Drama
Analysis of dramatic literature studied within political, historical, and cultural contexts and examined from the perspective of the playwright's structure and style. *Prerequisites: ENG101, or ENG107, or equivalent. 3 Credits 3 Periods*

THE282
Volunteerism For Theatre:
A Service-Learning Experience
Service-learning field experience within private/public agencies and citizen volunteer groups. May be repeated for a total of six (6) THE282 credit hours; may not repeat specific agency assignment for more than four (4) credit hours. Standard grading available according to procedures outlined in catalog. *Prerequisites: Permission of Instructor. 1-3 Credits 1-3 Periods*

THP - Theatre Performance/Production

THP112 Acting I
Fundamental techniques and terminology of acting through physical and vocal expression, improvisation, and monologue and scene work. Emphasis on characterization. *Prerequisites: None. 3 Credits 4 Periods*

THP115 Theatre Makeup
Purposes, materials, and techniques of theatrical makeup. *Prerequisites: None. 3 Credits 4 Periods*

THP120AA
Audition Techniques:
Prepared Monologue
Practice in the techniques of auditioning for the stage. Identifies and illustrates techniques of the prepared monologue audition. *Prerequisites: None. 1 Credit 2 Periods*

THP130 Stage Combat
Analysis and practice of physical movement, including basic techniques in staged personal combat with and without weapons. Emphasis on stunt fighting and fencing. *Prerequisites: None. 3 Credits 4 Periods*

THP201AA Theatre Production I
Designed to give college credit to the cast and technical production crews of college theatre productions. May be repeated for up to a maximum of four (4) credits. *Prerequisites: None. 1 Credit 2 Periods*

THP201AB Theatre Production II
Designed to give college credit to the cast and technical production crews of college theatre productions. May be repeated for up to a maximum of four (4) credits. *Prerequisites: None. 2 Credits 4 Periods*

THP210 Acting: TV/Film
Special technical aspects of acting before a camera. *Prerequisites: THP112 or permission of Instructor. 3 Credits 4 Periods*

THP211 Creative Drama
Theory and practice of creative drama, including improvisation, storytelling, puppetry, and script and program development in drama, and their application to elementary and secondary school levels. *Prerequisites: None. 3 Credits 3 Periods*

THP211AA Creative Drama: Improvisation
Theory and practice of creative drama, including improvisation. Covers improvisation theatre-based activities. Emphasis on application in elementary and secondary school levels. *Prerequisites: None. 1 Credit 1 Period*

THP212 Acting II
Fundamental techniques of acting through script analysis, rehearsal, and performance. *Prerequisites: THP112 or permission of Department or Division. 3 Credits 4 Periods*

THP213 Introduction To Technical Theatre
Procedures of technical theatre production and demonstration. Topics include design and construction of scenery; lighting and properties. *Prerequisites: None.*
3 Credits 5 Periods

THP214 Directing Techniques
Contemporary theory and practice in directing, the evolution of present-day directing procedures, and a sampling of scripts for directing practice. Principles of script analysis, blocking, casting, rehearsing, and performing. *Prerequisites: THP112 and THE220, or permission of Instructor. 3 Credits 3 Periods*

THP215 Advanced Makeup Techniques
Advanced character analysis and makeup design. Technical application of makeup. *Prerequisites: THP115. 3 Credits*

4 Periods

THP217   Introduction To Design Scenography

The role of the theatre designer in creating scenic, lighting, costume, sound, and multimedia effects for stage productions. Elements of the design process and communication of dramatic themes and visions to the audience. *Prerequisites: THP213 or permission of Instructor. 3 Credits 4 Periods*

THP271   Voice and Diction

Exercises and techniques to free the voice and improve projection, resonance, and articulation. Covers international phonetic alphabet and standard stage speech. *Prerequisites: None. 3 Credits 3 Periods*

THP281   Production and Acting I

Provides the continuing acting student with opportunities to expand the versatility of characterization skills. Emphasis on relating the actor's work to the total production process. Performance of monologues, scenes, and one-act plays. *Prerequisites: Permission of Department or Division.*
3 Credits 4 Periods

THP282   Production And Acting II

Provides the continuing acting student with opportunities to expand the versatility of characterization skills. Emphasis on relating the actor's work to the total production process. Performance of monologues, scenes, and one-act plays. *Prerequisites: THP281, or permission of Department or Division. 3 Credits 4 Periods*

THP298   Special Projects
1-3 Credits See Page 292

TQM - Total Quality Management

TQM101   Quality Customer Service

Examines the nature of quality customer service and the attitudes, knowledge, and skill needed to work effectively in a quality customer service environment. Foundation skills for quality customer services are taught, applied, and practiced. *Prerequisites: None. 3 Credits 3 Periods*

TQM220
Leadership And Empowerment Strategies

Methods for facilitating teams and empowering employees which effectively enable all employees to act upon a shared vision. *Prerequisites: None. TQM201 is recommended.*
2 Credits 2 Periods

TQM230   Teamwork Dynamics

Theory and practice of how team members and team leaders use listening, negotiating and interpersonal skills for the enhancement of team process. Included are concepts of team development and team problem-solving techniques. *Prerequisites: None. TQM201 is recommended. 2 Credits*
2 Periods

TQM235
Motivation, Evaluation,
And Recognition Systems

Presents methods for benchmarking, assessing team performance, linking recognition to team performance, and valuing victories and mistakes with all personnel. *Prerequisites: None. TQM201 is recommended. 2 Credits*
2 Periods

TQM240
Project Management In Quality Organizations

Presents methods for quality organizations in how to plan and schedule a project in use of Critical Path Method (CPM) and Program Evaluation and Review Technique (PERT) techniques and software to monitor and control projects. *Prerequisites: None. 3 Credits 3 Periods*

TQM290AA TQM Internship

Quality Process Leadership experience in an organizational setting. Eighty (80) hours of work and seminar activities. *Prerequisites: TQM201, TQM214, TQM220, TQM230, TQM235, TQM240, or permission of Department or Division. 1 Credit 1 Period*

TQM292   Innovation Strategies

Identification of the attitudes, knowledge and skills needed to challenge the process and initiate change in an organization. Includes the analytical skill required for creativity as well as methods for innovative thinking. *Prerequisites: TQM290AA, or permission of Department or Division. 1 Credit 1 Period*

WED - Wellness Education

WED100   Personal Wellness

Overview of wellness and its relationship to personal health. Understanding of personal wellness through lifestyle assessments. Introduction to wellness and health-related topics including fitness, relationships, nutrition, self-care, abusive behaviors, mind/body connection, and other current issues in health. *Prerequisites: None. 2 Credits 2 Periods*

WED110
Principles Of Physical Fitness
And Wellness

Stress basic, lifetime health and skill-related components of fitness to achieve total wellness. Topics include nutrition, weight control, exercise and aging, cardiovascular and cancer risk reduction, stress management, prevention of sexually transmitted diseases, substance abuse control, and overall management of personal health and lifestyle habits to achieve the highest potential for well-being. *Prerequisites: None. 3 Credits 3 Periods*

WED144   Strategies In Diabetes Management

Introduction to strategies in diabetes mellitus management and prevention for individuals diagnosed with diabetes and their caretakers. Includes a physical activity component. *Prerequisites: None. 3 Credits 5 Periods*

WED151   Introduction To Alternative Medicine

Definition of health; exploration of mind-body-spirit connection in health; various therapeutic modalities; identification of strengths and limitations of alternative therapies. Also includes development of ability to critically review written material in the alternative therapy area. *Prerequisites: None. 3 Credits 3 Periods*

WED152   Comparative Healing Techniques

Comparative approaches to healing, including allopathy, homeopathy, chiropractic, osteopathy, Chinese medicine, Ayurveda, Shamanism, and therapeutic touch. Contrast explanations for causation of disease, diagnostic procedures and healing methodology. *Prerequisites: None. 3 Credits*
3 Periods

WED162   Meditation And Wellness

Physiology of meditation and its effects on physical and mental health; scholastic abilities and interpersonal relationships; differentiation between meditation and other relaxation techniques. *Prerequisites: None. 1 Credit*
1 Period

WED170   Principles Of Homeopathy

Origins of homeopathy; key concepts; perceptions of disease; schools of homeopathy; scientific studies; preparation of remedies; case taking. *Prerequisites: None.*
1 Credit 1 Period

WED172   Overview Of Herbal Remedies

History and evolution of herbs for healing applications. Preparation, usage, and effects of certain herbs used for healing purposes. Basic literature review skills in the area of herbal medicine. *Prerequisites: None. 1 Credit 1 Period*

WED215   Self-Care For Health Care Providers

Emphasis on mind-body methods for personal wellness through integration of physical, emotional, social, and spiritual dimensions of being. Development of a personal practice to achieve and sustain a balanced program to support personal health and well being. *Prerequisites: None. 2 Credits 5 Periods*

WLD - Welding

WLD101   Welding I

Principles and techniques of electric arc and oxyacetylene welding and cutting. Provides technical theory and basic skill training in these welding processes. *Prerequisites: None. 3 Credits 6 Periods*

WLD102   Basic Welding Metal Sculpture

Practical training for welders in artistic welding and metal sculpter with emphasis on oxy-ace welding, arc welding, and metal inert gas (MIG) welding. *Prerequisites: None.*
3 Credits 6 Periods

WLD103
Basic Blacksmithing
And Metal Shaping

Selection and safe use of blacksmithing and metal shaping tools and equipment. Material selection and conditioning, practical forging techniques, metal shaping experience, and finishing processes. *Prerequisites: None. 3 Credits 8 Periods*

WLD106   Arc Welding

Electric welding with emphasis on metallic arc welding in out-of-position practice and procedures. *Prerequisites: None. 5 Credits 8 Periods*

WLD206

Advanced Welding:
Heliarc And Wire Feed

Instruction in theory and practice on tungsten inert gas and wire feed welding. Welding procedures on ferrous and nonferrous metals. Set up and operation of all types of machines used in tig and mig welding. *Prerequisites: WLD106, or permission of Department or Division.*
5 Credits 8 Periods

WLD208   Advanced Arc Welding: Certification

Advanced metallic arc welding emphasizing out-of-position welding in preparation for certification. Includes various test methods. Provides training on machine flame cutting and gouging and arc air cutting and gouging. *Prerequisites: WLD106 or permission of Instructor. 5 Credits 8 Periods*

WLD225   Welding Inspection And Quality Control

Welding inspection and quality control standards and practices in the construction and fabrication industries. Welding inspector certification requirements and functions performed in industry. *Prerequisites: WLD206, or WLD208, or AWS certificate, or permission of Instructor. 3 Credits*
3 Periods

WLD296   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: Completed at least 12 credits, min 2.6 GPA, and able to obtain a position related to student's academic/career goals or permission of Instructor. Corequisites: Enrolled in at least 1 class related to major/career interest or permission of Instructor 1-4 Credits 5-20 Periods*

WLD298   Special Projects
1-3 Credits See Page 292

WST - Women's Studies

WST100   Women and Society

Introduction to critical issues in women's studies. *Prerequisites: None. 3 Credits 3 Periods*

WST160
Women and the Early American Experience

Introduction to American women's history, from the colonial period to suffrage in 1920, based on a feminist perspective. *Prerequisites: None. 3 Credits 3 Periods*

WST161   American Women Since 1920

Continuation of the history of women in America from 1920 to the present, based on a feminist perspective. Includes discussion of the roles and status of immigrant and ethnic minority women. *Prerequisites: None. 3 Credits 3 Periods*

WST209   Women and Films

Analysis of images of women in films from both historical and contemporary perspectives. *Prerequisites: None.*
3 Credits 3 Periods

WST282
Volunteerism for Women's Studies:
A Service-Learning Experience

Service-learning field experience within private/public agencies and citizen volunteer groups. Students will develop writing skills, analysis, and synthesis in an on-site volunteer experience.   May be repeated for a total of six (6) WST282 credit hours. Standard grading available according to procedures outlined in catalog. *Prerequisites: WST100 and permission of Instructor. 1-3 Credits 1-3 Periods*

WST284   19th Century Women Writers

Investigates major themes in literature by women writing in the 19th century including the nature of women's lives in the family, in work situations, and in society. Poetry, prose, essays and drama are examined with an emphasis on common themes. *Prerequisites: None. 3 Credits 3 Periods*

WST285   Contemporary Women Writers

Explores twentieth century literature (short stories, essays, plays, and poetry) written by women and about women. Focus on themes relevant to women's lives regardless of age, creed, or ethnic background. *Prerequisites: None. 3 Credits 3 Periods*

WST286
Women and Health:
Body/Mind/Spirit Connection

Economic, sociopolitical, and demographic factors affecting women's health. Methods for optimizing physical, emotional, and spiritual health. Specific health concerns of women throughout the lifespan. Activism for health promotion. *Prerequisites: None. 3 Credits 3 Periods*

WST290   Women and Religion

The role of women in several organized religions and/or religious sects, including a study of myth and symbols as they are used to establish, maintain, and enforce sex-roles within specific religions. *Prerequisites: None. 3 Credits*
3 Periods

At MCC, you can choose from a wide variety of academic disciplines and career/technical programs to pursue your educational and professional goals. This section gives you an overview of the many departments and programs available at MCC to support you in reaching your goals. Departments and programs are listed alphabetically.

Contact Phone Numbers

ADMINISTRATION

Dr. Shouan Pan – President 480-461-7300

Dr. James Mabry – Vice President of Academic Affairs 480-461-7325

Mr. Kurt Conover – Vice President of Administrative Services (Acting) 480-461-7410

Dr. Sonya Pearson – Vice President of Student Affairs 480-461-7932

Dr. Rodney Holmes – Dean of Instruction 480-461-6229

Ms. Carol Achs – Dean of Instruction... 480-461-7742

Mr. Lawrence D. Thacker – Dean of Instruction... 480-461-7124

Ms. Jo Wilson – Dean of Instruction, Red Mountain.. 480-654-7700

Ms. Joni Grover – Dean of Student Affairs, Red Mountain... 480-654-7702

Ms. Kathleen Perales – Dean of Student Affairs 480-461-7932

Dr. Barbara Boros – Associate Dean & Registrar 480-461-7477

Administration of Justice Studies

Ellyn Ness, Chairperson: 480-461-7050
Building SC 14
www.mc.maricopa.edu/dept/d52/ajs/

The Administration of Justice programs prepare students for careers in all phases of criminal justice. Students can choose from a variety of courses and programs in:
• Administration of Justice Studies
• Police Science
• Judicial Studies
• Victimology
• Forensic Investigation
• Legal Studies
For specific degree and certificate requirements, see **Career and Technical Programs**.

Advisement

Students who plan to major in any of the justice studies programs are strongly encouraged to meet with an AJS advisor. AJS advisors are familiar with career-entry requirements and can guide students in making appropriate decisions concerning the correct course of study.

All residential faculty in the AJS program actively participate in faculty advisement for AJS majors. Students may contact the AJS Program office at 480-471-7080 or email ajs@mcmail.maricopa.edu to schedule an advisement appointment or request a packet of information.

Carrying Concealed Weapon (CCW) Class

AJS151 Firearms I is offered for those interested in obtaining a concealed weapon permit or who would like to attend an introductory course on firearm safety and use. Classes are offered on weekends (all day Saturday and Sunday) with qualifying held at local firearm ranges. The course carries one college credit and is more affordably priced than other similar classes offered in the community.

Note: The class is open to all students 18 or older, but you must be at least 21 years old to be eligible for the CCW permit.

Internships

Options for hands-on learning and experiences in the field are available through the internship program.

African-American Studies

Shereen Lerner, Chairperson: 480-461-7306
Building SC 14

African-American Studies is one of the disciplines within the Cultural Science Department. Courses offered include:

AFR110   Introduction to African-American Studies
AFR202   Ethnic Relations in the United States
AFR203
African-American History:
The Slavery Experience
AFR204
African-American History: Reconstruction to the Present

Agriculture

Suean Stewart, Program Director of Agriculture: 480-461-7125
Building TC 50
www.mc.maricopa.edu/dept2/agribusiness/

The Agriculture program prepares students for careers in all phases of agricultural and horticultural production and management. Students can choose from a variety of courses and programs in:
• Agribusiness
• Pest Management
• Urban Horticulture
For specific details about these programs, see
Career and Technical Programs.

While less than 5% of jobs in agriculture are farming, there are many career options in agriculture and horticulture across the US and internationally. Further, there are many opportunities for independent business owners in these fields as well as opportunities with local, state, and federal government agencies.

As part of the Agriculture and Technology Department, the program maintains labs and equipment to provide both knowledge and hands-on skills. There is a five-acre land laboratory on the southeast corner of the MCC at Southern and Dobson campus which includes a greenhouse, shade house, animal shelter, citrus orchard, deciduous fruit orchard, grape vineyard, experimental turf plots, putting green, AZMET weather station, and a crop field. Laboratory facilities include a soils lab, tissue culture lab, and computer lab for use by agriculture students.

The program supports student success in several ways. Students can schedule one hour per week free tutoring in one or more courses. Each student works with faculty to write an individual education plan laying out semester-by-semester coursework. Students are tracked through graduation and beyond, and faculty advise students who wish to transfer to university programs.

The Horticulture program is sanctioned by the Arizona Landscape Contractors' Association, the Arizona Nursery Association, and the Arizona Federation of Garden Clubs.

The industry members provide internship opportunities.

Horticulture students take an annual southern California tour in spring, funded by plant sales and other fundraising opportunities. Students design and install landscaping projects on campus including water features in the Student Advisement area. Students also assist with career-related events at ASU Polytechnic.

The Arizona Nursery Association, the Arizona Landscape Contractors' Association, and the Arizona Federation of Garden Clubs provide scholarships to support MCC students. Contact the program office for applications and details.

American Indian Studies

Shereen Lerner, Chairperson: 480-461-7306
Building SC 14

American Indian Studies is one of the disciplines within the Cultural Science Department. Courses offered include:

AIS101   Survey of American Indian Issues
AIS110   Navajo Government
AIS140   American Indian History
AIS141   Sovereign Indian Nations
AIS213   American Indian Religions

American Sign Language

See World Languages

Anthropology

Shereen Lerner, Chairperson: 480-461-7306
Building SC 14
www.mc.maricopa.edu/dept/d10/asb

Anthropology includes archaeology, biological anthropology, forensics, cultural anthropology, and linguistics. Anthropology faculty and students are engaged in the active use of technology in the classroom, service-learning and internships, field trips, guest speakers, educational visits to schools, field work, and study abroad and international programs. In addition to traditional anthropology course offerings, we have courses in forensics, museum study, field archaeology, and laboratory methods.

Academic advisement for students planning to major in anthropology is provided by anthropology faculty.

If You Plan to Major in Anthropology
Anthropology prepares students for excellent jobs and opens doors to various career paths: the course of study provides global information and thinking skills critical to succeeding in the 21st century in business, research, teaching, advocacy, and public service. Anthropologists are strongly represented in every aspect of the academic, public, non-profit, and corporate sectors (e.g., research institutes, museums, international business, corporate research, health, and cultural resource management). Many positions in these fields are open to people with BA degrees.
The three public Arizona universities all require the following courses for the anthropology major:
ASB102
Introduction to Cultural and Social Anthropology
ASM104   Bones, Stones, and Human Evolution
ASB222   Buried Cities and Lost Tribes: Old World
          OR
ASB223
Buried Cities and Lost Tribes: New World

Depending on the university you plan to transfer to, the following courses may also be recommended:
ASB202   Ethnic Minorities in the United States
ASB211   Women in Other Cultures
ASB214
Magic, Witchcraft, and Healing: An Introduction to Comparative Religion
ASB220   Anthropology Goes to the Movies
ASB230   Principles of Archaeology
ASB231   Archaeological Field Methods
ASB245   Indians of the Southwest
ASB252   Anthropology of Sport
ASM265   Laboratory Methods in Archaeology
ASM275   Introduction to Forensic Anthropology

Arabic

See World Languages

Architecture

Merzhad Khorsandi, Program Director:
480-461-7257
Building TC 50
www.mc.maricopa.edu/dept2/architecture/

Mesa Community College offers three tracks of study as part of the AAS degree in Architecture along with five certificates. The three tracks are Design, Drafting, and Urban Development. The five certificates are: Computer Aided Design & Drafting (CADD: Level I), Architecture Residential Drafting (CADD: Level II), Architecture Commercial Drafting (CADD: Level II), Architectural Detailing (CADD: Level III), and Architectural CADD (CADD: Level III). All student advising is conducted by the faculty in the program area during faculty office hours or by appointment. All three tracks are transferable to ASU East with many courses

transferable to the Architecture program at ASU Main. The program is committed to student success and offers the following lab services to support student learning.

1.
TC102 is a multi-station combination drafting and computer lab for courses such as Intro to Environmental Design, Design Foundation, and Residential & Commercial Drafting. Coursework includes manual architectural drafting for residential and commercial application, building construction methods, materials, and equipment, and survey of design through historical evaluation of built environments and the works of well-known architects. Open lab hours are posted.

2.
TC108 is a multi-use computer lab used mainly for various computer-aided design and drafting courses utilizing software that is current within the architecture and construction industry. Open lab hours are posted.

Internship and service-learning courses are available to students who are interested in getting training in the architecture and construction industry. Students can gain work experience in private or public firms and agencies toward achieving their professional goals.

For specific details about this program, see **Career and Technical Programs.**

Art

Sarah Capawana, Chairperson: 480-461-7524
Building AC 30
www.mc.maricopa.edu/dept/d04/art

The mission of the Art Department is to support a learning environment that encourages visual literacy, promotes the aesthetics of cultural diversity, enhances the quality of life, and provides our students with the opportunity to develop the skills and techniques necessary to be successful in the field of art.

The Art Department offers courses, degrees, and programs in:
- Art (ART)
- Art History (ARH)
- Digital Arts (ART)

The Art Department hosts a variety of annual activities
for our students and the public. Our Student Art Exhibition showcases more than 200 student artworks. The art faculty display their work every fall semester in the Faculty Art Exhibition. Empty Bowls is an annual fundraiser organized by ceramics faculty and students which raises money for local food banks. Workshops and lectures are presented by visiting artists.

The Art Department reserves the right to use artwork produced by students for promotional purposes.

If You Plan to Major in Art
It is recommended that students planning to transfer as art majors to a four-year college or university take a planned set of courses leading to an Associate in Arts, Fine Arts. The AA-FA is a general degree that includes special requirements enabling art majors to graduate from MCC after earning 63 credit hours. The basic studio art courses required for most art majors planning to transfer to a four-year institution include:
ARH101   Prehistoric Through Gothic Art
ARH102   Renaissance Through Contemporary Art
ART111   Drawing 1
ART112   Two Dimensional Design
ART113   Color
ART115   Three Dimensional Design

Students planning to specialize or major in the following areas of art should take the following classes in addition to the foundation courses:
Ceramics – Ceramics I
Photography – Photography I
Painting – Painting I
Art Education – Painting I and Photography I
Art History – ARH101 and ARH102

Please consult an academic advisor and a college or university catalog to assure compliance with the specific requirements of the institution where you want to transfer.

The Art Department also offers the Associate of Applied Science (AAS) and Certificate of Completion (CCL) in the following areas of specialty:
- Digital Photography
- Digital Illustration
- Graphic Design
- Web Design

See **Career and Technical Programs** for more information on the Digital Arts degree.

Please check our website at: **www.mc.maricopa.edu/dept/d04/art** for the most recent information.

Astronomy

Mike Sims, Chairperson: 480-461-7015
Building PS
www.mc.maricopa.edu/dept/d43/ast/index.html

Astronomy is one of the disciplines of the Physical Science Department. For more information on the department, see **Physical Science**.

Astronomy classes appeal to those who are considering majoring in one of the physical sciences or who simply want to expand their knowledge in this field.

If You Plan to Major in Astronomy
Public Arizona universities offer baccalaureate programs to those who wish to major in astronomy:

NAU	BS	Astronomy
NAU	Merged BS	Physics and Astronomy
UA	BS	Astronomy
ASU	BS	Earth and Space Exploration
ASU	BS	Physics with Astronomy Emphasis

These universities require or accept the following courses for astronomy majors:

MAT231	Calculus with Analytic Geometry II
MAT241	Calculus with Analytic Geometry III
PHY121	University Physics I
PHY131	University Physics II

Automated Manufacturing

See Electromechanical Automation
or Manufacturing

Automotive Performance

Joe Rauscher, Program Director:
480-461-7136
Building TC 50
www.mc.maricopa.edu/dept2/automotive/

Automotive Performance is designed to prepare students
to be automotive technicians. Emphasis is placed on developing good diagnostic skills. Graduates will possess
a minimum of entry level skills. Graduates will be able to pass the national ASE Certification Tests upon completion
of the coursework. This will supply the graduate with marketable skills to enter the job market. The program
is designed to provide "hands-on" experience in a "live" working environment similar to the service industry.
In addition to the degree program, five certificate programs are also available: Engine Performance and Diagnosis;
Air Conditioning; Brakes, Alignment, Suspension and Steering; Transmissions and Power Trains; and Automotive Electrical
Systems.

For specific details about this program, see **Career and Technical Programs.**

Biology

See Life Science

Business and Information Systems

Dr. Linda D. Collins, Chairperson: 480-461-7077
Preston Cameron, Business Program Director: 480-461-7714

Dr. Christine Held, Real Estate/Real Estate Appraisal Program Director: 480-461-7568
Building BP 43A
www.mc.maricopa.edu/dept/d07/

The emphasis of Business and Information Systems is to provide quality academic coursework, for competency and application-based learning utilizing state-of-the-art technologies to prepare students with marketable skills that are responsive to the current needs of a variety of workplace settings, and to prepare students to transfer to a four-year university.

The Business area of the department offers courses in:
- Accounting (ACC)
- Entrepreneurial Studies (EPS)
- General Business (GBS)
- Hotel and Restaurant Management (HRM)
- International Business (IBS)
- Management (MGT)
- Marketing (MKT)
- Real Estate and Real Estate Appraisal (REA)
- Total Quality Management (TQM)
- Small Business Management (SBS)

The department also offers courses in Computer Information Systems (CIS), Business and Personal Computers (BPC), Fashion Merchandising and Design (TEC), and Office Automation Systems (OAS). See **Computer Information Systems, Fashion Merchandising and Design**, and **Network Academy** for details on these courses.

Please see Network Academy for information on courses, certificates, and degrees in network administration and security. For additional information on the Network Academy, visit **bii.mc.maricopa.edu**

Faculty advisement is available by appointment and drop-in. Faculty advisors are also available in the Multiuse Lab in BA1S the week prior to classes starting each semester.

The department has computer labs available for student use at the following campuses:

MCC at Southern and Dobson Multi-use Lab (BA1S)

Just north of the Clock Tower
Operating hours during the Fall and Spring semesters are:

Monday through Thursday	7:00 AM – 10:20 PM
Friday	7:00 AM – 8:20 PM
Saturday	7:00 AM – 4:20 PM

Hours vary during holidays and summer. For holiday and summer hours, please visit the lab for current information.
All labs are closed on Sunday.

MCC at Red Mountain Library/Information Commons, Second Floor

Operating hours during the Fall and Spring semesters are:

Monday through Thursday	7:30 AM – 9:30 PM
Friday	7:30 AM – 5:00 PM
Saturday	10:00 AM – 2:00 PM

Business and Personal Computers

See Computer Information Systems

Chemistry

Mike Sims, Chairperson: 480-461-7015
Building PS 8
www.mc.maricopa.edu/dept/d43/chm/

Chemistry is one of the disciplines in the Physical Science Department. For more information, see **Physical Science.**

Chemistry courses are offered for those who want to fulfill their general education requirements, pursue healthcare and scientific majors, and expand their knowledge of this field.

If You Plan to Major in Chemistry
The three public Arizona universities offer a variety of baccalaureate programs for students who wish to major in chemistry:
ASU	BA	Chemistry
ASU	BS	Chemistry

ASU	BSC	Chemistry: Biochemistry Emphasis
ASU	BS	Biochemistry
NAU	BS	Chemistry
NAU	BS	Chemistry (with emphases)
NAU	BS	Environmental Chemistry
NAU	BS	Geochemistry
UA	BA	Chemistry*
UA	BS	Chemistry

*

May be satisfied by an Associate in Science (AS) pathway. See **Associate Degrees and Certificate Programs** for more information.

These universities all require or accept the following courses for chemistry majors:
MAT220
Analytic Geometry and Calculus I
OR
MAT220
Analytic Geometry and Calculus I
MAT231
Calculus with Analytic Geometry II
OR
MAT231
Calculus with Analytic   Geometry II
CHM151 and CHM151LLGeneral Chemistry I and lab
CHM152 and CHM152LL

General Chemistry II and lab OR
CHM235 and CHM235LL
General Organic Chemistry I and lab AND
CHM236 and CHM236LL
General Organic Chemistry IIA and lab
OR

| PHY121 | University Physics I |
| PHY131 | University Physics II |

Chicana/Chicano Studies

Shereen Lerner, Chairperson: 480-461-7306
Building SC 14

Chicana/Chicano Studies is one of the disciplines within the Cultural Science Department. Courses offered include:
CCS101   Chicana and Chicano Studies
CCS111   Introduction to Chicana and Chicano Culture
CCS211   Chicano Culture and Health

Child and Family Studies

Annapurna Ganesh, Program Director:
480-461-7305
Building ES 9, Office ES 107
www.mesacc.edu/dept/d15/edu/
For additional information, See Education Studies

Chinese

See World Languages

Communication

Susan Olson, Chairperson: 480-461-7793
Building AC 30

Communication skills are essential to daily living and success on the job. Those who are skilled in communication have an advantage when it comes to job placement and promotion. Presentational, interpersonal, and teamwork skills top the list of competencies employers desire in their workforce. Study and practice in Communication also helps to build positive relationships with family and friends, in addition to clients, patients, and customers.

Our Communication Faculty are dedicated teaching professionals with backgrounds in business management, business consulting, performance, rhetoric, and team building. The department is committed to student success, and faculty members are available for one-on-one assistance and advisement. In addition, the department offers the following opportunities for student involvement:

Communication Honor Society
The Communication Department is affiliated with the National Communication Association, the Arizona Communication Association as well as Sigma Chi Eta, the undergraduate honor society for Communication majors.

Communication Activities and Events
The department sponsors symposiums featuring Careers in Communication, during which communication professionals speak to majors on pathways to careers in Communication. In addition, the Communication Activities program includes an intramural speech contest each semester entitled The Big Speak Out. In this contest, students from the various public speaking classes compete with each other to experience public speaking activities outside of the traditional classroom. The competition is judged and feedback is provided by faculty members throughout the college as well as notable speakers from the community.

If You Plan to Major in Communication
All of Arizona's public universities offer bachelor degree programs in communication:

ASU	BA	Communication
ASU West	BA/BS	Communication Studies
NAU	BA/BS	Speech Communication
UA	BA	Communication

Organizational Communication Pathway

Organizational Communication is a popular pathway for students wanting to study communication in organizations, industry, and other professional environments with a focus on improving the workplace. This emphasis can lead the

way to careers in management, training, consulting,

and numerous related opportunities for the Communication student. Choosing the Organizational Communication emphasis supports students who are seeking valuable

real-world experiences such as internships, special projects, and development of on the job skill sets. New connections and opportunities for this pathway are created each semester. For an up-to-date list of options in Organizational Communication, consult our departmental website and Facebook connection pages.

The three public Arizona universities all require the following courses for the communication major:
COM100 Introduction to Human Communication
COM207 Introduction to Communication Inquiry
COM225 Public Speaking

Computer Information Systems

Dr. Linda D. Collins, Chairperson: 480-461-7077
Mr. David Harris, BPC/OAS Program Director:
480-461-7304
Dr. Lo-An Tabar-Gaul, CIS Program Director:
480-461-7465
Building BP 43A
Mark Anderson, Network Academy Program Director: 480-461-6114
Network Academy, Downtown Center
Building BP 43A
www.mc.maricopa.edu/dept/d07/

Computer Information Systems, Business Personal Computers, and Office Automation Systems are disciplines within the Department of Business. For more information on the department, see **Business and Information Systems** or the departmental website at
www.mc.maricopa.edu/dept/d07

The Business and Personal Computers and Computer Information Systems area of the department offers certificates, degrees, and

courses in:

- Computer Information Systems (CIS), such as Introduction to Computer Information Systems including CIS105, which is a transfer course to the Arizona universities, introduction to electronic game technology, programming, web technology, software quality assurance, and a variety of software applications
- Business and Personal Computers (BPC), including BPC110, Computer Usage and Applications, which satisfies the CS requirement at ASU, and a variety of BPC and OAS classes related to keyboarding and applications
- Office Automated Systems (OAS), including Business English and Typing.

The department is an Authorized Microsoft Certified Applications Specialist (MCAS), IC3, and CIW Testing Facility.

Please see **Network Academy** for information on courses, certificates, and degrees in network administration and security. For additional information, visit **bii.mc.maricopa.edu**

Faculty advisement is available by appointment and drop-in. Faculty advisors are also available in the Multiuse Lab in BA1S the week prior to classes starting each semester.

The department has computer labs available for student use at the following campuses:

MCC at Southern and Dobson Multi-use Lab (BA1S)
Just north of the Clock Tower
Operating hours during the Fall and Spring semesters are:

Monday through Thursday	7:00 AM – 10:20 PM
Friday	7:00 AM – 8:20 PM
Saturday	7:00 AM – 4:20 PM

MCC at Red Mountain Library/Information Commons, Second Floor
Operating hours during the Fall and Spring semesters are:

Monday through Thursday	7:30 AM – 9:30 PM
Friday	7:30 AM – 5:00 PM
Saturday	10:00 AM – 2:00 PM

Computer Science

Chuy Carreon, Chairperson: 480-461-7728
Building MC 5
www.mc.maricopa.edu/dept/d25/

The Mathematics/Computer Science department offers courses and programs in mathematics (MAT) and computer programming and system analysis (CSC). You can take all of the courses required for the first two years of any public Arizona university math or computer science program through this department.

Courses are offered in traditional classroom settings, at different campuses and sites, and in flexible formats such as distance learning. The Math/Computer Science Department offers faculty advisement on a drop-in basis for those planning to major in math or computer science.

If You Plan to Major in Computer Science
There are many academic and professional opportunities open to those who study computer science. Public universities in Arizona offer a variety of bachelor's degree programs in this field:
ASU   BS
Computer Science (Engineering and Applied Sciences)
NAU   BS   Computer Science and Engineering
UA   BS   Computer Science

If you are planning to pursue a bachelor's degree in computer science at a public Arizona university, you can follow the Associate in Science degree pathway, which requires a total of 60-64 credits. The AS degree transfers as a block (in other words, your transcript will not be evaluated one course at a time for admission to the university) without loss of credit and satisfies Arizona university admission requirements.

If you are planning to transfer to an out-of-state university to complete your bachelor's degree, contact an academic advisor for help in choosing the best courses for your needs.

The pre-professional program will require selecting from the following courses. You should consult with the university that you are planning on attending for their exact requirements.
CSC100
Introduction to Computer Science for Non-Computer Majors
CSC110   Introduction to Computer Science for Majors
CSC120   Digital Design Fundamentals

CSC205
Object Oriented Programming and Data Structures
CSC230   Computer Organization and Assembly Language
MAT220   Calculus with Analytic Geometry I
MAT227   Discrete Mathematical Structures
MAT231   Calculus with Analytic Geometry II
MAT241   Calculus with Analytic Geometry III

Construction

Merzhad Khorsandi, Program Director:
480-461-7257
Building TC 50
www.mc.maricopa.edu/dept2/construction/

Mesa Community College offers three tracks of study as part of the AAS degree in Construction along with seven certificates. The three tracks are Construction Drafting, Construction Inspection, and Construction Management. The seven certificates are: Computer Aided Design & Drafting (CADD: Level I), Surveying & Civil Drafting (CADD: Level II), Construction Drafting (CADD: Level III), Home Inspection, Building Inspection, Plan Review, and Pre-Contractor Licensing. All student advising is conducted by the faculty in the program area during faculty office hours or by appointment. Many courses are transferable to ASU and NAU. Specifically, we offer all the courses for the first two years of the Construction Management Program at the Del Webb School of Construction at ASU. The program is committed to student success and offers the following lab services to support student learning.

1.
TC102 is a multi-station combination drafting and   computer lab for courses such as Intro to Environmental Design, Design Foundation, and Residential & Commercial Drafting. Coursework includes manual architectural drafting for residential and commercial application, building construction methods, materials, and equipment, and survey of design through historical evaluation of built environments and the works of well-known architects. Open lab hours are posted.

2.
TC108 is a multi-use computer lab used mainly for various computer-aided design and drafting courses utilizing software that is current within the architecture and construction industry. Open lab hours are posted.

Internship and service learning courses are available to students who are interested in getting training in the construction industry. Students can gain work experience in private or public firms and agencies toward achieving their professional goals.

For specific details about this program, see **Career and Technical Programs.**

Counseling

Karen Hardin, Chairperson: 480-461-7588
Student Services Complex
www.mc.maricopa.edu/dept/d09/

The Counseling Department supports student success in a number of ways:

Courses designed to help students identify their personal and academic strengths, interests, and goals, including:
    -Advancing Academic Achievements (AAA)
    -Chemical Dependency (CHD)
    -Counseling and Personal Development (CPD)

Courses offered through the Counseling Department are transferable to other colleges and universities, depending on the programs and policies of the transfer institution.
For transfer status of courses to Arizona universities consult the course equivalency guide at: **az.transfer.org/cas/students**

Culinary Studies

Dr. Linda D. Collins, Chairperson: 480-461-7077
www.mc.maricopa.edu/dept2/culinary/

The Culinary Studies program is offering a unique program – you can take a single class to polish your culinary skills or you may take a program that will provide you the opportunity to earn a certificate of completion or even an AAS degree in Culinary Studies.

Culinary students develop skills in all facets of the food service industry. Training is provided in culinary arts (quantity cooking), commercial baking, and dining room and banquet service through a hands-on approach.

For specific details about this program, see **Career and Technical Programs**.

Cultural Science

Shereen Lerner, Chairperson: 480-461-7306
Building SC 14
www.mc.maricopa.edu/dept/d10/index

The Cultural Science Department includes five disciplines:
• Anthropology
• Ethnic Studies (American Indian Studies, African   American Studies, Chicano Studies)
• Geography
• Social Work
• Sociology

Look for more information about these programs under their individual sections.

The Cultural Science Department coordinates Ethnic Studies coursework in American Indian Studies, African American Studies, and Chicano Studies, an academic certificate
in African American Studies, and is in the process of developing certificates for the other two disciplines.
All courses offered in these areas transfer to the universities.

The department also coordinates a study-abroad program
in China and participates in programs in Ireland and Mexico.

The department coordinates an Academic Certificate (AC)
in Global Citizenship that enhances students' understanding of the world around them and current social issues such as economic and social justice, human and civil rights, world and regional conflicts, environmental degradation, cultural diversity, and political change. Through a combination of coursework and experiential learning, students develop skills in critical thinking, inquiry, and discourse while becoming more informed, socially responsible, and engaged citizens
of their communities, country, and world. The certificate includes specialized tracks in the impact of diverse cultures on American life: Impact of Diverse Cultures on American Life; Political and Economic Interdependence of the International Community; Global Study of Cultures, Religions, and Values; Regional Study of Cultures, Religions, and Values; and Science, Technology, and the World. See **Graduation Requirements** for more information on program requirements, or contact the department office for more information.

Dance

Ann Stine, Chairperson: 480-461-7551
astine@mesacc.edu
Tina Rangel, Program Director: 480-461-7597 trangel@mesacc.edu
Building ES 9
www.mesacc.edu/dance

The Dance program at Mesa Community College offers
a 2- year Associates Degree for students interested in pursuing a career in dance. The program offers lecture, Dance Humanities courses (DAH prefix), and technique and performance classes (DAN prefix) in a variety of styles and levels. Students may choose to use their Associates Degree in Dance to help them prepare for careers in the entertainment industry working in professional dance productions. Students may use their degree for careers as choreographers and teachers for dance studios, community programs, and/or in the private sector. Classes may transfer to a four-year university or private college, such as Ottawa University.

Students must be high school age to enroll in dance classes.

Degree offered:
Associate of Arts, Fine Arts-Dance (AAFA)

The AAFA Degree transfers to Ottawa University for the Bachelor of Arts Degree-Dance with Secondary Certification.
If you plan to major in Dance or Dance Education, the following are transfer courses for ASU and/or U of A:

DAH100 (Lecture)	Introduction to Dance
DAH201 (Lecture)	World Dance Perspectives
DAN115AA	
Contemporary Dance Trends: Hip Hop	
DAN120AB	Flamenco
DAN120AK	Capoeira
DAN120AE	Middle Eastern (Belly) Dancing
DAN125	Social Dance
DAN125AC	Latin Ballroom
DAN129/130	Musical Theatre Dance I/II

DAN131/134/231/234	Ballet I/II/III/IV
DAN132/135/232/235	Modern Dance I/II/III/IV
DAN133/136/233/236	Modern Jazz Dance I/II/III/IV
DAN140/145	Tap Dance I/II
DAN141	Dance Workshop
DAN146	Tap Dance Ensemble
DAN150/155/250/255	Dance Performance I/II/III/IV
DAN210	Dance Production
DAN221/222 Rhythmic Theory for Dance I/II	
DAN264/265	Choreography I/II

See **Physical Education and Exercise Science**

Dental

Phebe Bilitz, Program Director: 480-654-7772
Red Mountain
www.mc.maricopa.edu/dept/d11/dental/

The Dental Hygiene program prepares students to work in collaboration with dentists in a variety of settings to improve the oral and general health of the public. The program is accredited by the Commission on Dental Accreditation of the American Dental Association. Successful students are awarded an Associate in Applied Science Degree and are eligible to take the necessary board exams to gain a dental hygiene license in any of the 50 states. Students may transfer to a university and complete a bachelor degree in Dental Hygiene.

Prerequisite courses and an application are required for admittance to the program. Prerequisite courses are listed on the website and include core courses required for an AAS degree as well as BIO201, BIO202 and BIO205, and CHM138 with a lab. All prerequisite courses must be completed before the application is submitted. Applications can be found on the dental hygiene website listed above.

Classes are scheduled at Red Mountain Campus in the afternoon. Clinics are scheduled at the state-of-the-art facility of the Arizona School of Dentistry and Oral Health Monday through Thursday from 5:00-9:00 P.M. Students participate in community special events including health fairs, Give Kids a Smile Day, and Oral Cancer Screenings.

The faculty in the Dental Hygiene Program are committed to developing health professionals who are competent, compassionate, and skilled in teamwork.

For specific details about this program, see **Career and Technical Programs.**

Drafting & Computer Aided Design

Todd Verch, Program Director: 480-461-7767
Building TC 50
www.mc.maricopa.edu/dept/d58/dft/

Design Drafting Technology
The Drafting Technology Programs offer courses for students who plan to complete a two-year Associates in Applied Science degree and/or have an interest in drafting-related careers, as well as training for persons already employed in fields related to design and drafting. Courses are also offered for those who may not be pursuing a career in design and drafting, but who have an interest in, or need to understand graphic communication. Our program also offers certificates of completion in multiple levels of CAD and Drafting training.

The types of projects that are used within the drafting courses cover a wide range of specialties including mechanical design, engineering layouts, architectural floor plans, furniture design, etc. Career options include working for industrial and manufacturing companies in defense, sport/recreation equipment, household goods, and various other industries.

Associate Degrees
Associate in Applied Science – Electro/Mechanical Drafting
Micro Circuit Mask Design specialty track
CNC Programming/3D modeling specialty track
Associate in Applied Science – Micro Circuit Mask Design

Certificates
Certificates of Completion in Computer-Aided Drafting
Certificates of Completion in Mechanical Drafting

Certificates of Completion in Electro/Mechanical Drafting
Certificates of Completion in Micro Circuit Mask Design

For specific details about this program, see **Career and Technical Programs.**

Early Childhood Education

Annapurna Ganesh, Program Director:
480-461-7305
Building ES 9, Office ES 107
www.mesacc.edu/dept/d15/edu/
For additional information, See Education Studies

Economics

Paul Hietter, Acting Chairperson: 480-461-7346
Building SC 14
www.mc.maricopa.edu/dept/d52/ECN/ECN

Economics is one of the disciplines in the Social Science Department. For more information, see **Social Science.**

In addition to offering courses in economics (ECN), faculty in this area also host the Arizona Society of Economics Teachers Conference each year.

If You Plan to Major in Economics
The three public Arizona universities offer a number of baccalaureate degrees in economics:

ASU	BA	Economics (Liberal Arts)
ASU	BS	Economics (Liberal Arts)
NAU	BS	Economics
UA	BA	Economics

These three universities all require or accept the following courses as requirements for the economics major:

MAT212	Brief Calculus
GBS221	Business Statistics OR
MAT167	Elements of Statistics
ECN111	Macroeconomics
ECN112	Microeconomics

Education Studies

Nora Amavisca Reyes, Chairperson:
480-461-7781
Building ES 9, Office ES 111

Annapurna Ganesh, Program Director:
480-461-7305
Child & Family Studies/Early Childhood Education
Building ES 9, Office ES 107
www.mesacc.edu/dept/d15/edu/

The Education Studies Department offers degree and certificate programs designed to serve the needs of pre-service educators, paraprofessionals, and certified teachers. Programs and training opportunities are available for educators serving birth to adults in the areas of early childhood, elementary, special, secondary, and multicultural education.

The Education Studies Department strives to provide comprehensive support for aspiring and practicing educators by:
•
partnering with educational institutions to create a seamless transfer for students,
• establishing cohorts within school districts,
•
collaborating with East Valley education professionals through advisory councils,
• incorporating service-learning into academic programs,
•
emphasizing critical thinking, values clarification, career exploration, and civic responsibility,
•
developing culturally sensitive educators responsive to the needs of a global society, and

-

providing a solid foundation of academic coursework and field experience for early care and teacher preparation as well as professional development.

Special programs and opportunities offered by the Education Studies Department include:

-

Teacher Endorsement Programs for Structured English Immersion, English as a Second Language, Bilingual Education, Reading Specialist, Math Specialist, Middle Grades, Early Childhood Education
- High School Dual Enrollment
- Professional Career Pathway Project (PCPP)
- TEACH Early Childhood Scholarship Program
- Maricopa-ASU Pathways Program (MAPP)
-

Northern Arizona University Partnerships: 2+2 (Elementary Education, ESL Emphasis) and NAUTeach (Secondary Education, Math/Science Emphasis)
-

Grand Canyon University Partnership: MCC-GCU BS Elementary Education Cohort
-

Mesa Grow Your Own Teachers with Mesa Public School (MGYO)
- Tutor Training
- Evelyn H. Warren Child Development Laboratory
- Educators Academy Workshops
- Xalapa Summer Study Abroad Program
-

Future Educators Club
For more information, contact the **Education Studies Department at 480-461-7904**.

Electromechanical Automation

Scott Shaw, Program Director: 480-461-7498
Building TC 50
www.mc.maricopa.edu/dept/d58/elt/

For specific details about this program, see **Career and Technical Programs.**

Electronics

JD Neglia, Program Director: 480-461-7385
Building TC 50
www.mccele.com

Electronics are everywhere, and the MCC Electronics program prepares students for careers wherever electronic systems are found. Current students and graduates work in industries such as:

Aerospace
Biotechnology
Communications
Entertainment
Industrial
Medical
Power
Semiconductor
Transportation

All of these industries employ our graduates to deal with increasingly complex electronic systems in all areas of our economy. Typical ET jobs include developing, building, calibrating, testing, certifying, maintaining, and qualifying:

-

instrument landing, radar, and air traffic control systems in airports
-

complex biomedical equipment in biotechnology companies
-

transmitters and communications equipment for
TV and radio broadcasters
-

instrumentation and switching substations

for power companies

•

medical ultrasound systems, pacemakers, and automatic defibrillators in medical equipment companies

•

traffic signal instrumentation and controls for
large metropolitan areas

•

high-speed automated systems for the U.S. Postal Service

•

complex instruments and control systems for semiconductor equipment vendors and manufacturers
• night vision equipment for defense companies

Electronic Technicians do not repair radios and TVs.

Opportunities in Electronics continue to grow. According to the U.S. Bureau of Labor Statistics,

"Growth in employment of electrical and electronic engineering technicians is expected to be about as fast as the average for all occupations through 2014."
— *Occupational Outlook Handbook*, May 2004

To see an up-to-the-minute listing of current local job openings for ET's, a video about ET careers, and complete advisement information, visit the Electronics web site at **www.mccele.com**

MCC Electronics keeps its curriculum up-to-date by maintaining very close ties with local industry. It is the only Electronics Technology (ET) program in the state of Arizona that is certified by the Federal Aviation Administration (FAA). It also maintains an Instrumentation and Relay Technician Apprenticeship with SRP, and a student internship program with Boeing.

The Electronics program offers two AAS degrees:

•

Electronics Engineering Technology (EET), which is
the classic degree for engineering technicians offered here at MCC since 1965.

•

Electronics Technology (ET), which is similar to the EET degree, but with less math and more hands-on electronics courses.

Both AAS degrees transfer as a block of credit into the ASU Polytechnic Bachelor of Applied Science degree programs, and most of the EET credits transfer into the ASU Polytechnic BSEET program.

Also offered is a one-year Certificate of Completion (CCL) and numerous individual courses that you can use to upgrade your skills in any particular area of Electronics.

For specific details about this program, see **Career and Technical Programs.**

Emergency Medical Technology

See Fire Science

Engineering Science

Mike Sims, Chairperson: 480-461-7015
Building PS 8
www.mc.maricopa.edu/dept/d43/ece/index.html

Engineering Science is one of the disciplines within the Physical Science Department. The engineering program is designed to prepare students for baccalaureate programs in all types of engineering (civil engineering, mechanical engineering, chemical engineering, electrical engineering, and many others) at any of the three state universities and universities nationwide. Call the Physical Science Department or the Advisement Center to schedule an appointment for advisement or to get more information about beginning your engineering education at Mesa Community College.

If You Plan to Major in Engineering
Depending on the field of engineering that interests you and the university program you intend to pursue, work closely with an advisor or contact an engineering faculty member to select courses that will transfer into your university program. All three public Arizona universities require or accept the following courses for engineering majors:

ECE102   Engineering Analysis Tools and Techniques
ECE103   Engineering Problem Solving and Design
ECE111   Bioengineering Systems
ECE201   Introduction to Engineering Statics
ECE202   Introduction to Engineering Dynamics
ECE203   Applications of Engineering Mechanics

ECE214   Engineering Mechanics
ECE215   Mechanics of Materials
EEE120   Digital Design Fundamentals
EEE202   Circuits and Devices
EEE230   Computer Organization and Assembly Language

English

Jeffrey Andelora, Chairperson: 480-461-7636
Building LA 3
www.mc.maricopa.edu/dept/d13/eng

The English department offers courses and programs in the following areas:
- Creative Writing (CRW)
- English Composition (ENG)
- English as a Second Language (ESL)
- English Humanities (ENH)
- Humanities (HUM)
- Journalism (JRL)
- Mass Communications (MCO)
- Telecommunications (TCM)
- Women's Studies (WST)

The faculty members in MCC's English department are committed to helping students acquire the literacy skills they need to be succeed in school and in their careers. We offer numerous writing courses – academic, creative, and personal – to help students satisfy their interest and meet their educational goals. We also offer courses in classic and contemporary literature, humanities, and film. Our ESL offerings are designed to help non-native English speakers acquire written and spoken fluency in English. Our journalism courses teach students to work in a variety of media and provide them with an opportunity to work on *The Mesa Legend*, MCC's award-winning student newspaper. Faculty in the English department have hosted the Mesa Literary Festival and the Mesa Community College International Film Festival. We also support developing students through our Emerging Writers awards program.

In addition to its course offerings, the English department provides free tutoring to all MCC students at the Writing Center (Southern and Dobson) and the Learning Enhancement Center (MCC at Red Mountain). Developmental and ESL students may also receive free tutoring at the Academic Skills Center (Southern and Dobson).

If You Plan to Major in English

English majors are always in demand for their excellent writing and speaking skills, and for critical thinking and problem-solving skills they develop through the study of language and literature. The English major provides a strong foundation for many career paths, including law, marketing, public relations, technical communications, journalism, publishing, teaching, and of course writing.

If you want to pursue a bachelor's degree in English or a related program, Arizona's public universities offer many options:

ASU	BA	English
ASU Polytechnic	BA	Multimedia Writing and Technical Communication
ASU West	BA	American Studies
ASU West	BA	English
NAU	BA	English
UA	BA	Creative Writing
UA	BA	English

If you are planning to pursue a bachelor's degree in English at a public Arizona university, you can follow the Associate in Arts degree pathway, which requires a total of 60-64 credits. The AA degree transfers as a block without loss of credit and satisfies Arizona university admission requirements. Depending on the institution, up to five 200-level ENH courses will transfer to one of Arizona's universities for English majors.

The following courses (and others) are appropriate for the prospective English major:
ENG200   Reading and Writing about Literature
ENG214   Strategies of Academic Writing
ENG217   Personal and Exploratory Writing
ENH221   Survey of English Literature/Before 1800
ENH222   Survey of English Literature/After 1800
ENH230   Introduction to Shakespeare
ENH241   American Literature Before 1860
ENH242   American Literature After 1860

Exercise Science

Ann Stine, Chairperson: 480-461-7551
astine@mesacc.edu
Building ES 9
www.mc.maricopa.edu/exercisescience

The Exercise Science department offers a variety of lecture/academic courses under the Exercise Science (EXS prefix) and a variety of physical activity classes under the Physical Education (PED prefix), as well as lecture/academic courses in Health Science (HES prefix), Wellness (WED prefix), Recreation (REC prefix), and Dance Humanities (DAH prefix); all dance technique activity classes are under the Dance (DAN prefix).

The Exercise Science field of study offers certifications and degrees to assist students in job acquisition or transfer to a four-year institution.

The Exercise Science program offers many lecture/academic courses in traditional classroom settings as well as online or hybrid courses (combination of face-to-face classroom and online learning).

See **Physical Education** (PED prefix) for a list of all
activity classes offered at Mesa Community College.

Pathways Offered:
Maricopa-ASU Pathway Partnership (MAPP):
- Kinesiology – ASU Tempe
- Exercise and Wellness – ASU Downtown

Associate of Applied Science Degree (AAS):
- Strength, Nutrition and Personal Training degree
-
Organizational Management: emphasis on Fitness Center Management (See Career and Technical Programs)

Associate of Arts (AA):
-
Associate of Arts – emphasis Exercise Science/Kinesiology
-
Associate of Arts – emphasis Exercise and Wellness/Health Promotion
- Associate of Arts – emphasis on Physical Education
-
Associate of Arts – emphasis on Athletic Training Certifications:
-
Strength & Conditioning and Personal Training Certificate
-
Nutrition for Fitness and Wellness Professionals (Nutrition Department confers Certification) – (See Career and Technical Programs)

Arizona Board of Education State Coaching Certification:
Exercise Science Department offers the courses that apply to the State Coaching Certification (the State of Arizona confers the Certification).

If You Plan to Major in Exercise Science (Kinesiology)
Exercise Science/Kinesiology is the study of human movement as it relates to motor behavior and development, exercise physiology, and biomechanics. Students who
have a professional interest in Movement Science have an opportunity to pursue a baccalaureate degree in this field
of study. This degree also prepares students for post-baccalaureate degrees in Medicine, Physical Therapy, Dentistry, and as a Chiropractor.

ASU Tempe BS
Kinesiology –
See ATP in Kinesiology
NAU   BS   Athletic Training
NAU   BS   Exercise Science
GCU   BS   Athletic Training

The following are transfer courses for Exercise Science/Kinesiology major at ASU Tempe:
EXS101
Introduction to Exercise Science, Kinesiology, and Physical Education

EXS230
Introduction to Research Methods in Health and Exercise Science

HES100/WED110
Healthful Living/Principles of Physical Fitness/Wellness (satisfies SB General Education Requirement)

Suggested Electives: All EXS and some HES prefix courses.

If You Plan to Major in Exercise and Wellness

Exercise and Wellness is the study of healthy lifestyle habits that contribute to optimal health and wellness. Students who have a professional interest in fitness leadership and management have an opportunity to pursue a baccalaureate degree in this field of study.

ASU Downtown BS
Exercise and Wellness –
See MAPP in Exercise
and Wellness
ASU Polytechnic
BAS
Wellness – See AAS in Strength, Nutrition & Personal Training

The following are transfer courses for the Exercise and Wellness major at ASU Downtown:
EXS212 CR Instructional Lab – Cardiorespiratory
EXS212 FL
Instructional Lab – Flexibility and Mind/Body Exercises
EXS 212 SC

Instructional Lab – Strength and Conditioning
EXS101

Introduction to Exercise Science, Kinesiology, and Physical Education
HES100/
WED110
Healthful Living or Principles of Fitness and Wellness
FON241   Principles of Human Nutrition
HES201   Substance Abuse and Behaviors

Suggested Electives: All EXS and some HES or WED
prefix courses.

Associate of Applied Science (AAS) in Strength, Nutrition and Personal Training transfers seamlessly into the Bachelor's of Applied Science (BAS) in Wellness at ASU Polytechnic. (See Career and Technical Programs)

Fashion Design & Fashion Merchandising

Evonne Bowling, Program Director:
480-461-7140
Building TC 50
www.mc.maricopa.edu/dept/d19/

- Fashion Merchandising and Design
- Costume Design & Production
- Image Consultant
- Retail Sales Manager
- Alterations Specialist

Retailing is the crucial point where consumer meets product. It occurs in stores, through catalogs, on video shopping networks, and on the Internet. Over 2 million retail stores exist within the United States alone. It is an important part of the American and global economies. Retailing is as diverse as the products consumers purchase.

Fashion and Apparel Merchandising are one in the same. It is the process of meeting the needs of the customer through the Six Rights of Retailing: right price, right item, right time, right place, right quantity, and the right promotional tool. Those interested in the buying position focus their studies here.

Fashion and Apparel Design is the artistic beginning of the products to be sold and their production. This process involves illustrating and creating fashion designs using such methods as sketching, computer assisted design, draping, flat pattern drafting, and all methods of clothing construction.

All of these areas of study include marketing and management skills. Marketing includes predicting consumer needs and distributing the goods and services to the consumer. Management is the effective use of company resources to meet goals and objectives. Our emphasis is on the skills and thought processes necessary to run a competitive wholesale or retail business of any size.

All students' advising is conducted by faculty in the program area. Advising is conducted during faculty office hours or by appointment. The program is committed to student success and offers the following lab services to support student learning:

-

Design Sewing Lab (TC308) – Includes a variety of sewing machines, sergers, and industrial machines for use by students in fashion design, draping, clothing construction, and pattern design.

-

Fashion CAD Lab (TC3W) – Includes Computer Aided Design Lab for fashion design and lecture setting with computer lab for merchandising classes for student use.
A resource room is also available for study materials for each of the fashion classes.

-

Computer Lab (TC305) – General computer lab.
Open lab hours are posted.

Fashion Design and Fashion Merchandising are part of the Department of Business and Information Systems. The chair for the department is Dr. Linda D. Collins, 480-461-7077.

For specific details about these programs, see **Career and Technical Programs**.

Fire Science and Emergency Medical Technology

Sonia Jones, Chairperson: 480-461-6300
Downtown Center
www.mc.maricopa.edu/dept/d12/fsc

The Fire Science/EMT program offers educational opportunities for those currently employed in and those seeking careers in Fire or Emergency Medical Services.

Our program also meets many fire departments' educational requirements for promotional and growth opportunities in leadership, management, and supervision.

The program offers both credit and non-credit classes in:

-

Advanced Emergency Medical Technology-Paramedic (initial and refresher training)
- Arson Investigator and Fire Prevention
- Candidate Physical Ability Test (CPAT)
- CPR
- Fire Science
- Fire Officer
- Emergency Management
-

Emergency Medical Technology-Basic (initial and refresher training)
- Emergency Response for Industry
- Hazardous Materials
- Technical Rescue
- Wildland Firefighter

Students may earn an AAS degree in Emergency Response & Operations with an emphasis in Fire Operations, Advanced EMT-Paramedic, or Emergency Management.

The certificates of completion include the following:
- Basic Firefighter
- Emergency Management
- Emergency Vehicle Driver/Operator
- EMT-Basic
- Fire Officer I
- Fire Operations
- Paramedicine

See **Career and Technical Programs** for certificates and degrees and the special admissions requirements that apply to these programs.

MCC has a Fire Training Academy that enables students to experience various aspects of structural firefighting in a recruit firefighter training environment. The MCC Fire Academy provides a hands-on approach blended with coursework, which introduces students to various characteristics and skills of a firefighter. Students may be exposed to extreme temperatures, confined spaces, working at various heights, lifting heavy objects, and intense physical work while in the fire academy. It is highly recommended that students be physically and mentally prepared for the rigors of a Fire Academy experience before entering the program. The Fire Academy curriculum is based on firefighter training required by NFPA 1001. Successful completion of the Fire Academy program will allow the student the opportunity to achieve a Firefighter I/II certification with IFSAC accreditation.This process requires additional practical and written testing with a certifying agency responsible for firefighter certifications.

The MCC Fire Science/EMT program offers a mentoring program for all students within the department. For information, contact Lewis Jones at 480-461-6306.

The MCC Fire Science/EMT program offers an opportunity to participate in service-learning. We have partnered with the City of Mesa Fire Department to create a service-learning program known as Connectors. Connectors work with the Mesa Fire Department to provide assistance to citizens who have suffered loss of clothing, shelter, or food due to fire, natural disaster, or other emergency situation. Connectors can earn college credit for volunteerism by enrolling in FSC282. For information, contact Lewis Jones at 480-461-6306.

The MCC Fire Science program offers two scholarships specifically for Fire Science/EMT majors: The David Karam Scholarship and The Chuck Inman Scholarship. For information about these scholarships, contact the Financial Services office at 480-461-7815.

French

See World Languages

Geography

Shereen Lerner, Chairperson: 480-461-7306
Karen Blevins, Geography/GIS Faculty
Building SC 14
www.mc.maricopa.edu/dept/d10/gph

Geography is one of the disciplines within the Cultural Science Department. Courses are offered in:
• Cultural Geography (GCU)
• Physical Geography (GPH)
• Geographic Information Systems (GPH)

Geography faculty provide academic advisement for all degrees and programs in geography, including certificates in Geographic Information Systems (GIS) and university transfer.

Geography faculty and students engage in service-learning and internships, field trips and MCC Science Day, study abroad and international programs, environmental issues, and undergraduate research.

If You Plan to Major in Geography
Arizona public universities offer a variety of bachelor's degree programs in this field:

ASU	BA/BS	School of Geographical Sciences
NAU	BS	Applied Geography
NAU	BS	Geography
UA	BA	Geography
UA	BS	Regional Development

If you are planning to pursue a bachelor's degree in geography at a public Arizona university, you can follow the Associate in Arts degree pathway, which requires a total of 60-64 credits. The AA degree transfers as a block (in other words, your transcript will not be evaluated one course at a time for admission to the university) without loss of credit and satisfies Arizona university admission requirements.

The three public universities all require the following courses for the geography major:

GCU102	Introduction to Human Geography
GPH111	Introduction to Physical Geography
GCU121	World Geography I Eastern Hemisphere

Depending on the university you plan to transfer to, the following course may also be recommended:

GCU221	Arizona Geography
GPH210	Society and Environment
GPH211	Landform Processes

Geographic Information Systems Certificate Coursework includes:

GPH219	Introduction to GIS Using ArcGIS	
GPH220	Intermediate GIS Using ArcGIS	
GPH230	Spatial Databases I	
GPH231	Spatial Databases II	
GPH235	Introduction to Internet Map Servers Using	ArcIMS
GPH270	Introduction to Cartography & Geospatial	Technologies
GPH273	Advanced GIS Using ArcGIS	
GPH275	Introduction to Remote Sensing Using ERDAS	

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

For specific degree and certificate requirements, see **Career and Technical Programs.**

Geology

Mike Sims, Chairperson: 480-461-7015
Building PS 8
www.mc.maricopa.edu/dept/d43/glg

Geology is one of the disciplines within the Physical Science Department. Geology faculty offer a wide range of courses in geology (GLG) for those who want to fulfill general education requirements, those who plan to major in geology, and those who are interested in majoring in geology in a university program. These courses provide both lecture and hands-on laboratory experiences.

In addition to teaching courses, geology faculty conduct community outreach by participating in a number of annual events and by sponsoring the Geo Club, a student organization. Geo Club performs various campus and community service activities that range from collecting pink halite crystals at Trona to selling the crystals at various gem and mineral shows (such as the Flagstaff Gem and Mineral Show) to helping with the Geology Outreach program (such as Science Day).

For more information on geology courses and programs, see the Geology website or contact the department office.

If You Plan to Major in Geology
Work closely with an advisor to determine the best courses to take depending on the university program you wish to transfer into. The three public universities require or accept the following courses for students who want to major
in geology:
MAT220
Analytic Geometry and Calculus I
OR
MAT220   Analytic Geometry and Calculus I
MAT231
Calculus with Analytic Geometry II
OR
MAT231   Calculus with Analytic Geometry II
CHM151/151LL General Chemistry I and lab
CHM152/152LL General Chemistry II and lab
GLG101
Introduction to Geology I (Physical Lecture)
AND
GLG103   Introduction to Geology I (Physical Lab)
PHY121   University Physics I AND
PHY131   University Physics II

German

See World Languages

Health Sciences/Wellness

Ann Stine, Chairperson: 480-461-7551
astine@mesacc.edu
Building ES 9
www.mc.maricopa.edu/exercisescience

The Exercise Science Department offers a variety of lecture/academic courses in Health Sciences (HES prefix) and Wellness (WED prefix) including Alternative Medicine classes, as well as classes in Exercise Science (EXS prefix), Recreation (REC prefix) and Dance Humanities (DAH prefix); all physical activity classes are under the Physical Education (PED prefix) and all dance technique activity classes are under Dance (DAN prefix).

The Health Science and Wellness field of study provides degree programs that assist students in transferring to four-year institutions.

The Health Science and Wellness program offers many courses in traditional classroom settings, as well as online or hybrid (a combination of face-to-face classroom and online learning).

All CPR/First Aid courses are affiliated with the American Heart Association and American Red Cross. All students who successfully complete the written exam and lab skills will be Healthcare Provider certified through the American Heart Association and Responding to Emergencies – First Aid certified through American Red Cross.

If You Plan to Major in Health Sciences/
Health Promotion

Health Sciences/Wellness or Health Promotion is the study of lifestyle behaviors and patterns within each component of health: intellectual, psychological, sociological, physical, spiritual, and environmental. Decision-making and the process of behavior change is also studied and investigated as to how it contributes to optimal health and wellness. Students who have a professional interest in Health Promotion and behavior change have an opportunity to pursue a baccalaureate degree in this field of study.

ASU Downtown BS
Exercise & Wellness (Health Promotion)
NAU   BS
Health Sciences: Community Health Promotion

The following are transfer courses for the Health Promotion major at ASU Downtown:
HES100/
WED110
Healthful Living/ Principles of Fitness
and Wellness
HES154   First Aid/Cardiopulmonary Resuscitation
HES201   Substance Abuse and Behaviors

Suggested Electives: Some HES and WED prefix courses.

History

Paul Hietter, Acting Chairperson: 480-461-7346
Building SC 14
www.mc.maricopa.edu/dept/d52/HIS/HIS.html

The History program is part of the Social Science Department. For more information on the department, see **Social Science.**

If You Plan to Major in History
The three public Arizona universities offer baccalaureate programs in history, including:
ASU   BA   History
ASU West   BA   American Studies (History)
ASU West   BA   History
NAU   BA   History
NAU   BS   History
NAU   Extended BA   History
NAU   Extended BS   History
UA   BA   History

These three universities all accept or require the following courses for history majors:
HIS100   History of Western Civilization to Middle Ages
            AND
HIS101   History of Western Civilization Middle Ages   to 1789
            AND
HIS102   History of Western Civilization, 1789 to Present
HIS103   United States History to 1870
HIS104   United States History, 1870 to Present

Hotel and Restaurant Management

See Department of Business and
Information Systems

Humanities

See English

Industrial Manufacturing

See Manufacturing

Interior Design

Sally Kroelinger, Program Director: 480-461-7134
Building TC 50
www.mc.maricopa.edu/dept2/interior/

Mesa Community College offers three levels of study in Interior Design: a certificate in Interior Merchandising, an AAS degree in Interior Design, and an accredited Advanced Certificate in Interior Design. All students' advising is conducted by faculty in the program area. Advising is conducted during faculty office hours or by appointment. The program is committed to student success and offers the following lab services to support student learning:

-

Design Studio I (TC310) – Multi-purpose interior design studio includes extensive fabric, finishes, and material resources for use by interior design majors. Open lab hours are posted.

-

Design Studio II (TC101) – Drafting and design lab with research and production facilities for use by students enrolled in INT courses. Housed in the lab are 20 custom-designed drafting, computer, and rendering workstations, black and white and color laser printers, scanner, copier, and large-format plotter. Specialized software includes AutoCAD Architecture 2010, Revit, Light Calc, Microsoft Project, Google SketchUp, and the Adobe Creative Suite CS3: Adobe Photoshop, Illustrator, Acrobat Professional, and In Design. During open lab periods, a qualified technical assistant provides hardware and software support to interior design students. Open lab hours are posted.

-

Computer Lab (TC305) – General computer lab. Open lab hours are posted.

The "id group" is a student club united by three active professional organizations: American Society of Interior Designers (ASID), International Interior Design Association (IIDA), and United States Green Building Council (USGBC). Membership provides opportunities for interior design majors to network with the design community at local chapter meetings, attend workshops and seminars, enter student competitions, assist with community service projects, and apply for student scholarships.

Interior Design students also participate in internships which provide the opportunity to work in some aspect of the interior design industry. Students participate in local, state, and national design competitions as well.

For specific degree and certificate requirements, see **Career and Technical Programs.**

Italian

See World Languages

Japanese

See World Languages

Journalism

See English

Judicial Studies

See Administration of Justice

Latin

See World Languages

Library Science

Lorna Peralta, Chairperson: 480-461-7675
Chas Moore, Program Director: 480-461-7686
Paul A. Elsner Library Administration
www.mc.maricopa.edu/library

The two Mesa Community College libraries are the Paul A. Elsner Library at the Southern and Dobson campus and the Red Mountain Library in the Desert Willow building at MCC at Red Mountain. The MCC libraries offer courses and programs in:
- Library Skills (LBS)
- Library Technician Program (LBT)
- Information Skills in the Digital Age (IFS)

Life Science

Saundra Minckley, Chairperson: 480-461-7115
Office NU170
Classrooms Building LS12
www.mc.maricopa.edu/dept/d22/bio

The Life Science Department focuses on four areas of specialization:
- Preparing biology majors for transfer to universities
-

Providing non-biology majors with diverse opportunities to satisfy their natural science requirements
- Training pre-health profession students
- Training students for careers in biotechnology

Biology is a lab-based science, so most courses have a lab component. We have specialized microbiology, biotechnology, and anatomy labs, as well as several general biology labs.

Faculty are available for advising in all our areas of specialization. Call the department office at 480-461-7115 (Southern & Dobson) or 480-654-7734 (Red Mountain) for a referral to a faculty advisor for biology, anatomy/physiology, microbiology, or biotechnology majors.

We maintain student study labs on both our Southern & Dobson and Red Mountain campuses. These labs provide students with access to lab materials for independent study or tutoring. These study labs are generally open from 30 to 60 hours per week, and are usually staffed by biology students, tutors, and/or faculty who can provide academic support. We provide microscopes, biology models, reference books, and computer tutorials for our students. On our Red Mountain campus, a new undergraduate research laboratory has been built to promote faculty-led student research in the various areas in biology.

Our greenhouse and outside raised plant beds (Southern & Dobson) serve many biology courses with living plant material and give students opportunities to grow environmentally friendly plants. Opportunities are available to learn how to develop organic, edible landscapes. Our Red Mountain campus is located in a less congested region of the Sonoran Desert. Students are invited to become involved in many of the on-site field research projects (i.e., tagging of many of the native species found on campus).

At both campuses, our department maintains live animal collections primarily comprised of Sonoran Desert natives. Most of our animals are captive-bred specimens, including some that we have bred and raised ourselves. We also maintain freshwater and marine aquariums for class usage. Besides class use, these collections are used with visiting school groups, including the annual Science Day for elementary school students.

The Life Science Department continuously develops educational gardens for student and community use. These include our Deserts of North America and Xeriscape demonstration gardens at the Southern & Dobson campus. These community gardens have been developed in collaboration with the City of Mesa Water Conservation Department and the Master Gardeners of Maricopa County. On our Red Mountain campus, the Cienega Project, a native pond environment, has been established. This pond contains many Arizona native species, including some rare and endangered species. This project has been developed in collaboration with Arizona Game and Fish. Student research projects using this area are encouraged.

The Life Science Department provides a home and sponsorship for multiple student clubs including Adventure Association, Environmental Action, Biotechnology, Pre-Dental, and Pre-Pharmacy. These clubs meet regularly in the Life Science building and sponsor speakers, outreach events, tours, and other activities. They also work with local, state, and national organizations to promote awareness of the career possibilities in these areas.

Field experiences are provided as a major part of many biology courses, including Environmental Biology and Natural History of the Southwest. In addition, we offer Marine Biology of Mexico and Field Biology of the Grand Canyon, which are short-term summer courses conducted entirely in the field.

Opportunities are available to participate in K-12 outreach, including science days, science summer-college, and other service-learning activities with our local school districts. We also offer other types of service-learning activities to our students in biology and health-related fields (i.e., AZ Game and Fish, City of Mesa, Solid Waste, Gray Hawk Nature Center, Sustainabilty projects, and more). Call either department office for more information on programs and events.

If You Plan to Major in Life Science
The three public Arizona universities offer a wide range of baccalaureate programs for students who wish to major in a life science:

ASU	BS	Biology
ASU	BS	Conservation Biology
ASU	BS	Microbiology
ASU	BS	Plant Biology

ASU	BS	
Molecular Biosciences and Biotechnology		
ASU	BS	
Biology with Concentration in Biology and Society		
ASU West	BS	Life Sciences
NAU	BS	Biology
NAU	BS	Biology (with emphases)
NAU	BS	Botany
NAU	BS	Microbiology
NAU	BS	Microbiology (Preprofessional)
NAU	BS	Zoology
NAU	BS	Zoology (Preprofessional)
UA	BA	Biochemistry
UA	BA	Ecology and Evolutionary Biology
UA	BS	Biochemistry
UA	BS	Ecology and Evolutionary Biology
UA	BS	General Biology
UA	BS	Microbiology
UA	BS	Molecular and Cellular Biology
UA	BS	
Health Sciences: Physiological Sciences		

All three public Arizona universities require or accept the following courses for life science majors:

BIO181	General Biology (Majors) I
BIO182	General Biology (Majors) II
CHM151 AND CHM151LL	General Chemistry I and lab
CHM152 AND CHM152LL	General Chemistry II and lab

Machining and Product Development

Bob Bonura, Program Director: 480-461-7173
Building TC 50
www.mc.maricopa.edu/dept/d58/mfg/

The goal of this program is to prepare students to enter the job market with the entry-level manufacturing skills necessary to develop new products or custom products with input from engineering sketches and drawings. The program recognizes that students will need a broad range of skills and abilities to be successful – machining skills (including CNC machining), electro-mechanical assembly abilities, and some product test and prove-out knowledge. Much of the total program is designed to provide hands-on experience, learning to operate the various machine shop machines and their accessories, with a suitable amount of related classroom material. To work well in a product development environment or to produce custom/low-volume products requires technicians with good basic skills who can work with broad directions and solve problems and technical challenges as they produce the final product.

The student can choose to complete the coursework to achieve an AAS or focus on the core technical classes and receive a Certificate of Completion (CCL) in Machining.

For specific details about this program, see **Career and Technical Programs.**

Manufacturing

Bob Bonura, Program Director: 480-461-7173
Building TC 50
www.mc.maricopa.edu/dept/d58/mfg/

There are two program areas under Manufacturing – Manufacturing Technology and Manufacturing Engineering Technology.

The Associate in Applied Science (AAS) in Manufacturing Technology prepares students for employment as technicians and managers in the manufacturing industry. The program provides skills in computer programming and operation for current and future needs of the manufacturing industry. Students also gain knowledge, skills, and experience in traditional machining and manufacturing processes. The program is comprised of specialized curriculum in manufacturing technology, emphasizing mathematical and scientific theory, and a general education component. There are three (3) options to this program and each option leads to an Associate of Arts in Science (AAS) degree or a Certificate of Completion (CCL) for those who wish to concentrate on the basic competency courses.

Option 1 – CAD/CAM/CNC – The Manufacturing CNC Technician focuses on the development and design of support information for the industry. This information programs the Manufacturing CNC (Computer Numerical Control) equipment and the Computer Aided Design (CAM) and Computer Aided Manufacturing (CAM) of industrial products. The product includes instruction in

traditional machining and manufacturing processes to provide the student with a basis for producing appropriate manufacturing designs in the CNC, CAD, and CAM systems utilized.

Option 2 – Electromechanical Manufacturing Technology (EMMT) – Complex manufacturing production machines and support systems need skilled technicians to keep
the equipment operational. The EMMT program provides the knowledge of how electromechanical systems
work, and how to fabricate, assemble, troubleshoot,
and maintain these complex systems. Students will
learn how to integrate this type of equipment into
a manufacturing environment to support the current
and future needs of the manufacturing industry.

Option 3 – Manufacturing Management – This option prepares students for employment as supervisors and managers in the manufacturing industry. The program provides knowledge of the general manufacturing issues that the student may encounter in a position supervising a technical workforce. Students also complete courses regarding the general scope of traditional machining and manufacturing processes.

The Associate of Applied Science (AAS) in Manufacturing Engineering Technology is designed to prepare technologists who want to concentrate on the more theoretical and scientific aspects of manufacturing product design, testing, and implementation. The student also studies the practical applications of processes, materials, and products related to manufacturing industries with the support of classes in mathematics, chemistry, and physics.

For specific details about this program, see **Career and Technical Programs.**

Mathematics

Chuy Carreon, Chairperson: 480-461-7728
Building MC 5
www.mc.maricopa.edu/dept/d25/

The Mathematics/Computer Science Department offers courses and programs in mathematics (MAT courses) and computer programming and system analysis (CSC courses). You can take all of the courses required for the first two years of any public Arizona university math or computer science program through this department.

Courses are offered in traditional classroom settings, at different campuses and sites, and in flexible formats such as distance learning. If you wish to take any course in math, you must first take a Math Placement Test at one of our Testing Centers. You must also have satisfied the prerequisites for the course you want to take.

There is a Math Learning Center located in the Math/Science Classroom Building at MCC at Southern and Dobson, which is open from 8:00 AM to 7:00 PM Monday through Thursday and from 8:00 AM to 3:30 PM on Friday. The Math Study Area in the MC building also provides a quiet area for study. The department offers faculty advisement on a drop-in basis for those planning to major in math or computer science. In addition, the department sponsors the Math Club and conducts a math contest. Faculty in the department are associated with the Mathematical Association of America, the National Council of Teachers of Mathematics, and the Arizona Mathematical Association of Two Year Colleges.

If You Plan to Major in Math
There are many academic and professional opportunities open to those who want to study mathematics. All three public Arizona universities offer bachelor's degree programs in mathematics:
ASU   BA or BS
NAU   BS
UA   BA or BS

If you are planning to pursue a bachelor's degree in mathematics at an Arizona university, you can follow the Associate in Arts degree pathway, which requires a total of 60-64 credits. The AA degree transfers as a block (in other words, your transcript will not be evaluated one course at a time for admission to the university) without loss of credit and satisfies Arizona university admission requirements.
If you are planning to transfer to an out-of-state university to complete your bachelor's degree, contact an academic advisor in the Advisement Center for help in choosing the best courses for your needs.

The three public Arizona universities require a minimum of 6 credits selected from:
MAT220   Calculus I
MAT231   Calculus II
MAT241   Calculus III
MAT262   Differential Equations
MAT262   Differential Equations

Mortuary Science

Thomas R. Taggart, Program Director:
480-988-8501
Donna G. Backhaus, Coordinator of Operations: 480-988-8503
Williams Campus
www.mc.maricopa.edu/dept/d26/msp/

The Mortuary Science Program has as its central aim recognition of the importance of funeral service personnel as:
- Members of a human services profession
- Members of the community they serve
-
Participants in the intimate relationship between bereaved families and those engaged in the funeral service profession
-
Professionals who are sensitive to and knowledgeable about responsibility for public health, safety, and welfare in caring for human remains

The program has the following purposes:
-
To enlarge the background and knowledge of students about the funeral service profession and the diversity of the families they will serve
-
To educate students in every phase of funeral service and to enable them to develop the proficiency and skills to become functional members of the profession
-
To educate students concerning the responsibilities of the funeral service profession to the community
- To emphasize high standards of ethical conduct
-
To provide a comprehensive curriculum at the post-secondary level of instruction
-
To encourage research in the field of funeral service

The Mortuary Science Program is a block program that comprises the second year of the Associate of Applied Science (AAS) degree. The program is accredited by
and a member of the American Board of Funeral Service Education (ABFSE), 3414 Ashland Ave., Suite G., St. Joseph, MO 64506, 816-233-3747,
www.abfse.org
The program is a member of the National Association
of Colleges of Mortuary Science (NACMS). As such,
it is permitted to grant membership into Mu Sigma Alpha, the National Honor Society of Mortuary Science.

Students in the program may also join the Tau Chapter of Sigma Phi Sigma, the national fraternity for Funeral Service Education/Mortuary Science.

The program and its faculty are members of:
- National Funeral Directors Association (NFDA)
- Cremation Association of North America (CANA)
-
International Cemetery, Cremation and Funeral Association (ICCFA)
-
Arizona Funeral, Cemetery & Cremation Association (AFCCA)
-
Association of Career and Technical Education (ACTE)

Graduation from a Mortuary Science Program and subsequent licensure does not mean that an individual
is limited in his/her career choices. Careers in funeral service are varied, and draw on the skills and talents
of scientists, artists, counselors, managers, salespersons,
and entrepreneurs. Many graduates go on to become
funeral service counselors, pre-need salespersons,
and establishment owners.

Students who wish to apply for the Mortuary Science Program must have a GPA of 2.5 or higher. Other requirements apply to admission to this program; see the program's website or contact the Office of Admissions for further details.

Study groups have become an integral part of the program; tutoring and special assistance is available to any student who needs it.

During the fall semester embalming lab, the student must provide his or her own transportation to preceptor-site embalming experiences at local funeral homes.

All students must take the National Board Examination prior to graduation. The fee for this examination is the responsibility of the student.

The program also provides Continuing Education for Licensed Funeral Service Professionals, 6 credits, spring and fall semesters, for

a total of 12 each year.

Courses are available which lead to Cremation Operator Certification and additional Continuing Education for Certified Cremationists. These courses are separate from the ABFSE curriculum.

MORTUARY SCIENCE PROGRAM ENROLLMENT AND GRADUATION PASS RATIO FOR "FIRST TIME TAKERS" ON NBE AND SUBSEQUENT LICENSURE

Class	Graduates/Enrollment		Pass Ratio-%		Licensure	
1996 - 97	18/18	100%	16/18	88.8%	11/16–	69%
1997 - 98	34/34	100%	29/34	85.3%	26/29–	90%
1998 - 99	30/30	100%	29/30	96.7%	23/29–	80%
1999 - 00	22/22	100%	20/22	90.9%	20/20–	100%
2000 - 01	14/14	100%	13/14	92.8%	10/13–	77%
2001 - 02	17/20	85.0%	16/17	94.1%	17/17–	100%
2002 - 03	21/21	100%	19/20	95.0%	16/20–	80%
2003 - 04	29/3	93.5%	25/29	86.2%	28/29–	97%
2004 - 05	16/21	76.1%	12/16	75%	16/16–	100%
2005 - 06	24/25	96%	21/24	87.5%	21/24–	88%
2006 - 07	21/22	95%	14/21	67%	19/21–	92%
2007 – 08	22/29	75%	17/22	77%	22/29 –	75%

Class	Graduates/ Enrollment	Arts Exam %	Science Exam %	Licensure
2008-09	12/17 71%	12/16 75%	9/14 64%	In process*

*

Recent graduates are "in process" of completing various state requirements for apprenticeship, internship, or residency. These requirements vary from one to two years, depending on the state. Arizona requires a two-year internship.

The Licensure Examination is the National Board Examination offered by the International Conference of Funeral Service Examining Boards. Licensure is on a state-by-state basis since each state does its own licensing. Approximately 33% of the students in the MCC Mortuary Science Program come from states other than Arizona.

Music

Sue Anne Lucius, Chairperson: 480-461-7577
Building MU 43
www.mc.maricopa.edu/music

All students considering a major and/or minor in music must be advised by the Music Department.

The mission of the Music Department is to provide a high-quality experience to student musicians and a stimulating music education experience to the non-musicians we serve. The Music Department is a resource for transfer education, music education, and career and vocational preparation in music technology, music business, and music performance. High-quality musical experiences serve our community through classroom education and live musical performances.

The Music Department offers a wide range of courses
and programs in the following areas:
• Music Theory and Composition (MTC)
• Music: Commercial and Business (MUC)
• Music Performance (MUP)
• Music Education (MUE)

Courses and programs are designed to enhance students' skills, prepare them for transfer to university programs, and equip them with knowledge and skills required to prepare for careers in the music field.

In addition, the department produces a number of musical performances each year and serves as home base for several community musical groups. For more information about courses, programs, performances, and groups, call the department office at 480-461-7575.

If You Plan to Major in Music
It is recommended that students planning to transfer as music majors to a baccalaureate-granting college or university take a planned set of courses leading to the Associate in Arts (AA). The AA is a general degree that includes special requirements enabling music majors to graduate from MCC after earning 64 credit hours.

The three public Arizona universities offer the following baccalaureate programs in music:
ASU   BA   Music
         BM
Secondary Education (Choral/Instrumental) Performance, Music Therapy
                  Music Theory and/or Composition
NAU   BA   Music

BM

Performance, Secondary Music Education, Choral/Instrumental

UA   BA   Music

        BM

Secondary Education (Choral/Instrumental) Performance

        BFA   Music Theatre – Theatre Arts

The MCC Music Department in partnership with Ottawa University offers a Music Education degree in Elementary and Secondary Music. Students complete their freshman and sophomore music and general education coursework, and their junior and senior performance ensembles and private instruction with MCC. Upper-division education courses are taken through Ottawa University.

The basic music courses required for most music majors planning to transfer to a baccalaureate-granting institution include:

MTC105/106	Music Theory and Aural Perception I
MTC155/156	Music Theory and Aural Perception II
MTC205/206	Music Theory and Aural Perception III
MTC255/256	Music Theory and Aural Perception IV
MUE137	Class Brass I
MUE138	Class Brass II
MUE235	Class Percussion I
MUE236	Class Percussion II
MUE237	Class Woodwinds I
MUE238	Class Woodwinds II
MUP123	

Studio Class/Piano, Voice, Guitar, Instrumental, Jazz Styles (.5 credits 6 semesters)

MUP131	Class Piano I
MUP132	Class Piano II
MUP133	Class Voice I
MUP134	Class Voice II
MUP166	Jazz Piano I
MUP167	Jazz Piano II
MUP209	Conducting
MUP231	Class Piano III
MUP232	Class Piano IV
MHL241	Music History
MHL242	Music History

Private instruction   (2 credits 6 semesters)

Performing ensemble

    Small   (1 credits 6 semesters)
    Large   (2 credits 6 semesters)

The Music Department offers the Associate in Applied Science (AAS) and Certificate of Completion (CCL) in:
- Audio Production Technologies/Sound Design
- Music Business

Network Academy

Dr. Linda D. Collins, Chairperson: 480-461-7077
www.mc.maricopa.edu/dept/d07
Mark Anderson, Network Academy Program Director: 480-461-6114
bii.mc.maricopa.edu

The Department of Business and Information Systems–Network Academy mission is to deliver education and training to Information Technology professionals and knowledge workers by developing, adopting, and implementing curricula that are aligned with industry standards and can lead to academic and industry certification.

The purpose of the Network Academy is to be:

- Responsive and adaptable to current and emerging   industry needs
- Dedicated to responsible student advisement
- Committed to supporting, encouraging, and mentoring students

We accomplish this mission and purpose by providing:
- Certificate and degree programs
- Hands-on experiences applicable to the workplace
- Education for career advancement
- Accessible, affordable, and flexible programs

- Testing services for industry certifications and licenses

The Network Academy programs offer courses in the following disciplines:

-
Computer Information Systems (CIS) – specializing in network administration, database administration, and distributed computing technologies including Microsoft, Oracle, Cisco Systems, Novell, Linux, Ascendant Learning (Security), SunMicrosystems, UNIX, and IBM

-
Cisco Networking Technology (CNT) – courses offered   under this prefix are certified as Cisco Networking
  Academy Courses

-
Microsoft Technology (MST) – Specializing in Microsoft   networking and distributed computing technologies

-
Business and Personal Computers (BPC) – Desktop   computing installation, maintenance, and support

Our specialized programs include:
- Cisco Networking Academy
- Sun Academic Alliance Center
- Microsoft IT Academy
- Novell Education Academic Partner
- CompTIA partner – A+ certification, N+, and NITAS site
- Information Assurance
- BioInformatics

All courses are aligned to current industry standards and certifications. Students may earn a certificate of completion at MCC, an Associate in Applied Science (AAS) at MCC, and/or industry-specific certifications through exams offered by the specific technology company.

Students can complete coursework toward an associate degree including:
- Networking System Administration
- Linux Networking Administration
- Information Assurance

Students can complete certificates of completion in Network Administration with specializations in:
- Information Assurance
- Network Security
- Network Administration: Cyber Forensics Technician

-
Network Administration: CISCO Network Associate   (CCNA)

-
Network Administration: CISCO Network Professional   (CCNP)
- Network Administration: Microsoft Windows
- Network Administration: Novell
- Network Administration: UNIX-Solaris

Please see **Career and Technical Programs** for specific requirements for certificates and degrees.

For more information on the department, see departmental website at w**ww.mc.maricopa.edu/dept/d07**

Students have access to computers and network equipment in the classroom during the scheduled class time. Students also have access to the department's open labs at the Southern and Dobson and Red Mountain campuses.

Students may be required to purchase tools and specific storage devices for certain classes.

Network Academy faculty provide advisement during the school year. Appointments for faculty advisement can be made by calling 480-461-6100. Advisement is also available in the department by appointment during the summer hours. Faculty provide additional tutorial assistance outside class hours as needed.

The Network Academy provides a strong service-learning component to give students additional hands-on experience to augment coursework. The Network Academy is a member of Arizona Students Recycling Used Computers (AZSTRUT). Students enrolled in service-learning are provided workplace experience fixing and refurbishing computers provided by the AZSTRUT program. These computers are then distributed to public schools and non-profit agencies throughout Arizona. Students are also given opportunities to serve as interns with the technical support staff of the department.

The Department of Business and Information Systems also offers courses in General Business under a variety of disciplines, Computer Information Systems (CIS), Business and Personal Computers (BPC), Fashion Merchandising and Design, and Office Automation Systems (OAS) at the Southern and Dobson and Red Mountain campuses and online. Visit our website at **www.mc.maricopa.edu/dept/d07** for additional information.

Nursing

Debra Bitter, Chairperson: 480-461-7262
Building NU 6
www.mc.maricopa.edu/dept/d31/nur/

The Nursing Department offers a wide range of courses and programs in:
- Nursing – Associate in Applied Science in Nursing
- International Educated Nurse Program
- Paramedic to Nurse Program
- Nurse Assisting Certificate of Completion
- Nurse Refresher Online Program
- Health Care Related
- Health Core Curriculum
- Community Health Care Advocate: Diabetes
- Nursing Continuing Education

Prospective nursing students must apply to the program and meet all of the requirements listed in the program requirements for specific certificates or degrees they wish to earn.

The Nursing Department is committed to student success. We have a nursing skills lab where students can practice clinical skills. We also provide student tutoring and encourage study groups. We offer online advisement and specialized advisement for nursing in the Advisement Center and in the department.

All nursing and pre-nursing students can join the Student Nursing Association. The department participates in a districtwide Nursing Career Day. Many scholarships are available to qualified nursing majors. Contact the Nursing Department for further details.

See **Career and Technical Programs** for specific program and degree requirements.

Nutrition

Lori Zienkewicz MS, RD, Program Director:
480-461-7379
loriz@mesacc.edu
Building TC 50, Office TC118
www.mesacc.edu/dept2/nutrition/
Dr. Maureen Zimmerman: 480-461-7328
zimmerman@mesacc.edu
Building TC 50, Office TC117

The Nutrition Program offers diverse educational opportunities, including the new Sustainable Food Systems program. Our pre-dietetics pathway can begin the process of becoming a Registered Dietitian. View our website for details.
www.mesacc.edu/dept2/nutrition/

1.
Registered Dietitian- Pre-Dietetics AA Pathway
MCC offers a transfer pathway for students interested in becoming a nutrition expert: a Registered Dietitian (RD). This Associate of Arts, Emphasis Pre-Dietetics/ Pre-Nutrition transfer pathway meets requirements for the Arizona State University and University of Arizona Dietetics programs.

2.
Sustainable Food Systems –
AAS Degree/Certificate of Completion
Are you interested in local, healthful, fair, sustainable foods? Looking for like-minded students and faculty who support these initiatives, too? Are you interested in knowing how other urbanites are living this "slow" lifestyle? If so, our new degree and certificate programs in Sustainable Food Systems may offer just the right career or personal interest pathway for you. MCC offers a degree and certificate in this emerging field.

3.
Nutrition for Fitness and Wellness –
Certificate of Completion
This certificate is designed for students planning to work in the wellness industry or those currently working as a personal trainer or wellness coach. Students learn foundational information on nutritional science. (This is not a Registered Dietitian or Nutritionist pathway.)

4.
Strength, Nutrition and Personal Training –

AAS Degree

Students interested in the fitness and wellness industry may consider this AAS degree. Upon completion, it is transferable into a Bachelor of Applied Science program at Arizona State University. Please note: This is not a track towards becoming a Registered Dietitian. See Nutrition website for details.

See Nutrition website for details on all programs
www.mesacc.edu/dept2/nutrition/

For specific degree and certificate requirements, see **Career and Technical Programs.**

Office Automation Systems

See Computer Information Systems

Philosophy and Religious Studies

Debra Campbell, Chairperson: 480-461-7615
Building BP 43A
www.mc.maricopa.edu/dept/d34/

The Department of Philosophy and Religious Studies offers dozens of courses each year. Our two disciplines are twin approaches to the wisdom and practices of people across the world and throughout history. The study of science, history, literature, psychology, and more are integrated in our shared pursuit of a greater perspective. We offer our students the freedom to question everything, challenge the answers, and discover new possibilities.

If You Plan to Major in Philosophy
Arizona's three state universities all offer B.A. degrees in Philosophy. There are many academic and professional opportunities for those who wish to study Philosophy, such as a career as an analyst, journalist, or researcher, in various governmental roles, or a track through Law School. Also, several comedians were Philosophy majors. The universities' Philosophy major requires Introduction to Philosophy
(PHI101), Introduction to Logic (PHI103), and Introduction to Ethics (PHI105).

If You Plan to Major in Religious Studies
Arizona's three state universities all offer B.A. degrees
in Religious Studies. ASU also offers a Ph.D. program. Community college students have wide freedom in taking courses to prepare themselves. We recommend you visit with one of our Religious Studies faculty to explore what works for you. Whichever direction you take, however, you will find either Religion and the Modern World (REL205)
or World Religions (REL243) a worthwhile starting place.

Religious Studies is a good foundation for several careers, particularly international work in either the corporate or non-profit world. Teaching is also an option (an increasing number of high schools are now offering World Religions in their curriculum). Religious Studies also serves well to prepare students for graduate work in law, archaeology, linguistics, literature, and public administration.

CGTE: The Engagement Project
In addition to the dozens of courses we offer, our department established CGTE: The Engagement Project. Following 9/11, we sought to establish a long-term process for a better world: Engagement. Through varied programming, a resource center, and a unique option for our Honors students, we look to transcend the divisions among us – religious, cultural, political, and social – and foster relationships that allow us all to become more together than what we can be apart.
www.mc.maricopa.edu/cgte

The Center. Located in our department office, it is a growing collection of technology and multimedia: DVDs, magazines, books, Powerpoint presentations, audio programming,
and more. It is all there for MCC students, faculty,
and staff to use in courses or for personal exploration.

CGTE: The Engagement Project Events. Each semester we offer a series of programs and presentations for the campus which include our annual Fall Engage It! day, and special topics that touch on the many-faceted world around us. The semester calendar is available at our website.

The House of Wisdom. The student arm of CGTE: The Engagement Project is the Students for Cultural Engagement (SCE). Its most visible expression is the House of Wisdom, a twice-monthly "engagement dialog" that gathers students, faculty, and college staff together from across campus for discussion of varying challenging themes. The HOW is offered both as a live event and in an online chat format as the Cyber-HOW.

The Philosophy Club. More traditional in structure, the Philosophy Club meets twice monthly (alternating weeks with HOW) and explores themes that connect the philosophical tradition to the everyday modern experience.

The SCE Honors Experience. The SCE frames "Honors" within the engagement effort. Students, working with faculty advisors and student mentors, develop group projects that foster engagement, and share them with the wider campus community at the SCE

Honors Experience Showcase. This experience is open to Honors students from all departments and disciplines.

The Lois Duncan Kellogg Scholarship
The Philosophy and Religious Studies Department awards annual scholarships for students in each of our disciplines. Please contact the department offices for information.

Physical Education

Ann Stine, Chairperson: 480-461-7551
astine@mesacc.edu
Building ES 9
www.mc.maricopa.edu/exercisescience

The Exercise Science Department offers a variety of physical activity courses under the Physical Education (PED prefix) and lecture/academic classes under Exercise Science (EXS prefix), Health Sciences (HES prefix), Wellness (WED prefix), Recreation (REC prefix), and Dance Humanities (DAH prefix); all dance technique activity classes are under Dance (DAN prefix).

The Physical Education/Exercise Science program offers degrees that assist students in transferring to a four-year institution.

All PED101 activity classes are taught at an introductory or beginning skill level, PED102 activity classes are taught at an intermediate skill level, and PED201 activity classes will be taught at an advanced skill level.

All students must be high school age to enroll in physical activity classes.

The Lifetime Fitness Centers (PED115) is a 2-credit open entry/open exit strength and conditioning, group fitness (aerobics), and resistance training program which provides access to three workout facilities at the Southern & Dobson campus (Fitness Center, Health Improvement Center, and Group Activity Center) and two facilities at the Red Mountain campus (Fitness Center and Group Activity Center). The Lifetime Fitness Centers offer population-specific physical fitness and strength and conditioning programs administered by certified Personal Trainers or Strength and Conditioning Specialists.

The Department offers a wide range of 1-credit physical activity classes under the PED prefix with identifying module:

- Aerobic Dance (AD)
- Aikido (AK)
- Backpacking (BP)
- Baseball (BA)
- Basketball (BB)
- Body Sculpt (BS)
- Boot Camp (BC)
- Bowling (BS)
- Fencing (FE)
- Fitness for Life (FL)
- Fitness Walking (FW)
- Golf (GO)
-
Group Fitness
Aerobics (GF)
- Hiking (HK)
- Indoor Cycling (CY)
-
Japanese   Women (WW)
Swordmanship (JS)
- Jogging/Running (JR)

- Karate (KA)
- Kickboxing (KB)
- Olympic Style Weight Lifting (PED133)
- Pilates (PS)
- Rock Climbing (RC)
- Scuba Diving (SU)
- Self Defense (DF)
- Soccer (SO)
- Strength Training (ST)
- Taekwondo (TK)
- Tai Chi (TC)
- Tennis (TE)
- Volleyball (VB)
- Weight Training (WT)
- Weight Training for

- Yoga (YO)
- Zumba Fitness (ZU)

- Leisure Dance:

  Ballet (BL)   Modern Dance (MD)
  Ballroom Dancing (DB)   Salsa (SA)
  Belly Dance (BE)   Social Dance (SD)
  Hip Hop (HH)   Swing (SW)
  Jazz (JZ)   Tango (TA)
  Latin Dance (LD)

- Population Specific Performance Training:
  College Athletes High School Athletes (PED124)

- Physical Education for the Atypical (PED187)

If You Plan to Major in Education with an Emphasis in Physical Education
If you are interested in a career in Education with an emphasis in Physical Education, the curriculum is based on teacher preparation courses in physical education activity and teaching methodology. Opportunities exist to pursue a baccalaureate degree in this field of

study.
ASU Polytechnic BAE
Secondary Education:
Physical Education
UA   BS   Education: Physical Education
NAU   BS
Education Health Sciences: Physical Education and School Health

The following are transfer courses for the Secondary Education: Physical Education degree:
HES 100   Healthful Living
HES154   First Aid/CPR
EXS101
Introduction to Exercise Science, Kinesiology, and Physical Education

Suggested Electives:
Most EXS courses, some HES and WED courses.

Physical Science and Physics

Mike Sims, Chairperson: 480-461-7015
Building PS 8
www.mc.maricopa.edu/dept/d43/

Physical Science and Physics are disciplines within the Physical Science Department. Physical Science (PHS) and Physics (PHY) courses are offered for those who want to fulfill general education or major requirements, for those who plan to major in physics, and for those who want to expand their knowledge of the physical sciences.

If You Plan to Major in Physics
The three public Arizona universities offer a variety of baccalaureate programs for those who plan to major in physics and astronomy:
ASU   BS   Physics
NAU   BS   Astronomy
NAU   BS   Physics
NAU   Merged BS   Physics and Astronomy
NAU   Merged BS   Physics and Mathematics
UA   BS   Physics
UA   BS   Astronomy
UA   BS in Science   Education Physics

Work closely with an advisor to select courses that will help you meet your academic and professional goals. All three public Arizona universities require or accept the following courses for physics majors:
MAT231   Calculus with Analytic Geometry II
MAT241   Calculus with Analytic Geometry III
PHY121   University Physics I
PHY131   University Physics II

Political Science

Paul Hietter, Acting Chairperson: 480-461-7346
Building SC 14
www.mc.maricopa.edu/dept/d52/

For more information, see **Social Science.**

In addition to offering courses in political science (POS), the faculty also sponsor the Model United Nations group that competes nationally each year as well as offering the Arizona Constitution exam.

If You Plan to Major in Political Science
The three public Arizona universities offer a large number of baccalaureate degree programs in political science, including:
ASU   BA   Political Science (Asian Studies)
ASU   BA
Political Science (Latin American Studies)
ASU   BS   Political Science
ASU   BA   Political Science
ASU West   BA
Social and Behavioral Science (Political Science)
ASU West   BS

Social and Behavioral Sciences (Political Science)

ASU West	BA	Political Science
ASU West	BS	Political Science
NAU	BA	International Affairs
NAU	BA	Political Science
NAU	BS	American Political Studies
NAU	BS	Political Science
UA	BA	Political Science

These three universities all require or accept the following courses for political science majors:

POS110   American National Government
POS120   World Politics
POS140   Comparative Government
POS210   Political Ideologies

Portuguese

See World Languages

Psychological Science

Ly Tran-Nguyen, Chairperson: 480-461-7925
Building BP 43A
www.mc.maricopa.edu/dept/d46/psy/index.htm

The Department of Psychological Science challenges students to expand their knowledge and enhance their appreciation of the human condition through open and impartial inquiry. We stimulate student curiosity to inquire about self and others through the scientific study of how people think, feel, act, and interact with their world. Students learn to view psychology and life from various perspectives and to recognize that psychology interrelates with all other disciplines.

The Department of Psychological Science sponsors a chapter of Psi Beta, a national Honor Society for Psychology in Community Colleges. Psi Beta is also an MCC club,
and students with any interest in psychology topics are welcome to attend. Students may be either members of
the psychology club or they may apply to be inducted into the Honor Society. If they get inducted, they are entitled to graduate with Honor Cords and their Psi Beta Honor Society membership is recorded on their transcript.

Students can get advisement assistance from members of the Department of Psychological Science faculty by calling to make an appointment. In addition, once a year the Psychology Honor Society, Psi Beta, presents an Advisement Workshop with speakers from all of the public Arizona universities and other transfer institutions. The workshop is open to any interested student. Call the department for the date, time, and location.

Psi Beta and the Department of Psychological Science also sponsor an Evening Lecture Series. Each semester three professionals in the field give informal lectures on a wide range of topics related to psychology. The public is invited to attend these lectures, and Continuing Education Credits (CEU) are offered.

The Department of Psychological Science has its own lab, the Psychology Instructional Resource Center (PIRC). The PIRC is a well-equipped lab that has many resources for all psychology students. Materials are available online and in print format, and they include a variety of study guides, extra-credit materials, films and videos, experiential exercises, and additional textbooks. The PIRC is a great place to learn psychology! As part of the PIRC lab, the Department of Psychological Science offers a tutoring program where free tutoring is available for any student taking a psychology course. Tutoring is offered in the PIRC Monday through Friday. The PIRC is located in the AD building (near the Cashier's Office) at MCC at Southern and Dobson and in the library at the Red Mountain campus.

The Department of Psychological Science offers two scholarships: the Department of Psychological Science and Faculty Scholarship and the James and Rita Scoresby Scholarship. Both of these awards require students to have completed nine credit hours in psychology classes and are based on students' grade point average and other qualifications. These are awarded in the Spring semester. Students can get application information and qualification requirements from the department office.

If You Plan to Major in Psychology

Students who plan to major in psychology can complete their lower-division general education and major courses to prepare for upper-division psychology coursework. Students who are interested in psychology as a minor or as an elective may choose from among a large variety of classes. It is important for students to know that one does not "specialize" within psychology until graduate school (masters and/or doctoral work). An undergraduate degree in psychology is usually a general psychology degree, but the emphasis depends on the student's interest.

Arizona State University and University of Arizona require the following courses for psychology majors:
PSY101   Introduction to Psychology
PSY230   Introduction to Statistics

PSY290   Research Methods

Northern Arizona University requires the following courses for psychology majors:
PSY101   Introduction to Psychology
PSY230   Introduction to Statistics

PSY101 is the prerequisite for all 200-level courses. Additional prerequisites may also be required for some courses. The 200-level courses are introductions to almost all of the specialization areas in psychology and students may choose them based on their interest.

Reading

Mike Hewett, Chairperson: 480-461-7043
Building AD 42
www.mc.maricopa.edu/dept/d49/rdg/

The Reading Department embraces the philosophy that each individual should be respected and valued. Therefore, each individual must be afforded the opportunity to develop skills and talents through an accessible, student-oriented learning environment.

The department offers courses in two prefixes:
• Reading (RDG)
• Critical Reading (CRE)

Students must take the ASSET, CELSA, ACCUPLACER,
or COMPASS placement test to determine which reading class(es) to take. Many reading classes are available in English as a Second Language format as well. It is best to take reading classes early in your college career since these classes build skills that will enhance your success as a student.

The department shares a computer lab with English and Math. The Academic Skills Center, another shared lab, is available for ESL reading classes as well as RDG081 and RDG091. Check posted hours for availability.

Reading faculty are available to provide advisement. It is recommended that students meet with faculty for advisement before registering in reading classes. Students who need help with coursework can get the assistance they need through the Learning Enhancement Center located in the Elsner Library.

The department offers the Milly Olsen Memorial Scholarship
as well as the Dr. Phil Carrillo Memorial Scholarship for Native American Students in honor of former faculty members. See the Financial Services website or visit the office for more information about these scholarships.

Recreation

Ann Stine, Chairperson: 480-461-7551
astine@mesacc.edu
Building ES 9
www.mc.maricopa.edu/exercisescience

The Exercise Science Department offers a variety of lecture/academic courses in Recreation (REC prefix), Exercise Science (EXS prefix), Health Science (HES prefix), Wellness (WED prefix) and Dance Humanities (DAH prefix); all physical activity classes are under Physical Education (PED prefix) and dance technique activity classes are under Dance (DAN prefix).

The Recreation field offers many courses in traditional classroom settings, as well as online or hybrid (a combination of face-to-face classroom and online learning).

Maricopa-ASU Pathway Partnership (MAPP):
    Parks and Recreation Management
    Nonprofit Leadership and Management
    Tourism Development and Management

Degrees Offered:
Associate of Applied Sciences (AAS):
• Recreation Management

Certificate (CCL):
• Recreation Management

If You Plan to Major in Recreation Management
If you are interested in a career in Recreation Management, the curriculum is based on business and recreation courses.
Opportunities exist to pursue a baccalaureate degree in this field of study.

ASU Downtown	BS	Parks and Recreation Management	
	BS	Nonprofit and Management	
ASU Downtown		Tourism Development and	Management

ASU Downtown
NAU   BS
Parks and Recreation Management

The following are transfer courses for Recreation Management Majors at ASU Tempe, ASU West and NAU:
REC120   Leisure and Quality of Life
REC210   Leisure Delivery Systems
REC230   Programming of Recreation Services
REC250   Recreation Leadership

Russian

See World Languages

Social Science

Paul Hietter, Acting Chairperson: 480-461-7346
Building SC 14
www.mc.maricopa.edu/dept/d52

The Social Science Department is committed to an innovative learner-centered environment to assist students, faculty, and staff in achieving their academic goals.
The Social Science Department strives to help each person achieve his or her potential as an effective and productive citizen by understanding the economic, historic,
and political foundations of local, state, national,
and international communities.

The Social Science Department includes:
- Economics
- Future Studies
- History
- Political Science

Students are encouraged to form study groups, take advantage of the Learning Enhancement Center, and interact with faculty for advisement.

The Social Science Department offers a scholarship each spring. Details are available in the Social Science Department Office.

Social Work

Shereen Lerner, Chairperson: 480-461-7306
Sue McAleavey, Social Work & Sociology Faculty, Social Work Program Coordinator: 480-461-7074
Building SC 14
www.mc.maricopa.edu/~smcaleavey

According to the Department of Labor/Bureau of Labor Statistics, Arizona's demand for professional social workers will continue to outpace supply. Careers range from family and child counseling, adoption and fostering, and CPS to school, medical, addictions, behavioral health, gerontology, and forensic fields. For further information on careers, salaries, etc. go to www.bls.gov/oco/ocos060.htm#content.

Social work advisement is available by the program coordinator and MCC's Transfer Office. Social work students also have opportunities to visit the ASU Downtown School of Social Work and meet ASU Social Work Program advisors who visit MCC several times per year.

Social work classes often include field trips to relevant community service sites, and students are given the opportunity to get hands-on experience by serving the community at key sites as part of their course assignments. These include, but are not limited to, sites such as the East Valley Child Crisis Center, CARE Partnership, Paz de Cristo, A New Leaf, local hospitals, and Mesa Public Schools.

There is a great need for bilingual social workers, and MCC's Social Work program welcomes students for whom English may be a second language. Classes in English as a Second Language and other services are available to help bilingual students succeed in achieving their educational and professional goals.

Study abroad: Social work majors are encouraged to participate in the Xalapa, Mexico summer program and are eligible to apply for scholarships from the International Education program.

If You Plan to Major in Social Work
ASU offers bachelor's, master's, and Ph.D. degree programs in social work, and NAU offers a bachelor's degree in social work.

If you are planning to pursue a bachelor's degree in social work at one of these public Arizona universities, you can follow MCC's Associate in Arts (AA) Transfer Partnership degree pathway, which requires a total of 60-64 credits. The AA degree transfers as a block (in other words, your transcript will not be evaluated one course at a time for admission to the university) without loss of credit, and satisfies Arizona university admission requirements.

ASU and NAU require at least 6 credits from the following core courses for the social work major. ASU Downtown requires all three of these core courses:
SWU171   Introduction to Social Welfare
SWU291   Social Service Delivery Systems*
SWU292   Effective Helping in a Diverse World
*
Requires (40) hours of observational experience in a local agency.

In addition to these core courses for social work majors, other recommended courses for those in the helping professions are:
SWU225
Statistics for Social Research, Justice and Government
SWU130   Chemical Dependency
SWU215
Working With the Chemically Dependent Family
SWU220   Addictions and Mental Health
SWU258
Victimology and Crisis Management
SWU275AA   Case Report Writing
SWU282AA, AB, AC
Volunteerism in Social Work: Service-Learning Experience

Sociology

Shereen Lerner, Chairperson: 480-461-7306
Joanna Chamberlain, Sociology Faculty
Building SC 14
www.mc.maricopa.edu/dept/d10/soc
Paul Harasha, Assistant Chairperson,
Red Mountain Campus
Palo Verde Building
www.mc.maricopa.edu/dept/d10/soc

An undergraduate degree in sociology provides a solid foundation for graduate work in a variety of fields such as law, medicine, social work, and education. The skills acquired are also desirable in many occupational areas, such as journalism, public administration, social services, and business administration.

Sociology advisement is available from sociology faculty during office hours and by appointment.

If You Plan to Major in Sociology
There are many academic and occupational opportunities available to those who study sociology. For example, at the three public Arizona universities you can earn a BA in sociology from ASU, ASU West, NAU, and UA. You can earn a BS from NAU and ASU West.

The three public universities all accept or require the following courses for the sociology major:
SOC101   Introduction to Sociology
SOC130   Human Sexuality
SOC140   Racial and Ethnic Minorities
SOC141   Sovereign Indian Nations
SOC142   Sociology of the Chicano Community
SOC143   Sociology of Afro-American Problems
SOC157   Sociology of Marriage and Family
SOC180   Social Implications of Technology
SOC212   Women and Men in a Changing Society
SOC245   Social Deviance
SOC251   Social Problems
SOC266   Sociology Through Film
SOC270   Sociology of Health and Illness

Spanish

See World Languages

Speech Communication

Susan Olson, Chairperson: 480-461-7793
Building AC 30
www.mc.maricopa.edu/dept/d55/com/

Communication skills are essential to initial job placement and promotion. Presentational, interpersonal, and teamwork skills top the list of competencies employers desire in their workforce. The study of Speech Communication builds positive relationships with clients, patients, and customers as well as family and friends.

Speech Communication faculty are dedicated teaching professionals with backgrounds in business management, business consulting, performance, rhetoric, and teaming. They use the latest technology and instructional methods to bring their students quality instruction in theory and practice.

Due to the sophistication of the concepts and the textbooks used, students enrolling in courses numbered 100 or above should have placement scores that would place them into ENG101 and CRE101. Students must also satisfy course prerequisites.

The department is committed to student success, and faculty members are available for one-on-one assistance and advisement.

The department also offers courses designed for English Language Learners (ELL). An informal lab is available for students enrolled in COM080 Conversation Circles, COM120 Pronunciation of American Speech, and COM221 Oral Fluency in American Speech. Students can work with software that help fine-tune their production of American English sounds.

The department offers a course entitled Basic Oral Communication Skills to prepare developmental students to be more successful in the courses numbered 100-level and above.

Certificates
Speech Communication offers three certificates
in Communication:
-
Communication Skills for Non-Native English Speakers
-
Oral Communication Fluency for Non-Native
English Speakers
- Communication Competence in the Workplace

The Communication Department is affiliated with the National Communication Association, the Arizona Communication Association as well as Sigma Chi Eta, the undergraduate honor society for Communication majors.

The department sponsors symposiums featuring Careers in Communication, during which communication professionals speak to majors on pathways to careers in Communication. In addition, the Communication Activities program includes an intramural speech contest each semester entitled The Big Speak Out. In this contest, students from the various public speaking classes compete with each other to enable them to experience public speaking activities outside of the traditional classroom. The competition is judged and feedback is provided by faculty members from throughout the college as well as notable speakers from the community.

If You Plan to Major in Speech Communication
All three Arizona public universities offer bachelor's degree programs in this field:

ASU	BA	Communication
ASU West	BA/BS	Communication Studies
NAU	BA/BS	Speech Communication
UA	BA	Communication

The three public Arizona universities all require the following courses for the Communication major:
COM100 Introduction to Human Communication
COM225 Public Speaking

Depending on the university to which you plan to transfer, the following courses may also be recommended:
COM110 Interpersonal Communication
COM207 Introduction to Communication Inquiry
COM222 Argumentation
COM230 Small Group Communication
COM241 Performance of Literature
COM250 Introduction to Organizational Communication
COM259 Communication in Business and Professions*
COM263 Intercultural Communication
COM271 Voice and Diction

*
For non-Communication majors. COM259 meets the business requirement for accounting majors, media arts, and other disciplines.

Theatre Arts and Film

Susan Olson, Chairperson
Theatre Outback TH 29
www.mc.maricopa.edu/dept/d55/thp/

The Theatre Arts and Film program offers courses in Theatre Arts (THE), Theatre Production (THP), and Cinema (THE). Theatre performance and technical opportunities allow you to meet the human need for personal recognition and develop self-assurance, poise, and confidence.

When you get involved in theatre, you create the opportunity to use your talents in dance, music, art, speech, interpretation, storytelling, makeup, lighting and sound technologies, and scenic and costume construction. Through coursework, theatre arts and film provide an opportunity to explore other cultures and ages.

It is recommended that theatre arts and film majors enroll in a wide range of theatre courses in order to insure a total grasp of the field. Actors should understand scene design and stage lighting, just as designers should understand performance studies. All theatre majors should have a firm grasp of theatre history and dramatic literature.

Due to the sophistication of the concepts and the textbooks used, students enrolling in courses numbered 100 or above should have placement scores that would place them into ENG101 and CRE101. Students must also satisfy course prerequisites.

The Theatre Arts and Film program presents three or four major main stage productions per year and one Black Box touring production. Open auditions are available for all students, staff, and faculty at MCC. The Theatre Arts program is active in the American College Theatre Festival and participates in the AriZoni Awards. The productions are staged in the Theatre Outback, which also hosts musicals and dance concerts.

The Theatre Arts and Film program sponsors the Stagedoor Players, an organization designed to foster student interest in theatre, as well as explore careers in theatre and pursue special interests in the area. The Stagedoor Players sponsor workshops and performances at various times throughout the year and in the summer. Many of these productions are written and staged entirely by students.

The department is committed to student success and faculty are available during their office hours for one-on-one assistance and advisement.

Theatre Arts students may apply for scholarships by contacting Kevin Dressler or Kara Thomson, Co-Director of Theatre.

If You Plan to Major in Theatre Arts

Public universities in Arizona offer a variety of bachelor's degree programs in this field:

ASU	BA	Theatre
ASU West	BA	Interdisciplinary Arts and Performance
NAU	BA or BS	Theatre
UA	BFA or BA	Theatre Production/Theatre Arts

The three public Arizona universities all require the following courses for the theatre major:

THP112	Acting I
THP212	Acting II
THP213	Introduction to Technical Theatre
THP115	Theatre Makeup
THE220	Modern Drama (Dramatic Analysis)

Depending on the university you plan to transfer to, the following courses may also be recommended:

THE111	Introduction to Theatre
THE118	Playwriting
THE205	Introduction to Cinema
THE206	Introduction to Television Arts
THE210	Contemporary Cinema
THP115	Theatre Make-up
THP131	Stage Movement
THP210	Acting: Television/Film
THP211	Creative Drama
THP214	Directing: Theatre Techniques
THP216	Beginning Stage Lighting
THP217	Introduction to Design Scenography
THP219	Introduction to Puppetry
THP225	Visual Script Analysis

THP241   Performance of Literature
THP250   Stage Properties
THP260   Theatrical Design: Rendering
THP261   Pre-visualization Modeling
THP263   Entertainment Industry Design I: 2D CAD
THP264   Entertainment Industry Design II: 3D CAD
THP265   Introduction to Stage Management
THP266   Production Careers in Entertainment
THP267   Painting Techniques for Film, TV and Theatre
THP269   Technical Theatre Portfolio Development

Contact an academic advisor in the Advisement Center and/or Theatre Faculty for help in choosing the best courses for your needs.

Veterinary Technology

Dr. Jill Sheport, Program Director: 480-461-7488
Building TC 50
www.mc.maricopa.edu/dept/d58/vet/

The Veterinary Technology Program is an Associate in Applied Science Degree program nationally accredited by the Committee on Veterinary Technician Education and Activities of the American Veterinary Medical Association. The program prepares students for careers in the rapidly growing field of veterinary technology, which require knowledge and skills involving basic medical sciences, general 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. The program provides instruction in small animal, large animal, and laboratory animal medical and surgical nursing; laboratory techniques; office protocol; emergency medicine; specialty medicine; and other topics. 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. The curriculum combines courses in animal science and animal health with a general education component. Upon completion of the program, the student will be awarded an Associate in Applied Science degree in Veterinary Technology/Animal Health, and will be qualified to sit for national and state certification examinations.

For specific details about this program, see **Career and Technical Programs.**

Welding

Rod Hammil, Program Director: 480-461-7131
Building WL 52
www.mc.maricopa.edu/dept/d58/wld/

Welding engineering employs science and engineering in joining components made of metals, ceramics, plastics, and other materials. Welding engineering includes the designing of the joints to be welded, the development of the detailed joining procedures to be used, the selection of the materials incorporated in the joint, joint inspection, and the quality control for the final product. Welding engineering can also involve research in these areas, such as developing new welding processes or procedures for new materials. Welding engineers work with design engineers to develop efficient welding designs and fabrication procedures.

Welding engineers are involved in research and development, production, construction, and inspection functions involving welded fabrication. They also work in consulting, teaching, management, sales, and service functions. There are also opportunities to be owners or partners in private sector businesses. As the world becomes more conscious of the environment and the need for conservation of natural resources, many new opportunities are available for welding engineers. These opportunities include the design and manufacture of lighter and safer automobiles, trucks, and airplanes with increased fuel economy and improved environment control systems. The exploration of space brings the opportunity of designing and manufacturing space probes and space shuttles.

Welding engineering is a growing profession, and it is expected to continue in this growth for many years.

For specific details about this program, see **Career and Technical Programs.**

Women's Studies

Sue McAleavey, Program Director: 480-461-7074
Building SC 14
www.mc.maricopa.edu/dept/d10/wst/

The Cultural Science department also houses the Women's Studies certificate program, an interdisciplinary program that focuses on women's experiences and perspectives, exploring topics such as history, culture, class, race, ethnicity, sexuality, and gender in order to help bring about equality, understanding, and peace. See **Academic Certificates** for program requirements.

Women's Studies prepares students for careers in non-profit organizations, business, the creative arts, education, government and public policy, journalism, law, medicine, publishing, science, the social sciences, and social work.

For additional information contact Cultural Science Department: 480-461-7060

World Languages

Steven T. Budge, Chairperson: 480-461-7031
Building 41
www.mc.maricopa.edu/dept/d16/

The mission of the World Languages Department at Mesa Community College is to promote excellence in teaching and learning by educating students to be linguistically and culturally prepared for advanced education and/or active citizenship in our global society:

- American Sign Language (SLG)
- Arabic (ARB)
- Chinese (CHI)
- French (FRE)
- German (GER)
- Hebrew (HEB)
- Italian (ITA)
- Japanese (JPN)
- Latin (LAT)
- Navajo (NAV)
- Portuguese (POR)
- Russian (RUS)
- Spanish (SPA)

The foundational courses (courses numbered 101, 102, 201, and 202) fulfill language requirements for specific degree programs. They are prerequisites for advanced language courses at the community college and 300 and 400-level language courses at 4-year institutions. These university-equivalent courses emphasize the four language skills: listening, speaking, reading, and writing. Course 101 has no prerequisite. These courses are offered in a variety of formats (hybrid, face-to-face, and online). Consult the current online class schedule for details.

The conversational courses (courses numbered 115, 116, 225, and 226) are offered for those who wish to develop conversational abilities. These courses emphasize speaking and listening skills. Course 115 has no prerequisite.

The advanced courses prepare students for 300 and 400-level language courses at 4-year institutions. These courses are recommended to students who plan to transfer to a major university and wish to gain a deeper understanding of the culture, as well as improve their critical language skills. Courses in the advanced track have prerequisites.

The industry-specific courses (courses numbered 117, 118, 119, 120, 109, 169, 209, 210, and 240) are offered for those who wish to develop language skills in order to communicate with clients and employees in specific work environments. These language classes are customized in order to meet the schedule and content needs of each specific industry. Contact your employer today to schedule one of these courses with the World Languages Department.

The humanities and language studies courses (SPH245, NVH245, SLC201, SLC202, SPA241 and 242, and FLA240) are designed to meet the diverse academic needs of the student. They include studies in linguistics, second language acquisition, foreign language teaching methods, film, and culture and heritage studies. Please consult the current course schedule for details.

Many foreign language courses are transferable to other colleges and universities, depending upon the programs and policies of the institution. For transferability status of courses to Arizona universities, consult the Course Equivalency Guide.

The World Languages Department has a state-of-the-art language laboratory to facilitate and stimulate the language learning process. The language laboratory is located in Building #4, AS 110 at MCC at Southern and Dobson. Hours vary from semester to semester. For more information, contact the World Languages department office.

The department has joined efforts with the Learning Enhancement Center to provide tutoring services for our language programs at various campuses and sites.

MCCCD Degrees

CATALOG UNDER WHICH A STUDENT GRADUATES

Students maintaining continuous enrollment at any public Arizona community college or university may graduate according to the requirements of the catalog in effect at the time of initial enrollment or according to the requirements of any single catalog in effect during subsequent terms of continuous enrollment. Students may maintain continuous enrollment whether attending a single public community college or university in Arizona or transferring among public institutions in Arizona while pursuing their degrees.

1.
A semester in which a student earns course credit will be counted toward continuous enrollment. Non-credit courses, audited courses, failed courses, or courses from which the student withdraws do not count toward the determination of continuous enrollment for catalog purposes.

Example A:
- Admitted & Earned Course Credit at a Public Community College or University – Fall '05 (Active)
- Continued at a Public Community College – Spring '06, Fall '06 (Active)
- Transferred to a University – Spring '07 (2005 or Any Subsequent Catalog)

Example B:
- Admitted & Earned Course Credit at a Public Community College or University – Fall '02 (Active)
- Enrolled But Earned All Ws, Zs, or Fs – Spring '03 (Inactive)
- Enrolled in Audit Courses Only – Fall '03 (Inactive)
- Nonattendance – Spring '04 (Inactive)
- Transferred to a University – Fall '04 (2004 or Any Subsequent Catalog)

2.
Students who do not meet the minimum enrollment standard stipulated in No. 1 during three consecutive semesters (fall/spring) and the intervening summer term* at any public Arizona community college or university are no longer considered continuously enrolled, and must meet requirements of the public Arizona community college or university catalog in effect at the time they are readmitted or of any single catalog in effect during subsequent terms of continuous enrollment after readmission.

Example A:
- Admitted & Earned Course Credit at a Public Community College or University – Fall '02 (Active)
- Nonattendance – Spring '03, Fall '03, Spring '04 (Inactive)
- Readmitted & Earned Course Credit at a Public Community College – Fall '04 (Active)
- Transferred to a University – Spring '05 (2004 or Any Subsequent Catalog)

Example B:
- Admitted & Earned Course Credit at a Public Community College or University – Fall '02 (Active)
- Nonattendance – Spring '03 (Inactive)
- Readmitted & Earned Course Credit at a Public Community College – Summer '03 (Active)
- Nonattendance – Fall '90 Spring '04 (Inactive)
- Transferred to a University – Fall '04 (2002 or Any Subsequent Catalog)

*Students are not obligated to enroll and earn course credit during summer terms, but summer enrollment may be used to maintain continuous enrollment status.

3.
Students admitted or readmitted to a public Arizona community college or university during a summer term must follow the requirements of the catalog in effect the following fall semester or of any single catalog in effect during subsequent terms of continuous enrollment.

Example:
- Admitted & Earned Course Credit at a Public Community College or University – Summer '04 (Active)
- Continued at a Public Community College – Fall '04, Spring '05 (Active)
- Nonattendance – Fall '05 (Inactive)
- Readmitted & Earned Course Credit at a Public Community College – Spring '06 (Active)
- Transferred to a University – Summer '06 (2004 or Any Subsequent Catalog)

4.
Students transferring among Arizona public higher education institutions must meet the admission requirements, residency requirements, and all curricular and academic requirements of the degree-granting institution.

UNIVERSITY DEPARTMENT TIME LIMIT FOR TRANSFER COURSEWORK

In areas of study in which the subject matter changes rapidly, material in courses taken long before graduation may become obsolete

or irrelevant. Coursework that is more than eight years old is applicable to completion of degree requirements at the discretion of the student's major department at the university. University departments may accept such coursework, reject it, or request that the student revalidate its substance. The eight-year limit on coursework applies except when program accreditation agencies limit the life of coursework to fewer than eight years. University departments may also require students to satisfy current major requirements rather than major requirements in earlier catalogs, when completing earlier requirements is no longer possible or educationally sound.

The college reserves the right to make necessary course and program changes in order to meet current educational standards.

GENERAL GRADUATION REQUIREMENTS

All students are required to complete the degree and/or certificate requirements as approved by the MCCCD Governing Board. The college reserves the right to make necessary course and program changes in order to meet current educational standards. In addition, students must:
1.
be credited in the Admissions and Records Office/Office of Student Enrollment with not fewer than:

60 semester credit units in courses numbered 100 or above for the Associate in Arts degree, Associate in Science degree, Associate in Transfer Partnership degree, and Associate in General Studies degree; 60 semester credit units for the Associate in Applied Science degree; 62 semester credits for the Associate in Business degrees. For specific certificate programs, be credited with not fewer than the minimum total of credit units required for the certificate program.

Students not continuously enrolled, as outlined in the Catalog Under Which a Student Graduates policy, must satisfy current graduation requirements.
2.
 have earned a minimum of 12 semester credit units toward the degree or certificate at the district college granting the degree or certificate. The 12 hours in the AAS degree curricula may be in the Required Courses area and/or Restricted Electives courses. Courses from the General Education Core and Distribution area are excluded. In cases where the certificate requires fewer than 12 credit units, a minimum of six credit units must be completed at the college awarding the certificate. The minimum of six credit hours in the certificate or degree curricula may be in the Required Courses area and/or the Restricted Electives. Courses from the General Education Core and Distribution areas are excluded;

Shared Programs are programs offered at multiple colleges but not available at all colleges. The requirements are identical at all the colleges offering the program.

A shared program requires a minimum of six credit hours from the total program requirements to be completed with a grade of "C" or better at the college awarding the certificate or degree. The exception is the Nursing program. For those shared programs with less than six credit hours, the total hours for the program must be completed at the college awarding the certificate.
3.
have filed an application for the degree or certificate with the Admissions and Records Office/Office of Student Enrollment Services on the date determined by the college/center.

Students must apply for graduation from the college where they have successfully completed Block 4 of the Associate in Applied Science in Nursing.
4.
have a minimum cumulative grade point average of 2.000 at the college granting the degree.

5.
have a minimum cumulative grade point average of 2.000 in all courses used to fulfill degree requirements

Some specific programs have higher grade requirements. It is the student's responsibility to be aware of these program requirements.
6.
have removed, thirty (30) days after the anticipated graduation date, all deficiencies on the record to use those courses toward program completion.
7.
have removed any indebtedness to any MCCCD college /center.
8.   have paid required degree or certificate application fee.

See **fee schedule** for charges.

See **Graduation with Honors** for information on honors designation.

CERTIFICATES/DEGREES

The Maricopa Community Colleges offer Certificates of Completion as well as Associate Degrees, one of which is conferred on each student who has completed a program of study. These certificates and degrees are as follows: (1) Certificate of Completion (Career Program Specified); (2) Academic Certificate; (3) General Education Certificate; (4) Associate in Arts; (5) Associate in Science; (6) Associate in Business; (7) Associate in General Studies; (8) Associate in Transfer Partnership; (9) Associate in Applied Science (Career Program Specified).

All candidates for a degree and/or certificate must complete the General Graduation Requirements as approved by the MCCCD Governing Board.

All students are urged to meet with a faculty advisor, program advisor or counselor as soon as possible to determine which program meets their needs and to plan their course of study.

GRADUATE GUARANTEE POLICY
The Governing Board believes so strongly in the quality of its colleges' occupational training programs that it guarantees graduate competence.
1.
Graduation from an Associate of Applied Science (AAS) is designed to prepare a person for entry-level employment in a specific career field. A graduate's ability to perform approved program competencies will be judged by employers. Should the employer of a graduate who has earned an AAS Degree find the employee lacking in the technical skills normally expected of an entry-level employee in the specific career field for which that graduate prepared, the District will provide the graduate with up to the equivalent of twelve (12) credit hours of retraining for no additional tuition.

2.
Because technical occupations change rapidly, initial employment in an AAS Degree-related field must occur within one year of graduation from the AAS Degree program in question.

Retraining needs to occur as cost effectively as possible. The graduate's employer must present a list of the graduate's skill deficiencies to the appropriate vice president or designee at the graduate's alma mater.
All retraining will be completed in a reasonable time as agreed to by the employer, the student, and the college.

LICENSURE DISCLAIMER
Maricopa Community Colleges courses and programs prepare students for entry into a variety of professions. Many of these professions require that a person hold an occupational license or certificate in order to work in a particular field. Typically, a person must meet certain legal requirements before obtaining such a license or certificate. These requirements are established by county, state or federal agencies, and often are based on a person's character, or whether the person has been convicted of a criminal offense. It is possible for a student who has obtained a degree or certificate from a community college to be denied the right to work in a particular profession after completing the degree or certificate because of concerns over the student's character or criminal background. Any student preparing to enter a field for which a professional license or certificate is required is strongly advised to consult with the appropriate government agency that issues such credentials. That agency can provide the student complete information about any requirements the law imposes for working in a particular occupation.

MCCCD GENERAL EDUCATION STATEMENT
The general education core of the program of study for an associate degree or a certificate helps students develop a greater understanding of themselves, of their relationship with others, and of the richly diverse world in which they live. The general education experience provides students with opportunities to explore broad areas of commonly held knowledge and prepares them to contribute to society through personal, social, and professional interactions with others. General education fosters students' personal development by opening them to new directions, perspectives, and processes.

Through its general education requirements, the Maricopa County Community College District is committed to helping students develop qualities and skills that will serve them throughout their lives. General education opportunities encourage students to:
• Build self-awareness, self-respect, and self-confidence
•
Recognize and respect the beliefs, traditions, abilities, and customs of all people and all cultures
•
Consider the local, global, and environmental impacts of personal, professional, and social decisions and actions
•
Access, evaluate, analyze, synthesize, and use information wisely
•
Communicate effectively personally, socially, and professionally
•
Think critically, make informed decisions, solve problems, and implement decisions
• Consider the ethical implications of their choices
• Value the learning process throughout their lives
•
Integrate and connect ideas and events in a historical perspective, and see relationships among the past, the present, and the future
•
Develop a personal sense of aesthetics

-
Use technological resources appropriately and productively

-
Work cooperatively and respectfully with others to serve their communities

The general education experience at MCCCD is composed of specific elements across the curriculum designed to provide the learner with essential knowledge and skills:
- Communication
- Arts and Humanities
- Numeracy
- Scientific Inquiry in the Natural and Social Sciences
- Information Literacy
- Problem-Solving and Critical Thinking
- Cultural Diversity

General Education Designations
(example: [FYC], [SB], [HU], etc.)

Effective Fall 2000 the course evaluation and/or general education designation as listed in the Arizona CEG (Course Equivalency Guide) within the Arizona Course Applicability System (AZCAS) is valid for the term in which the student is awarded credit on the transcript. A course evaluation and/or general education designation may be subject to change. Given that curriculum is dynamic at both MCCCD and the institutions to which MCCCD students transfer, students have the option to petition for general education evaluations and/or general education designations.

The college reserves the right to make necessary course
and program changes in order to meet current educational standards.

ARIZONA GENERAL EDUCATION
CURRICULUM (AGEC)

Description: The Maricopa County Community College District **Arizona General Education Curriculum (MCCCD AGEC)** is a 35-38 semester-credit general education certificate that fulfills lower-division general education requirements for students planning to transfer to any Arizona public community college or university. Generally, the MCCCD AGEC transfers as a block without loss of credit.

In most cases, all courses used to satisfy the MCCCD AGEC will apply to graduation requirements of the university major for which the AGEC was designed.

For students planning to pursue an associate's degree or transfer to an Arizona public community college or university, the AGEC-A is a component of the MCCCD Associate in Arts, the AGEC-B is a component of the MCCCD Associate in Business, and the AGEC-S is a component of the MCCCD Associate in Science.

Purpose of the AGECs

There are three types of MCCCD AGECs. They are the AGEC-A, the AGEC-B, and the AGEC-S. Designed to articulate with different academic majors, their requirements vary accordingly. Additional information on academic majors at the Arizona public universities can be accessed via the following website: **www.aztransfer.com**

1.
The **AGEC-A** is designed to satisfy requirements in many liberal arts majors as well as other majors that articulate with the Associate in Arts (e.g., social sciences, fine arts, humanities). AGEC-A requires a minimum of college mathematics or college algebra to satisfy the Mathematics [MA] requirement. AGEC-A Mathematics requirement is less stringent than the AGEC-B and AGEC-S. AGEC-A and AGEC-B Natural Sciences requirements are less stringent than AGEC-S.

2.
The **AGEC-B** is designed to satisfy requirements in business majors that articulate with the Associate in Business. AGEC-B requires a minimum of brief calculus to satisfy the Mathematics [MA] requirement.

3.
The **AGEC-S** is designed to satisfy requirements in majors with more prescriptive mathematics and mathematics-based science requirements. AGEC-S articulates with the Associate in Science. AGEC-S requires a minimum of the first course in a calculus sequence to satisfy the Mathematics [MA] requirement, and a minimum of eight credits of any university chemistry, university physics or general biology to satisfy the Natural Sciences [SQ/SG] requirement. In addition, students must select six to eight additional credits of math and/or science appropriate to the major.

Academic Policies that Govern the AGEC A, B, S:

-
Requires 35-38 semester credits in courses numbered 100 and above to be completed with a grade of "C" or better. Credit units transferred from outside of the district need to be at a grade of "C" or better. A grade of "C" equals 2.0 on a 4.0 grading scale or equivalent. A minimum of 60 semester credits in courses numbered 100 and above to be completed with a grade of "C" or better. On an exception basis, P-grades may be allowed in the AGEC for credit transferred if documentation collected by the community college indicates that the P-grade issued was the only option for the student and the P-grade is a "C" or better. The P-grade exception does not apply to credits awarded by AGEC granting/receiving institutions.

-

Credit received through prior learning assessment or credit by evaluation is transferable within the Maricopa Community Colleges but is not necessarily transferable to other colleges and universities. No more than 20 semester credit hours may be applied toward AGEC.

-

Uses the following policies to help students complete the required Core and Awareness Areas without exceeding the 35-38 semester credits.

    1.

Courses can satisfy a Core area and one or two Awareness areas simultaneously.

    2.

A course cannot be used to satisfy more than one Core area requirement in the AGEC A and B.

    3.

A course can be used to satisfy the L and SB or L and HU requirements simultaneously in the Core area for the AGEC S.

Follow the general education policy that follows:

GENERAL EDUCATION DESIGNATIONS (EXAMPLE: [FYC], [SB], [HU], ETC.)

Effective fall 2000 the course evaluation and/or the general education designation as listed in the Arizona CEG (Course Equivalency Guide) within the Arizona Course Applicability System (AZCAS) is valid for the term in which the student is awarded credit on the transcript. A course evaluation and/or general education designation may be subject to change. Given that curriculum is dynamic at both MCCCD and the institutions to which MCCCD students transfer, students have the option to petition for course evaluations and/or general education designations.

The college reserves the right to make necessary course and program changes in order to meet current educational standards.

-

Required courses that transfer as equivalent courses, departmental elective credit (XXXXDEC), or general elective credit (Elective) at all Arizona public universities according to the Arizona CEG (Course Equivalency Guide). The course evaluation and/or general education designation as listed in AZCAS is valid for the term in which the student is awarded credit on the transcript;

-

Require that a minimum of 12 semester credits of course work be taken at any of the MCCCD colleges;

-

Include both course and their modular equivalents. Either the course or the modular equivalents will satisfy the AGEC;

-

Accept one of the courses that is cross-referenced with other courses;

-

Provide for exemption from Arizona university admission requirements for: Students who complete the AGEC-A, AGEC-B, or AGEC-S with a minimum 2.0 on a 4.0=A scale, or students who complete an associate or higher degree from a regionally accredited post-secondary institution with a minimum 2.0 on a 4.0=A scale for Arizona residents and a minimum 2.5 on a 4.0=A scale for non-residents.

The 35-38 semester credits required for each of the three AGECs follow. See the list entitled **MCCCD Courses That Can Be Used to Satisfy MCCCD AGEC-A, AGEC-B and/or AGEC-S** for specific course information via the following website: **www.maricopa.edu/academic/ccta**

The list identifies the courses in alpha-order by prefix as well as the different Core Areas and Awareness Areas where the course will apply.

A. Core Areas   35 Credits

  1. First-Year Composition (FYC)   6

  2. Literacy and Critical Inquiry [L]   0-3

AGEC-A & AGEC-B: Select a course that satisfies the [L] requirement (3)

AGEC-S: Select a course that satisfies L and SB (Social and Behavioral Sciences) **OR**

L and HU (Humanities and Fine Arts) requirements simultaneously (0-3)

  3. Mathematical Studies [MA/CS]   4-6

The Mathematics [MA] requirement differs for AGEC-A, AGEC-B, and AGEC-S.

To complete the Mathematical Studies requirement
for AGEC-A and AGEC-B, select one course to
satisfy Mathematics [MA], and a second course
from Computer/Statistics/Quantitative Applications [CS]. AGEC-S does not require the [CS] area.

AGEC-A requires:
a. Mathematics [MA] (3 credits) **AND**

(Requires a course in college mathematics (MAT142) or college algebra (MAT150,
MAT151, MAT152) or pre-calculus (MAT187)
or any other mathematics course designated
with the MA general education value and for
which college algebra is a prerequisite.)

b.
Computer/Statistics/Quantitative Applications
[CS] (3 credits)

AGEC-B requires:
a. Mathematics [MA] (3 credits) AND

(Requires a course in brief calculus (MAT212)
or a higher level mathematics course (MAT216, MAT220, or MAT221 or any course for which these courses are prerequisites).

b.
Computer/Statistics/Quantitative Applications
[CS] (3 credits)
    CIS105 Survey of Computer Information Systems

AGEC-S requires:
a. Mathematics [MA] (4 credits) AND

(Requires a calculus course (MAT220 or
MAT221) OR any mathematics course for
which MAT220 or MAT221 are prerequisites.
OR if pursuing a degree at ASU in Life Sciences select MAT251 Calculus for Life Science.

4. Humanities and Fine Arts [HU]   6

AGEC-A and AGEC-B: Students are encouraged to choose courses from more than one discipline for
a total of six semester credits.

AGEC S: Select a course that satisfies both L and
SB or L and HU requirements simultaneously.

5. Social and Behavioral Sciences [SB]   6

AGEC-A and AGEC-B: Students are encouraged
to choose courses from more than one discipline
for a total of six semester credits.

AGEC-S: Select a course that satisfies both L
and SB (Social and Behavioral Sciences) or
L and HU (Humanities and Fine Arts)
requirements simultaneously.

6. Natural Sciences [SQ/SG]   8
    To complete the Natural Sciences requirement:

AGEC-A and AGEC-B require four (4) semester credits of [SQ] and four (4) semester credits of
[SG] for a total of eight (8) semester credits, **OR**
eight (8) semester credits of [SQ]. Students cannot
take eight (8) semester credits of [SG] to meet the Natural Sciences requirement.

The Natural Sciences requirement differs for
AGEC-S. AGEC-S requires eight (8) semester
credits of either university chemistry or eight (8) semester credits of university physics or eight (8) semester credits of general biology
appropriate

to the major.

The lecture course(s) selected for Natural Sciences
must include or be accompanied by the corresponding laboratory course. The lecture
and corresponding laboratory course(s) may
carry separate credit. Students should consult
with an advisor for appropriate course selection. Students should also access the AZ Course Equivalency Guide (CEG) within the
AZ Course Applicability System (AZCAS) for information
on equivalencies.

7. Subject Options
   (Subject based on major) (AGEC S)   6-8

Students completing AGEC S, through careful selection of courses that meet the other major
or prerequisite requirements for Science degrees,
will meet this requirement. Using a transfer guide,
select Mathematics courses above Calculus, and/
or Science courses from: Astronomy, Biology,
Botany, Chemistry, Environmental Science,
Geology, Physical Geography, Physics, Zoology.

B. Awareness Areas

Students must satisfy two Awareness areas: Cultural Diversity in United States [C] and either Global Awareness [G] or Historical
Awareness [H]. However, it is not necessary for students to exceed 35-38 semester credits to complete any of the three MCCCD
AGECs because courses can satisfy a Core area and one or two Awareness areas simultaneously. Therefore, no additional semester
credits are required to satisfy the two Awareness areas.
1. Cultural Diversity in the United States [C] **AND**
2. Global Awareness [G] **OR**
3. Historical Awareness [H]

AGEC Area Requirements Descriptions/Definitions
CORE AREAS
First-Year Composition (FYC)
Courses must be completed with a grade of "C" or better in the First-Year Composition Core area. Courses must emphasize skills
necessary for college-level learning and writing skills.

Literacy and Critical Inquiry [L]
Courses must be completed with a grade of "C" or better in the Literacy and Critical Inquiry Core area. In the [L] course, typically
at the sophomore level, students gather, interpret, and evaluate evidence and express their findings in writing or speech. This course
includes a series of graded written or spoken formal assignments.

For AGEC S, students will select a course that satisfies both Literacy and Social & Behavioral Sciences or Literacy and Humanities
and Fine Arts requirements simultaneously.

Literacy is defined broadly as communicative competence in written and oral discourse; critical inquiry is defined as the gathering,
interpreting, and evaluating of evidence. Building on the proficiency attained in traditional First-Year Composition courses, the
Literacy and Critical Inquiry requirement helps students sustain and extend their ability to reason critically and communicate clearly
through language.

Mathematical Studies
Courses must be completed with a grade of "C" or better in the Mathematical Studies Core area. One course must be selected from
Mathematics [MA]. In AGEC A and AGEC B, a second course must be selected from Computer/Statistics/Quantitative
Applications [CS].

The Mathematical Studies requirement is intended to ensure students have skills in basic mathematics, can use mathematical
analysis in their chosen fields, and can understand how computers make mathematical analysis more powerful and efficient.

First, the acquisition of essential skills in basic mathematics requires the student to complete a course in college algebra or to
demonstrate a higher level of skill by completing a course for which college algebra is a prerequisite.

Second, the real-world application of mathematical reasoning requires the student to take a course in statistics or the use of
quantitative analysis to solve problems of substance.

Third, the use of the computer to assist in serious analytical work is required. Computers are widely used to study the implications of
social decisions or to model physical systems.

Mathematics [MA] AGEC-A
The AGEC-A Mathematics Core area requires a course in college mathematics, college algebra, pre-calculus, or

any other mathematics course for which college algebra
is a prerequisite.

Mathematics [MA] AGEC-B
The AGEC-B Mathematics Core area requires a course in Brief Calculus or a higher level mathematics course.

Mathematics [MA] AGEC-S
The AGEC-S Mathematics Core area requires the first course in the calculus sequence or any mathematics course for which that course is a prerequisite. MAT251 is required if transferring to a Life Sciences degree at Arizona State University (ASU).

Computer/Statistics/Quantitative Applications [CS]
AGEC-A, B [CS] requires: courses that emphasize the use of statistics or other mathematical methods in the interpretation of data and in describing and understanding quantitative relationships, courses that involve the use of computer programming languages or software in the development of skills in analytical thinking.

AGEC-B specifies CIS105 as the course that meets the [CS] requirement.

Humanities and Fine Arts [HU]
Courses must be completed with a grade of "C" or better in the Humanities and Fine Arts Core area. Students are encouraged to choose coursework from more than one discipline. The Humanities and Fine Arts Core area enables students to broaden and deepen their consideration of basic human values and their interpretation of the experiences of human beings.

The humanities are concerned with questions of human existence and the universality of human life, questions
of meaning and the nature of thinking and knowing,
and questions of moral, aesthetic, and other human values.
The humanities investigate these questions in both the present and the past and make use of philosophy, foreign languages, linguistics and communications studies, religious studies, literature, and fine arts. The fine arts constitute the artist's creative deliberation about reality, meaning, knowledge, and values.

Social and Behavioral Sciences [SB]
Courses must be completed with a grade of "C" or better in the Social and Behavioral Sciences Core area. Students are encouraged to choose coursework from more than
one discipline.

The Social and Behavioral Sciences Core area provides scientific methods of inquiry and empirical knowledge about human behavior, both within society and within individuals. The forms of study may be cultural, economic, geographic, historical, linguistic, political, psychological, or social. The courses in this area address the challenge of understanding the diverse natures of individuals and cultural groups who live together in a world of diminishing economic, linguistic, military, political, and social distance.

Natural Sciences [SQ/SG]
Courses must be completed with a grade of "C" or better
in the Natural Sciences Core area.

Courses in the Natural Sciences Core area help the student to develop an appreciation of the scope and limitations of scientific capability to contribute to the quality of society. This Core area emphasizes knowledge of methods of scientific inquiry and mastery of basic scientific principles and concepts, in particular those that relate to matter and energy in living and non-living systems. Firsthand exposure to scientific phenomena in the laboratory is important in developing and understanding the concepts, principles, and vocabulary of science. At least one of the two laboratory courses required in the Natural Sciences Core area must include an introduction to the fundamental behavior of matter and energy in physical or biological systems.

Natural Sciences [SQ] A & B
The AGEC A and B Natural Sciences Core area requires one laboratory course in natural sciences that includes a substantial introduction to the fundamental behavior
of matter and energy in physical or biological systems.

Natural Sciences [SG] A & B
The AGEC A and B Natural Sciences Core area requires
a second laboratory course in the natural sciences,
for example, from Anthropology, Astronomy, Biology, Chemistry, Experimental Psychology, Geology, Microbiology, Physical Anthropology, Physical Geography, Physics, and Plant Biology.

Natural Sciences S
The AGEC S Natural Sciences Core area requires eight semester credits of either university chemistry or eight semester credits of university physics or eight semester credits of general biology appropriate to the major.

SQ = Natural Science-Quantitative
SG = Natural Science-General

Subject Options (for AGEC S)
Courses in the Subject Options area help the student to be prepared for specific majors in science. Students completing AGEC-S, through careful selection of courses that meet the other major or prerequisite requirements for Science degree, will meet this requirement. Using a transfer guide, courses would be selected from Mathematics courses above Calculus, and/or Science courses

from: Astronomy, Biology, Botany, Chemistry, Environmental Science, Geology, Physical Geography, Physics, and Zoology.

Awareness Areas
Students must satisfy two Awareness areas: Cultural Diversity in the U.S. and either Global Awareness or Historical Awareness. Courses can satisfy a Core area and one or two Awareness areas simultaneously. Therefore, no additional semester credits are required to satisfy the two Awareness areas.

Cultural Diversity in the United States [C]
The contemporary "culture" of the United States involves the complex interplay of many different cultures that exist side by side in various states of harmony and conflict. United States history involves the experiences not only of different groups of European immigrants and their descendants, but also of diverse groups of American Indians, Hispanic Americans, African Americans, and Asian Americans–all of whom played significant roles in the development of contemporary culture and together shape the future of the United States. At the same time, the recognition that gender, class, and religious differences cut across all distinctions of race and ethnicity offers an even richer variety of perspectives from which to view. Awareness of cultural diversity and its multiple sources can illuminate the collective past, present, and future and help to foster greater mutual understanding and respect.

The objective of the Cultural Diversity area requirement is to promote awareness of, and appreciation for, cultural diversity within the contemporary United States. This is accomplished through the study of the cultural, social, or scientific contributions of women and minority groups, examination of their experiences in the United States, or exploration of successful or unsuccessful interactions between and among cultural groups.

Global Awareness [G]
Human organizations and relationships have evolved from being family and village-centered to the modern global interdependence that is apparent in many disciplines-for example, contemporary art, business, engineering, music, and the natural and social sciences. Many serious local and national problems are world issues that require solutions which exhibit mutuality and reciprocity. These problems occur in a wide variety of activities, such as food supply, ecology, health care delivery, language planning, information exchange, economic and social developments, law, technology transfer, and even philosophy and the arts. The Global Awareness area recognizes the need for an understanding of the values, elements, and social processes of cultures other than the culture of the United States. The Global Awareness area includes courses that recognize the nature of other contemporary cultures and the relationship of the American cultural system to generic human goals and welfare.

Courses that satisfy the global awareness option in the requirements are of one or more of the following types:
1.
Area studies that are concerned with an examination of culture-specific elements of a region of the world;
2. The study of a non-English language;
3.
Studies of international relationships, particularly those in which cultural change is facilitated by such factors as social and economic development, education, and the transfer of technology; and
4.
Studies of cultural interrelationships of global scope such as the global interdependence produced by problems of world ecology.

Historical Awareness [H]
The Historical Awareness area option in the requirements aims to develop a knowledge of the past that can be useful in shaping the present and future. Because historical forces and traditions have created modern life and lie just beneath its surface, historical awareness is an aid in the analysis of present-day problems. Also, because the historical past is a source of social and national identity, historical study can produce intercultural understanding by tracing cultural differences to their origins. Even the remote past may have instructive analogies for the present.

The Historical Awareness area consists of courses that are historical in method and content. In this area, the term "history" designates a sequence of past events or a narrative whose intent or effect is to represent such a sequence.

The requirement presumes these are human events and history includes all that has been felt, thought, imagined, said, and done by human beings. History is present in the languages, art, music, literature, philosophy, religion, and the natural sciences, as well as in the social science traditionally called history.

ASSOCIATE IN ARTS (AA)
The Maricopa County Community College District **Associate in Arts** degree requires 60-64 semester credits for the program of study. The degree includes the following components:

I. General Education
Arizona General Education Curriculum for Arts (AGEC-A)
MCCCD Additional Requirements

II. General Electives

Purpose of the Degree
The Associate in Arts 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 MCCCD Associate in Arts will apply to university graduation requirements of the university major for which the Associate in Arts is designed. Information regarding the articulation of the Associate in Arts with majors at the Arizona public universities can be accessed via the following website: **www.aztransfer.com**

Academic Policies that Govern the Associate in Arts Degree

- Completion of the Associate in Arts or the AGEC-A provides for exemption from Arizona public university admission requirements for Arizona residents who have a minimum Grade Point Average of 2.0 on a 4.0=A scale and a minimum 2.5 on a 4.0=A scale for non-residents.

- The graduation policies within the general catalog must be satisfied for completion of the Associate in Arts degree.

- A minimum of 60 semester credits in courses numbered 100 and above to be completed with a grade of "C" or better. Credit units transferred from outside of the district need to be at a grade of "C" or better. A grade of "C" equals 2.0 on a 4.0 grading scale or equivalent. On an exception basis, P-grades may be allowed in the AGEC for credit transferred if documentation collected by the community college indicates that the P-grade issued was the only option for the student and the P-grade is a "C" or better. The P-grade exception does not apply to credits awarded by AGEC granting/receiving institutions.

- Credit received through prior learning assessment or credit by evaluation is transferable within the Maricopa Community Colleges but is not necessarily transferable to other colleges and universities. No more than 20 semester credit hours may be applied toward AGEC.

- The General Education Requirements for AGEC-A
may be completed in 35 semester credits with the following stipulations:

  – Courses can satisfy a Core Area and one or two Awareness Areas simultaneously.

  – A course cannot be used to satisfy more than one Core Area.

- General Education Courses can satisfy multiple areas within the degree simultaneously (AGEC-A Core Area, AGEC Awareness Area, MCCCD Additional Requirements, or lower-division courses applicable to the major).

- Effective fall 2000, the course evaluation and/or general education designation as listed in the Arizona Course Equivalency Guide (CEG) within the Arizona Course Applicability System (AZCAS) is valid for the term in which the student is awarded credit on the transcript. A course evaluation and/or general education designation may be subject to change. Students do have the option to petition for general education evaluations and/or general education designations upon transfer.

- Courses completed at one of the Maricopa Community Colleges to meet AGEC-A requirements must be listed in the Course Equivalency Guide within the Arizona Course Applicability System as an equivalent course, departmental elective credit (XXXXDEC), or general elective credit (Elective) at all Arizona public universities. The course's evaluation and/or general education designation is valid for the term in which the student is awarded credit on the transcript. See the list titled **MCCCD Courses That Can Be used to Satisfy MCCCD AGEC-A, AGEC-B, and/or AGEC-S** for specific course information via the following website: **www.maricopa.edu/academic/ccta**

- Courses completed at one of the Maricopa Community Colleges to meet the General Electives requirement must be transferable to the university or universities to which the student plans to transfer, as elective credit or better. For appropriate course selection, students should consult with an advisor.

- Courses transferred from another regionally accredited institution to one of the Maricopa Community Colleges will be evaluated by the college for inclusion in the AGEC-A or Associate in Arts Degree.

- Courses and their modular equivalents will satisfy AGEC-A and Associate in Arts requirements.

- If a course is cross-referenced with one or more other courses, then only one of the cross-referenced courses will be accepted to meet requirements.

Courses completed at one of the Maricopa Community Colleges to satisfy Common Courses must be transferable as elective or better to the universities that have the shared majors listed on a Common Course Matrix. A shared major is a university degree program that has similar academic preparation to one or more degree programs at other Arizona public universities as listed on the Common Course Matrices. For appropriate course selection, students should consult with an advisor.

Degree Requirements
The 60-64 semester credits required for the Associate in Arts follow. See the list titled **MCCCD Courses That Can**

Be Used to Satisfy MCCCD AGEC-A, AGEC-B, and/or AGEC-S for specific course information via the following website: **www.maricopa.edu/academic/ccta.** This list identifies the courses in alpha-order by prefix as well as the Core Areas and Awareness Areas where the course will apply. For purposes of clarifying requirements in the Mathematics and Natural Sciences areas on the list and the AGEC requirements, an A, B, and/or S character may follow the [MA], [SQ], [SG] general education designations and refers to the specific AGEC.

I. MCCCD General Education

The MCCCD General Education includes two areas: MCCCD AGEC-A and MCCCD Additional Requirements.

MCCCD AGEC-A

1. Core Areas   35 Credits

   a. First-Year Composition (FYC)   6

   b. Literacy and Critical Inquiry [L]   3

   c. Mathematical Studies [MA/CS]   6

To complete the Mathematical Studies requirement, select one course to satisfy Mathematics [MA] A and a second course from Computer/Statistics/Quantitative Applications [CS].

      1) Mathematics [MA] A (3 credits)

Note: requires a course in college mathematics (MAT142) or college algebra (MAT150, MAT151, MAT152) or pre-calculus (MAT187) or any other mathematics course designated with the MA general education value and for which college algebra is a prerequisite.
        AND
    2)
Computer/Statistics/Quantitative Applications [CS] (3 credits)

   d. Humanities and Fine Arts [HU]   6

Students are encouraged to choose coursework from more than one discipline for a total of six semester credits.

   e. Social and Behavioral Sciences [SB]   6

Students are encouraged to choose coursework from more than one discipline for a total of six semester credits.

   f. Natural Sciences [SQ/SG]   8

To complete the Natural Sciences requirement:
Select four (4) semester credits of [SQ] and four
(4) semester credits of [SG] for a total of eight (8) semester credits, OR eight (8) semester credits of
[SQ]. Students cannot take eight (8) semester credits
of [SG] to meet the Natural Sciences requirement.

The lecture course(s) selected for Natural Sciences must include or be accompanied by the corresponding laboratory course. The lecture and corresponding laboratory course(s) may carry separate credit. Students should consult with an advisor for appropriate course selection. Students should also access the AZ Course Equivalency Guide (CEG) within the AZ Course Applicability System (AZCAS) for information on equivalencies.

2. Awareness Areas

Students must satisfy two Awareness Areas: Cultural Diversity in the United States [C] and either Global Awareness [G] or Historical Awareness [H]. However, it is not necessary for students to exceed thirty-five semester credits to complete the Awareness Areas because courses can satisfy a Core Area and one or two Awareness Areas simultaneously. Therefore no additional semester credits are required to satisfy the two Awareness Areas.

   Cultural Diversity in the United States [C] **AND**
   Global Awareness [G] **OR**
   Historical Awareness [H]

3. MCCCD Additional Requirements 0-6 Credits

Students must satisfy Oral Communication and Critical Reading areas. However, it is not necessary for students to exceed the thirty-

five semester credits required in order to complete the MCCCD Additional Requirements because courses can satisfy a Core Area and MCCCD Additional Requirements simultaneously. Therefore no additional semester credits are required to satisfy Oral Communication and Critical Reading.

a. Oral Communication

A total of three (3) semester credits is required for Oral Communication. However, if students select a communication course that satisfies both the Oral Communication area and an area within the Core, then the Oral Communication requirement has been satisfied and additional electives may be taken.

Select from the following options:
COM100 [SB] (3 credits) **OR**

COM100AA & COM100AB & COM100AC [SB]
(3 credits) **OR**
COM110 [SB] (3 credits) **OR**

COM110AA & COM110AB & COM110AC [SB]
(3 credits) **OR**
COM225 [L] (3 credits) **OR**
COM230 [SB] (3 credits)

b. Critical Reading

A total of three (3) semester credits is required for the Critical Reading area. However, if students complete CRE101 and apply it to AGEC-A Core Requirements or if the students demonstrate proficiency through assessment, then the Critical Reading requirement has been satisfied and additional electives may be taken.

CRE101 [L] **OR** equivalent as indicated by assessment

II. General Electives
Select courses to complete a minimum of 60 semester credits but no more than a total of 64 semester credits.

For students who have decided on a major that articulates with the AA, but who are undecided on the university to which they will transfer, courses satisfying the General Electives area should be selected from the list of Common Courses, Arizona Transfer Pathway Guides, and/or University Transfer Guides in order for the courses to apply in the major upon transfer.

The list of Common Courses for each major is included in the Arizona Transfer Pathway Guides. University Transfer Guides are also available for the Arizona public universities. These guides, both statewide and institutional, are accessible on the following web site: **www.aztransfer.com/**

Students must select MCCCD courses that are transferable to the university or universities to which the student plans to transfer, as elective credit or better according to the Arizona CEG within the AZCAS. For appropriate course selection, students should consult with an advisor.

For some majors, students must demonstrate 4th semester proficiency at the 202 course level to satisfy the Non-English Language Requirements. Students should consult the Arizona Transfer Pathway Guides and/or the University Transfer Guides to determine this requirement for the major at the university to which they intend to transfer. If required, it is recommended that students choose Maricopa courses as electives to meet this requirement as part of the Associate in Arts degree.

Students who are undecided on a major or university should consult an advisor. Not all majors have common courses, so it is recommended that students consult with an advisor for a list of common courses or assistance with selecting appropriate electives.

Associate in Arts Total Credits: 60-64

ASSOCIATE IN SCIENCE (AS)
The Maricopa County Community College District **Associate in Science** degree requires 60-64 semester credits for the program of study. The degree includes the following components:

I. General Education:

Arizona General Education Curriculum for Science (AGEC-S) MCCCD Additional Requirements

II. General Electives

Purpose of the Degree
The Associate in Science 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 MCCCD Associate in Science will apply to university graduation requirements of the university major for which the Associate in Science is designed. Information regarding the articulation of the Associate in Science with majors at the Arizona public universities can be accessed via the following website: **www.aztransfer.com**

Academic Policies that Govern the Associate in Science Degree

- Completion of the Associate in Science and the AGEC-S provides for exemption from Arizona public university admission requirements for Arizona residents who have a minimum Grade Point Average of 2.0 on a 4.0=A scale and a minimum 2.5 on a 4.0=A scale for non-residents.

- The graduation policies within the general catalog must be satisfied for completion of the Associate in Science degree.

- A minimum of 60 semester credits in courses numbered 100 and above to be completed with a grade of "C" or better. Credit units transferred from outside of the district need to be at a grade of "C" or better. A grade of "C" equals 2.0 on a 4.0 grading scale or equivalent. On an exception basis, P-grades may be allowed in the AGEC for credit transferred if documentation collected by the community college indicates that the P-grade issued was the only option for the student and the P-grade is a "C" or better. The P-grade exception does not apply to credits awarded by AGEC granting/receiving institutions

- Credit received through prior learning assessment or credit by evaluation is transferable within the Maricopa Community Colleges but is not necessarily transferable to other colleges and universities. No more than 20 semester credit hours may be applied toward AGEC.

- The General Education Requirements for AGEC-S may be completed in 36-38 semester credits with the following stipulations

  - Courses can satisfy a Core area and one or two Awareness areas simultaneously.

  - A course cannot be used to satisfy more than one Core area requirement in the AGEC A and B.

  - A course can be used to satisfy the L and SB or L and HU requirements simultaneously in the Core area for the AGEC S.

- General Education Courses can satisfy multiple areas within the degree simultaneously (AGEC-S Core Area, AGEC Awareness Area, MCCCD Additional Requirements, or lower-division courses applicable to the major).

- Effective fall 2000, the course evaluation and/or general education designation as listed in the Arizona Course Equivalency Guide (CEG) within the Arizona Course Applicability System (AZCAS), is valid for the term in which the student is awarded credit on the transcript. A course evaluation and/or general education designation may be subject to change. Students do have the option to petition for general education evaluations and/or general education designations upon transfer.

- Courses completed at one of the Maricopa Community Colleges to meet AGEC-S requirements must be listed in the Course Equivalency Guide within the Arizona Course Applicability System as an equivalent course, departmental elective credit (XXXXDEC), or general elective credit (Elective) at all Arizona public universities. The course's evaluation and/or general education designation is valid for the term in which the student is awarded credit on the transcript. See the list titled MCCCD Courses That Can Be used to Satisfy MCCCD AGEC-A, AGEC-B, and/or AGEC S for specific course information via the following website: www.maricopa.edu/academic/ccta/

- Courses completed at one of the Maricopa Community Colleges to meet the General Electives requirement All courses used to satisfy electives must be transferable to the university or universities to which the student plans to transfer, as elective credit or better. For appropriate course selection, students should consult with an advisor.

- Courses transferred from another regionally accredited institution to one of the Maricopa Community Colleges will be evaluated by the college for inclusion in the AGEC-S or Associate in Science Degree.

- Courses and their modular equivalents will satisfy AGEC-S and Associate in Science requirements.

- If a course is cross-referenced with one or more other courses, then only one of the cross-referenced courses will be accepted to meet requirements.

Courses completed at one of the Maricopa Community Colleges to satisfy Common Courses must be transferable as elective or better to the universities that have the shared majors listed on a Common Course Matrix. A shared major is a university degree program that has similar academic preparation to one or more degree programs at other Arizona public universities as listed on the Common Course Matrices. For appropriate course selection, students should consult with an advisor.

Degree Requirements

The 60-64 semester credits required for the Associate in Science follow. See the list titled **MCCCD Courses That Can Be Used to Satisfy MCCCD AGEC-A, AGEC-B, and/or AGEC-S** for specific course information via the following website: **www.maricopa.edu/academic/ccta.** This list identifies the courses in alpha-order by prefix as well as the Core Areas and Awareness Areas where the course will apply. For purposes of clarifying requirements in the Mathematics and Natural Sciences areas on the list and the AGEC requirements, an A, B, and/or S character may follow the [MA], [SQ], [SG] general education designations and refers to the

specific AGEC.

I. MCCCD General Education
The MCCCD General Education includes two areas: MCCCD AGEC-S and MCCCD Additional Requirements.

MCCCD AGEC-S
1. Core Areas   36-38 Credits
    a. First-Year Composition (FYC)   **6**

    b. Literacy and Critical Inquiry [L]   **0-3**

Select a course that satisfies L (Literacy and
Critical Inquiry) and SB (Social and Behavioral Sciences) **OR** L (Literacy and Critical Inquiry)
and HU (Humanities and Fine Arts) requirements simultaneously.

    c. Mathematical Studies [MA]   **4**

To complete the Mathematical Studies requirement, select one course to satisfy Mathematics [MA] S.

      1) Mathematics [MA] S (4 credits)
        Select a calculus course MAT220 or MAT221, or

any mathematics course for which MAT220 or MAT221 is a prerequisite,

    d. Humanities and Fine Arts [HU]   **6**

Students are encouraged to choose coursework
from more than one discipline for a total of six semester credits.

Select a course that satisfies both L and HU requirements simultaneously.

    e. Social and Behavioral Sciences [SB]   **6**

Students are encouraged to choose coursework
from more than one discipline for a total of six semester credits.

Select a course that satisfies both L and HU requirements simultaneously.

    f. Natural Sciences   **8**
      To complete the Natural Sciences requirement:

Select eight (8) semester credits of either general chemistry CHM151 & CHM151LL and CHM152
& CHM152LL
      OR

Eight (8) semester credits of university physics PHY115 & PHY116 or PHY121 & PHY131
      OR

Eight (8) semester credits of general biology,
BIO181 & BIO182 appropriate to the major.

    g. Subject Options (subject based on major)   6-8
Students completing AGEC S, through careful selection of courses that meet the other major or pre-requisite requirements for
Science degree, will meet this requirement. Using a transfer guide, select courses from Mathematics courses above Calculus, and/or
Science courses from: Astronomy, Biology, Botany, Chemistry, Environmental Science, Geology,
      Physical Geography, Physics, Zoology.

2. Awareness Areas

Students must satisfy two Awareness Areas: Cultural Diversity in the United States [C] and either Global Awareness [G] or Historical
Awareness [H]. However, it is not necessary for students to exceed thirty-six to thirty-eight semester credits to complete the Awareness
Areas because courses can satisfy a Core Area and one or two Awareness Areas simultaneously. Therefore no additional semester credits are
required to satisfy the two Awareness Areas.

    Cultural Diversity in the United States [C]
    AND
    Global Awareness [G] **OR**
    Historical Awareness [H]

3. MCCCD Additional Requirements 0-6 Credits

Students must satisfy Oral Communication and Critical Reading areas. However, it is not necessary for students to exceed the 36-38 semester credits required in order to complete the MCCCD Additional Requirements.

a. Oral Communication

A total of three (3) semester credits are required
for Oral Communication. However, if students select
a communication course that satisfies both the Oral Communication area and an area within the Core,
then the Oral Communication requirement has been satisfied and additional electives may be taken.

> Select from the following options:
> COM100 [SB] (3 credits) **OR**

COM100AA & COM100AB & COM100AC [SB]
(3 credits) **OR**
> COM110 [SB] (3 credits) **OR**

COM110AA & COM110AB & COM110AC [SB]
(3 credits) **OR**
> COM225 [L] (3 credits) **OR**
> COM230 [SB] (3 credits)

b. Critical Reading

A total of three (3) semester credits are required for the Critical Reading area. If students demonstrate proficiency through assessment, then the Critical Reading requirement has been satisfied and additional electives may be taken.

> CRE101 [L] **OR** equivalent as indicated by assessment.

II. General Electives
Select courses to complete a minimum of 60 semester credits but no more than a total of 64 semester credits.

For students who have decided on a major that articulates with the AS, but who are undecided on the university to which they will transfer, courses satisfying the General Electives area should be selected from the list of Common Courses, Arizona Transfer Pathway Guides, and/or University Transfer Guides in order for the courses to apply in the major upon transfer.

The list of Common Courses for each major is included in the Arizona Transfer Pathway Guides. University Transfer Guides are also available for the Arizona public universities. These guides, both statewide and institutional, are accessible on the following web site: www.aztransfer.com

Students must select MCCCD courses that are transferable to the university or universities to which the student plans to transfer, as elective credit or better according to the Arizona CEG within the AZCAS. For appropriate course selection, students should consult with an advisor.

For some majors, students must demonstrate 4th semester proficiency at the 202 course level to satisfy the Non-English Language Requirements. Students should consult the Arizona Transfer Pathway Guides and/or the University Transfer Guides to determine this requirement for the major at the university to which they intend to transfer. If required, it is recommended that students choose Maricopa courses as electives to meet this requirement as part of the Associate in Science degree.

Students who are undecided on a major or university should consult an advisor. Not all majors have common courses, so it is recommended that students consult with an advisor for a list of common courses or assistance with selecting appropriate electives.

Associate in Science Total Credits: 60-64

ASSOCIATE IN ARTS – ELEMENTARY EDUCATION (AA-EE)
The MCCCD **Associate in Arts in Elementary Education (AA-EE)** requires the student to complete a total of 60-63 semester credits in the program of study. The degree has two major components:

I. MCCCD General Education
> Arizona General Education Curriculum for Arts (AGEC-A)
> Additional MCCCD Requirements

II. Elementary Education Requirements
> Education Foundations
> Electives for Arizona Professional Teacher Standards

Purpose of the Degree
The AAEE is designed for the student who plans to transfer to an Elementary Education, Early Childhood, Multicultural/Multilingual or Special Education program at an Arizona public higher education institution and/or who plans to become a classroom instructional aide.

Generally, the degree transfers as a block without loss of credit to Arizona's public universities. In most cases, courses applied to the MCCCD Associate in Arts in Elementary Education also apply to graduation requirements of the university major for which the AAEE was designed.

Academic Policies that Govern the Associate in Arts Elementary Education Degree:

- Completion of the Associate in Arts and the AGEC-A provides for exemption from Arizona public university admission requirements for Arizona residents who have a minimum Grade Point Average of 2.0 on a 4.0=A scale and a minimum 2.5 on a 4.0=A scale for non-residents.

- The graduation policies within the general catalog must be satisfied for completion of the Associate in Arts degree.

- A minimum of 60 semester credits in courses numbered 100 and above to be completed with a grade of "C" or better. Credit units transferred from outside of the district need to be at a grade of "C" or better. A grade of "C" equals 2.0 on a 4.0 grading scale or equivalent. A grade of "C" equals 2.0 on a 4.0 grading scale or equivalent. On an exception basis, P-grades may be allowed in the AGEC for credit transferred if documentation collected by the community college indicates that the P-grade issued was the only option for the student and the P-grade is a "C" or better. The P-grade exception does not apply to credits awarded by AGEC granting/receiving institutions.

- Credit received through prior learning assessment or credit by evaluation is transferable within the Maricopa Community Colleges but is not necessarily transferable to other colleges and universities. No more than 20 semester credit hours may be applied toward AGEC.

- The General Education Requirements for AGEC-A may be completed in 35 semester credits with the following stipulations:
  - Courses can satisfy a Core Area and one or two Awareness Areas simultaneously
  - A course cannot be used to satisfy more than one Core Area
  - Courses can satisfy an Elementary Education Requirement and one or more Awareness Areas simultaneously.
  - A course cannot satisfy both the Elementary Education Requirement and a Core Area Requirement simultaneously.

- Effective Fall 2000, the course evaluation and/or general education designation as listed in the Arizona Course Equivalency Guide (CEG) within the Arizona Course Applicability System (AZCAS), is valid for the term in which the student is awarded credit on the transcript. A course evaluation and/or general education designation may be subject to change. Students do have the option to petition for general education evaluations and/or general education designations upon transfer.

- Courses completed at one of the Maricopa Community Colleges to meet AGEC-A requirements must be listed in the Course Equivalency Guide within the Arizona Course Applicability System as an equivalent course, departmental elective credit (XXXXDEC), or general elective credit (Elective) at all Arizona public universities. The course's evaluation and/or general education designation is valid for the term in which the student is awarded credit on the transcript. See the list titled MCCCD Courses That Can Be used to Satisfy MCCCD AGEC-A, AGEC-B, and/or AGEC-S for specific course information via the following website:
  www.maricopa.edu/academic/ccta/

- Courses completed at one of the Maricopa Community Colleges to meet the General Electives requirement. must be transferable to the university or universities to which the student plans to transfer, as elective credit or better. For appropriate course selection, students should consult with an advisor.

- Courses transferred from another regionally accredited institution to one of the Maricopa Community Colleges will be evaluated by the college for inclusion in the AGEC A or the Associate in Arts Elementary Education degree.

- Courses and their modular equivalents will satisfy AGEC-A and Associate in Arts in Elementary Education requirements.

- If a course is cross-referenced with one or more other courses, then only one of the cross-referenced courses will be accepted to meet requirements.

- Courses completed at one of the Maricopa Community Colleges to satisfy Common Courses must be transferable as elective or better to the universities that have the shared majors listed on a Common Course Matrix. A shared major is a university degree program that has similar academic preparation to one or more degree programs at other Arizona public universities as listed on the Common Course Matrices. For appropriate course selection, students should consult with an advisor.

Degree Requirements

I. MCCCD General Education Requirements

A. MCCCD AGEC-A

1. Core Areas   35-38 Credits

a. First-Year Composition [FYC]   6
ENG101/102 OR ENG107/108

**b.
Mathematics Studies [MA] and Computer/Statistics/Quantitative Applications [CS]   6**

1)
MAT142 [MA]
College Mathematics, or higher

*(NOTE: MAT150, MAT151, MAT152, MAT156
and MAT157 are excluded)*
        AND
2)
CIS105 [CS]
Survey of Computer Information Systems, **OR** BPC110 [CS]
Computer Usage and Applications

c. Literacy and Critical Inquiry [L]   3
COM225 Public Speaking

d. Humanities and Fine Arts [HU]   6
1)
Select (3) semester credits from the
following courses:

        ARH100 Introduction to Art
        ARH101 Prehistoric through Gothic Art

ARH102 Renaissance through Contemporary Art
        AND
2)
Select (3) semester credits from the following courses:
        ENH110 Introduction to Literature
        ENH241 American Literature Before 1860
        ENH242 American Literature After 1860
        EDU/ENH291 Children's Literature

HUM250 or HUM251 Ideas and Values in
    the Humanities
        THE111 Introduction to Theatre
        DAH100 Introduction to Dance
        DAH201 World Dance Perspectives
        MHL140 Survey of Music History
        MHL143 Music in World Cultures

e. Social and Behavioral Sciences [SB]   6
1)
Select 3 semester credits from the following courses:
        HIS103 United States History to 1870
        HIS104 United States History 1870 to Present
        AND
2)
Select 3 semester credits from the following courses:
        PSY101 Introduction to Psychology

GCU121 World Geography I: Eastern Hemisphere

GCU122 World Geography II: Western Hemisphere
        ECN211 Macroeconomic Principles
        ECN212 Microeconomic Principles
        POS110 American National Government
        ECH/CFS176 Child Development
        CFS205 Human Development

f.
Natural Sciences—Science-Quantitative [SQ]
and Science-General [SG]   **8**

To complete the Natural Sciences requirement, select a total of 8 semester credits from the following categories. At least 4 credits must be SQ courses. You can select 4 semester credits of SG and 4 semester credits of SQ for a total of 8 semester credits. Natural Sciences courses must include or be accompanied by the corresponding laboratory course. When the lecture and corresponding laboratory are awarded separate credit, both will be counted as equivalent to one course in that discipline.

    1)
Life Sciences - Select 4 semester credits of SQ or SG from BIO
AND

    2)
Physical Sciences or Earth/Space Sciences - Select 4 semester credits of SQ or SG credits from the following prefixes:

AGS
ASM
AST
CHM
GPH
GLG
PHS
PHY

Note: Students are advised to check with the university they plan to attend as requirements for lab sciences may vary.

  g. Awareness Areas   **0**

The MCCCD AAEE requires coursework in two Awareness Areas:

    Cultural Diversity in the U.S. [C] **AND**
    Historical Awareness [H] **OR**
    Global Awareness [G]

Courses can satisfy a Core Area Requirement and one or more Awareness Areas, or can satisfy an Elementary Education Requirement and one or more Awareness Areas simultaneously. Therefore, no additional semester credits are required to satisfy the two Awareness Areas.

2. MCCCD Additional Requirements 0-3 Credits
  a. Oral Communication

Satisfied by COM225 taken for Literacy and Critical Inquiry Requirement

  b. Critical Reading
    CRE101 or exemption by testing.

II. Elementary Education Requirements 25 Credits

A total of 25 semester credits are required to satisfy the Elementary Education Requirements.

A. Education Foundations   18 Credits

Complete the following courses to satisfy the Education Foundations requirements:

EDU 220 Introduction to Serving English Language Learners
EDU221 Introduction to Education
  EDU222 Introduction to the Exceptional Learner
  EDU230 Cultural Diversity in Education
  MAT156 Mathematics for Elementary Teachers I
  MAT157 Mathematics for Elementary Teachers II

B.
Electives for Arizona Professional
Teacher Standards   7 Credits

A total of 7 semester credits are required to satisfy the Electives for Arizona Professional Teacher Standards.

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.

Content Area Electives
Select 7 credits from the following:

Any ARH, ART, CIS, ECN, BPC, ENG, ENH,
GCU, GPH, HIS, MHL, MTC, POS, THE, THP
prefixed course(s)

Any EDU prefixed course(s) (except EDU250)

Any MAT (courses numbered higher than 142 except MAT156 and MAT157)

Any Foreign Language course(s)

Any Natural Science course(s)

CFS/ECH176 Child Development

CFS205 Human Development

EED215 Early Learning: Heath, Safety, Nutrition
and Fitness

FON100 Introductory Nutrition

Associate in Arts Total Credits: 60-63

ASSOCIATE IN ARTS, FINE ARTS – DANCE (AAFA)
The Maricopa County Community College District **Associate in Arts, Fine Arts - Dance** degree requires a minimum of 64 semester credits for the program of study. The degree includes the following components:

I. General Education
Arizona General Education Curriculum for Arts (AGEC-A)
MCCCD Additional Requirements

II. Fine Arts Requirements – Dance

Purpose of the Degree

The Associate in Arts, Fine Arts - Dance 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 Fine Arts. The degree is designed to prepare students to meet selective admission criteria for programs such as the Bachelor of Fine Arts, which may require a portfolio or performance requirement.

The semester credits used to satisfy the MCCCD Associate in Arts, Fine Arts - Dance degree may apply to university graduation requirements of the university major for which the degree is designed. Information regarding the articulation of the degree with majors at the Arizona public universities can be accessed via the following website:
www.aztransfer.com

Academic Policies that Govern the Associate
in Arts, Fine Arts – Dance Degree
•
Completion of the Associate in Arts, Fine Arts - Dance degree and the AGEC-A provides for exemption from Arizona public university admission requirements for Arizona residents who have a minimum Grade Point Average of 2.0 on a 4.0=A scale and a minimum 2.5
on a 4.0=A scale for non-residents.
•
The graduation policies within the general catalog must be satisfied for completion of the Associate in Arts, Fine Arts - Dance degree.
•
A minimum of 64 semester credits in courses numbered 100 and above to be completed with a grade of "C" or better. Credit units transferred from outside of the district need to be at a grade of "C" or better. A grade of "C" equals 2.0 on a 4.0 grading scale or equivalent. On an exception basis, P-grades may be allowed in the AGEC for credit transferred if documentation collected by the community college indicates that the P-grade issued was the only option for the student and the P-grade is a "C" or better. The P-grade exception does not apply to credits awarded by AGEC granting/receiving institutions;
•

Credit received through prior learning assessment or credit by evaluation is transferable within the Maricopa Community Colleges but is not necessarily transferable to other colleges and universities. No more than 20 semester credit hours may be applied toward AGEC.

- The General Education Requirements for AGEC-A may be completed in 35 semester credits with the following stipulations

  – Courses can satisfy a Core Area and one or two Awareness Areas simultaneously

  – A course cannot be used to satisfy more than one Core Area

- General Education Courses can satisfy multiple areas within the degree simultaneously (AGEC-A Core Area, AGEC Awareness Area, MCCCD Additional Requirements, or lower-division courses applicable to the major).

- Effective Fall 2000, the course evaluation and/or general education designation as listed in the Arizona Course Equivalency Guide (CEG) within the Arizona Course Applicability System (AZCAS), is valid for the term in which the student is awarded credit on the transcript. A course evaluation and/or general education designation may be subject to change. Students do have the option to petition for general education evaluations and/or general education designations upon transfer.

- Courses completed at one of the Maricopa Community Colleges to meet AGEC-A requirements must be listed in the Course Equivalency Guide within the Arizona Course Applicability System as an equivalent course, departmental elective credit (XXXXDEC), or general elective credit (Elective) at all Arizona public universities. The course's evaluation and/or general education designation is valid for the term in which the student is awarded credit on the transcript. See the list titled **MCCCD Courses That Can Be used to Satisfy MCCCD AGEC-A, AGEC-B, and/or AGEC-S** for specific course information via the following website: **www.maricopa.edu/academic/ccta/**

- Courses completed at one of the Maricopa Community Colleges to meet the General Electives requirement must be transferable to the university or universities to which the student plans to transfer, as elective credit or better. For appropriate course selection, students should consult with an advisor.

- Courses transferred from another regionally accredited institution to one of the Maricopa Community Colleges will be evaluated by the college for inclusion in the AGEC-A or Associate in Arts, Fine Arts - Dance Degree.

- Courses and their modular equivalents will satisfy AGEC-A and Associate in Arts, Fine Arts - Dance requirements.

- If a course is cross-referenced with one or more other courses, then only one of the cross-referenced courses will be accepted to meet requirements.

- Courses completed at one of the Maricopa Community Colleges to satisfy Common Courses must be transferable as elective or better to the universities that have the shared majors listed on a Common Course Matrix. A shared major is a university degree program that has similar academic preparation to one or more degree programs at other Arizona public universities as listed on the Common Course Matrices. For appropriate course selection, students should consult with an advisor.

Degree Requirements

The 64 semester credits required for the Associate in Arts, Fine Arts - Dance degree follow. See the list titled **MCCCD Courses That Can Be used to Satisfy MCCCD AGEC-A, AGEC-B, and/or AGEC-S** for specific course information via the following website: **www.maricopa.edu/academic/ccta/** This list identifies the courses in alpha-order by prefix as well as the Core Areas and Awareness Areas where the course will apply. For purposes of clarifying requirements in the Mathematics and Natural Sciences areas on the list and the AGEC requirements, an A, B, and/or S character may follow the [MA], [SQ], [SG] general education designations and refers to the specific AGEC.

I. MCCCD General Education

The MCCCD General Education includes two areas: MCCCD AGEC-A and MCCCD Additional Requirements.

A. MCCCD AGEC-A

1. Core Areas   35 Credits

   a. First-Year Composition (FYC)   6

   b. Literacy and Critical Inquiry [L]   3

   c. Mathematical Studies [MA/CS]   6

To complete the Mathematical Studies requirement, select one course to satisfy Mathematics [MA] A
and a second course from Computer/Statistics/Quantitative Applications [CS].

    1) Mathematics [MA] A (3 credits)

Select a course in college mathematics or college algebra or pre-calculus or any other mathematics course for which college algebra is a prerequisite
   AND
   2)
Computer/Statistics/Quantitative Applications
[CS] (3 credits)

d. Humanities and Fine Arts [HU]   6

Students are encouraged to choose coursework
from more than one discipline for a total of six semester credits.

Select from the following options to complete three credits:
   DAH100 Introduction to Dance   3
   DAH201 World Dance Perspectives   3

e. Social and Behavioral Sciences [SB]   6

Students are encouraged to choose coursework
from more than one discipline for a total of six semester credits.

f. Natural Sciences [SQ/SG]   8

To complete the Natural Sciences requirement:
Select four (4) semester credits of [SQ] and four
(4) semester credits of [SG] for a total of eight (8) semester credits, OR eight (8) semester credits of
[SQ]. Students cannot take eight (8) semester credits
of [SG] to meet the Natural Sciences requirement.

The lecture course(s) selected for Natural Sciences must include or be accompanied by the corresponding laboratory course. The lecture and corresponding laboratory course(s) may carry separate credit. Students should consult with an advisor for appropriate course selection. Students should also access the AZ Course Equivalency Guide (CEG) within the AZ Course Applicability System (AZCAS) for information on equivalencies.

Select from the following options to complete
four credits:
   BIO160   Introduction to Human
          Anatomy and Physiology   4
   BIO201   Human Anatomy and Physiology I   4

2. Awareness Areas   0 Credits

Students must satisfy two Awareness Areas: Cultural Diversity in the United States [C] and either Global Awareness [G] or Historical Awareness [H]. However, it is not necessary for students to exceed thirty-five semester credits to complete the Awareness Areas because courses can satisfy a Core Area and one or two Awareness Areas simultaneously. Therefore no additional semester credits are required to satisfy the two Awareness Areas.

   Cultural Diversity in the United States [C]
   AND
   Global Awareness [G] **OR**
   Historical Awareness [H]

3. MCCCD Additional Requirements 0-6 Credits

Students must satisfy Oral Communication and Critical Reading areas. However, it is not necessary for students to exceed the thirty-five semester credits required in order to complete the MCCCD Additional Requirements because courses can satisfy a Core Area and MCCCD Additional Requirements simultaneously. Therefore no additional semester credits are required to satisfy Oral Communication and Critical Reading.

a. Oral Communication   3

A total of three (3) semester credits is required for Oral Communication. However, if students select a communication course that satisfies both the Oral Communication area and an area within the Core,
then the Oral Communication requirement has been satisfied and additional electives may be taken.

   Select from the following options:

COM100 [SB] (3 credits) **OR**

COM100AA & COM100AB & COM100AC [SB]
(3 credits) **OR**
COM110 [SB] (3 credits) **OR**

COM110AA & COM110AB & COM110AC [SB]
(3 credits) **OR**
COM225 [L] (3 credits) **OR**
COM230 [SB] (3 credits)

b. Critical Reading   **3**

A total of three (3) semester credits is required for
the Critical Reading area. However, if students complete CRE101 and apply it to AGEC-A Core Requirements or if the students demonstrate proficiency through assessment, then the Critical Reading requirement has been satisfied and additional electives may be taken.

Select from the following options to complete
3 credits:
CRE101 [L] (3 credits) **OR**
equivalent as indicated by assessment

II. Fine Arts Requirements – Dance 29 Credits

A minimum of 29 credits are required to satisfy the Fine Arts Requirements – Dance.

Part I   11 Credits
Select the following:

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

Part II   9 Credits

Select from the following options to complete a minimum of nine semester credits. Students must attain Level III competency in ballet and modern dance courses:

DAN120++	World Dance (any module)	1
DAN129	Musical Theatre Dance I	1
DAN130	Musical Theatre Dance II	1
DAN131	Ballet I	1
DAN132	Modern Dance I	1
DAN133	Modern Jazz Dance I	1
DAN134	Ballet II	1
DAN135	Modern Dance II	1
DAN136	Modern Jazz Dance II	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
DAN233	Modern Jazz Dance III	1
DAN234	Ballet IV	1
DAN234AA	Ballet IV: Intensive	2
DAN235	Modern Dance IV	1
DAN236	Modern Jazz Dance IV	1
DAN237	Ballet Pointe I	1
DAN290	Dance Conservatory I (any module)	1-3
DAN291	Dance Conservatory II (any module)	1-3
DAN292	Dance Conservatory III (any module)	1-3

Part III: Restricted Electives   9 Credits

The remaining credits from DAH and DAN prefixed courses should be selected as prescribed by the dance advisor. Only three of the remaining credits may be selected from the following DAN prefixed courses:
DAH+++++

Any DAH prefixed course EXCEPT
DAH100 or DAH201 if selected to
satisfy the AGEC-A Humanities and
Fine Arts Area

DAN115++	Contemporary Dance Trends (any module)	1
DAN120++	World Dance (any module)	1
DAN125++	Social Dance (any module)	1
DAN129	Musical Theatre Dance I	1
DAN130	Musical Theatre Dance II	1
DAN133	Modern Jazz Dance I	1
DAN136	Modern 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
DAN164	Improvisation	1
DAN230	Musical Theatre Dance IV	1
DAN231	Ballet III	1
DAN231AA	Ballet III: Intensive	2
DAN232	Modern Dance III	1
DAN233	Modern Jazz Dance III	1
DAN234	Ballet IV	1
DAN234AA	Ballet IV: Intensive	2
DAN235	Modern Dance IV	1
DAN236	Modern Jazz Dance IV	1
DAN237	Ballet Pointe I	1
DAN290++	Dance Conservatory I (any module)	1-3
DAN291++	Dance Conservatory II (any module)	1-3
DAN292++	Dance Conservatory III (any module)	1-3
DAN298++	Special Projects (any module)	1-3

Selection of DAN298 courses to satisfy degree requirements should be done in consultation with a program advisor or faculty member as Special Projects courses do not currently transfer to any of the three Arizona state public universities.

Associate in Arts, Fine Arts – Dance
Total Credits   64

ASSOCIATE IN ARTS, FINE ARTS – AA (AAFA)

The Maricopa County Community College District **Associate in Arts, Fine Arts - Art** degree requires a minimum of 63 semester credits for the program of study. The degree includes the following components:

I. General Education

Arizona General Education Curriculum for Arts (AGEC-A) MCCCD Additional Requirements

II. Fine Arts Requirements – Art

Purpose of the Degree

The Associate in Arts, Fine Arts - Art 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 Fine Arts. The degree is designed to prepare students to meet selective admission criteria for programs such as the Bachelor of Fine Arts, which may require a portfolio or performance requirement.

The semester credits used to satisfy the MCCCD Associate in Arts, Fine Arts - Art degree may apply to university graduation requirements of the university major for which the degree is designed. Information regarding the articulation of the degree with majors at the Arizona public universities can be accessed via the following website:
www.aztransfer.com

Academic Policies that Govern the Associate in Arts, Fine Arts – Art Degree

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Completion of the Associate in Arts, Fine Arts - Art degree or the AGEC-A provides for exemption from Arizona public university admission requirements for Arizona residents who have a minimum Grade Point Average of 2.0 on a 4.0=A scale and a minimum 2.5 on a 4.0=A scale for non-residents.

- The graduation policies within the general catalog must be satisfied for completion of the Associate in Arts, Fine Arts - Art degree.
- A minimum of 63 semester credits in courses numbered 100 and above to be completed with a grade of "C" or better. Credit units transferred from outside of the district need to be at a grade of "C" or better. A grade of "C" equals 2.0 on a 4.0 grading scale or equivalent. On an exception basis, P-grades may be allowed in the AGEC for credit transferred if documentation collected by the community college indicates that the P-grade issued was the only option for the student and the P-grade is a "C" or better. The P-grade exception does not apply to credits awarded by AGEC granting/receiving institutions.
- Credit received through prior learning assessment or credit by evaluation is transferable within the Maricopa Community Colleges but is not necessarily transferable to other colleges and universities. No more than 20 semester credit hours may be applied toward AGEC.
- The General Education Requirements for AGEC-A may be completed in 35 semester credits with the following stipulations
  - Courses can satisfy a Core Area and one or two Awareness Areas simultaneously
  - A course cannot be used to satisfy more than one Core Area
- General Education Courses can satisfy multiple areas within the degree simultaneously (AGEC-A Core Area, AGEC Awareness Area, MCCCD Additional Requirements, or lower-division courses applicable to the major).
- Effective Fall 2000, the course evaluation and/or general education designation as listed in the Arizona Course Equivalency Guide (CEG) within the Arizona Course Applicability System (AZCAS), is valid for the term in which the student is awarded credit on the transcript.
  A course evaluation and/or general education designation may be subject to change. Students do have the option to petition for general education evaluations and/or general education designations upon transfer.
- Courses completed at one of the Maricopa Community Colleges to meet AGEC-A requirements must be listed in the Course Equivalency Guide within the Arizona Course Applicability System as an equivalent course, departmental elective credit (XXXXDEC), or general elective credit (Elective) at all Arizona public universities. The course's evaluation and/or general education designation is valid for the term in which the student is awarded credit on the transcript. See the list titled **MCCCD Courses That Can Be used to Satisfy MCCCD AGEC-A, AGEC-B, and/or AGEC-S** for specific course information via the following website: **www.maricopa.edu/academic/ccta/**
- Courses completed at one of the Maricopa Community Colleges to meet the General Electives requirement must be transferable to the university or universities to which the student plans to transfer, as elective credit or better. For appropriate course selection, students should consult with an advisor.
- Courses transferred from another regionally accredited institution to one of the Maricopa Community Colleges will be evaluated by the college for inclusion in the AGEC-A or Associate in Arts, Fine - Arts Degree.
- Courses and their modular equivalents will satisfy AGEC-A and Associate in Arts, Fine Arts – Art requirements.
- If a course is cross-referenced with one or more other courses, then only one of the cross-referenced courses will be accepted to meet requirements.
- Courses completed at one of the Maricopa Community Colleges to satisfy Common Courses must be transferable as elective or better to the universities that have the shared majors listed on a Common Course Matrix.
  A shared major is a university degree program that has similar academic preparation to one or more degree programs at other Arizona public universities as listed
  on the Common Course Matrices. For appropriate course selection, students should consult with an advisor.

Degree Requirements

The 63 semester credits required for the Associate in Arts, Fine Arts - Art degree follow. See the list titled **MCCCD Courses That Can Be used to Satisfy MCCCD AGEC-A, AGEC-B, and/or AGEC-S** for specific course information via the following website: **www.maricopa.edu/academic/ccta/** This list identifies the courses in alpha-order by prefix as well as the Core Areas and Awareness Areas where the course will apply. For purposes of clarifying requirements in the Mathematics and Natural Sciences areas on the list and the AGEC requirements, an A, B, and/or S character may follow the [MA], [SQ], [SG] general education designations and refers to the specific AGEC.

I. MCCCD General Education

The MCCCD General Education includes two areas: MCCCD AGEC-A and MCCCD Additional Requirements

MCCCD AGEC-A
1. Core Areas   **35 Credits**

a. **First-Year Composition (FYC)**	6
b. **Literacy and Critical Inquiry [L]**	3
c. **Mathematical Studies [MA/CS]**	6

To complete the Mathematical Studies requirement, select one course to satisfy Mathematics [MA] A
and a second course from Computer/Statistics/Quantitative Applications [CS].

    1) Mathematics [MA] A (3 credits)

Select a course in college mathematics or college algebra or pre-calculus or any other mathematics course for which college algebra is a prerequisite
    AND
    2)
Computer/Statistics/Quantitative Applications
[CS] (3 credits)

d. **Humanities and Fine Arts [HU]**	6

Students are encouraged to choose coursework
from more than one discipline for a total of six semester credits.

    Select the following:

ARH101 Prehistoric Through Gothic Art	**3**
e. **Social and Behavioral Sciences [SB]**	6

Students are encouraged to choose coursework
from more than one discipline for a total of six semester credits.

f. **Natural Sciences [SQ/SG]**	8

To complete the Natural Sciences requirement: Select four (4) semester credits of [SQ] and four (4) semester credits of [SG] for a total of eight (8) semester credits, OR eight (8) semester credits of [SQ]. Students <u>cannot</u> take eight (8) semester credits of [SG] to meet the Natural Sciences requirement.

The lecture course(s) selected for Natural Sciences must include or be accompanied by the corresponding laboratory course. The lecture and corresponding laboratory course(s) may carry separate credit. Students should consult with an advisor for appropriate course selection. Students should also access the AZ Course Equivalency Guide (CEG) within the AZ Course Applicability System (AZCAS) for information on equivalencies.

2. Awareness Areas   0 Credits

Students must satisfy two Awareness Areas: Cultural Diversity in the United States [C] and either Global Awareness [G] or Historical Awareness [H]. However,
it is not necessary for students to exceed thirty-five semester credits to complete the Awareness Areas because courses can satisfy a Core Area and one or two Awareness Areas simultaneously. Therefore no additional semester credits are required to satisfy the two Awareness Areas.

Cultural Diversity in the United States [C]
AND
Global Awareness [G] **OR**
Historical Awareness [H]

3. MCCCD Additional Requirements 0-6 Credits

Students must satisfy Oral Communication and Critical Reading areas. However, it is not necessary for students to exceed the thirty-five semester credits required in order to complete the MCCCD Additional Requirements because courses can satisfy a Core Area and MCCCD Additional Requirements simultaneously. Therefore no additional semester credits are required to satisfy Oral Communication and Critical Reading.

a. Oral Communication   3

A total of three (3) semester credits is required for
Oral Communication. However, if students select a communication course that satisfies both the Oral Communication area and an area within the Core,
then the Oral Communication requirement has been satisfied and additional electives may be taken.

Select from the following options:
COM100 [SB] (3 credits) **OR**

COM100AA & COM100AB & COM100AC [SB]
(3 credits) **OR**
COM110 [SB] (3 credits) **OR**

COM110AA & COM110AB & COM110AC [SB]
(3 credits) **OR**
COM225 [L] (3 credits) **OR**
COM230 [SB] (3 credits)

b. Critical Reading   **3**

A total of three (3) semester credits is required for
the Critical Reading area. However, if students complete CRE101 and apply it to AGEC-A Core Requirements or if the students
demonstrate proficiency through assessment, then the Critical Reading requirement has been satisfied.

Select from the following options to complete
3 credits:

CRE101 (3 credits) **OR** equivalent as indicated
by assessment

II. Fine Arts Requirements – Art   28 Credits

A minimum of 28 credits are required to satisfy the Fine Arts Requirements – Art.

Foundations   16 Credits
Select the following:

ADA/ART112	Two-Dimensional Design	3
ADA/ART115	Three-Dimensional Design	3
ARH102	Renaissance Through Contemporary Art	3
ART111	Drawing I	3
ART113	Color	3
ART255AB	The Portfolio	1

Restricted Electives   12 Credits

Select from the following options to complete a minimum of twelve semester credits:

ART116	Life Drawing I	3
ART122	Drawing and Composition II	3
ART131	Photography I	3
ART151	Sculpture I	3
ART161	Ceramics I	3
ART165	Watercolor Painting I	3
ART167	Painting I	3

Associate in Arts, Fine Arts – Art Total Credits   **63**

ASSOCIATE IN ARTS, FINE ARTS – THEATRE (AAFA)
The Maricopa County Community College District **Associate in Arts, Fine Arts - Theatre** degree requires a minimum of 60-64
semester credits for the program of study. The degree includes the following components:

I. General Education

Arizona General Education Curriculum for Arts (AGEC-A)
    MCCCD Additional Requirements

II. Fine Arts Requirements – Theatre

Purpose of the Degree
The Associate in Arts, Fine Arts - Theatre 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 Fine Arts the degree is designed to prepare students to meet
selective admission criteria for programs such as the Bachelor of Fine Arts, which may require a portfolio or performance requirement.

The semester credits used to satisfy the MCCCD Associate in Arts, Fine Arts - Theatre may apply to university graduation
requirements of the university major for which the degree is designed. Information regarding the articulation of the degree with

majors at the Arizona public universities can be accessed via the following website: **www.aztransfer.com**

Academic Policies that Govern the Associate in Arts, Fine Arts – Theatre Degree

- Completion of the Associate in Arts, Fine Arts - Theatre and the AGEC-A provides for exemption from Arizona public university admission requirements for Arizona residents who have a minimum Grade Point Average of 2.0 on a 4.0=A scale and a minimum 2.5 on a 4.0=A scale for non-residents.

- The graduation policies within the general catalog must be satisfied for completion of the Associate in Arts, Fine Arts - Theatre degree.

- A minimum of 60 semester credits in courses numbered 100 and above to be completed with a grade of "C" or better. Credit units transferred from outside of the district need to be at a grade of "C" or better. A grade of "C" equals 2.0 on a 4.0 grading scale or equivalent. On an exception basis, P-grades may be allowed in the AGEC for credit transferred if documentation collected by the community college indicates that the P-grade issued was the only option for the student and the P-grade is a "C" or better. The P-grade exception does not apply to credits awarded by AGEC granting/receiving institutions.

- Credit received through prior learning assessment or credit by evaluation is transferable within the Maricopa Community Colleges but is not necessarily transferable to other colleges and universities. No more than 20 semester credit hours may be applied toward AGEC.

- The General Education Requirements for AGEC-A may be completed in 35 semester credits with the following stipulations
  – Courses can satisfy a Core Area and one or two Awareness Areas simultaneously
  – A course cannot be used to satisfy more than one Core Area

- General Education Courses can satisfy multiple areas within the degree simultaneously (AGEC-A Core Area, AGEC Awareness Area, MCCCD Additional Requirements, or lower-division courses applicable to the major)

- Effective Fall 2000, the course evaluation and/or general education designation as listed in the Arizona Course Equivalency Guide (CEG) within the Arizona Course Applicability System (AZCAS), is valid for the term in which the student is awarded credit on the transcript. A course evaluation and/or general education designation may be subject to change. Students do have the option to petition for general education evaluations and/or general education designations upon transfer.

- Courses completed at one of the Maricopa Community Colleges to meet AGEC-A requirements must be listed in the Course Equivalency Guide within the Arizona Course Applicability System as an equivalent course, departmental elective credit (XXXXDEC), or general elective credit (Elective) at all Arizona public universities. The course's evaluation and/or general education designation is valid for the term in which the student is awarded credit on the transcript. See the list titled **MCCCD Courses That Can Be used to Satisfy MCCCD AGEC-A, AGEC-B, and/or AGEC-S** for specific course information via the following website: **www.maricopa.edu/academic/ccta/**

- Courses completed at one of the Maricopa Community Colleges to meet the General Electives requirement must be transferable to the university or universities to which the student plans to transfer, as elective credit or better. For appropriate course selection, students should consult with an advisor.

- Courses transferred from another regionally accredited institution to one of the Maricopa Community Colleges will be evaluated by the college for inclusion in the AGEC-A or Associate in Arts, Fine Arts - Theatre Degree.

- Courses and their modular equivalents will satisfy AGEC-A and Associate in Arts, Fine Arts - Theatre requirements.

- If a course is cross-referenced with one or more other courses, then only one of the cross-referenced courses will be accepted to meet requirements.

- Courses completed at one of the Maricopa Community Colleges to satisfy Common Courses must be transferable as elective or better to the universities that have the shared majors listed on a Common Course Matrix. A shared major is a university degree program that has similar academic preparation to one or more degree programs at other Arizona public universities as listed on the Common Course Matrices. For appropriate course selection, students should consult with an advisor.

Degree Requirements

The 60-64 semester credits required for the Associate in Arts, Fine Arts -Theatre follow. See the list titled **MCCCD Courses that can be used to Satisfy MCCCD AGEC-A, AGEC-B, and/or AGEC-S** for specific course information via the following website: **www.maricopa.edu/academic/ccta/** This list identifies the courses in alpha-order by prefix as well as the Core Areas and Awareness Areas where the course will apply. For purposes of clarifying requirements in the Mathematics and Natural Sciences areas on the list and the AGEC requirements, an A, B, and/or S character may follow the [MA], [SQ], [SG] general education designations and refers to the specific AGEC.

I. MCCCD General Education

The MCCCD General Education includes two areas: MCCCD AGEC-A and MCCCD Additional Requirements

MCCCD AGEC-A
1. Core Areas   35 Credits
a. First-Year Composition (FYC)   **6**
b. Literacy and Critical Inquiry [L]
Select the following :
THE220 Modern Drama   **3**

c. Mathematical Studies [MA/CS]   **6**

To complete the Mathematical Studies requirement, select one course to satisfy Mathematics [MA] A and
a second course from Computer/Statistics/Quantitative Applications [CS].

    1) Mathematics [MA] A (3 credits)

Select a course in college mathematics or college algebra or pre-calculus or any other mathematics course for which college algebra is a prerequisite.
      AND
    2) Computer/Statistics/
      Quantitative Applications [CS] (3 credits)

d. Humanities and Fine Arts [HU]   **6**

Students are encouraged to choose coursework
from more than one discipline for a total of six semester credits.

    Select the following:
    THE205 Introduction to Cinema   **3**

e. Social and Behavioral Sciences [SB] **6**

Students are encouraged to choose course work
from more than one discipline for a total of six semester credits.

f. Natural Sciences [SQ/SG]   **8**

To complete the Natural Sciences requirement:
Select four (4) semester credits of [SQ] and four
(4) semester credits of [SG] for a total of eight (8) semester credits, **OR** eight (8) semester credits of [SQ]. Students <u>cannot</u> take eight (8) semester credits
of [SG] to meet the Natural Sciences requirement.

The lecture course(s) selected for Natural Sciences must include or be accompanied by the corresponding laboratory course. The lecture and corresponding laboratory course(s) may carry separate credit. Students should consult with an advisor for appropriate course selection. Students should also access the AZ Course Equivalency Guide (CEG) within the AZ Course Applicability System (AZCAS) for information on equivalencies.

2. Awareness Areas   0 Credits

Students must satisfy two Awareness Areas: Cultural Diversity in the United States [C] and either Global Awareness [G] or Historical Awareness [H]. However,
it is not necessary for students to exceed thirty-five semester credits to complete the Awareness Areas because courses can satisfy a Core Area and one or two Awareness Areas simultaneously. Therefore no additional semester credits are required to satisfy the two Awareness Areas.

    Cultural Diversity in the United States [C] **AND**
    Global Awareness [G] **OR**
    Historical Awareness [H]

3. MCCCD Additional Requirements 0-6 Credits

Students must satisfy Oral Communication and Critical Reading areas. However, it is not necessary for students to exceed the thirty-five semester credits required in order to complete the MCCCD Additional Requirements because courses can satisfy a Core Area and MCCCD Additional Requirements simultaneously. Therefore no additional semester credits are required to satisfy Oral Communication and Critical Reading.

a. Oral Communication   **3**

A total of three (3) semester credits is required for Oral Communication. However, if students select a communication course that satisfies both the Oral Communication area and an area within the Core, then the Oral Communication requirement has been satisfied and additional electives may be taken.

Select from the following options:
COM100 [SB] (3 credits) **OR**

COM100AA & COM100AB & COM100AC [SB] (3 credits) **OR**
COM110 [SB] (3 credits) **OR**

COM110AA & COM110AB & COM110AC [SB] (3 credits) **OR**
COM225 [L] (3 credits) **OR**
COM230 [SB] (3 credits)

b. Critical Reading   **3**

A total of three (3) semester credits is required for the Critical Reading area. However, if students complete CRE101 and apply it to AGEC-A Core Requirements or if the students demonstrate proficiency through assessment, then the Critical Reading requirement has been satisfied.

Select from the following options to complete
3 credits:

CRE101 [L] (3 credits) **OR** equivalent as indicated by assessment

II. Fine Arts Requirements – Theatre 25-29 Credits

A minimum of 25 credits are required to satisfy the
Fine Arts Requirements – Theatre.

Foundations   13 Credits

Select the following:

THE111	Introduction to Theatre	3
THP112	Acting I	3
THP115	Theatre Makeup	3
THP201AA	Theatre Production I **OR**	
THP201AB	Theatre Production II	1
THP213	Introduction to Technical Theatre	3

Restricted Electives   12-16 Credits

Students may choose from the following courses to specialize in Acting, Technical Theatre, Teacher Education, or Cinema. Students should consult with the theatre advisor for the restricted electives recommended for each specialization track.

Select from the following options to complete a minimum of 12 semester credits:

HUM/THE206	Introduction to Television Arts	3
HUM/THE210	Contemporary Cinema	3
THE118	Playwriting	3
THP120AA	Audition Techniques: Prepared Monologue	1
THP120AB	Audition Techniques: Cold Readings	1
THP130	Stage Combat OR	
THP131	Stage Movement	3
THP210	Acting: TV/Film	3
THP211	Creative Drama	3
THP212	Acting II	3
THP214	Directing Techniques	3
THP216	Beginning Stage Lighting	3
THP217	Introduction to Design Scenography	3
THP219	Introduction to Puppetry	3

	THP267 Painting Techniques for Film, TV and Theatre 3	
THP271	Voice and Diction	3

Associate in Arts, Fine Arts –
Theatre Total Credits   60-64

ASSOCIATE IN BUSINESS – GENERAL REQUIREMENTS (ABUS-GR)

The Maricopa County Community College District **Associate in Business General Requirements (ABus GR)** degree requires a total of 62-63 semester credits for the program of study. The degree has three major components:

I.
MCCCD General Education

Includes Arizona General Education Curriculum for   Business (AGEC-B)

II. Common Lower Division Program Requirements

III.   General Electives

Purpose of the Degree

The ABus-GR degree is designed for students who plan to transfer to Arizona's public universities into majors that articulate with the Associate in Business General Requirements pathway and for students who plan to complete lower division coursework toward a baccalaureate program at other degree-granting institutions. All business majors except Accountancy and Computer Information Systems should follow the ABus-GR pathway. Accountancy majors should follow the Transfer Guide (TG-XR) pathway. Computer Information Systems majors should follow the Associate in Business Special Requirements pathway.

Generally, the degree transfers 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 MCCCD Associate in Business General Requirements will apply to university graduation requirements of the university major for which the ABus-GR was designed.

Academic Policies that Govern the Associate in Business General Requirements Degree

- Requires 62-63 semester credits in courses numbered 100 and above to be completed with a grade of "C" or better.

- Credit units transferred from outside of the district need to be at a grade of "C" or better. A grade of "C" equals 2.0 on a 4.0 grading scale or equivalent. On an exception basis, P-grades may be allowed in the AGEC for credit transferred if documentation collected by the community college indicates that the P-grade issued was the only option for the student and the P-grade is a "C" or better. The P-grade exception does not apply to credits awarded by AGEC granting/receiving institutions.

- Credit received through prior learning assessment or credit by evaluation is transferable within the Maricopa Community Colleges but is not necessarily transferable to other colleges and universities. No more than 20 semester credit hours may be applied toward AGEC.

- Uses the following policies to help students complete the required Core and Awareness Areas in AGEC-B without exceeding the 35 semester credits.

  – Courses can satisfy a Core Area and one or two Awareness Areas simultaneously.

  – A course cannot be used to satisfy more than one Core Area requirement.

- Uses the following policies to help students complete
the program requirements at a minimum of 62 semester credits but not more than 63 semester credits.

- Courses can satisfy multiple areas within the degree simultaneously (AGEC-B Core Area, AGEC-B Awareness Area, and/or Common Lower Division Program Requirements.

- Follows the general education policy below:

General Education Designations
(example: [FYC], [SB], [HU], etc.)

Effective Fall 2000 the course evaluation and/or general education designation as listed in the Arizona CEG (Course Equivalency Guide) within the Arizona Course Applicability System (AZCAS) is valid for the term in which the student is awarded credit on the transcript. A course evaluation and/or general education designation may be subject to change. Given that curriculum is dynamic at both MCCCD and the institutions to which MCCCD students transfer, students have the option to petition for general education

evaluations and/or general education designations.

- Requires courses that transfer as an equivalent course, departmental elective credit (XXXXDEC), or general elective credit (Elective) at all Arizona public universities according to the Arizona Course Equivalency Guide (CEG) within the Arizona Course Applicability System (AZCAS). The course evaluation and/or general education designation as listed in AZCAS is valid for the term in which the student is awarded credit on the transcript.

- Follows the graduation policies within the general catalog.

- Includes both courses and their modular equivalents. Either the course or the modular equivalents will satisfy the Associate in Business General Requirements.

- Accepts one of the courses that is cross-referenced with other courses.

- Provides for exemption from Arizona university admission requirements for students who complete the ABus-GR degree from a regionally accredited post-secondary institution with a minimum 2.0 on a 4.0=A scale for Arizona residents and a minimum 2.5 on a 4.0=A scale for non-residents.

Degree Requirements

The 62-63 semester credits required for the Associate in Business General Requirements follow. See the list entitled **MCCCD Courses That Can Be Used to Satisfy MCCCD AGEC A, AGEC B and/or AGEC S** for specific course information via the following website:

www.maricopa.edu/academic/ccta

- Select Tab labeled "Curriculum Procedures Handbook-Programs"
- Select Academic Programs
- Select AGEC Course Matrix

The list identifies the courses in alpha-order by prefix as well as the different Core Areas and Awareness Areas where the course will apply. When selecting Mathematical Studies and Natural Sciences options, select from the appropriate AGEC-A, B, or S list.

I. MCCCD General Education

MCCCD AGEC-B

1. Core Areas   35 Credits

    a. First-Year Composition (FYC)   6

    b. Literacy and Critical Inquiry [L]   3

    c. Mathematical Studies [MA/CS]   6

To complete the Mathematical Studies requirement select one course to satisfy Mathematics [MA] B and a second course from Computer/Statistics/Quantitative Applications [CS].

      1) Mathematics [MA] B (3 credits)

MAT212, Brief Calculus, or a higher level mathematics course
       AND
    2)
Computers/Statistics/Quantitative Applications) [CS] (3 credits)

CIS105 [CS] Survey of Computer Information Systems

    d. Humanities and Fine Arts [HU]   6

Students are encouraged to choose coursework
from more than one discipline for a total of six semester credits.

    e. Social and Behavioral Sciences [SB]   6

Students are encouraged to choose coursework
from more than one discipline for a total of six semester credits.

    f. Natural Sciences [SQ/SG]   8
      To complete the Natural Sciences requirement:

Select four (4) semester credits of [SQ] and four (4) semester credits of [SG] for a total of (8) semester credits, **OR** eight (8) semester credits of [SQ].

Students <u>cannot</u> take eight (8) semester credits of
[SG] to meet the Natural Sciences requirement.

The lecture course(s) selected for Natural Sciences must include or be accompanied by the corresponding laboratory course. The lecture and corresponding laboratory course(s) may carry separate credit. Students should consult with an advisor for appropriate course selection. Students should also access the AZ Course Equivalency Guide (CEG) within the AZ Course Applicability System (AZCAS) for information on equivalencies.

2. Awareness Areas

Students must satisfy two Awareness Areas: Cultural Diversity in the United States [C] and either Global Awareness [G] or Historical Awareness [H]. However,
it is not necessary for students to exceed thirty-five semester credits to complete the Awareness Areas because courses can satisfy a Core Area and one or two Awareness Areas simultaneously. Therefore no additional semester credits are required to satisfy the two Awareness Areas.

Cultural Diversity in the United States [C]
AND
Global Awareness [G] **OR**
Historical Awareness [H]

II.
Common Lower Division
Program Requirements   27-28 Credits

A total of 27-28 credits are required to satisfy the Common Lower Division Program Requirements. However, if students select courses that simultaneously satisfy multiple areas of the degree, then the number of semester credits required for Common Lower Division Program Requirements is reduced. Additional semester credits may be required in General Electives to complete the minimum 62-63 total program semester credits.

Complete the following:
Accounting
*ACC111   Accounting Principles I **AND**
ACC230
Uses of Accounting Information I
AND
ACC240   Uses of Accounting Information II
                        OR
ACC211   Financial Accounting **AND
ACC212   Managerial Accounting   6-7

*MCCCD ACC250 or ACC211 may be taken in lieu
of ACC111.

**MCCCD ACC111 and ACC112 together are equivalent to ACC211.

ECN211 [SB] Macroeconomic Principles   (3)
ECN212 [SB] Microeconomic Principles   (3)
GBS205   Legal, Ethical, Regulatory
                  Issues in Business   (3)
GBS221 [CS] Business Statistics   (3)
GBS220
Quantitative Issues in Business
OR
MAT217
Mathematical Analysis for Business
OR
MAT218   Mathematical Analysis for Business (3)

Business Elective   6
Select from the following options:
CIS114DE   Excel Spreadsheet
CIS133DA   Internet/Web Development Level I
CIS159 [CS]   Visual Basic Programming I
CIS162AD   C#: Level I
CIS163AA   Java Programming: Level I

GBS151	Introduction to Business
GBS233 [L]	Business Communication
**GBS220	Quantitative Methods in Business
GBS110 **OR**	Human Relations in Business and Industry
MGT251	Human Relations in Business
IBS101	Introduction to International Business
MGT253	

Owning and Operating a
Small Business

| REA179 | Real Estate Principles I |
| REA180 | Real Estate Principles II |

**

If course used to satisfy Common Lower Division Program Requirements, it can not be used to satisfy Business Electives.

III. General Electives

Select courses to complete a minimum of 62 semester credits but no more than a total of 63 semester credits. General Electives semester credits may be necessary if courses selected for the degree satisfy multiple areas.

For appropriate course selection, students should consult an advisor.

Students must select courses that are acceptable as an equivalent course, departmental elective credit (XXXXDEC), or general elective credit (Elective) at all Arizona public universities according to the Arizona Course Equivalency Guide (CEG) within the Arizona Course Applicability System (AZCAS). For appropriate course selection, students should consult with an advisor.

ABUS-GR Degree Total Credits   62-63

ASSOCIATE IN BUSINESS – SPECIAL REQUIREMENTS (ABUS – SR)

The Maricopa County Community College District **Associate in Business, Special Requirements (ABus-SR)** degree requires a total of 62-63 semester credits for the program of study. The degree has three major components:

I.
MCCCD General Education

Includes the Arizona General Education Curriculum for Business (AGEC-B)

II. Common Lower Division Program Requirements

III. General Electives

Purpose of the Degree

The ABus-SR degree is designed for Computer Information Systems majors who plan to transfer to Arizona's public universities and for students who plan to complete lower division coursework toward a baccalaureate program at other degree-granting institutions. Currently the pathway for accountancy majors is a Transfer Guide Pathway (TG-XR). The Associate in Business General Requirements (ABus-GR) is designed for all other business majors. Additional information on academic majors at the Arizona public universities can be accessed via the following web site: **www.aztransfer.com**

Generally, the degree transfers 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 MCCCD Associate in Business Special Requirements may apply to university graduation requirements of the university major for which the ABus-SR was designed.

Academic Policies that Govern the Associate in Business Special Requirements Degree

•
Requires 62-63 semester credits in courses numbered 100 and above to be completed with a grade of "C" or better.

•
Credit units transferred from outside of the district need to be at a grade of "C" or better. A grade of "C" equals 2.0 on a 4.0 grading scale or equivalent. On an exception basis, P-grades may be allowed in the AGEC for credit transferred if documentation collected by the community college indicates that the P-grade issued was the only option for the student and the P-grade is a "C" or better. The P-grade exception does not apply to credits awarded by AGEC granting/receiving institutions.

•
Credit received through prior learning assessment or credit by evaluation is transferable within the Maricopa Community Colleges but is not necessarily transferable to other colleges and universities. No more than 20 semester credit hours may be applied toward AGEC.

•
Uses the following policies to help students complete the required Core and Awareness Areas in AGEC-B without exceeding the 35

semester credits:

–

Courses can satisfy a Core Area and one or two Awareness Areas simultaneously.

–

A course cannot be used to satisfy more than one Core Area requirement.

•

Uses the following policy to help students complete the program requirements at a minimum of 62 semester credits but not more than 63 semester credits.

•

Courses can satisfy multiple areas within the degree simultaneously (AGEC-B Core Area, AGEC-B Awareness Area, and/or Common Lower Division Program Requirements)

• Follows the general education policy below:

General Education Designations
(example: [FYC], [SB], [HU], etc.)

Effective fall 2000, the course evaluation and/or general education designation, as listed in the Arizona CEG (Course Equivalency Guide) within the Arizona Course Applicability System (AZCAS) is valid for the term in which the student is awarded credit on the transcript. A course evaluation and/or general education designation may be subject to change. Given that curriculum is dynamic at both MCCCD and the institutions to which MCCCD students transfer, students have the option to petition for course evaluations and/or general education designations.

•

Requires courses that transfer as an equivalent course, departmental elective credit (XXXXDEC), or general elective credit (Elective) at all Arizona public universities according to the Arizona Course Equivalency Guide (CEG). The course evaluation and/or general education designation as listed in AZCAS is valid for the term in which the student is awarded credit on the transcript.

•

Follows the graduation policies within the general catalog.

•

Includes both courses and their modular equivalents, Either the course or the modular equivalents will satisfy the Associate in Business Special Requirements.

•

Accepts one of the courses that is cross-referenced with other courses.

•

Provides for exemption from Arizona university admission requirements for students who complete the ABus-SR degree from a regionally accredited post-secondary institution with a minimum 2.0 on a 4.0=A scale for Arizona residents and a minimum 2.5 on a 4.0=A scale for non-residents.

Degree Requirements

The 62-63 semester credits required for the Associate in Business Special Requirements follow. See the list entitled **MCCCD Courses That Can Be Used to Satisfy MCCCD AGEC-A, AGEC-B and/or AGEC-S** for specific course information via the following website: **www.maricopa.edu/academic/ccta**

•

Select Tab labeled "Curriculum Procedures
Handbook-Programs"
  • Select Academic Programs
  • Select AGEC Course Matrix

The list identifies the courses in alpha-order by prefix as well as the different Core Areas and Awareness Areas where the course will apply. When selecting Mathematical Studies and Natural Sciences options, select from the appropriate AGEC-A, B, or S list.

I. MCCCD General Education

MCCCD AGEC-B

1. Core Areas   35 Credits
    a. First-Year Composition (FYC)   6

    b. Literacy and Critical Inquiry [L]   3

    c. Mathematical Studies [MA/CS]   6

To complete the Mathematical Studies requirement select one course to satisfy the Mathematics [MA] B and a second course from Computer/Statistics/Quantitative Applications [CS]

      1) Mathematics [MA] B (3 credits)

MAT212, Brief Calculus, or a higher
level mathematics course
   AND
  2)
Computer/Statistics/Quantitative
Applications [CS] (3 credits)

CIS105 [CS] Survey of Computer
Information Systems

 d. Humanities and Fine Arts [HU]   **6**

Students are encouraged to choose course
work from more than one discipline for a
total of six semester credits.

 e. Social and Behavioral Sciences [SB]   **6**

Students are encouraged to choose course
work from more than one discipline for a
total of six semester credits

 f. Natural Sciences [SQ/SG]   **8**

Select four (4) semester credits of [SQ] and four (4) semester credits of [SG] for a total of eight (8) semester credits, OR eight (8) semester credits of [SQ]. Students cannot take eight (8) semester credits of [SG] to meet the Natural Sciences requirement.

The lecture course(s) selected for Natural Sciences must include or be accompanied by the corresponding laboratory course. The lecture and corresponding laboratory course(s) may carry separate credit. Students should consult with an advisor for appropriate course selection. Students should also access the AZ Course Equivalency Guide (CEG) within the AZ Course Applicability System (AZCAS) for information on equivalencies.

2. Awareness Areas

Students must satisfy two Awareness Areas: Cultural Diversity in the United States [C] and either Global Awareness [G] or Historical Awareness [H]. However,
it is not necessary for students to exceed thirty-five semester credits to complete the Awareness Areas because courses can satisfy a Core Area and one or two Awareness Areas simultaneously. Therefore no additional semester credits are required to satisfy the two Awareness Areas.

 Cultural Diversity in the United States [C]
AND
Global Awareness [G]
OR
Historical Awareness [H]

II.
Common Lower Division
Program Requirements   27-28 Credits

A total of 27-28 credits is required for the Common Lower Division Program Requirements. Common courses meeting general education areas are noted with the general education designations encased in brackets.

 Complete the following:
Accounting
*ACC111   Accounting Principles I **AND**
ACC230
Uses of Accounting Information I
AND
 ACC240   Uses of Accounting Information II
      OR
 ACC211   Financial Accounting **AND
 ACC212   Managerial Accounting   **6-7**
 *

MCCCD ACC250 or ACC211 may be taken in
lieu of ACC111.
 **

MCCCD ACC111 and ACC112 together are
equivalent to ACC211.

Programming I		3
CIS162AD	C#: Level I	

Programming II		3
CIS250	Management Information Systems	
GBS205		

Legal, Ethical, Regulatory Issues
in Business   3

GBS220	Quantitative Issues in Business	
	OR	
MAT217	Mathematical Analysis for Business	
	OR	
MAT218	Mathematical Analysis for Business	3
GBS221 [CS]	Business Statistics	3
ECN211 [SB]	Macroeconomic Principles	3
ECN212 [SB]	Microeconomic Principles	3

III. General Electives   0-6 Credits

Select courses to complete a minimum of 62 semester credits but no more than a total of 63 semester credits for the program. General Electives semester credits may be necessary if courses selected for the degree satisfy multiple areas. For appropriate course selection, students should consult an advisor.

Students must select courses that are acceptable as an equivalent course, departmental elective credit (XXXXDEC), or general elective credit (Elective) at all Arizona public universities according to the Arizona Course Equivalency Guide (CEG) within the Arizona Course Applicability System (AZCAS). For appropriate course selection, students should consult with an advisor.

ABus-SR Total Credits   62-63

ASSOCIATE IN TRANSFER PARTNERSHIP (ATP)
Purpose of the Degree
The Maricopa County Community College District **Associate in Transfer Partnership (ATP)** degree is designed to meet the needs of the Maricopa Community College students transferring to public and private colleges and universities. This degree is developed specifically for students who have an identified major and have selected the baccalaureate degree-granting institution to which they intend to transfer.

The Associate in Transfer Partnership degree is an articulated academic program of study established among the student, the accredited baccalaureate degree-granting institution selected by the student, and the primary Maricopa Community College the student attends. The program of study will "parallel" the student's four-year degree as designated by the baccalaureate degree-granting institution. That is, the courses and number of credit hours in the degree will consist of the Freshman and Sophomore lower division course degree requirements of the major as jointly planned and agreed on with the community college and the accredited institution to which the student plans to transfer.

The ATP degree requires a core of general education credits in the following general education categories: First-Year Composition (6 credits); Mathematics (3 credits); Natural Sciences (4 credits); and Humanities and Fine Arts/Social and Behavioral Sciences or related area general education requirements (6 credits). Also included in the ATP degree are the general education and major requirements to meet the lower division requirements of the major at the baccalaureate degree-granting institution. The ATP degree must consist of at least a minimum of 60 credit hours. The ATP degrees are accessible on the following web site: www.**maricopa.edu/academic/ccta/curric/atp.php**

Click on Program Information to access ATPs.

Exemption From Arizona University Admission Requirements
The Associate in Transfer Partnership degree provides for exemption from Arizona university admission requirements for students who complete the degree from a regionally accredited post-secondary institution with a minimum 2.0 on a 4.0=A scale for Arizona residents and a minimum 2.5 on a 4.0=A scale for non-residents.

The ATP degree does not assure admission to the specific program at the baccalaureate degree-granting institution. Students participating in the ATP degree will be treated as "native" students by the upper division institution in terms of course evaluation and course changes.

Advising is a critical element of the transfer partnership degree, and students must work closely with a community college academic advisor prior to entering into a transfer partnership agreement. Once a transfer partnership agreement has been initiated by the student, approved and signed off by a community college academic advisor and university authorized official, the student is responsible

for periodic meetings with the community college advisor and, if/when determined necessary, with the appropriate baccalaureate degree-granting institution academic advisor. Upon completion of 36 hours, the student must receive formal advising at a Maricopa Community College before the remainder of their classes can be scheduled.

Elements of the Associate in Transfer Partnership (ATP) Degree

MCCCD General Education Core   19 Credits   Approved Lower Division Transfer Courses (Major dependent with variable maximum to be determined by receiving baccalaureate degree-granting institution)

Associate in Transfer Partnership Degree Total Hours   60 minimum

The Associate in Transfer Partnership (ATP) degrees may not be available at all of the MCCCD colleges. Associate in Transfer Partnership degrees are available in the following areas. Other ATP degrees may be added later depending on curricular needs: ATP information may be accessed via the following website:

www.maricopa.edu/academic/cctacurric/atp.php

- Early Childhood Teacher Education

ASSOCIATE IN GENERAL STUDIES (AGS)

The Maricopa County Community College District **Associate in General Studies (AGS)** degree is recommended for students whose educational goals require flexibility. The AGS allows students to choose any elective courses numbered 100 or above to complete the degree. Therefore, this degree may be less appropriate for students who intend to transfer to a baccalaureate-granting institution.

Students who demonstrate skills comparable to those in Critical Reading and/or Mathematics and/or Computer Usage may substitute acceptable elective courses to satisfy the total credits required for the degree.

Academic Policies That Govern the Associate in General Studies Degree

- requires a minimum of 60 semester credits in courses numbered 100 and above.

- AGS degree requirements follow with the use of a diagonal character (/) between course numbers to signify options. An asterisk (*) following the course number defines requirements with an effective begin term of spring;

- requires grades as listed for specific areas such as the General Education Core where a minimum grade of "C" is required. Courses applied to other areas may be completed with a minimum grade of "D";

- uses the following policies for course(s) satisfying multiple program areas;
    1.
A course can simultaneously satisfy one Core area and one Distribution area. Courses that meet this criterion are bold print and underscored in the Core areas and Distribution areas.
    2.
A course cannot satisfy more than one Core area, even if it is approved for more than one Core area.
    3.
A course cannot satisfy more than one Distribution area, even if it is approved for more than one Distribution area.
- follows the graduation policies within the general catalog;

- includes both courses and their modular equivalents; either the course or the modular equivalents will satisfy the Associate in General Studies;

- accepts one of the courses that is cross-referenced with other courses;

- provides for exemption from Arizona university admission requirements for students who complete the Associate in General Studies degree from a regionally accredited post-secondary institution with a minimum 2.0 on a 4.0=A scale for Arizona residents and a minimum 2.5 on a 4.0=A scale for non-residents.

GENERAL EDUCATION CORE   16 Credits
(grade of "C" or better)

First-Year Composition   (6 credits)
   ENG English [101/107] & [102/108]

Oral Communication   (3 credits)

COM   Communication **100/100AA & 100AB & 100AC/110/110AA &110AB & 110AC/225/230**

Critical Reading   (3 credits)

CRE Critical Reading **101**/Equivalent as
indicated by assessment

Mathematics   **(3 credits)**   MAT

Mathematics 102/120/121/122/122AA/
122AB/122AC/126/140/141/142/150/151/151AA/
151AB/151AC/151AD/152/156/172/182/187/206/
212/213/220/221/230/231/240/241/261/262/276/277
equivalent course
Satisfactory completion of a higher level Mathematics course

Computer Usage   **(1 credit)**

Computer-related course or demonstration of
comparable computer skills. Additional courses may be approved by individual colleges. Students should contact their advisor for college-specific courses satisfying the requirement.

ACC   Accounting 115
ADA
Advertising Arts 169/170/170AA/170AB/173/173AA/173AB/173AC/175/175AA/175AB/177/177AA/177AB/any 180 modules/183/183AA/183AB/183AC/283/283AA/283AB/283AC/289/289AA/289AB/289AC
AGB   Agribusiness 139
AJS   Administration of Justice Studies **119**/205
AMS   Automated Manufacturing System 150
ARC   Architecture 243/244/245
ART
Art 100/169/170/170AA/170AB/173/173AA/173AB/173AC/175/175AA/175AB/177/177AA/177AB/179/179AA/179AB/any 180 module/183/183AA/183AB/183AC/283/283AA/283AB/283AC/289/289AA/289AB/289AC
BIO   Biology 294
BPC
Business-Personal Computers Any BPC   Course(s)
CFS   Child/Family Studies 180
CIS
Computer Information Systems Any CIS Course(s) (except 162, 162AA,162AC, 163AA, 169, 183AA, 259, 262)
CSC
Computer Science Any CSC Course(s) (except 200, 200AA, 200AB, 210, 210AA, 210AB)
CTR   Court Reporting 101/102
DFT
Drafting Technology 103/105/any 105 module/ 150/251/any 251 module/any 254 module/256AA
ECH   Early Childhood Education 238
EEE   Electrical Engineering 120
ELE   Electronic 131/181/241/243/245/281
ELT   Electronic Technology 131/241/243
ENG   English 100AE
ENV   Environmental Sciences 119
FON   Food & Nutrition 100/100AA/100AC/100AD
GBS   General Business 221
GPH   Physical Geography 220
HRM   Hotel Restaurant Management 126
JAS   Justice & Government Agencies Admin 225
JRN   Journalism 133
LAS   Paralegal Studies 229
MAT   Mathematics 206
MET   Manufacturing Technology 264
MTC   Music Theory/Composition 180/191
NET   Networking Technology 181/181AA
OAS
Office Automation Systems 111AA/111AB/113/119/130DK/135DK/235DK
PSY   Psychology 230
RTR   Realtime Reporting 101/102
SBS   Small Business 211
SMT   Semiconductor Manufacturing Technology 150
SWU   Social Work 225
TVL   Travel Agent Technology 203
VPT   Video Production Technology 106

**GENERAL EDUCATION
DISTRIBUTION AREAS   28-29 Credits**

Humanities and Fine Arts   (9 credits)

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

AIS   American Indian Studies 213
AJS   Administration of Justice Studies 123
ARH   Art Humanities Any ARH Course(s)
ASB   Anthropology 211/220/222/223
CCS   Chicana and Chicano Studies 101
CNS   Construction 101
COM   Communication 241
DAH   Dance Humanities 100/201
EDU   Education 291/292/294
ENG   English 200/213/218
ENH   English Humanities Any ENH Course(s)
FRE   French 265
HCR   Health Care Related 210
HIS
History 101/102/103/108/109/111/113/114/243/253/254/275
HUM
Humanities Any HUM course(s) (EXCEPT 203, 207)
INT   Interior Design 115/120/225
LAT   Latin 201/202
MHL   Music: History/Literature 140/143/145/146/153/155
PHI
Philosophy Any PHI Course(s) (EXCEPT 113)
REL
Religious Studies Any REL Course(s) (EXCEPT 271)
SLC   Studies in Language & Culture 201
SPA   Spanish 241/242/265/266
SPH   Spanish Humanities 245
STO   Storytelling 292/294
THE   Theater 111/205/206/210
THP   Theater/Performance/Production 241
WST   Women's Studies 209/284/285/290

Social and Behavioral Sciences   (9 credits)

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

AFR   African American Studies 202/203/204
AIS   American Indian Studies 101/140/141/160/170   AJS
Administration of Justice Studies 101/**119**/162/200/225/258/259/270
ASB
Anthropology 102/202/211/214//222/223/230/235/238/245/252
ASM   Anthropology 104/275
CFS   Child/Family Studies 157/159/176/205/235/259   COM
Communication 100/100AA&100AB&100AC/   110/110AA&110AB&110AC/163/230/250/263
ECH   Early Childhood Education 176
ECN   Economics Any ECN Course(s)
EDU   Education 221/222
EED   Early Education 205, 222
ENG   English 213
EMT   Emergency Medical Technology 258
FOR   Forensic Science 275
FSC   Fire Science Technology 258
FUS   Future Studies 101
GCU   Cultural Geography 102/121/122/141/221/223/253
HES   Health Science 100
HIS
History any HIS Course(s) (EXCEPT 111, 135, 204, 277)
IBS   International Business 109
MCO   Mass Communications 120
POS   Political Science Any POS course(s)
PSY
Psychology 101/123/132/156/157/215/218/225/   235/ 240/241/243/245/250/258/260/266/   270/277/280/292
REC   Recreation 120
SBU   Society and Business 200
SLC   Studies in Language & Culture 201

SOC

Sociology Any SOC course(s) (EXCEPT 242, 251, 253, 265, 270)

SWU   Social Work 102/171/258/292

WED   Wellness Education 110

WST   Women's Studies 100/110/160/161

YAQ   Yaqui Indian History and Culture 100

Natural Sciences   (7-8 credits)

Two lecture courses and one corresponding laboratory course are to be selected. The lecture and corresponding laboratory course(s) may carry separate credit. For appropriate course selection students should consult with
an advisor.

AGS   Agricultural Science 164/260

ASB   Anthropology 231

ASM   Anthropology 104

AST   Astronomy 101/102/111/112/113/114

BIO
Biology 100/101/102/105/107/108/109/145/   149AF/149AH/149AK/149AL/149AM/149AN/156/160/181/182/201/202/205/241/245

CHM
Chemistry 107/107LL/130/130LL/150/151/   151LL/152/152LL/154/154LL/230/230LL

ENV   Environmental Sciences 101

FON   Food and Nutrition 241&241LL

FOR   Forensic Science 105/106

GLG   Geology Any GLG course(s)

GPH
Physical Geography 111/112/113/210/211/   212/214/213/215

PHS   Physical Science 110/120

PHY
Physics 101/101AA/111AA/ 111/112/ 115/116/121/131

PSY   Psychology 290AB/290AC

Literacy & Critical Inquiry   (3 credits)

AIS   American Indian Studies 213

BIO   Biology 294

COM   Communication 222/**225**/241

CRE   Critical Reading <u>101</u>

ENG   English 111/200/215/216/217/218

ENH   English Humanities 254/255

FON   Food & Nutrition 206

GBS   General Business 233

GPH   Physical Geography 211

HUM   Humanities 250/251

IFS   Information Studies 101

JRN   Journalism 201/234

MCO   Mass Communications 220

PHI   Philosophy 103/106

POS   Political Science 115

PSY   Psychology 290AB/290AC

REL   Religious Studies 203/205

THE   Theater 220

THP   Theater Performance/Production 241

Elective Courses   15-16 Credits

May select courses from prefixes already chosen for General Education Distribution requirements in order to develop depth in one or more subject areas.

ASSOCIATE IN APPLIED SCIENCE (AAS)

Purpose of the Degree

The Maricopa County Community College District **Associate in Applied Science (AAS)** degree is recommended for students who wish to gain a depth of technical expertise by completing an occupational program presented in the college catalog. Students should consult this catalog to determine specific program requirements.

Academic Policies That Govern the AAS Degree

•
requires 60 or more credits numbered 100 or above and includes credits or the equivalent in the General Education Core areas and credits in the Distribution areas. AAS degree requirements follow with the use of a diagonal character (/) between course numbers to signify options. An asterisk (*) following the course number defines requirements with an effective begin term of spring;

- requires grades as listed for specific areas such as the General Education Core where a minimum grade of "C" is required. See specific AAS occupational degree for specific program grade requirements;
- follows the graduation policies within the general catalog;
- includes both courses and their modular equivalents, either the course or the modular equivalents will satisfy the Associate in Applied Science requirements.
- requires at least 12 semester credit hours earned at the college awarding the AAS degree. The 12 hours in the AAS degree curricula may be in the Required Courses area and/or Restricted Electives courses. Courses from the General Education Core and Distribution area are excluded.

Shared Programs are programs offered at multiple colleges but not available at all colleges. The requirements are identical at all the colleges offering the program.

A shared program requires a minimum of six credit hours from the total program requirements to be completed with a grade of "C" or better at the college awarding the certificate or degree. The exception is the Nursing program. For those shared programs with less than six credit hours, the total hours for the program must be completed at the college awarding the certificate. The minimum of six credit hours in the certificate or degree curricula may be in the Required Courses area and/or the Restricted Electives. Courses from the General Education Core and Distribution areas are excluded;

Students must apply for graduation from the college where they have successfully completed Block 4 of the Associate in Applied Science in Nursing.

- requires completion of General Education courses as indicated in the General Education Requirements for the Associate in Applied Science degree from the Maricopa County Community College District, or completion of a curriculum as stated in the catalog;
- accepts one of the courses that is cross-referenced with other courses;
- provides for exemption from Arizona university admission requirements for students who complete the Associate in Applied Science (AAS) degree from a regionally accredited post-secondary institution with a minimum 2.0 on a 4.0=A scale for Arizona residents and a minimum 2.5 on a 4.0=A scale for non-resident

GENERAL EDUCATION CORE   15 Credits
(grade of "C" or better)

Demonstrate college-level skills in the following areas:

First-Year Composition   (6 credits)
   ENG English [101/107] & [102/108/111]

Oral Communication   (3 credits)

COM   Communication 100/100AA & 100AB & 100AC/110/110AA & 110AB & 110AC/225/230

Critical Reading   (3 credits)

CRE Critical Reading 101/111/Equivalent as indicated by assessment

Mathematics   (3 credits)

MAT
Mathematics 102/120/121/122/122AA/122AB/122AC/126/140/141/142/150/151/151AA/151AB/151AC/
151AD/152/156//172/182/187/206/212/
213/220/221/230/231/240/241/251/261/262/equivalent course/satisfactory completion of a higher level mathematics course

GENERAL EDUCATION
DISTRIBUTION AREAS   9-10 Credits

Humanities and Fine Arts   (2-3 credits)
Students are encouraged to choose courses from more than one discipline.

AIS   American Indian Studies 213
AJS   Administration of Justice Studies 123
ARH   Art Humanities Any ARH Course(s)
ASB   Anthropology 211/220/222/223
CCS   Chicana and Chicano Studies 101
CNS   Construction 101
COM   Communication 241
DAH   Dance Humanities 100/201

EDU   Education 291/292/294
ENG   English 200/213/218
ENH   English Humanities Any ENH Course(s)
FRE   French 265
HCR   Health Care Related 210
HIS
History 101/102/103/108/111/113/114//243/253/ 254/275
HUM
Humanities Any HUM course(s) (EXCEPT 203, 207)
INT   Interior Design 115/120/225
LAT   Latin 201/202
MHL   Music: History/Literature 140/143/145/146/153/155
PHI   Philosophy Any PHI Course(s) (EXCEPT 113)
REL
Religious Studies Any REL Course(s) (EXCEPT 271)
SLC   Studies in Language & Culture 201
SPA   Spanish 241/242/265/266
SPH   Spanish Humanities 245
STO   Storytelling 292/294
THE   Theater 111/205/206/210
THP   Theater/Performance/Production 241
WST   Women's Studies 209/284/285/290

Social and Behavioral Sciences   (3 credits)

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

AIS   American Indian Studies 101/140/141/160/170
AFR   African American Studies 202/203/204
AJS
Administration of Justice Studies 101/162/200/   225/258/259/270
ASB
Anthropology 102/202/211/214/222/223/230/ 235/238/245/252
ASM   Anthropology 104/275
CFS   Child/Family Studies 157/159/176/205/235/259
COM
Communications 100/100AA&100AB&100AC/110/110AA&110AB & 110AC/ 163/230/250/263
ECH   Early Childhood Education 176
ECN   Economics Any ECN course(s)
EDU   Education 221/222
EED   Early Education 205, 222
EMT   Emergency Medical Technology 258
ENG   English 213
FOR   Forensic Science 275
FSC   Fire Science 258
FUS   Future Studies 101
GCU
Cultural Geography 102/121/122/141/221/   223/253
HES   Health Science 100
HIS
History Any HIS course(s) (EXCEPT 111, 135, 204, 277)
IBS   International Business 109
MCO   Mass Communications 120
POS   Political Science Any POS course(s)
PSY
Psychology 101/123/125/132/156/157/215/218/ 225/235/240/241/243/245/250/258/260/266/ 270/277/280/292
REC   Recreation 120
SBU   Society and Business 200
SLC   Studies in Language & Culture 201
SOC
Sociology Any SOC course(s) (EXCEPT 242, 251, 253, 265, 270)
SWU   Social Work 102/171/258/292
WED   Wellness Education 110
WST   Women's Studies 100/110/160/161
YAQ   Yaqui Indian History and Culture 100

Natural Sciences   (4 credits)

The lecture course(s) selected for Natural Sciences must include or be accompanied by the corresponding laboratory course. The lecture and corresponding laboratory course(s) may carry separate credit. Students should consult with an advisor for appropriate course selection.

AGS   Agricultural Science 164/260
ASB   Anthropology 231
ASM   Anthropology 104
AST   Astronomy 101/102/111/112/113/114
BIO
Biology 100/101/102/105/107/108/109/149AN/ 145/
156/160/181/182/201/202/205/241/245
CHM
Chemistry 107&107LL/130&130LL/150&151LL/151&151LL/152&152LL/154&154LL/230&230LL
FON   Food and Nutrition 241&241LL
FOR   Forensic Science 105/106
GLG
Geology Any GLG course(s) (EXCEPT   140/251MC/275)
GPH
Physical Geography 111/112&113/211/212&214/   213&215
PHS   Physical Science 110/120
PHY
Physics 101/101AA/111/111AA/112/115/116/ 121/131
PSY   Psychology 290AB/290AC

Academic Certificates (AC)

PURPOSE OF THE ACADEMIC CERTIFICATE (AREA OF EMPHASIS)

The Maricopa Community College District Academic Certificate (area of emphasis) is a defined and coherent program of study that is recommended for students who wish to gain additional expertise in an academic area.   While this program of study can result in proficiency in specified skills and competencies, as well as mastery of knowledge, it is not designed to prepare someone for employment in a specific occupation. The content for an Academic Certificate (area of emphasis) may be derived from a variety of disciplines or it can be discipline specific. The Academic Certificate does not require a general studies component even though requirements of the certificate may include courses that currently meet specific general studies designations such as Humanities and Fine Arts, Social and Behavioral Sciences, etc.

ACADEMIC POLICIES THAT GOVERN THE ACADEMIC CERTIFICATE (AREA OF EMPHASIS)

•
Generally ranges from 12-39 credit hours in courses numbered 100 or above, although there is no minimum number of credit hours required for an Academic Certificate;
• Requires a cumulative GPA of 2.0 or better for completion;
• Follows the graduation policies within the general catalog;
•
accepts one of the courses that is cross-referenced with other courses;
•
includes both courses and their modular equivalents. either the course or the modular equivalents will satisfy the Academic Certificate requirements;
•
does not presume block transfer value. Consequently, in most cases the Academic Certificate should not be a subset of an existing transfer degree;
•
may have admission criteria established by the college if and when appropriate;
• is for the most part college specific.

ACADEMIC CERTIFICATE IN AFRICAN-AMERICAN STUDIES (15-18 CREDITS) MAJOR CODE: 6226

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:
+ indicates course has prerequisite and/or corequisites

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

Admission Criteria (None)

Program Prerequisites (None)

Required Courses (6 credits)
AFR110
Introduction to African-American Studies (SB, C)   3
AFR/ASB202
Ethnic Relations in the United States
(SB, C, H)   3

Restricted Electives (9-12 credits)
+AFR203
African-American History:
The Slavery Experience (SB, C, H)   3
+AFR204
African-American History: Reconstruction to the 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
+HIS204   African-American History II (SB, C, H) 3
HUM214   African-Americans in Film (HU, C)   3
PHI/REL225   African-American Religions (HU, C)   3
SOC143
Sociology of African American
Problems (SB, C) 3
WST105   Women of Color in America (C)   3

ACADEMIC CERTIFICATE IN COMMUNICATION COMPETENCE IN THE WORKPLACE (33 CREDITS) MAJOR CODE: 6219

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.

Required Courses (21 credits)
COM110   Interpersonal Communication   3
+COM225   Public Speaking   3
+COM230   Small Group Communication   3
+COM282AC
Volunteerism for Speech Communication: A Service Learning Experience   3
CRE101
College Critical Reading (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 (9 credits)
If choosing BPC110 or CIS105 only one can be applied.

BPC110   Computer Usage and Applications   3
CIS105
Survey of Computer
Information Systems   3
+COM259
Communication in Business and Professions   3
COM263
Elements of Intercultural
Communication   3
+GBS233   Business Communication   3
+SWU292   Effective Helping in a Diverse World 3
+ENG111   Technical Writing   3
IBS109
Cultural Dimension for
International Trade   3

Free Electives (3 credits)
Any approved General Education course in the Cultural Awareness [C] value (3) OR
COM+++++   Any COM communication course (3)   3

ACADEMIC CERTIFICATE IN LANGUAGE AND LITERARY CULTURE OF THE USA (25 CREDITS) MAJOR CODE: 6221

The Academic Certificate (AC) in Language and Literary Culture of the USA is a course of study designed to provide students of English as a non-native language with a strong foundation in the oral and written structure and vocabulary of North American English, academic and professional reading and writing, and knowledge and appreciation of representative literature and culture of the USA in all its diversity.

Required Courses (16 credits)
+ ENG107   First-Year Composition for ESL   3
+ ENG108   First-Year Composition for ESL   3
+ ENG109   Business Writing for ESL   3
   ENH111   Literature and the American Experience 3
+ CRE101   College Critical Reading   3

+ ENG298AA   Special Project (1) OR
+ ESL298AA   Special Project (1)   1

Restricted Electives (9 credits)
Complete three courses from the following disciplines:
ASB   Any ASB Anthropology course(s)
COM   Any COM Communication course(s)
EDU   Any EDU Education course(s)
ENG
Any ENG English course(s) expect courses used to satisfy Required Courses area.
ENH   Any ENH English Humanities course(s)
HIS   Any HIS History course(s)
HUM   Any HUM Humanities course(s)
IBS   Any IBS International Business course(s)
IGS   Any IGS Integrated Studies course(s)
MUP   Any MUP Music: Performance course(s)
PSY   Any PSY Psychology course(s)
REL   Any REL Religious Studies course(s)
SOC   Any SOC Sociology course(s)

ACADEMIC CERTIFICATE IN COMMUNICATION SKILLS FOR NON-NATIVE ENGLISH

SPEAKERS (30 CREDITS) MAJOR CODE: 6222

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.

Required Courses (21 credits)

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
COM100		
Introduction to Human Communication (3) OR		
COM110	Interpersonal Communication (3)	3
COM120	Pronunciation of American Speech	3
+COM221	Oral Fluency in American Speech	3
+COM282AC		
Volunteerism for Speech Communication: A Service Learning Experience		3
CRE101		
College Critical Reading (3) OR Equivalent as Indicated by Assessment		3

Restricted Electives (9 credits)
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
+GBS233	Business Communication	3
+ENG111	Technical Writing	3
IBS109		
Cultural Dimension for International Trade		3
+SWU292		
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

ACADEMIC CERTIFICATE IN ORAL COMMUNICATION FLUENCY FOR NON-NATIVE ENGLISH SPEAKERS (15 CREDITS)
MAJOR CODE: 6223

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.

Required Courses (12 credits)

COM110	Interpersonal Communication	3
COM120	Pronunciation of American Speech	3
+COM221	Oral Fluency in American Speech	3
+COM282AC		
Volunteerism for Speech Communication: A Service Learning Experience		3

Restricted Electives (8-9 credits)
Any approved General Education course in the cultural awareness [C] value   3

ACADEMIC CERTIFICATE IN CREATIVE WRITING (24 CREDITS) MAJOR CODE: 6224

The Academic Certificate (AC) in Creative Writing 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 used to seek admittance to a bachelor's or master's level creative writing program or that may include work to 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 serves many students, especially women, minorities, seniors, and working adults, who are under-represented in traditional creative writing programs because of cultural, dialect or language differences, scheduling difficulties, financial need, or lack of academic experience. 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:
Students must earn a grade of "C" or better for all courses required within the program
+ indicates course has prerequisites and/or corequisites.
++ indicates any module.

Admission Criteria:
Students wishing to enroll in the Creative Writing program must complete a formal application; contact Program Director.

Required Courses (21 credits)
ENG210 may be substituted for CRW150 with permission of Program Director.

CRW150	Introduction to Creative Writing (3) OR	
CRW155	Bilingual Creative Writing (3)	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:
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
CRW180	Introduction to Writing Nonfiction	3
CRW190	Introduction to Screenwriting	3
THE118	Playwriting	3

Series II:
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
+	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
+	CRW275	Writing the Mystery Story	3
+	CRW281	Topics in Writing: Non-Fiction	3
+	CRW290	Intermediate Screenwriting	3
+	CRW291	Topics in Writing: Plays	3

Restricted Electives (3 credits)

	COM243	Interpreter's Theatre	3
+	CRW+++++		
	Any CRW Creative Writing prefixed course not listed under Required Courses area.		1-3
+	ENG217	Personal and Exploratory Writing	3
+	ENG219	Life Stories	3
	ENG235	Magazine Article Writing	3

+ ENG236	Magazine Writer's Workshop	3
	ENG/THE260 Film Analysis	3
+ ENH+++++		
Any ENH English Humanities prefixed course		3
	HUM/THE210 Contemporary Cinema	3
+ THE220	Modern Drama	3
+ COM/THP241	Introduction to Oral Interpretation	3

ACADEMIC CERTIFICATE IN ELECTRONIC MUSIC (40 CREDITS) MAJOR CODE: 6231

The Academic Certificate (AC) in Electronic Music is intended for the student who would like to obtain acknowledgment for completion of electronic music courses, and is not designed to prepare students for employment. While the completion of the certificate does not lead to a particular degree, it does provide and enhance the development of musicianship for enjoyment and personal growth. This program provides the student with fundamental musical skills covering a variety of topics, including theory, performance, composition, and history. In addition, students receive a high level of technical training in creating electronic music. As students complete courses in the program, they will build a portfolio of original compositions that may be used to seek admittance to a bachelor's-level music program.

Admission Criteria: None

Program Prerequisites: (2-3 credits)
MTC100   Fundamentals of Music (2) OR
MTC101
Introduction to Music Theory (3) OR Permission of instructor 2-3

Required Courses (40 credits)
Students are required to complete a total of six (6) credits of MTC240.

+ MTC105	Music Theory I	3
	MTC106	Aural Perception I	1
+ MTC155	Music Theory II	3
	MTC156	Aural Perception II	1
+ MTC205	Music Theory III	3
	MTC206	Aural Perception III	1
+ MTC255	Music Theory IV	3
	MTC256	Aural Perception IV	1
	MTC191	Electronic Music I	3
+ MTC192	Electronic Music II	3
+ MTC193	Computer-Based Sound Synthesis	3
+ MTC240	Composition (3)	6
+ MTC291	Electronic Music III	3
	MUC195	Studio Music Recording I	3
+ MUC196	Studio Music Recording II (3) OR	
	MUC197	Live Sound Reinforcement I (3)	3

ACADEMIC CERTIFICATE IN GLOBAL CITIZENSHIP (16 CREDITS) MAJOR CODE: 6212

The interdisciplinary Academic Certificate (AC) in Global Citizenship enhances students' understanding of the world around them and current social issues such as economic and social justice, human and civil rights, world and regional conflicts, environmental degradation, cultural diversity, and political change. Through a combination of coursework and experiential learning, students develop skills in critical thinking, inquiry, and discourse while becoming more informed, socially responsible, and engaged citizens of their communities, country, and world. The certificate includes specialized tracks in the impact of diverse cultures on American life: Impact of Diverse Cultures on American Life; Political and Economic Interdependence of the International Community; Global Study of Cultures, Religions, and Values; Regional Study of Cultures, Religions, and Values; and Science, Technology and the World.

Required Courses (7 credits)
GLO298AA   Special Projects   1

Select 6 credits from the following courses:
ASB102
Introduction to Cultural and Social Anthropology (3)
COM263
Elements of Intercultural
Communication (3)
ECN213   The World Economy (3)
GCU121

World Geography I:
Eastern Hemisphere (3)
GCU122
World Geography II:
Western Hemisphere (3)

HIS243	History of World Religions (3) OR	
REL243	World Religions (3)	
POS120	World Politics (3)	
PSY132	Psychology & Culture (3)	

Restricted Electives (9-10 credits)
Students will choose 9-10 credits from one of the four tracks:

Any prefixed course(s) except courses used to satisfy Required Courses area.

Track 1 – Impact of Diverse Cultures on American Life: (9 credits)
Courses for Track 1 must be selected from the following disciplines:
AIS, ASB, CCS, COM, EDU, ENH, HIS, HUM, IGS, MCO, MHL, PSY, REL, SOC, SPH, WST

Courses selected under Track 1 must satisfy both of the following General Education Requirements:
Awareness Area C AND
Core Areas SB OR HU OR L

Track 2 – Political and Economic Interdependence of the International Community (9 credits)
Courses for Track 2 must be selected from the following disciplines:
ECN, IBS, POS, SBU

Courses selected under Track 2 must satisfy both of the following General Education Requirements:
Awareness Area G AND
Core Area SB

Track 3 – Global Study of Cultures, Religions, and Values (9 credits)
Courses for Track 3 must be selected from the following disciplines:
ASB, COM, DAH, ENH, GCU, HIS, HUM, IGS, MHL, PHI, PSY, REL, SOC

Courses selected under Track 3 must satisfy both of the following General Education Requirements:
Awareness Area G AND
Core Areas SB OR HUM OR L

Foreign Languages: All of the following 201, 202, 203, or 204-level classes are also acceptable under Track 3:
ARB, FRE, GER, HEB, ITA, JPN, RUS, SPA

Track 4 – Science, Technology, and the World (9-10 credits)
ASB231
Introduction to Archaeological
Field Methods   4

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

GPH111	Introduction to Physical Geography	4

+GPH210
Introduction to Environmental Geography   3
PHS120
Introduction to Physical Science: Astronomy, Meteorology, Geology and Oceanography   4

SOC180	Social Implications of Technology	3

ACADEMIC CERTIFICATE IN WOMEN'S STUDIES (15 CREDITS) MAJOR CODE: 6225

The Women's Studies program, an intensive interdisciplinary liberal arts certificate program, provides students with
tools and opportunities to discuss and critique historical
and contemporary theories and practices of feminism(s).
The curriculum enables students to write well, think critically and analyze problems effectively. Students complete a variety of courses

focusing on women's experiences and perspectives, exploring topics such as history, culture, class, race, ethnicity, sexuality and gender in order to help bring about equality, understanding, and peace. These courses are culturally
responsive to the diversity of one half of the world's people, their work, and their impact on multicultural societies.

Required Courses (3 credits)
WST100	Women and Society	3

Restricted Electives (12 credits)
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 Differences	3
+PSY258	Domestic Problems and Crises	3
REL/WST290	Women and Religion	3
SOC212	Gender and Society	3
WST105	Women of Color in America	3
WST110		
Women and Gender:		
A Feminist Psychology		3
WST120	Gender, Class, and Race	3
WST128	Law and Violence Against Women	3
WST160	Women and Early American Experience	3
WST161	American Women Since 1920	3
WST200	Essential Feminist Writing	3
WST261		
Native Women's Literature:		
The Americas	3	

MCCCD Occupational Programs

The Maricopa County Community College Occupational Program Matrix identifies all programs currently available for offering within the 10 community colleges and two skill centers of the district. The programs are grouped under broad occupational areas as requested by the colleges. For specific information regarding individual programs, contact the college(s) listed as participating institutions.

AGRICULTURE, FOOD, AND NATURAL RESOURCES

AGRIBUSINESS SALES AND SERVICE
Pest Management Aide	MC

AGRICULTURAL PRODUCTION AND MANAGEMENT
Agribusiness	MC

(See Agribusiness Sales and Service and Horticulture sections for additional programs and related areas)

Urban Horticulture	MC

(See Horticulture section for additional programs and related areas)

EQUINE TRAINING AND MANAGEMENT
Equine Science	SC
Veterinary Technology/Animal Health	MC

HORTICULTURE
Landscape Aide	MC
Landscape Specialist	MC

(See Agricultural Production and Management section for additional programs and related areas)

Workforce Development: Horticulture	RS
Workforce Development: Landscape Technology	RS

ARCHITECTURE AND CONSTRUCTION
AIR CONDITIONING AND REFRIGERATION
Air Conditioning/Refrigeration/Facilities	GW

Residential and Light Commercial Air Conditioning	GW

APPRENTICESHIP RELATED INSTRUCTION

Construction Trades: Bricklaying and Tilesetting	GW
Construction Trades: Carpentry	GW
Construction Trades: Construction Management	GW
Construction Management	PC
Construction Trades: Millwright	GW
Construction Trades: Plastering and Cement Masonry	GW
Construction Trades: Painting and Drywalling	GW
Construction Trades: Sheet Metal	GW
Construction Trades: Electricity	GW
Construction Trades: Heat and Frost Insulation	GW
Construction Trades: Heavy Equipment Operations	GW
Construction Trades: Ironworking	GW
Construction Trades – Mechanical Trades:	
Heating, Ventilating and Air Conditioning	GW
Construction Trades – Mechanical Trades: Plumbing/Pipefitting	GW
Construction Trades – Mechanical Trades: Sheet Metal	GW
Construction Trades: Mechanical Trades - Form Carpentry	GW
Construction Trades: Pipe Trades – Pipefitter-Refrigeration	GW
Construction Trades: Pipe Trades –Plumbing	GW
Power Plant Technology	GW, EM
Construction Trades: Roofing	GW
Construction Trades: Sheet Metal	GW
Construction Trades: Pipe Trades – Steamfitting	GW

BUILDING AND CONSTRUCTION

Architecture	MC
Architectural CADD Level III	MC
Architectural Detailing CADD Level III	MC
Architectural CAD Technology	PC
Architectural Technology	SC
Building Inspection	EM, MC
Building Safety and Construction Technology	PC
Building Safety Technology	SC
Carpentry	GW
Civil Engineering Technology	PC
Construction	MC
Construction Drafting CADD Level III	MC
Construction Trades: Heavy Equipment Operations	GW
Construction Management	PC
Plan Review	MC
Pre-Contractor Licensing	MC
Residential Drafting CADD Level II	MC
Survey and Civil Drafting - CADD Level II	MC
Workforce Development: Carpentry Level I	RS
Workforce Development: Carpentry Level II	RS
Workforce Development: Furniture Construction/Refinishing Level I	RS
Workforce Development: Furniture Construction/Refinishing Level II	RS

AEROSPACE AND AVIATION

AVIATION AND AERONAUTICS

Aircraft Maintenance Technology	CG
Aircraft Maintenance Technology (Part 147)	CG
Airframe Maintenance (Part 147)	CG
Airway Science Technology, Flight Emphasis	CG
Flight Technology	CG
Powerplant Maintenance (Part 147)	CG

BIOSCIENCE

Biomedical Research Technology	CG, GW, SM
Biotechnology MC	
Biotechnology and Molecular Biosciences	GC

BUSINESS, MANAGEMENT, AND ADMINISTRATION

ACCOUNTING

Accounting	MC, PC, RS, SC, SM, CG
Accounting – Specialized Para-Professional	PV
Bookkeeping	SC
Microcomputer Accounting	PC, PV, SM, GC, GW, CG, EM
Software Quality Assurance	MC
(See Business Administration for additional programs and related areas)	
Accounting Paraprofessional	GC

BUSINESS ADMINISTRATION

Business	MC, SC
Business (Fastrack)	SC
General Business	CG, GC, MC, PC, RS, SCC, SMC
(See Management and Finance section for additional programs and related areas)	
Import/Export Trade	PV
International Business	PV
International Trade	MCC

FINANCE

Banking and Finance	PC, EM
Certified Residential Appraiser	MC
Home Inspection	MC
Licensed Real Estate Appraiser	MC
Real Estate	MC, PC
Real Estate: Prelicense	PC
Residential Appraisal Trainee	MC
Bank Account Management: Customer Service	RS

MANAGEMENT

Business Management	SM
Credit Union Management	PC
General Business	PC
Human Resources Management	PC
Management	PC, MC, SC
Management I	PC
Management II	PC
Middle Management	GC, PV
Military Leadership	RS
Project Management	MC
Retail Management	CG, GC, GW, EM, MC, PC, PV, RS, SC, SM
Retail Management and Marketing	SC
Retail Sales Manager	MC
Small Business	MC
Small Business Entrepreneurship	GC, SM
Small Business Management	EM, SC
Supervision and Management I	SM
Supervision and Management II	SM
Supervision	GC

MARKETING

Marketing	MC, PC, SC
Marketing I	PC
Marketing II	PC
Salesmanship	MC

OFFICE OCCUPATIONS

Administrative Office Coordinator	GC
Administrative Office Professional	PV
Administrative Technology	GW
Business Technology Specialist	GW
Computer Applications	PC
Computer Software Applications	PV
Customer Service / Information Professional	PV
Data Entry Clerk	EM
General Office Secretary	EM, GC
Legal Secretarial	PC

Medical Office Support	PC
Medical Office Support: Basic Clerical	PC
Medical Office Support: Basic Transcription	PC
Office Automation Systems	SC, SM
Office Coordinator	GC
Office Support PC	
Office Support I PC	
Office Support II	PC
Office Technology	GW
Paralegal Studies	PC
Realtime Reporting-Advanced Placement CART	GW
Realtime Reporting-Advanced Placement Broadcast Captioning	GW
Realtime Reporting-Broadcast Captioning	GW
Realtime Reporting-CART	GW
Realtime Reporting-Judicial	GW
Realtime Reporting Scoping	GW
Receptionist	EM
Systems Analysis for Practice Management	GW
Technology Support Analyst Level I	MC
Technology Support Analyst Level II	MC
Word Processing	SC

TOTAL QUALITY MANAGEMENT

Automobile Insurance: Customer Service	RS
Automobile Policy: Customer Service	RS
Broadband Telecommunications: Account Services	RS
Broadband Telecommunications	RS
Broadband Telecommunications: Field Operations	RS
Broadband Telecommunications: Technical Support Services	RS
Credit Counseling: Customer Service	RS
Customer Service Management	EM
Human Services-Assistance: Customer Service	RS
Human Services-Long Term Care: Customer Service	RS
Human Services-Specialist: Customer Service	RS
Insurance Claims and Losses: Customer Service	RS
Insurance-Customer Service	RS
Motor Vehicle: Customer Service	RS
Organizational Leadership	CG, EM, GW, MC, PV, RS
Organizational Management	CG, EM, GW, MC, PV, RS
Pharmacy: Customer Service	SM
Quality Customer Service	GW
Quality Customer Service	RS
Quality Process Leadership	GW
Travel Agency: Customer Service	RS
Utilities Customer Service	RS

EDUCATION AND TRAINING

EARLY CHILDHOOD EDUCATION

Child and Family Organizations Management and Administration	GC, MC, RS
Curriculum for Young Children	PC
Early Care and Education	MC
Early Care Specialist	MC
Early Childhood Education and Administration	PC
Early Childhood Classroom Management	PC
Early Childhood Development	SM, RS
Early Childhood Development: Montessori	SM
Early Childhood Education	PV, GC, RS
Early Childhood Administration and Management	GC, MCC, RSC, SM

EDUCATION

Bilingual Endorsement	MC, PC
ESL Endorsement	MC, PC
Instructional Assistance	MC, PC
Reading Specialist Endorsement	MC
Teacher Assisting	EM, GW

Foundations of Student Services	EM

FAMILY EDUCATION

Adolescent Development	GC, MC, RS
Adolescent Studies	PC
Adult Development and Aging	GC, MC, RS
Advanced Interior Design	PC
Family Development	PC
Family Life Education	GC, MC, SC, RS
Family Support PC	
Parent Education	GC, MC, RS, SC

WORKFORCE DEVELOPMENT

Workforce Development and Community Re-Entry	RS

ENVIRONMENTAL TECHNOLOGY

ENVIRONMENTAL TECHNOLOGY

Environmental Science Technology	GW
Geospatial Technologies	MC
Hydrologic Studies	GW
Occupational Safety and Health Technology	GW
Radiation Protection Technology	EM
Safety, Health and Environmental Studies	PV
Wastewater Treatment	GW
Water Distribution and Collection	GW
Water Purification Technology	GW
Water Technologies	GW
Water Technologies Level 1	GW
Water Technologies Level 2	GW
Water Technologies Level 3	GW
Water Technologies Level 4	GW
Water Treatment	GW

FAMILY AND CONSUMER SCIENCES

FASHION DESIGN

Alteration Specialist	MC
Apparel Construction	PC
Costume Design and Production	MC
Costuming	PC
Fashion Design PC	
Fashion Design Level I	PC
Fashion Design Level II	PC
Fashion Illustration	PC
Pattern Design Level I	PC
Pattern Design Level II	PC
Fashion Merchandising	PC
Fashion Merchandising & Design	MC
Image Consultant	MC

INTERIOR DESIGN

Interior Merchandising	GC, MC, PC
Interior Design MC, PC, SC	
Interior Design: Advanced	MC
Interior Design: Professional Level	SC
Kitchen and Bath Design	PC

HEALTH SCIENCE

ALLIED HEALTH

Advanced Behavioral Health Sciences	GC, SM
Advanced Nursing	SM
Basic Behavioral Health	GC, SM
Clinical Laboratory Sciences	PC
Clinical Research Associate	W
Community Health Advocate, Diabetes	MC
Developmental Disabilities Specialist	GC, CG
Diagnostic Medical Sonography	GW

Electroneurodiagnostics	GW
Health Information	PC
Health Information Technology	PC
Health Services Management	GW
Health Unit Coordinating	GW
Histologic Technology	PC
Hospital Central Service Technology	GW
Laboratory Assisting	PC
Computed Tomography	GW
Magnetic Resonance Imaging	GW
Medical Assisting	PC
Medical Coding: Hospital-Based	PC
Medical Billing and Coding: Physician-Based	PC
Medical Front Office	PC
Medical Radiography	GW
Medical Transcription	GW
Medical Transcription	GW
Nuclear Medicine Technology	GW
Patient Care Technician	PC
Perioperative Nursing	GW
Phlebotomy PC	
Physical Therapist Assisting	GW
Polysomnographic Technology	GW
Radiation Therapy	GW
Recovery Support	SM
Respiratory Care	GW
Speech Language Pathology Assistant	EM
Surgical Technology	GW

EMERGENCY MEDICAL TECHNOLOGY

Advanced Emergency Medical Technology (Paramedic)	GC, PC, PV, SC
Basic Emergency Medical Technology	GC, MC, PC, PV, SC
Community Emergency Response Team (CERT): Level I	PC
Emergency Communications and Deployment	PC
Intermediate Emergency Medical Technology	MC, PC
Paramedicine MC	
Secondary Basic Emergency Medical Technology	PC

DENTAL

Clinical Dental Assisting	RS
Dental Assisting	PC
Dental Hygiene PC, RS, MC	
Dental Office Management	PC

NURSING

Fast Track Practical Nursing	GW
Nursing CG, EM, GC, GW, MC, PC, PV, SC, RS	
Nurse Assisting CG, GC, GW, MC, PC, PV, SC, RS, EM	
Practical Nursing	CG, GC, GW, MC, PC, PV, SC, RS, EM

HOSPITALITY AND TOURISM

FOOD AND NUTRITION

Advanced Professional Culinary Arts	SC
Baking and Pastry	EM
Basic Culinary Studies	EM
Commercial Baking	PC
Commercial Food Preparation	PC
Culinary Arts	SC
Culinary Studies	EM, PC, MC
Culinary Fundamentals	SC
(See Hospitality section for additional programs and related areas)	
Dietetic Technology	CG, PV
Food Service Administration	PC
Professional Food and Beverage Service	PC
Sustainable Food Systems	PC, MC, RS

Airline Operations	RS
Airline Operations: Ground Operations	RS
Airline Operations: Initial Flight Attendant	RS
Airline Operations: Passenger Services	RS
Airline Operations: Reservations	RS
Airline Operations: Reservations and Ticketing Operations	RS
Airline Operations: Vacations	RS
Culinary Arts	SC
(See Food & Nutrition section for additional programs and related areas)	
Hospitality and Tourism/Golf Management	SC
Hospitality and Tourism/Hotel Management	SC
Hospitality and Tourism/Restaurant Management	SC
Hospitality and Tourism/Spa and Wellness Center Management	SC
Hospitality/Hotel Management	EM
Hospitality and Tourism/Tourism Development and Management	SC

HUMAN SERVICES

Public Administration	RS
Tribal Development	SC

Group Fitness Instructor	GC, MC
Nutrition for Fitness and Wellness	GC, MC
Personal Trainer	GC, MC
Strength and Conditioning	
Personal Trainer	CG, EM, GC, GW, MC, PV, SC, SM
Strength, Nutrition and Personal Training	CG, EM, GC, MC, PV, SC, SM
Teaching, Healing, Meditation & Stress Management	PV
Therapeutic Massage	CG, PC
Yoga Instruction	SC

Journalism	GC, PC, PV, MC, PC, SC
Public Relations	GC MC
(See Middle Management section for additional programs and related areas)	

Recreation Management	MC, PC, SC

Chemical Dependency Level I	RS
Chemical Dependency Level II	RS
Chemical Dependency	RS
Clinical Research Coordinating	GW
Deaf Studies	PC
Interpreter Preparation	PC
Professional Addictions Counseling	RS

Gerontology	PC
Gerontology: Aging Services Management	PC
Gerontology: Eldercare	PC
Gerontology: Foundations	PC
Gerontology: Generalist	PC
Gerontology: Program Development	PC

Mortuary Science	MC

INFORMATION TECHNOLOGY

Advanced Computer Usage and Applications	RS
Advanced Web Designer	MC
Computer Applications Technology	EM

Computer Applications: Microsoft Office Specialist/Advanced	MC
Computer Applications: Microsoft Office Specialist/Basic	MC
Computer Hardware and Desktop Support	CG, EM, MC, SC
Computer Hardware and Network Support	SC
Computer Information Systems	GC, MC, PC, PV, SC, SM
Computer Networking Technology	PV
Computer Programming	MC
Computer Systems Maintenance	PV
Computer Technology	RS
Computer Usage and Applications	RS
Database Development	SC
Desktop Publishing	EM
Engineering Technology	GC, CGC
Game Technology	GW, MC
Geographic Information Systems	MC
Help Desk Specialist	GC
Information Assurance	MC
Information Security	EM, GC, GW
Information Security Administration	EM, GC, GW
Information Security Technology	EM, GC, GW
Information Security Wireless Networks	EM, GC, GW
Information Technology	CG
Information Technology: Programming and Systems Analysis	SM
Information Technology: Web and Graphic DesignS	M
Information Technology: Cisco Networking Professional	SM
Information Technology: Computer Applications Specialist	SM
Information Technology: Network Server	SM
Information Technology: Network Security	SM
Information Technology Support	SM
Linux Associate CG, EM, GC, MC	
Linux Networking Administration	EM, GC, MC
Linux Professional	CG, EM, GC, MC, PV
Microcomputer Applications	GC
(See Office Occupations section for additional programs and related areas)	
Microcomputer Applications: Office Specialist/Core Level	CG
(See Office Occupations section for additional programs and related areas)	
Microcomputer Applications: Office Specialist/Expert Level	CG
(See Office Occupations section for additional programs and related areas)	
Microcomputer Business Applications	CG, GC
(See Office Occupations section for additional programs and related areas)	
Microsoft Database Administration	CG
Microsoft Desktop Support Technology	EM, GC, MC, PV
Microsoft Networking Technology	EM, GC, GW, PV
Microsoft Product Specialist	CG, EM, GC, GW, PV,
Microsoft Applications Development	MC, PV
Microsoft Systems Administration	EM, GC, PV
Microsoft Systems Engineer	EM, GC, GW, PV
Multimedia and Business Technology	MC
Network Administration	SC
Network Administration: CISCO Network Associate	MC
Network Administration: CISCO Network Professional	MC
Network Administration: Microsoft Windows NT	MC
Network Administration: Microsoft Windows	MC
Network Administration: NovellM	C
Network Administration: UNIX-Solaris	MC
Network Security	MC
Networking RS	
Networking Administration: Cisco	CG, EM, GC, GW, SM
Networking System Administration	MC
Networking Technology: Cisco	CG, EM, GC, GW
Oracle Database Administration	EM
Oracle Database Operations	CG
Personal Computer Applications	SC
Programming	RS
Programming and System Analysis	CG, EM, GC, MC, PC, PV, SC, SM
Software Development	SC

Web Design	GC, PV, EMCC, PC, RS, SC
Web Designer	MC
Web Developer	GC, GW, MC, PC, PV, EM
Web Development	SC
Web Server Administrator	MC

MEDIA TECHNOLOGY

Animation	GC
Animation: Imaging and Design Foundation	GC
Broadcast Production	SC
Comic and Sequential Art	PC
Digital Arts	MC
Digital Photography	PC
Digital Arts: Digital Illustration	MC
Digital Arts: Digital Photography	MC
Digital Arts: Graphic Design	MC
Digital Arts: Web Design	MC
Editing	SC
eLearning Design Specialist	RS
Film Analysis and Criticism	SC
Film Production	SC
Game Technology	MC, GW
Graphic Design	GW, RS
Media Arts: Computer Art/Illustration	CG, PC, PV
Media Arts: Desktop Publishing	PC
Media Arts: Digital Animation	PC
Media Arts: Digital Imaging	CG, PC
Media Arts: Web Design	PC
Motion Picture/Television Production	SC
Multimedia	GC
Multimedia Technology	MC
Screenwriting	SC
Video Production Technology	GC
Web Publishing Design: Foundation	GC
Web Publishing Design: Design and Authoring	GC

LAW, PUBLIC SAFETY, CORRECTIONS, AND SECURITY

EMERGENCY MEDICAL TECHNOLOGY

Advanced Emergency Medical Technology (Paramedic)	GC, PC, PV, SC, MC
Basic Emergency Medical Technology	GC, MC, PC, PV, SC
Community Emergency Response Team (CERT): Level I	PC
Emergency Communications and Deployment	PC
Intermediate Emergency Medical Technology	MC, PC
(See Allied Health section for additional programs and related areas)	
Paramedicine	MC
Secondary Basic Emergency Medical Technology	PC

ADMINISTRATION OF JUSTICE

Administration of Justice	EM, GC, PC, PV
Administration of Justice-Comprehensive	PC
Administration of Justice-Fundamentals	PC
Administration of Justice Studies	CG, MC, SC
Advanced Corrections	RS
Basic Corrections	RS
Corrections	RS
Crime and Accident Scene Photography	PC
Crime and Intelligence Analysis	CG
Crime Scene Investigation	SC
Crime Scene Technology	SC
Cyber Forensics Technician	MC
Detention Services	RS
Evidence Technology	PC
Evidence Technology	EM
Fingerprint Classification and Identification	PC
Forensic Investigation	MC

Forensic Science	CG
Forensic Technology	PC
Forensic Science: Crime Lab	SC
Global Citizenship	MC
Homeland Security	CG
Information Assurance	MC
Information Security Forensics	EM, GC, GW
Judicial Studies MC	
Justice and Government Agency Administration Level I	MC
Justice and Government Agency Administration Level II	MC
Justice and Government Agency Administration	MC
Justice Studies CG, MC, SC	
Law Enforcement Field Training	RS
Law Enforcement Investigator	GC
Law Enforcement Technology	RS
Law Enforcement	SC
Law Enforcement Training Academy	GC, CG
Legal Studies MC	
Paralegal	RSC
Police Academy Preparation Level I	SC
Police Science MC, SC	
Police Supervision	GC
Public Safety Technology	RS
Victimology MC	

FIRE SCIENCE

Basic Firefighter	MC, PV, EM
Driver Operator	MC
Emergency Management	GC, MC, PV, SM
Emergency Response and Operations	CGCC, EM, GC, MC, PC, PV, RSC, SC
Fire Academy	GC, SC
Fire Officer I	MC, CG, EM, GC, PC, PV, SC
Fire Science CG, GC, PC, PV, RS	
Fire Science Technology	GC, SC, PV, EM
Firefighter Operations	GC, MC, PC, PV, SC, CGCC, EMCC
Hazardous Materials Response	PC

LIBRARY MEDIA TECHNOLOGY

Library Information Technology	MC
Library Information Technology: Advanced	MC
Library Information Technology: Basic	MC
Library Information Technology: Practitioners	MC
Library Information Technology: School Library Media Center	MC

MANUFACTURING

DRAFTING TECHNOLOGY

CAD Technology	GC
Basic CAD GC	
CAD/CAM/CNC I	MC
CAD/CAM/CNC II	MC
CAD Application	GC
Commercial Drafting CADD Level II	MC
Computer Aided Design and Drafting CADD Level I	MC
Computer Aided Drafting	MC
CAD-BIM Technology	PC
Electro/Mechanical Drafting	MC
Electromechanical Manufacturing Technology	MC
Industrial Design Technology	GW
Industrial Design Technology: Design Specialist: SolidWorks	GW
Machining I MC	
Machining II	MC
Manufacturing Engineering Technology	MC
Manufacturing Management	MC
Production Technology	MC
Manufacturing Productivity: CNC CAD/CAM Programming	GW

Production Technology: CNC Technology	GW
Manufacturing Productivity: Conventional Machines Level I	GW
Manufacturing Productivity: Conventional Machines Level II	GW
Manufacturing Productivity: Engineering Graphics	GW
Manufacturing Productivity: Process Improvement	GW
Manufacturing Productivity: Team Leadership	GW
Production Technology: Quality Assurance	GW
Manufacturing Welding	MC
Mechanical Drafting	MC
Micro Circuit Mask Design	MC
Microcomputer Servicing	GC
Public Works Leadership	EM
Truck Trailer Driving	GC

ELECTRONICS/ELECTRICAL TECHNOLOGY

Automation Technology	EM, GW, MC
Automation Technology Level I	EM, GW, MC
Automation Technology Level II	GW
Automation Technology Level III	GW
Computer and Networking Technology	GC
Electric Utility Technology	CG
Electric Utility Design Technology	CG
Electrical Technology	GW
Electromechanical Automation Technology	MC
Electronics Engineering Technology	MC
Electronics Manufacturing Technology	GC
Electronics Technology	MC
Industrial Education	MC
Meter Technology	CG
Network Maintenance	GC
Telecommunications Technology	SM
Workforce Development: Electrical Level I	RS
Workforce Development: Electrical Level II	RS

ENGINEERING

Civil Engineering Technology	PC
Surveying Technology	PC

WELDING TECHNOLOGY

Welding	MC

(See Manufacturing section for additional programs and related areas)

MUSIC

Audio Production Technologies	GC, MC, PC, PV, SC
Dance Technology	SC
Music Business CG, GC, MC, PC, PV, SC, SM	

COMMERCIAL ART/ADVERTISING ART

Computer Graphic Design	PC

(See Media Technology section for additional programs and related areas)

Graphic Design, Animation and Web Publishing Design	GC
Graphic Design SC	
Workforce Development: Graphic Arts Level I	RS
Workforce Development: Graphic Arts Level II	RS

SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS

AGEC-S

TRANSPORTATION, DISTRIBUTION, AND LOGISTICS

AUTOMOTIVE TECHNOLOGY

Air Conditioning and Electrical Accessories	GW
Air Conditioning	MC
Automotive Chassis	GC
Automotive Drive Trains	GW
Automotive Electrical Systems	MC
Automotive Engines and Drive Trains	GC
Automotive Engine Performance Diagnosis & Air Conditioning	GC

Automotive Performance Technology	MC
Automotive Suspension, Steering and Brakes	GW
Automotive Technology	GC, GW
Brakes, Alignment, Suspension and Steering	MC
Engine Performance and Diagnosis	GW, MC
Transmissions and Power Trains	MC
Workforce Development: Automotive Technology Level I	RS
Workforce Development: Automotive Technology Level II	RS

Administration of Justice Studies Certificates/Degrees

- **Associate in Applied Science in Adminstration of Justice Studies**
- **Certificate of Completion in Legal Studies**
- **Associate in Applied Science in Judicial Studies**
- **Certificate of Completion in Judicial Studies**
- **Associate in Applied Science in Police Science**
- **Certificate of Completion in Police Science**
- **Certificate of Completion in Forensic Investigation**
- **Certificate of Completion in Victimology**

Department Chairperson: Ellyn Ness
Contact: (480) 461-7050

ASSOCIATE IN APPLIED SCIENCE (AAS) IN ADMINISTRATION OF JUSTICE STUDIES
is an interdisciplinary program that prepares students for a variety of careers in the criminal justice field, including law enforcement, corrections, probation, and social services in community-based organizations and agencies.

Major Code: 3998 Total Credits: 64

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

Required Courses: Credits: 24
AJS101	Introduction to Criminal Justice	3
AJS109	Substantive Criminal Law	3
AJS212	Juvenile Justice Procedures	3
AJS225	Criminology	3
AJS230	The Police Function	3
AJS240	The Correction Function	3
AJS260	Procedural Criminal Law	3
AJS275	Criminal Investigation I	3

Restricted Electives: Credits: 15-18
AJS+++++
Administration of Justice Studies
(Any other AJS courses) **OR**
JUD+++++   Judicial Studies (Any JUD course)15-18

General Education: Credits: 25-27
First-Year Composition
+ENG101   First Year Composition (3) **AND**
ENG102   First Year Composition (3) 6
Oral Communication
COM100
Introduction to Human Communication (3) **OR**
COM225   Public Speaking (3) **OR**
COM230   Small Group Communication (3) 3
Critical Reading
CRE101

College Critical Reading (3) **OR**
Equivalent as indicated by assessment 3
Mathematics
MAT102
Mathematical Concepts/Applications (3) **OR**
MAT120   Intermediate Algebra (5) **OR**
MAT121   Intermediate Algebra (4) **OR**
MAT122
Intermediate Algebra (3) **OR**
Equivalent as indicated by assessment **OR**
Approved math courses which are required in a specific AAS program **OR**
Satisfactory completion of a higher level mathematics course   3-5
Humanities and Fine Arts

AJS123
Ethics and the Administration of Justice 3
Social and Behavioral Sciences

Any approved general education course from the Social and Behavioral Sciences area   3

AJS200 or AJS258 or AJS270 recommended.
Natural Sciences

Any approved general education course from the Natural Sciences area   4

CERTIFICATE OF COMPLETION (CCL) IN LEGAL STUDIES is an interdisciplinary study of law that prepares

students to "think like lawyers." The emphasis on case analysis, critical thinking, reasoning by analogy, and oral advocacy will benefit all types of students, from those who want to attend law school, to professionals who crave a specialized area of knowledge, to those who simply want to learn about law in general.
Major Code: 5635 Total Credits: 18

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

Required Courses: Credits: 18
AJS109   Substantive Criminal Law.................... 3
AJS201   Rules of Evidence 3
AJS217   Court Procedures.................................. 3
AJS260   Procedural Criminal Law 3
GBS206   Business Law (UCC) 3
GBS207   Business Law (General Corporate) 3

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN JUDICIAL STUDIES will address skills and knowledge

necessary for pursuing a career in the court system. In addition, the degree is designed for those individuals currently employed in the court who want to enhance or expand their job skills. Program of study will explore the laws, court structure, management, role of the judiciary and other areas that impact on the court.
Major Code: 3394 Total Credits: 64

Required Courses: Credits: 33
AJS101   Introduction to Criminal Justice 3
AJS109   Substantive Criminal Law.................... 3
AJS119
Computer Applications in
Justice Studies   3
AJS201   Rules of Evidence 3
AJS210   Constitutional Law 3
AJS/EMT/
SWU258   Victimology and Crisis Management... 3
AJS260   Procedural Criminal Law.................... 3
JUD101   The Courts in Arizona.......................... 1
JUD103   Role of the Court Staff 1
JUD107   Civil Procedure in Arizona Courts 2
JUD109   Judicial Writing 1
JUD111   Sentencing Misdemeanants.................. 1
JUD113   Court Management................................ 2
JUD115   Injunctive Actions................................ 2
JUD119   Alternative Dispute Resolution 1
JUD121   Appeals... 1

Restricted Electives: Credits: 6-9
Select 9 credits from the following list of courses:
AJS+++++
Administration of Justice Studies
(Any AJS module)
LAS+++++   Legal Assisting (Any LAS module)
POS+++++   Political Science (Any POS module) 6-9

General Education: Credits: 25
First-Year Composition
   +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
 COM100
Introduction to Human Communication **OR**
 COM225 Public Speaking (3) 3
Critical Reading
 CRE101 College Critical Reading 3
Mathematics
 MAT102
Mathematical Concepts and Applications (3) **OR**

Satisfactory completion of a higher-level mathematics course. 3
Humanities and Fine Arts
 AJS123 Ethics in Criminal Justice.................... 3
Social and Behavioral Sciences

Any approved general education course from the Social and Behavioral Sciences Area 3
Natural Sciences

Any approved general education course from the Natural Sciences Area 4

THE CERTIFICATE OF COMPLETION (CCL) IN JUDICIAL STUDIES will address specific skills and

knowledge needed to pursue a career in the court system. The CCL is also designed for those individuals currently employed in the course who want to enhance or expand their job skills. Program of study will explore the court structure, management, role of the judiciary and other areas that impact on the court.
Major Code: 5002 Total Credits: 15

Required Courses: Credits: 15
AJS101 Introduction to Criminal Justice 3
JUD101 The Courts in Arizona 1
JUD103 Role of the Court Staff 1
JUD107 Civil Procedure in Arizona Courts 2
JUD109 Judicial Writing 1
JUD111 Sentencing Misdemeanants.................. 1
JUD113 Court Management............................... 2
JUD115 Injunctive Actions............................... 2
JUD119 Alternative Dispute Resolution 1
JUD121 Appeals... 1

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN POLICE SCIENCE prepares students to enter a career in

law enforcement. The program emphasizes laws, the criminal justice system, investigations, patrol, and other functions specific to law enforcement. The curriculum combines coursework in police science with General Education components.
Major Code: 3107 Total Credits: 64

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

Required Courses: Credits: 24
AJS101 Introduction to Criminal Justice 3
AJS109 Substantive Criminal Law.................... 3
AJS151 Firearms I... 1
+AJS153 Firearms II/Handguns.......................... 1
AJS205 Criminal Justice Report Writing......... 3
AJS230 The Police Function 3
AJS260 Procedural Criminal Law.................... 3
AJS270 Community Relations........................... 3
AJS275 Criminal Investigation I 3
AJS290BU Family Violence 1

Restricted Electives: Credits: 15-18
AJS+++++
Any Administration of Justice Studies course **OR**
JUD+++++ Any Judicial Studies course **OR**

General Education: Credits: 25
First Year Composition
 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
COM100

Introduction to Human Communication (3) **OR**

COM225	Public Speaking (3) **OR**
COM230	Small Group Communication (3) 3

Critical Reading
CRE101

College Critical Reading (3) **OR**

equivalent as indicated by assessment 3

Mathematics
MAT102

Mathematical Concepts/Applications or satisfactory completion of
higher level mathematics course 3

Humanities and Fine Arts

AJS123	Ethics and the Administration of Justice	3

Social and Behavioral Sciences
AJS/EMT/FSC/

SWU258	Victimology and Crisis Management... 3	

Natural Sciences

Any approved general education course in the Natural Sciences area   4

THE CERTIFICATE OF COMPLETION (CCL) IN POLICE SCIENCE 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.

Major Code: 5107 Total Credits: 18

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

Required Courses: Credits: 18

AJS101	Introduction to Criminal Justice 3
AJS151	Firearms I... 1
+AJS153	Firearms II/Handguns.......................... 1
AJS205	Criminal Justice Report Writing......... 3
AJS230	The Police Function 3
AJS270	Community Relations........................... 3
AJS275	Criminal Investigation I 3
AJS290BU	Family Violence 1

THE CERTIFICATE OF COMPLETION (CCL) IN FORENSIC INVESTIGATION 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.

Major Code: 5488 Total Credits: 18

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

Required Courses: Credits: 18

AJS215	Criminalistics Physical Evidence......... 3
AJS216	Criminalistics: Biological Evidence 3
AJS241	Police Photography 3
AJS275	Criminal Investigation I 3
AJS290AI	Theories of Criminal Behavior............ 1
AJS290AU	Child Abuse Investigation.................... 1
AJS290BH	Sex Crimes Investigation 1
ASM/FOR275	Introduction to Forensic Anthropology 3

THE CERTIFICATE OF COMPLETION (CCL) IN VICTIMOLOGY prepares students for professional careers in

victim advocacy. This specialized area of study includes crisis intervention, community services, victim rights, and other areas that relate to victimology. This certificate is also useful for police officers, firefighters, counselors, social workers, probation officers, and others who deal with victims.

Major Code: 5392 Total Credits: 15

Required Courses: Credits: 15

AJS101	Introduction to Criminal Justice 3	
AJS123	Ethics and the Administration of Justice	3
AJS225	Criminology 3	
AJS/EMT/FSC/		
SWU258	Victimology and Crisis Management... 3	
AJS282AA		
Volunteerism for Administration of Justice: A Service-Learning		
Experience	1	
AJS290BU	Family Violence 1	
AJS290BV	Victim Assistance................................. 1	

Agribusiness Certificates/Degrees

- **Associate in Applied Science in Agribusiness**
- **Certificate of Completion in Pest Management Aide**

Department Chairperson: Jon D'Ambrosio
Contact: (480) 461-7141
Program Director: SueAn Stewart
Contact: (480) 461-7125

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN AGRIBUSINESS a graduate of this program is competent
in the skills necessary to engage in the business of agribusiness. Opportunities-As the cost of farming increases, fewer individuals will be able to get started in farming. The number of large corporate and partnership farms will increase. Since these types of farms are usually operated by farm managers, employment of farm managers is expected to increase as fast as the average of all occupations through the mid-1980-s and beginning farmers may find opportunities in this field. Program-This two-year Agribusiness Program emphasizes the technology of production and management. The program is designed to prepare the individual to become employed as farm hands, herdsmen, technicians, supervisors, managers, or owners in farming, ranching, and dairying. In addition the program prepares the individuals for jobs with government agencies or other agencies involved with the technical phases of the animal science industry.

Major Code: 3014 Total Credits: 64-69

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

Required Courses: Credits: 11

AGB139	Agribusiness Computer Operations 3
AGS164	Plant Growth and Development.......... 4
AGS260	Origin and Composition of Soils 4

Restricted Electives: Credits: 19-24
Students must select one of the following three tracks:

Track I-Pest Management Credits: 19

AGS170	Pesticides.. 0.5
AGS171	Insect Identification............................ 0.5
AGS172	Household Pests 0.5
AGS173	Wood Destroying Pests...................... 0.5
AGS174	Regulations: Federal and State 0.5
AGS175	
Pesticide Safety and Use of	
Equipment	0.5
AGS176	
Environment and Toxicology of Pesticides 0.5	
AGS177	Aquatic Pest Control 0.5
AGS178	General Pest Control.......................... 0.5
AGS179	Terrestrial Weed Control................... 0.5
AGS183	Urban Plant Identification and Use 3

AGS268	Insect, Weed and Pest Control	4
AGS284	Lawn and Turf Care	3
AGS296WD	Cooperative Education	4

Track II-Ranch and Livestock Management Credits: 27

AGB132		
Agribusiness Accounting and Office Management		3
+AGS165AA	Crop Science	3
ANS110AA	Introduction to Animal Science	3
+ANS115	Livestock Selection and Evaluation	3
+ANS212	Livestock Production and Management	3
ANS213	Animal Feeding	3
ANS222	Animal Anatomy and Physiology	3
ANS223	Animal Diseases	3
AGB290	Internship	3

Track III-General Business Credits: 21

AGB290	Internship	3
AGB130		
Establishing and Running an Agribusiness		3
AGS168	Grounds Equipment Management	3
AGS186		
Greenhouse Management and Construction		3
ANS110AA	Introduction to Animal Science	3
ANS212	Livestock Production and Management	3
EQS105	Principles of Equine Science	3

Free Electives: Credits: 9

Select from the following prefixes:

ANS+++++	Animal Science any ANS course	4-9
AGS+++++	Agricultural Science any AGS course	4-9
AGB+++++	Agribusiness any AGB course	4-9

General Education: Credits: 25

First-Year Composition

| ENG101 | First-Year Composition (3) **AND** | |
| ENG102 | First-Year Composition (3) | 6 |

Oral Communication

| COM100 | Introduction to Human Communication | 3 |

Critical Reading

| CRE101 | College Critical Reading | 3 |

Mathematics

MAT102

| Mathematical Concepts/Applications (3) **OR** | | |
| | Higher level mathematics course | 3 |

Humanities and Fine Arts

| Any approved general education course in the Humanities and Fine Arts Area | | 3 |

Social and Behavioral Sciences

| ECN211 | Macroeconomic Principles | 3 |

Natural Sciences

| CHM130 | Fundamental Chemistry (3) **AND** | |
| CHM130LL | Fundamental Chemistry Laboratory (1) | 4 |

THE CERTIFICATE OF COMPLETION (CCL) IN PEST MANAGEMENT AIDE provides general

education, pest control technology, and agriculture courses taught by certified instructors. The Associate in Applied Science degree graduates will have the knowledge and practical skills for rapid advancement in the industry. Graduates will be able to pass the certification exams in pest control.

Major Code: 5020 Total Credits: 13

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

Required Courses: Credits: 13

AGS164	Plant Growth and Development	4
AGS170	Pesticides	0.5
AGS171	Insect Identification	0.5

AGS172	Household Pests 0.5
AGS173	Wood Destroying Pests.................... 0.5
AGS174	Regulations: Federal and State 0.5
AGS175	Pesticide Safety and Use of Equipment0.5
AGS176	Environment, Toxicology of Pesticides0.5
AGS177	Aquatic Pest Control 0.5
AGS178	General Pest Control........................ 0.5
AGS179	Terrestrial Weed Control 0.5
AGS268	Insect, Weed & Pest Control 4

Architecture
Certificates/Degrees

- **Associate in Applied Science in Architecture**
- **Certificate of Completion in Architectural CADD Level III**
- **Certificate of Completion in Architectural Detailing CADD Level III**
- **Certificate of Completion in Commercial Drafting CADD Level II**
- **Certificate of Completion in Residential Drafting CADD Level II**

Program Director: Mehrzad Khorsandi
Contact: (480) 461-7257

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN ARCHITECTURE prepares students to work as

technicians in the areas related to architectural design or architectural drafting or urban development. An architecture design and architecture drafting technician may work in many types of design-related (architecture, engineering, construction, and interior design) firms/agencies using board and/or computer in designing and documenting residential and/or commercial buildings. An urban development technician may work for an urban planning

or land development or real estate or landscape companies/agency.
Major Code: 3802 Total Credits: 67

Program Notes: Students must earn a grade of "C" or better for each course listed in the required courses area.

Program Prerequisites: Credits: 3-5
MAT120	Intermediate Algebra (5) **OR**
MAT121	Intermediate Algebra (4) **OR**
MAT122	Intermediate Algebra (3)...................3-5

Required Courses: Credits: 18-20
ARC120	Design Fundamentals I 3
ARC160	Site Planning.. 3
CNS130	Computer Aided Design and Drafting 3
CNS180	
Building Construction Methods, Materials, and Equipment	3
CNS181	Cost Estimating I.................................. 3
MAT150	College Algebra / Functions (5) **OR**
MAT151	College Algebra / Functions (4) **OR**
MAT152	College Algebra / Functions (3)........3-5

Restricted Electives:
Students will choose one of the three tracks

Track I-Architecture Design Credits: 27
AGL189	Landscape Design I.............................. 3
ARC100	Introduction to Environmental Design3
ARC140	Rendering and Portfolio Development 3
+ARC161	
Residential Architecture Drafting I: Computer and Board	3
+ARC162	
Advance Residential Architecture Drafting II: Computer and Board	3
+ARC163	
Commercial Architecture Drafting I: Computer and Board	3
+ARC164	

Advance Commercial Architecture Drafting II: Computer and Board   3
ARC165
Introduction to Architecture
Professional Practice and Ethics 3
+ARC225
Fundamentals of Architectural
Detailing   3
+ARC282++
Volunteerism for Architecture:
A Service Learning Experience 1-3
+ARC290++   Architecture Internship 1-3
+ARC296++   Cooperative Education 1-4
+ARC298++   Special Projects 1-3
BLT140   Environmentally Responsible Building 3
BLT262   Residential Building Code 3
+CNS201
Construction Management (Office Operation) 3
+CNS230
Computer Aided Design
and Drafting II   3
+CNS240

Computer Aided Design
and Drafting III   3
+CNS285
Introduction to Residential Plan
Review   3

Track II-Architectural Drafting Credits: 27
ARC140   Rendering and Portfolio Development 3
+ARC150   Architectural Desktop I 3
+ARC161
Residential Architecture Drafting I: Computer and Board 3
+ARC162
Advance Residential Architecture Drafting II: Computer and Board   3
+ARC163
Commercial Architecture Drafting I: Computer and Board   3
+ARC164
Advance Commercial Architecture Drafting II: Computer and Board   3
ARC165
Introduction to Architecture
Professional Practice and Ethics 3
+ARC225
Fundamentals of Architectural
Detailing   3
+ARC226   Advanced Architectural Detailing 3
+ARC282++
Volunteerism for Architecture:
A Service-Learning Experience 1-3
+ARC290++   Architecture Internship 1-3
+ARC296++   Cooperative Education 1-4
+ARC298++   Special Projects 1-3
BLT140
Environmentally Responsible Building 3
BLT262   Residential Building Code 3
+CNS201
Construction Management (Office Operation) 3
+CNS230
Computer Aided Design
and Drafting II   3
+CNS240
Computer Aided Design
and Drafting III   3
+CNS285
Introduction to Residential Plan
Review   3

Track III-Urban Development Credits: 27
AGL189   Landscape Design I............................. 3
+ARC161
Residential Architecture Drafting I: Computer and Board3
+ARC162
Advance Residential Architecture Drafting II: Computer and Board   3
+ARC282++
Volunteerism for Architecture:
A Service Learning-Experience 1-3
+ARC290++   Architecture Internship.................... 1-3
+ARC296++   Cooperative Education...................... 1-4
+ARC298++   Special Projects................................. 1-3
BLT140   Environmentally Responsible Building3
BLT262   Residential Building Code.................... 3
BLT263   General Building Code......................... 3
CNS175
Working Drawing Analysis, Blueprint Reading.............. 3
+CNS201
Construction Management (Office Operation) 3
+CNS230
Computer Aided Design
and Drafting II   3
+CNS240
Computer Aided Design
and Drafting III   3
+CNS285
Introduction to Residential Plan
Review   3
+CNS286
Introduction to Commercial Plan
Review   3
REA179   Real Estate Principles I........................ 3
+REA180   Real Estate Principles II 3
+REA281   Principles of Real Estate 3

General Education: Credits: 22

First-Year Composition

Any approved general education course in the First-Year Composition area   6
Oral Communication
    COM100   Introduction to Human Communication   3
Critical Reading
    +CRE101
College Critical Reading (3) or
                 Equivalent as indicated by assessment 3
Mathematics

Met by MAT150, MAT151, or MAT152, in required courses area   0
Humanities and Fine Arts

Any approved general education course in the Humanities and Fine Arts area   3
Social and Behavioral Sciences

Any approved general education course from the Social and Behavioral Sciences area   3
Natural Sciences
    PHY111   General Physics I................................. 4

THE CERTIFICATE OF COMPLETION (CCL) IN ARCHITECTURAL CADD LEVEL III prepares

students to work as advanced architectural computer technicians within architectural firms/agencies.

The program develops knowledge and skills required to perform various computer needed responsibilities for all types of residential and commercial construction. Students will develop knowledge and skills of two architectural software applications and residential/commercial drafting.

Major Code: 5354 Total Credits: 27

Program Notes: Students must earn a grade of "C" or better for each course listed in the required courses area.

Required Courses: Credits: 27

ARC150   Architectural Desktop I 3
+ARC161   Residential Architecture Drafting 3
+ARC162

Advanced Residential Architecture Drafting 3
+ARC163   Commercial Architecture Drafting 3
+ARC164

Advanced Commercial Architecture Drafting 3
+ARC282AC
Volunteerism for Architecture:
A Service-Learning Experience (3) **OR**
+ARC290AC   Architecture Internship (3) **OR**
+ARC296WC   Cooperative Education (3) **OR**
+ARC298AC   Special Projects (3) 3
CNS130   Construction Drawing Foundation 3
+CNS230

Computer Aided Design & Drafting (CADD) 3D for Construction & Architecture (CADD II)   3
+CNS240

Advanced Computer Aided Design & Drafting (CADD) for Construction & Architecture (CADD III)   3

THE CERTIFICATE OF COMPLETION (CCL) IN ARCHITECTURAL DETAILING CADD LEVEL III

prepares students to work as architectural detailers within architectural firms/agencies. This certificate develops student knowledge and skills required to perform residential and commercial detailing responsibilities via computer and/or board drafting.

Major Code: 5352 Total Credits: 33

Program Notes: Students must earn a grade of "C" or better for each course listed in the required courses area.

Required Courses: Credits: 33

+ARC161   Residential Architecture Drafting 3
+ARC162

Advanced Residential Architecture Drafting 3
+ARC163   Commercial Architecture Drafting 3
+ARC164

Advanced Commercial Architecture Drafting 3
+ARC225

Fundamentals of Architectural
Detailing   3
+ARC226   Advanced Architectural Detailing 3
+ARC282AC

Volunteerism for Architecture:
A Service-Learning Experience (3) **OR**
+ARC290AC   Architecture Internship (3) **OR**
+ARC296WC   Cooperative Education (3) **OR**
+ARC298AC   Special Projects (3) 3
CNS130   Construction Drawing Foundation 3
CNS180

Building Construction Methods, Materials & Equipment 3
+CNS230

Computer Aided Design & Drafting (CADD) 3D for Construction and Architecture (CADD II)   3
+CNS240

Advanced Computer Aided Design & Drafting (CADD) for Construction and Architecture (CADD III)   3

THE CERTIFICATE OF COMPLETION (CCL) IN COMMERCIAL DRAFTING CADD LEVEL II

prepares students to work as architectural drafting technicians in a variety of commercial (non-residential) design and drafting companies/agencies. Students will enhance their computer and board drafting skills/knowledge and also train on commercial specific drafting skills to perform intermediate-level drafting technician responsibilities.

Major Code: 5350 Total Credits: 27

Program Notes: Students must earn a grade of "C" or better for each course listed in the required courses area.

Required Courses: Credits: 27

+ARC163   Commercial Architecture Drafting 3
+ARC164

Advanced Commercial Architecture Drafting 3
+ARC226   Advanced Architectural Detailing 3

+ARC282AC
Volunteerism for Architecture:
A Service-Learning Experience (3) **OR**
+ARC290AC   Architecture Internship (3) **OR**
+ARC296WC   Cooperative Education (3) **OR**
+ARC298AC   Special Projects (3) 3
BLT263   General Building Code......................... 3
CNS130   Construction Drawing Foundation 3
CNS180
Building Construction Methods, Materials & Equipment 3
+CNS230
Computer Aided Design & Drafting (CADD) 3D for Construction and Architecture (CADD II)   3
+CNS240
Advanced Computer Aided Design & Drafting (CADD) for Construction and Architecture (CADD III)   3

THE CERTIFICATE OF COMPLETION (CCL) IN RESIDENTIAL DRAFTING CADD LEVEL II

prepares students to work as architectural drafting technicians in a variety of residential design and drafting companies/agencies. Students will enhance their computer and board drafting skills/knowledge and also train on residential specific drafting skills to perform intermediate-level drafting technician responsibilities.

Major Code: 5349 Total Credits: 24

Program Notes: Students must earn a grade of "C" or better for each course listed in the required courses area.

Required Courses: Credits: 24
+ARC161   Residential Architecture Drafting 3
+ARC162
Advanced Residential Architecture Drafting 3
+ARC225
Fundamentals of Architectural
Detailing   3
+ARC282AC
Volunteerism for Architecture:
A Service-Learning Experience (3) **OR**
+ARC290AC   Architecture Internship (3) **OR**
+ARC296WC   Cooperative Education (3) **OR**
+ARC298AC   Special Projects (3) 3
BLT262
Introduction International Residential Code (IRC) 3
CNS130   Construction Drawing Foundation 3
+CNS230
Computer Aided Design & Drafting (CADD) 3D for Construction and Architecture (CADD II)   3
+CNS240
Advanced Computer Aided Design & Drafting (CADD) for Construction and Architecture (CADD III)   3

Automotive Certificates/Degrees

- **Associate in Applied Science in Automotive Performance Technology**
- **Certificate of Completion in Air Conditioning**
- **Certificate of Completion in Automotive Electrical Systems**
- **Certificate of Completion in Brakes, Alignment, Suspension, and Steering**
- **Certificate of Completion in Engine Performance and Diagnosis**
- **Certificate of Completion in Transmissions and Power Trains**

Department Chairperson: Jon D'Ambrosio
Contact: (480) 461-7137
Program Director: Joe Rauscher
Contact: (480) 461-7136

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN AUTOMOTIVE PERFORMANCE TECHNOLOGY

prepares students to work as automotive mechanics and technicians who diagnose, service, test, and repair complex, computer-controlled automotive electrical systems. The program emphasizes knowledge and skills in reading, math, problem solving, and writing that are necessary to perform automotive diagnosis and service.

Major Code: 3482 Total Credits: 69

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

Required Courses: Credits: 45

APT101   Automotive Service Operations........... 2
APT131   Automotive Power Trains 6
APT141   Alignment, Steering, and Suspension.. 6
APT151   Automotive Brake Systems 4
APT161
Automotive Electrical and Electronic Systems I............... 4
APT171   Automotive Air Conditioning 4
APT181   Engine Performance and Diagnosis I.. 6
+APT262
Automotive Electrical and Electronic Systems II 4
+APT282   Engine Performance and Diagnosis II 6
GTC107   Technical Mathematics I..................... 3

Restricted Electives: Credits: 3

+AUT270++
Automotive Technology Internship
(any module)   1-3
+AUT282++
Volunteerism for Automotive:
A Service-Learning Experience
(any module)   1-3
+AUT296++   Cooperative Education (any module)1-4
+AUT298++   Special Projects (any module) 1-3

General Education: Credits: 21-22

First Year Composition
    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 Writing (3).......................... 6
Oral Communication
    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
    CRE101
College Critical Reading (3)

At "C" level or above **OR**
                equivalent as indicated by assessment . 3
Mathematics

Met by GTC107 in required courses
area   0
Humanities & Fine Arts

Any approved general education course in the Humanities and Fine Arts area   2-3
Social and Behavioral Sciences

Any approved general education course in the Social and Behavioral Sciences area   3
Natural Sciences

Any approved general education course in the Natural Sciences area   4

THE CERTIFICATE OF COMPLETION (CCL) IN AIR CONDITIONING TECHNICIAN is responsible for

diagnosing, servicing, testing, and repairing complex, highly technical air conditioning systems. Good reading, mathematical, and writing skills are necessary for working in the service industry. The development of good problem solving skills is a must to perform the diagnostic procedures necessary in industry.

Major Code: 5443 Total Credits: 13

Required Courses: Credits: 13

APT101   Automotive Service Operations........... 2
APT161
Automotive Electrical and Electronic Systems I............... 4
APT171   Automotive Air Conditioning 4
GTC/MET107   Technical Mathematics I...................... 3

THE CERTIFICATE OF COMPLETION (CCL) IN AUTOMOTIVE ELECTRICAL SYSTEMS technician

is responsible for diagnosing, servicing, testing, and repairing complex, highly technical computer, controlled systems. Good reading, mathematical, and writing skills are necessary for working in the service industry. The development of good problem solving skills is a must to perform the diagnostic procedures necessary in industry.

Major Code: 5449 Total Credits: 13

Required Courses: Credits: 13

APT101   Automotive Service Operations........... 2
APT161
Automotive Electrical and Electronic Systems I............... 4
APT262
Automotive Electrical and Electronic Systems II 4
GTC/MET107   Technical Mathematics I...................... 3

THE CERTIFICATE OF COMPLETION (CCL) IN BRAKES, ALIGNMENT, SUSPENSION AND STEERING will provide the graduate with marketable skills to enter the job market. The program is designed to provide "hands-

on" experience in a "live" working environment similar to the service industry. B,A,S,& S is one of five certificate program available.

Major Code: 5459 Total Credits: 15

Required Courses: Credits: 15

APT101   Automotive Service Operations........... 2
APT141   Alignment, Steering, and Suspension.. 6
APT151   Automotive Brake Systems.................. 4
GTC/MET107   Technical Mathematics I...................... 3

THE CERTIFICATE OF COMPLETION (CCL) IN ENGINE PERFORMANCE AND DIAGNOSIS

program is designed to prepare students for employment as auto mechanics and technicians. The program will provide students with marketable skills in a short period of time. The program is divided into four certificate levels while still offering an Associate in Applied Science (AAS) degree option. Much of the total program is designed to provide hands-on learning experiences, with a suitable amount of related classroom material.

Major Code: 5478 Total Credits: 17

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

Required Courses: Credits: 17

APT101   Automotive Service Operations........... 2
APT181   Engine Performance and Diagnosis I.. 6
APT282   Engine Performance and Diagnosis II 6
GTC/MET107   Technical Mathematics I...................... 3

THE CERTIFICATE OF COMPLETION (CCL) IN TRANSMISSIONS AND POWER TRAINS

will provide the graduate with marketable skills to enter the job market. The program is designed to provide "hands-on" experience in a "live" working environment similar to the service industry. Transmissions & Power Trains is one of five certificate programs available.

Major Code: 5467 Total Credits: 11

Required Courses: Credits: 11

APT101   Automotive Service Operations........... 2
APT131   Automotive Power Trains 6
GTC/MET107   Technical Mathematics I...................... 3

Biotechnology

Certificates/Degrees

- **Associate in Applied Science in Biotechnology**
- **Certificate of Completion in Biotechnology**

Department Chairperson: Saundra Minckley
Contact: (480) 461-7117
Program Director: Stan Kikkert
Contact: (480) 461-7862

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN BIOTECHNOLOGY prepares students for careers as

technical assistants in federal, state, and local government laboratories; biomedical, pharmaceutical, and bioengineering laboratories; agriculture and horticulture; microbiology, environmental and academic laboratories.

The program provides students with a working knowledge

of biotechnology by focusing on competency and technical expertise with state-of-the art laboratory protocol and critical

consideration of current topics in biotechnology. Students gain practical experience through an internship.

Major Code: 3004 Total Credits: 67-69

Program Prerequisites: Credits: 0-12

High School Diploma or GED
+CHM130   Fundamental Chemistry (3) **AND**
CHM130LL
Fundamental Chemistry Laboratory (1) **OR**
                 One year of high school chemistry ... 0-4
CRE101   College Critical Reading (3) **OR**
CRE111
Critical Reading for Business and Industry (3) **OR**

Equivalent as indicated by
assessment.   0-3
MAT120   Intermediate Algebra (5) **OR**
MAT121   Intermediate Algebra (4) **OR**
MAT122   Intermediate Algebra (3) **OR**

Equivalent as indicated by
assessment   0-5

Required Courses: Credits: 52-54

BIO181   General Biology (Majors) I 4
BIO211AA
Biotechnology Seminar: Biomedical Applications 1
BIO212AA   Biotechnology I 5
BIO212AB   Biotechnology II 5
BIO212AC   Biotechnology III 5
BIO220   Biology of Microorganisms 4
+BIO240   General Genetics 4
+BIO244   General Genetics Laboratory.............. 1
+BIO249
Applied Biosciences: Biotechnology Internship............... 4
CHM151   General Chemistry I 3
CHM151LL   General Chemistry I Laboratory 1
+CHM152   General Chemistry II 3
+CHM152LL   General Chemistry II Laboratory........ 1
+CHM230   Fundamental Organic Chemistry 3
+CHM230LL
Fundamental Organic Chemistry Laboratory.................. 1
+CHM260   Fundamental Biochemistry 3
+CHM260LL
Fundamental Biochemistry Laboratory............................ 1
+MAT150   College Algebra/Functions (5) **OR**
+MAT151   College Algebra/Functions (4) **OR**
+MAT152   College Algebra/Functions (3).......... 3-5

General Education: Credits: 15

First-Year Composition

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
   COM100
Introduction to Human 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**
   +COM225   Public Speaking (3) **OR**
   +COM230   Small Group Communication (3) 3
Critical Reading

Met by CRE courses in program prerequisites area......... 0
Mathematics

Met by MAT courses in program prerequisites area 0
Humanities and Fine Arts
   PHI213   Medical and Bio-Ethics 3
Social and Behavioral Sciences

Any approved general education course from the Social and Behavioral Sciences Area   3
Natural Sciences

Met by CHM courses in required
course area   0

THE CERTIFICATE OF COMPLETION (CCL) IN BIOTECHNOLOGY prepares students for careers as

technical assistants in federal, state, and local government laboratories; biomedical, pharmaceutical, and bioengineering laboratories; agriculture and horticulture, microbiology, environmental and academic laboratories. The program includes courses designed to provide students with a working knowledge of the field by focusing on competency and technical expertise with state-of-the-art laboratory protocol and critical consideration of current topics in biotechnology. The core focus is hands-on experience in the laboratory followed by an internship.
Major Code: 5079 Total Credits: 41

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

Program Prerequisites: Credits: 4
High School Diploma or GED
+CHM130   Fundamental Chemistry (3) **AND**
CHM130LL
Fundamental Chemistry Laboratory (1) **OR**
               One year of high school chemistry 4
MAT120   Intermediate Algebra (5) **OR**
MAT121   Intermediate Algebra (4) **OR**
MAT122   Intermediate Algebra (3) **OR**

Equivalent as indicated by
assessment   0-5

Required Courses: Credits: 41
BIO181   General Biology (Majors) I 4
BIO211AA
Biotechnology Seminar: Biomedical Applications 1
BIO212AA   Biotechnology I 5
BIO212AB   Biotechnology II 5
BIO212AC   Biotechnology III 5
BIO220   Biology of Microorganisms 4
+BIO240   General Genetics 4

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+BIO244         General Genetics Laboratory............... 1
+BIO249
Applied Biosciences: Biotechnology Internship................ 4
CHM151          General Chemistry I ........................... 3
CHM151LL        General Chemistry I Laboratory ......... 1
+CHM152         General Chemistry II ......................... 3
+CHM152LL       General Chemistry II Laboratory........ 1
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Business Certificates/Degrees

- **Associate in Applied Science in Business**
- **Certificate of Completion in International Trade**
- **Certificate of Completion in Management**
- **Certificate of Completion in Marketing**
- **Certificate of Completion in Project Management**
- **Certificate of Completion in Computer Applications: Microsoft Office Specialist/Basic**
- **Certificate of Completion in Computer Applications: Microsoft Office Specialist/Advanced**
- **Certificate of Completion in Technology Support Analyst Level I**
- **Certificate of Completion in Technology Support Analyst Level II**
- **Associate in Applied Science in Retail Management**
- **Certificate of Completion in Retail Management**
- **Certificate of Completion in Salesmanship**
- **Certificate of Completion in Small Business**
- **Associate in Applied Science in General Business**
- **Certificate of Completion in General Business**
- **Associate in Applied Science in Organizational Management**
- **Certificate of Completion in Organizational Leadership**

Department Chairperson: Linda Collins
Contact: (480) 461-7077

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN BUSINESS prepares students for entry-level careers in a field of their choice: bookkeeping, business communication, management, marketing, management information systems, real estate, international business, Web technology, project management, game technology, multimedia technology, software quality assurance, or small business.

Major Code: 3852 Total Credits: 60

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

Required Courses: Credits: 30

```
ACC109          Accounting Concepts ........................... 3
BPC110
Computer Usage and Applications (3) OR
CIS105
Survey of Computer Information
Systems (3)     3
GBS151          Introduction to Business (3) OR
IBS101
Introduction to International
Business (3)    3
GBS205
Legal, Ethical, and Regulatory
Issues in Business 3
+GBS233         Business Communication ..................... 3
MGT251          Human Relations in Business .............. 3
MKT271          Principles of Marketing........................ 3
OAS108          Business English ................................. 3
CSM/TQM101      Quality Customer Service................... 3
TQM240
Project Management in Quality Organizations ............... 3
```

Restricted Electives: Credits: 8-16

Students must select one of the following tracks:

Track I-Business Communication   Credits: 15
COM110   Interpersonal Communication 3
+COM259
Communication in Business and Professions 3
COM263
Elements of Intercultural
Communication   3
+ENG111   Technical Writing 3
MKT101   Introduction to Public Relations.......... 3

Track II-Management   Credits: 16
MGT147   Supply Chain Management 3
MGT229   Management and Leadership I 3
MGT230   Management and Leadership II 3
MGT276
Personnel/Human Resources Management 3
TQM230   Teamwork Dynamics 2
TQM235
Motivation, Evaluation,
and Recognition Systems... 2

Track III-Marketing   Credits: 15
MKT101   Introduction to Public Relations.......... 3
MKT263   Advertising Principles 3
MKT267   Principles of Salesmanship.................. 3
MKT268   Merchandising 3
+MKT273   Marketing Research 3

Track IV-Management Information Systems   Credits: 15
BPC/CIS117DM
Microsoft Access: Database
Management   3
CIS150AB
Object-Oriented Programming Fundamentals 3
+CIS159   Visual Basic Programming I 3
CIS250   Management of Information Systems . 3
CIS162AD   C# Level I (3) **OR**
+CIS259   Visual Basic Programming II (3)......... 3

Track V-Real Estate   Credits: 15
REA179   Real Estate Principles I........................ 3
REA180   Real Estate Principles II 3
REA282   Real Estate Finance (3) **OR**
REA285   Real Estate Selling (3).......................... 3
REA283   Property Management (3) **OR**
REA270   Basic Appraisal Principles (2) **AND**
REA273
Residential Market Analysis Highest
and Best Use (1) 3
REA288   Real Estate Investment Strategy (3) **OR**
REA271   Basic Appraisal Procedure (2) **AND**
REA274
Residential Appraiser Site Valuation
and Cost Approach (1) 3

Track VI-International Trade   Credits: 15
IBS109
Cultural Dimension for International Trade 3
+IBS116   Export/Import Management............... 3
+IBS118   International Marketing Management 3
+IBS123
U.S. Custom and Export Licensing Regulations 3
+IBS140   International Financial Management .. 3

Track VII-Multimedia Technology   Credits: 15

CIS108   Electronic Portfolio Development 1
BPC/CIS120DC   Flash: Digital Animation 3
BPC/CIS120DK   Introduction to Digital Video Editing . 3
CIS/MMT140   Survey of Multimedia Technology 2
MTC/TCM120
Introduction to Sound Design for Film and Video 3
BPC/CIS120DB
Computer Graphics: Adobe
Illustrator (3) **OR**
BPC/CIS120DF
Computer Graphics: Adobe Photoshop (3) **OR**
BPC/CIS120DG   Fireworks: Web Graphics (3) 3

Track VIII-Web Technology   Credits: 15

BPC/CIS120DB
Computer Graphics: Adobe
Illustrator (3) **OR**
BPC/CIS120DF
Computer Graphics: Adobe
Photoshop (3) **OR**
BPC/CIS120DG   Fireworks: Web Graphics (3) 3
BPC/CIS133DA   Internet/Web Development Level I 3
+CIS233DA   Internet/Web Development Level II ... 3
CIS233DC   Internet Web Publishing: Dreamweaver   3
+CIS235   e-Commerce (3) **OR**
BPC/CIS120DC   Flash: Digital Animation (3) 3

Track IX-Project Management   Credits: 14

BPC/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 Communications Management 2
+MGT246   Principles of Project Management 3

Track X-Small Business   Credits: 13-14

+ACC115   Computerized Accounting 2
CIS131AA   Doing Business on the Internet 1
BPC/CIS133CA   Internet/Web Development Level I-C 1
EPS250
Introduction to Entrepreneurship (2) **AND**
EPS295
The Business Plan for Business
Start-Up (2) **OR**
MGT253
Owning and Operating a Small
Business (3)   3-4
SBS204
Small Business Marketing and Advertising 2
SBS213   Hiring and Managing Employees 1
SBS214   Small Business Customer Relations 1
SBS230
Financial and Tax Management
for Small Business 2

Track XI-Game Technology   Credits: 15

CIS107   The Electronic Game Industry 3
CIS151   Computer Game Development Level I 3
ART/ADA170   Three-Dimensional Computer Design 3
BPC/CIS120DC   Flash: Digital Animation 3
BPC/CIS120DF
Computer Graphics: Adobe

Photoshop (3) **OR**
BPC/CIS120DB
Computer Graphics: Adobe
Illustrator (3)   3

Track XII-Software Quality Assurance   Credits: 12
+CIS244   Testing Software Tools 3
+CIS246   Software Quality 3
+CIS248
Engineering Quality in Software Development................ 3
+CIS249
Software Testing for Quality
Assurance   3

Track XIII-Bookkeeping Technician   Credits: 8
ACC111   Accounting Principles I........................ 3
+ACC115   Computerized Accounting 2
ACC121   Income Tax Preparation 3

General Education: Credits: 22-27
First-Year Composition

Any approved general education
course from the First-Year
Composition Area6
Oral Communication

Any approved general education
course from the Oral Communication Area 3
Critical Reading
    CRE101
College Critical Reading (3) **OR**

Equivalent as indicated by
assessment   0-3
Mathematics
    MAT120   Intermediate Algebra (5) **OR**
    MAT121   Intermediate Algebra (4) **OR**
    MAT122
Intermediate Algebra Accelerated
(3) **OR**

Satisfactory completion of a higher
level mathematics courses..3-5
Humanities and Fine Arts

Any approved general education
course from the Humanities and Fine Arts Area 3
Social and Behavioral Sciences
    SBU200   Society and Business 3
Natural Sciences

Any approved general education
course from the Natural Sciences Area 4

THE CERTIFICATE OF COMPLETION (CCL) IN INTERNATIONAL TRADE program prepares students

for entry- and mid-level positions in international business. It is also designed to provide advanced knowledge and skills for those already working in the field of international business.
Major Code: 5999 Total Credits: 21-23

Program Notes: Students must earn a grade of "C" or better for all courses required within the program

Required Courses: Credits: 21-23
IBS109
Cultural Dimension for International Trade 3
+IBS116   Import/Export Management................ 3

+IBS118   International Marketing Management 3
+IBS123
U.S. Custom and Export Licensing Regulations 3
+IBS140   International Financial Management .. 3
MGT147   Supply Chain Management 3
ARB+++   any ARB/Arabic course (3-4) **OR**
FRE+++   any FRE/French course (3-4) **OR**
GER+++   any GER/German course (3-4) **OR**
ITA+++   any ITA/Italian course (3-4) **OR**
JPN+++   any JPN/Japanese course (3-5) **OR**
SPA+++   any SPA/Spanish course (3-4)..........3-5

THE CERTIFICATE OF COMPLETION (CCL) IN MANAGEMENT prepares students to work in first-line or

operational-level management positions. The program is also designed for those already working in management who want to advance and update their managerial knowledge and skills.

Major Code: 5088 Total Credits: 18

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

Required Courses: Credits: 18

MGT147   Supply Chain Management 3
MGT229   Management and Leadership I 3
+MGT243   Project Time and Cost Management ... 2
MGT244   Project Risk and Quality Management2
MGT251   Human Relations in Business 3
MGT276
Personnel/Human Resources Management 3
TQM230   Teamwork Dynamics 2

THE CERTIFICATE OF COMPLETION (CCL) IN MARKETING provides students with knowledge and skills in

the field of marketing. The program is designed
to meet the needs of those who want to enter a career in marketing as well as those who are already working in
the marketing field who want to advance and update their training.

Major Code: 5394 Total Credits: 18

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

Required Courses: Credits: 18

MKT101   Introduction to Public Relations.......... 3
MKT263   Advertising Principles 3
MKT267   Principles of Salesmanship................... 3
MKT268   Merchandising 3
MKT271   Principles of Marketing........................ 3
MKT273   Marketing Research 3

THE CERTIFICATE OF COMPLETION (CCL) IN PROJECT MANAGEMENT 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.

Major Code: 5477 Total Credits: 14

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

Program Prerequisites: Credits: 3

TQM240
Project Management in Quality Organizations (3) **OR**
            department approval 3

Required Courses: Credits: 14

BPC/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 Management2
+MGT245

Project Human Resources and Committee Management . 2
+MGT246   Principles of Project Management....... 3

THE CERTIFICATE OF COMPLETION (CCL) IN COMPUTER APPLICATIONS: MICROSOFT OFFICE SPECIALIST/BASIC

program provides basic skills in computer software applications for entry-level employment in a wide variety of occupations. Coursework includes basic software applications in word processing, electronic spreadsheets, database management, electronic messaging/personal information management, presentation graphics, and project management. This certificate program is designed to assist students in preparing for core examinations for certification as a Microsoft Office Specialist.

Major Code: 5146 Total Credits: 16-21

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

Required Courses: Credits: 13-18
GBS104   Quality Telephone Techniques............ 1
OAS101
Computer Typing I: Keyboarding and Formatting........... 3
OAS108   Business English 3

Students will select one of two tracks:

Track I: Credits 6
BPC110   Computer Usage and Applications 3
+BPC210
Advanced Computer Usage and Applications................... 3

Track II: Credits 9-11
BPC100CD   Living Online (1) **OR**
BPC106AH   MS Outlook: Level I (.5) **AND**
+BPC106BH   Microsoft Outlook: Level II (.5) 1
BPC/CIS114AE   Excel: Level I (1) **AND**
+BPC/CIS114BE Excel: Level II (1) **OR**
BPC/CIS114DE   Excel Spreadsheet (3) 2-3
BPC/CIS117AM
Database Management: Microsoft Access-Level I (1) **AND**
+BPC/CIS117BM..
Database Management: Microsoft Access-Level II (1) **OR**
BPC/CIS117DM
Microsoft Access: Database
Management (3) 2-3
BPC/CIS118AB   PowerPoint: Level I.............................. 1
+BPC/CIS118BB PowerPoint: Level II 1
BPC/OAS135DK Word: Level I....................................... 2

Restricted Electives: Credits: 3
BPC100AD   Computing Fundamentals.................... 1
BPC100BD   Key Software Applications 1
BPC100CD   Living Online.. 1
BPC/CIS121AE Windows Operating System: Level I .. 1
OAS103AA   Computer Typing: Skill Building 1
OAS118   10-Key By Touch.................................. 1

THE CERTIFICATE OF COMPLETION (CCL) IN COMPUTER APPLICATIONS: MICROSOFT OFFICE SPECIALIST/ADVANCED

program provides advanced skills in computer software applications for a wide variety of occupations. Coursework includes advanced software applications in word processing, electronic spreadsheets, and other office skills. This certificate program is designed to assist students in preparing for the expert examinations for certification as a Microsoft Office Specialist.

Major Code: 5147 Total Credits: 19-21

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

Required Courses: Credits: 16-18
GBS104   Quality Telephone Techniques............ 1
OAS101
Computer Typing I: Keyboarding and Formatting........... 3
OAS108   Business English 3

CSM/TQM101   Quality Customer Service 3

Students will select one of two tracks:

Track I: Credits 6
+BPC210
Advanced Computer Usage and Applications 3
+BPC250
Post Advanced Computer Usage and Applications 3

Track II: Credits 8
BPC100CD   Living Online (1) **OR**
BPC106AH   MS Outlook: Level I (.5) **AND**
+BPC106BH   Microsoft Outlook: Level II (.5) 1
BPC/CIS114AE   Excel: Level I (1) **AND**
+BPC/CIS114BE Excel: Level II (1) **AND**
+BPC/CIS114CE Excel: Level III (1) **OR**
BPC/CIS114DE   Excel Spreadsheet (3) 3
BPC/OAS135DK   Word: Level I 2
+BPC/OAS235DK .... Word: Level II   2

Restricted Electives: Credits: 3
+ACC115   Computerized Accounting 2
BPC101AC   Introduction to Handheld Devices 1
BPC110   Computer Usage and Applications 3
BPC/OAS111AA   Computer Keyboarding I 1
BPC/CIS121AE   Windows Operating System: Level I .. 1
+BPC/CIS122AE Windows Operating System: Level II. 1
BPC123   I
ntroduction to Speech Recognition
(SR) 1
BPC/CIS133AA   Internet/Web Development Level I-A 1
+BPC/CIS133BA Internet/Web Development Level I-B 1
+CIS233AA   Internet/Web Development Level II-A 1
+CIS233BA   Internet/Web Development Level II-B 1
+OAS103AA   Computer Typing: Skill Building I 1

THE CERTIFICATE OF COMPLETION (CCL) IN TECHNOLOGY SUPPORT ANALYST LEVEL I

is designed to prepare students who are interested in becoming part of the technology help desk support system to any office configuration. The curriculum will equip students with marketable skills for adaptation to the specific tasks and troubleshooting techniques of the automated office.
Major Code: 5997 Total Credits: 16

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

Required Courses: Credits: 16
BPC110   Computer Usage and Applications 3
BPC121AE   Windows Operating System: Level I .. 1
BPC111AA   Computer Keyboarding I 1
BPC125
Microcomputer Set Up and
Maintenance   1
BPC/CIS133DA   Internet/Web Development Level I 3
GBS104   Quality Telephone Techniques 1
OAS108   Business English 3
TQM101   Quality Customer Service 3

THE CERTIFICATE OF COMPLETION (CCL) IN TECHNOLOGY SUPPORT ANALYST LEVEL II

is designed to prepare students with advanced help desk support skills to prepare them for advancement to higher-level positions within the help desk technology support environment.
Major Code: 5231 Total Credits: 17

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

Required Courses: Credits: 17
+BPC/CIS122AE Windows Operating System: Level II. 1
+BPC210
Advanced Computer Usage and Applications 3

+BPC225
Computer Configuration and Enhancement 1
+BPC250
Post-Advanced Computer Usage and Applications 3
CIS109AM   Networking Technology I 2
+CIS233AC
The Internet Web Publishing: Dreamweaver Level I 1
+GBS233   Business Communications 3
ITS172   Viruses and Other Malicious Software 1
+OAS101AC
Computer Typing I: Production and Manuscript 1
+OAS103AA   Computer Typing: Skill Building I 1

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN RETAIL MANAGEMENT is designed to prepare

individuals working in retail management, the 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.

Major Code: 3048 Total Credits: 64

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

Required Courses: Credits: 39
ACC111   Accounting Principles I 3
+ACC230   Uses of Accounting Information I 3
+ACC240   Uses of Accounting Information II 3
BPC110
Computer Usage and Applications (3)
OR
CISI05
Survey of Computer Information
Systems (3)   3
COM110   Interpersonal Communication (3) **OR**
IND133   Speaking in Business (3) 3
GBS110
Human Relations in Business and Industry (3) **OR**
MGT251   Human Relations in Business (3) 3
GBS131   Business Calculations (3) **OR**
+GBS161   Mathematics of Business (3) 3
GBS205
Legal, Ethical, and Regulatory Issues
in Business   3
+GBS233   Business Communication 3
MGT101   Techniques of Supervision (3) **OR**
MGT229   Management and Leadership I (3) 3
MGT179
Utilizing the Human Resources Department (3) **OR**
MGT276
Personnel/Human Resources Management (3) 3
MKT268   Merchandising 3
MKT271   Principles of Marketing 3

General Education: Credits: 25
First-Year Composition
   +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 Writing (3) 6

ENG102 or ENG108 recommended for students pursuing a BAS degree at an Arizona university.
Oral Communication
   COM230   Small Group Communication 3
Critical Reading
   CRE101   College Critical Reading (3) **OR**

Equivalent by assessment.................... 3

Mathematics
    MAT102
Mathematical Concepts/Applications
(3) **OR**

Satisfactory completion of a higher
level mathematics course 3
Humanities and Fine Arts

Any approved general education
course from the Humanities and Fine Arts area. 3
Social and Behavioral Sciences
    SBU200   Society and Business 3
Natural Sciences

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

THE CERTIFICATE OF COMPLETION (CCL) IN RETAIL MANAGEMENT is designed to prepare

individuals working in the food industry, and related fields, for the management challenges of the future. The curriculum encompasses several business essentials and also emphasizes the skill sets needed for effective management and communication in the work environment.

Major Code: 5286 Total Credits: 33

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

Required Courses: Credits: 33

ACC111   Accounting Principles I........................ 3
BPC110
Computer Usage and Applications (3) **OR**..........................
CISI05
Survey of Computer Information
Systems (3)   3
+ENG101   First-Year Composition (3) **OR** ....
+ENG107   First-Year Composition for ESL (3) ... 3
GBS110
Human Relations in Business and Industry (3) **OR** ....
MGT251   Human Relations in Business (3) 3
GBS131   Business Calculations (3) **OR**.................
+MAT102
Mathematical Concepts and
Applications (3)   3
+GBS233   Business Communication 3
COM110   Interpersonal Communication (3) **OR**...
IND133   Speaking in Business (3)...................... 3
MGT101   Techniques of Supervision (3) **OR** ....
MGT229   Management and Leadership I (3)...... 3
MGT179
Utilizing the Human Resources Department (3) **OR** ....
MGT276
Personnel/Human Resources Management (3) 3
+MKT268   Merchandising 3
MKT271   Principles of Marketing........................ 3

THE CERTIFICATE OF COMPLETION (CCL) IN SALESMANSHIP is specifically designed for students

interested in a career in salesmanship. The program will accommodate both those students who are currently employed and desiring advancement as well as those students seeking initial employment.

Major Code: 5281 Total Credits: 18

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

Required Courses: Credits: 18

COM100

Introduction to Human
Communication (3) **OR**
COM230   Small Group Communication (3) 3
+GBS233   Business Communication 3
MGT251   Human Relations in Business 3
MKT267   Principles of Salesmanship.................. 3
+MKT277   Advanced Sales 3
CSM/TQM101   Quality Customer Service 3

THE CERTIFICATE OF COMPLETION (CCL) IN SMALL BUSINESS seeks to expand refine and update their

knowledge and skills to apply in their own businesses. This certificate provides a bundling of relevant courses for small business owners and recognition for having completed this program in the form of a certificate.

Major Code: 5191 Total Credits: 13-14

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

Program Prerequisites: Credits: 4
ACC107   Bookkeeping Theory and Practice 4

Required Courses: Credits: 13-14
+ACC115   Computerized Accounting 2
CIS131AA   Doing Business on the Internet 1
+CIS233AB
Internet Web Publishing: FrontPage Level I.................... 1
EPS250
Introduction to Entrepreneurship (2) **AND**
EPS295
The Business Plan and Business
Start-Up (2) **OR**
MGT253
Owning and Operating a Small
Business (3)   3-4
SBS204
Small Business Marketing and Advertising 2
SBS230
Financial Tax Management for Small Business................ 2
SBS213   Hiring and Managing Employees........ 1
SBS214   Small Business Customer Relations 1

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN GENERAL BUSINESS program meets 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 could aid a student in recognizing a specific business field to be pursued in future studies. Although many courses will transfer to a four-year institution, some courses do not. This curriculum is not designed to meet the needs of students who wish to transfer to a four-year institution. A Certificate of Completion (CCL) is also available.

Major Code: 3148 Total Credits: 61-63

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

Program Prerequisites: Credits: 3
+CRE101
College Critical Reading (3) **OR**
     Equivalent by Assessment.................... 3

Required Courses: Credits: 21
ACC111   Accounting Principles I....................... 3
CIS105
Survey of Computer Information Systems........................ 3
GBS110
Human Relations in Business and Industry (3) **OR**
MGT175
Business Organization and
Management (3) **OR**
MGT251   Human Relations in Business (3) 3
GBS151   Introduction to Business 3
GBS205

Legal, Ethical and Regulatory
Issues in Business 3
+GBS233   Business Communication 3
MKT271   Principles of Marketing....................... 3

Restricted Electives: Credits: 18
Any ACC, GBS, MGT, or MKT prefixed courses not listed in the Required Courses area.
ACC+++++
Any ACC Accounting prefixed
courses not listed under Required Courses area. 1-18
BPC/CIS114DE Excel Spreadsheet 3
BPC/CIS117DM
Microsoft Access:
Database Management 3
BPC/CIS133DA Internet/Web Development Level I 3
GBS+++++
Any GBS General Business course(s) except courses used to satisfy
Required Courses area. 1-18
IBS+++++
Any IBS International Business
course(s)   1-18
MGT+++++
Any MGT Management course(s)
except courses used to satisfy Required Courses area. 1-18
MKT+++++
Any MKT Marketing course(s)
except courses used to satisfy
Required Courses area. 1-18
REA+++++   Any REA Real Estate course(s) 1-18
SBS+++++
Any SBS Small Business
Management course(s) 1-18

General Education: Credits: 22-24
First-Year Composition:
    +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:

Any approved general education
course in the Oral Communication
area. 3
Critical Reading:
                 Met by CRE101 in Program
                 Prerequisites area. 0
Mathematics:
    +MAT120   Intermediate Algebra (5) **OR**
    +MAT121   Intermediate Algebra (4) **OR**
    +MAT122   Intermediate Algebra (3)...................3-5
Humanities and Fine Arts:

Any approved general education
course in the Humanities and Fine
Arts area.   3
Social and Behavioral Sciences:
    ECN211   Macroeconomic Principles (3) **OR**
    ECN212   Microeconomic Principles (3) **OR**
    SBU200   Society and Business (3) 3
Natural Sciences:

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

THE CERTIFICATE OF COMPLETION (CCL) IN GENERAL BUSINESS will 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.

Major Code: 5683 Total Credits: 21

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

Required Courses: Credits: 12

ACC111 Accounting Principles I 3
CIS105
Survey of Computer Information Systems 3
GBS151 Introduction to Business 3
GBS205
Legal, Ethical and Regulatory Issues
in Business 3

Restricted Electives: Credits: 9

Any ACC or GBS prefixed courses not listed in the Required Courses area.
ACC+++++
Any ACC Accounting prefixed
courses not listed under the
Required Courses area. 1-9
GBS+++++
Any GBS General Business prefixed courses not listed under Required Courses area. 1-9
IBS+++++
Any IBS International Business
prefixed courses 1-9
MGT+++++
Any MGT Management prefixed
courses 1-9
MKT+++++
Any MKT Marketing prefixed
courses 1-9
REA+++++
Any REA Real Estate prefixed
courses 1-9
SBS+++++
Any SBS Small Business
Management prefixed courses 1-9
BPC/CIS114DE Excel Spreadsheet 3
BPC/CIS117DM
Microsoft Access:
Database Management 3
BPC/CIS133DA Internet/Web Development Level I 3

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN ORGANIZATIONAL MANAGEMENT provides

students 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 develops leadership and communication skills and techniques for planning, directing, and evaluating business situations, with an emphasis on effective allocation of time, money, materials, space, and personnel. The curriculum combines coursework in leadership with a general education component.

Major Code: 3727 Total Credits: 61

Required Courses: Credits: 17-18

Certificate of Completion in Organizational Leadership (5731) 17-18

Restricted Electives: Credits: 19-22

Students must choose 19-22 industry/job specific course credits from any MCCCD occupational program and have them approved by a department chair.

These industry/job specific course credits must include a minimum of 9 credits with a common subject.

General Education: Credits: 25-27

First-Year Composition

Any approved general education
course from the First-Year

Composition area.6
Oral Communication

Any approved general education
course from the Oral Communication area. 3
Critical Reading

Any approved general education
course from the Critical Reading area 3
Mathematics

Any approved general education
course from the Mathematics area. 3-5
Humanities and Fine Arts

Any approved general education
course from the Humanities and Fine Arts area. 3
Social and Behavioral Sciences

Any approved general education
course from the Social and Behavioral Sciences area. 3
Natural Sciences

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

THE CERTIFICATE OF COMPLETION (CCL) IN ORGANIZATIONAL LEADERSHIP provides students

with knowledge and skills needed in today's changing workplace. The program develops leadership and communication skills and

techniques for planning, directing, and evaluating business situations. This program also emphasizes procedures for effective

allocation of time, money, materials, space, and personnel.
Major Code: 5731 Total Credits: 17-18

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

Required Courses: Credits: 17-18
BPC110
Computer Usage and Application (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
GBS151   Introduction to Business 3
+ GBS233   Business Communication 3
MGT175
Business Organization and
Management (3) **OR**
TQM240
Project Management in Quality Organizations (2) 2-3
MGT101   Techniques of Supervision (3) **OR**
MGT229   Management and Leadership I (3) 3

Child and Family Studies Certificates/Degrees

-
Associate in Applied Science in Early Care and Education
-
Certificate of Completion in Early Care Specialist
-
Associate in Applied Science in Early Childhood Administration and Management
-
Associate in Applied Science Family Life Education
-

Certificate of Completion in Adolescent Development

•

Certificate of Completion in Adult Developing and Aging

•

Certificate of Completion in Child and Family Organization Management and Administration

•

Certificate of Completion in Parent Education

Department Chairperson: Dr. Nora Amavisca Reyes
Contact: (480) 461-7781
Program Director: Annapurna Ganesh
Contact: (480) 461-7305

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN EARLY CARE AND EDUCATION is based upon an

inclusive vision of high-quality services for all children. Mesa Community College (MCC) provides a sequence of lively, interactive classes and a variety of field experiences which greatly expand the student's understanding of children. Unique student teaching opportunities are offered in the Evelyn H. Warren Child Development Lab, a multi-age preschool that is accredited by the National Association for the Education of Young Children.

Major Code: 3357 Total Credits: 64

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

Required Courses: Credits: 36

CFS102
Emergency Care for Child Care Providers 1
CFS/ECH176   Child Development.............................. 3
+CFS/ECH212
Creative Activities for the Young Child 3
EED200
Foundations of Early Childhood Education..................... 3
EED212
Guidance, Management and the Environment 3
EED215
Early Learning: Health, Safety,
Nutrition and Fitness... 3
EED220   Child, Family, Community and Culture 3
EED222
Introduction to the Exceptional Young Child.................. 3
+EED255
Portfolio Development and Writing for the Profession.... 3
+EED260
Early Childhood Infant/Toddler Internship..................... 1
+EED261   Early Childhood Preschool Internship 1
+EED270   Early Learning Development 3
+EED278
Early Learning: Curriculum and Instruction 3
+EED280
Standards, Observation and
Assessment in Early Education... 3

Restricted Electives: Credits: 3-5

Students must select courses from any combination of the following prefixes for a total of 3-5 credits.
+CFS+++++
Any CFS Child/Family Studies
Course   3-5
+ECH+++++
Any ECH Early Childhood
Education Course 3-5
+EED+++++   Any EED Early Education Course .. 3-5
+ITD+++++
Any ITD Infant/Toddler
Development Course 3-5

General Education: Credits: 25-27

First-Year Composition
    ENG101   First-Year Composition (3) **AND**

ENG102 First-Year Composition (3).................. 6

Oral Communication
 COM110 Interpersonal Communication (3) **OR**
 COM225 Public Speaking (3) **OR**
 COM230 Small Group Communication (3) 3

Critical Reading
 CRE101 College Critical Reading (3) **OR**
      Equivalent as indicated by assessment. 3

Mathematics
 MAT102

Mathematical Concepts Applications

(3) **OR**
 MAT120 Intermediate Algebra (5) **OR**
 MAT121 Intermediate Algebra (4) **OR**
 MAT122 Intermediate Algebra Accelerated (3)
      OR

Equivalent as indicated by assessment **OR**

Approved mathematics courses which are required in a specific

AAS program **OR**

satisfactory completion of a higher level mathematics courses 3-5

Humanities and Fine Arts
 EDU/ENH291.............................. Children's Literature 3

Social and Behavioral Sciences
 CFS157 Marriage and Family Life 3

Natural Sciences

Any approved general education
course from the Natural Sciences
Area 4

THE CERTIFICATE OF COMPLETION (CCL) IN EARLY CARE SPECIALIST curriculum prepares

students for entry level position in early childhood programs. The sequence of coursework is designed to increase understanding of education and care of young children.

Major Code: 5358 Total Credits: 30

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

Required Courses: Credits: 27

CFS102
Emergency Care for Child Care Providers 1
CFS/ECH176 Child Development............................... 3
+CFS/ECH212
Creative Activities for the Young Child 3
EED200
Foundations of Early Childhood Education...................... 3
EED212
Guidance, Management and the Environment 3
+EED270 Early Learning Development (3) **OR**
EED220
Child, Family, Community and Culture (3) **OR**
EED222
Introduction to the Exceptional Young Child (3)............. 3
EED215
Early Learning: Health, Safety,
Nutrition and Fitness 3
EED255
Portfolio Development and Writing for the Profession.... 3
+EED260
Early Childhood Infant/Toddler Internship...................... 1
+EED261 Early Childhood Preschool Internship 1
+EED278
Early Learning: Curriculum and Instruction 3

Restricted Electives: Credits: 3

+CFS+++++   Any CFS Child/Family Studies Course 3
+ECH+++++
Any ECH Early Childhood Education Course 3
+EED+++++   Any EED Early Education Course 3
+ITD+++++
Any ITD Infant/Toddler Development Course 3

THE ASSOCIATE IN APPLIED SCIENCES (AAS) IN EARLY CHILDHOOD ADMINISTRATION AND MANAGEMENT is an integrated program of study that provides an educational foundation in early childhood education

plus administrative and management courses specifically related to the business needs and practices of early childhood directors, owners and other management-level staff.

Major Code: 3109 Total Credits: 63-65

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

Required Courses: Credits: 35

CFS206
Child and Family Organizations: Management and Administration   3
CFS207
Organization and Community
Leadership in Child and Family Organizations 3
CFS208

Child and Family Organizations Fiscal
Management and Grant Writing.. 3
EED200
Foundations of Early Childhood Education...................... 3
EED212
Guidance, Management and the Environment 3
EED215
Early Learning: Health, Safety,
Nutrition and Fitness.. 3
EED220   Child, Family, Community and Culture 3
EED222
Introduction to the Exceptional
Young Child   3
+EED260
Early Childhood Infant/Toddler Internship (1) **OR**
+EED261
Early Childhood Preschool Internship
(1)   1
+EED278
Early Learning: Curriculum and Instruction - Birth/Preschool   3
+EED280
Observation and Assessment of
Typical and Atypical Behaviors 3
+FCS250
Portfolio Development and
Professional Writing 3
+FCS260
Family and Consumer Science
Internship   1

Restricted Electives: Credits: 3

Students must select courses from any combination of the following prefixes for a total of 3 credits.
+CFS+++
Any CFS Child/Family Studies
Course   1-3
+CIS105
Survey of Computer Information Systems....................... 3
+ECH+++
Any ECH Early Childhood
Education Course 1-3
+ EED+++

Any EED Early Education Course
(not in required core) 1-3
+ ITD+++
Any ITD Infant/Toddler
Development Course 1- 3

General Education: Credits: 25-27

First-Year Composition
+ENG101   First-Year Composition (3) **AND**
+ENG102   First-Year Composition (3).................. 6
Oral Communication
+COM207
Introduction to Communication
Inquiry (3) **OR**
+COM225   Public Speaking (3) **OR**
+COM230   Small Group Communication (3) **OR**
+GBS233   Business Communication (3) 3
Critical Reading
+CRE101
College Critical Reading (3) **OR**
                Equivalent as indicated by assessment. 3
Mathematics
+MAT102
Mathematical Concepts/Applications
(3) **OR**
+MAT120   Intermediate Algebra (5) **OR**
+MAT121   Intermediate Algebra (4) **OR**
+MAT122

Intermediate Algebra Accelerated (3)
OR

Equivalent as indicated by assessment **OR**

Approved mathematics course
which is required in a specific
                AAS program **OR**

Satisfactory completion of a higher
level mathematics course 3-5
Humanities and Fine Arts
    EDU/ENH291.............................. Children's Literature   3
Social and Behavioral Sciences
    CFS205   Human Development 3
Natural Sciences

Any approved general education
course from the Natural Sciences
Area 4

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN FAMILY LIFE EDUCATION will prepare individuals

to enter the family life education, human development, or child and family organizations field at the paraprofessional level. Students at a paraprofessional level can expect to find employment opportunities in adoption and foster care, adult day care centers, crisis intervention programs, group and halfway houses, hospice care, senior citizen centers, social service agencies (both private and state/local government), facilities for the disabled and developmentally challenged individuals, community mental health clinics, psychiatric facilities, shelters, and other child and family community-based organizations.
Major Code: 3044 Total Credits: 65-67

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

Required Courses: Credits: 40
BPC110
Computer Usage and Applications
(3) **OR**
CIS105
Survey of Computer Information

Systems (3)	3	
CFS205	Human Development	3
CFS210	Family Life Education	3
CFS250	Social Policy and Families	3
+CFS258	Families in Society	3
+CFS259	Sexuality over the Life Span	3
CFS240	Human Behavior in Context	3

+FCS250
Portfolio Development and
Professional Writing 3
+FCS260
Family and Consumer Science
Internship   1
FON100   Introductory Nutrition 3

Students must complete one of the following blocks:

Block One-Parent Education   Credits: 12
CFS190   Home-Based Visitation 3
CFS220
Introduction to Parenting and Family Development 3
CFS225   Foundations of Parent Education 3
CFS243   Cross-Cultural Parenting (3) **OR**
EED276   Global Child Development (3) 3

Block Two-Adolescent Development   Credits: 12
CFS183   Contemporary Issues in Adolescence .. 3
CFS249   Transition to Adulthood 3
CFS277   Adult-Adolescent Interaction 3
PSY101   Introduction to Psychology 3

Block Three-Adult Development and Aging   Credits: 12
CFS247   Family Ties and Aging 3
CFS249   Transition to Adulthood 3
CFS251   Transitions: Work to Retirement 3
CFS252   Contemporary Issues in Aging............. 3

Block Four-Child and Family Organizations Management and Administration   Credits: 12
CFS206
Child and Family Organizations: Management and Administration   3
CFS207
Organization and Community
Leadership in Child and Family Organizations 3
CFS208
Child and Family Organizations:
Fiscal Management and Grant Writing............................ 3
CFS209
Child and Family Organizations:
Project Management... 3

General Education: Credits: 25-27
First-Year Composition
  +ENG101   First-Year Composition (3) **AND**
  +ENG102   First-Year Composition (3) **OR**
  +ENG107   First-Year Composition for ESL (3)
                   AND
  +ENG108
First-Year Composition for ESL (3) 6
Oral Communication
  COM110   Interpersonal Communication 3
Critical Reading
  +CRE101
College Critical Reading **OR** Equivalent by assessment... 3
Mathematics
  +MAT102
Mathematical Concepts/Applications
(3) **OR**

+MAT120   Intermediate Algebra (5) **OR**
+MAT121   Intermediate Algebra (4) **OR**
+MAT122   Intermediate Algebra (3) **OR**

Equivalent as indicated by assessment **OR**

Satisfactory completion a higher level mathematics course 3-5
Humanities and Fine Arts

Any approved general education
course from the Humanities and Fine Arts area. 3
Social and Behavioral Sciences
    CFS157   Marriage and Family Life 3
Natural Sciences

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

THE CERTIFICATE OF COMPLETION (CCL) IN ADOLESCENT DEVELOPMENT will prepare individuals to

enter the family life education, human development, or child and family organizations field at the paraprofessional level. Students at a paraprofessional level can expect to find employment opportunities in adoption and foster care, crisis intervention programs, group and halfway houses, social service agencies (both private and state/local government), facilities for the disabled and developmentally challenged individuals, community mental health clinics, psychiatric facilities, shelters, and other child and family community-based organizations.
Major Code: 5397 Total Credits: 19

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

Required Courses: Credits: 19
BPC110
Computer Usage and Applications
(3) **OR**
CIS105
Survey of Computer Information
Systems (3)   3
CFS183   Contemporary Issues in Adolescence .. 3
CFS249   Transition to Adulthood 3
CFS277   Adult-Adolescent Interaction 3
+FCS250
Portfolio Development and
Professional Writing 3
+FCS260
Family and Consumer Science
Internship   1
PSY101   Introduction to Psychology 3

THE CERTIFICATE OF COMPLETION (CCL) IN ADULT DEVELOPMENT AND AGING will prepare

individuals to enter the family life education, human development, or child and family organizations field at the paraprofessional level. Students at a paraprofessional level can expect to find employment opportunities in adult day care centers, crisis intervention programs, group and halfway houses, hospice care, senior citizen centers, social service agencies (both private and state/local government), facilities for the disabled and developmentally challenged individuals, community mental health clinics, psychiatric facilities, shelters, and other child and family community-based organizations.
Major Code: 5398 Total Credits: 19

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

Required Courses: Credits: 19
BPC110

Computer Usage and Applications
(3) **OR**
CIS105
Survey of Computer Information
Systems (3)   3
CFS247   Family Ties and Aging 3
CFS249   Transition to Adulthood 3

| CFS251 | Transitions: Work to Retirement......... 3 |
| CFS252 | Contemporary Issues in Aging............. 3 |

+FCS250
Portfolio Development and
Professional Writing 3

+FCS260

Family and Consumer Science
Internship   1

THE CERTIFICATE OF COMPLETION (CCL) IN CHILD AND FAMILY ORGANIZATION MANAGEMENT AND ADMINISTRATION

will prepare individuals to enter the family life education, human development, or child and family organizations field at the paraprofessional level. Students at a paraprofessional level can expect to find employment opportunities within management and administration of programs such as adoption and foster care, adult day care centers, crisis intervention programs, group and halfway houses, hospice care, senior citizen centers, social service agencies (both private and state/local government), facilities for the disabled and developmentally challenged individuals, community mental health clinics, psychiatric facilities, shelters, and other child and family community-based organizations.

Major Code: 5401 Total Credits: 19

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

Required Courses: Credits: 19

BPC110
Computer Usage and Applications
(3) **OR**
CIS105
Survey of Computer Information
Systems (3)   3
CFS206
Child and Family Organizations: Management and Administration   3
CFS207
Organization and Community
Leadership in Child and Family Organizations 3
CFS208
Child and Family Organizations:
Fiscal Management and Grant Writing............................ 3
CFS209
Child and Family Organizations:
Project Management.. 3
+FCS250
Portfolio Development and
Professional Writing 3
+FCS260
Family and Consumer Science
Internship   1

THE CERTIFICATE OF COMPLETION (CCL) IN PARENT EDUCATION will prepare individuals to enter

the family life education with a focus on parent education. Students at a paraprofessional level can expect to find employment opportunities in adoption and foster care, crisis intervention programs, social service agencies (both private and state/local government), and other child and family community-based organizations.

Major Code: 5396 Total Credits: 19

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

Required Courses: Credits: 19

BPC110
Computer Usage and Applications
(3) **OR**
CIS105
Survey of Computer Information
Systems (3)   3
| CFS190 | Home-Based Visitation .... 3 |

CFS220
Introduction to Parenting and Family Development 3

CFS225	Foundations of Parent Education........	3
CFS243	Cross-Cultural Parenting (3) **OR**	
EED276	Global Child Development (3)	3

+FCS250

Portfolio Development and

Professional Writing 3

+FCS260

Family and Consumer Science

Internship   1

Community Health Advocate Certificate

THE CERTIFICATE OF COMPLETION (CCL) IN COMMUNITY HEALTH ADVOCATE, DIABETES

program prepares advocates for prevention of and education about diabetes among Native Americans of all ages in Arizona. The diabetes-specific curriculum is also relevant to any patient/population confronting this disease. The Community Health Advocate (CHA) program is applicable to both entry-level and experienced healthcare professionals. The CHA program emphasizes new information on the disease process and recent developments in prevention and management of diabetes.

Major Code: 5197 Total Credits: 13-14

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

Required Courses: Credits: 13-14

+CHA101	Introduction to Diabetes	2
+CHA102	Preventative Stages of Diabetes	3
+CHA103	Transcultural Advocacy	3

HCC130

Fundamentals in Health Care Delivery **OR**

HCC130AA   Health Care Today (0.5) **AND**

HCC130AB

Workplace Behavior in Health Care

(0.5) **AND**

HCC130AC

Personal Wellness and Safety (0.5) **AND**

HCC130AD

Communication and Teamwork in the Health Care Organizations (0.5) **AND**

HCC130AE   Legal Issues in Health Care (0.5) **AND**

HCC130AF

Decision Making in the Health Care Setting (0.5) 3

HCC145

Medical Terminology for Health Care Workers (3) **OR**

HCC146

Common Medical Terminology for Health Care Workers (2)   2-3

Computer Information Systems Certificates/Degrees

- **Associate in Applied Science in Computer Programming**
- **Certificate of Completion in Computer Programming**
- **Certificate of Completion in Software Quality/Assurance**
- **Certificate of Completion in Programming and System Analysis**
- **Associate in Applied Science in Web Developer**
- **Certificate of Completion in Web Developer**
- **Associate in Applied Science in Web Designer**
- **Certificate of Completion in Web Designer**

- **Certificate in Advanced Web Designer**
- **Associate in Applied Science in Web Server Administrator**
- **Certificate of Completion in Web Server Administrator**
- **Associate in Applied Science in Game Technology**
- **Certificate of Completion in Game Technology**
- **Associate in Applied Science in Multimedia and Business Technology**
- **Certificate of Completion in Multimedia Technology**

Department Chairperson: Linda Collins
Contact: (480) 461-7077

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN COMPUTER PROGRAMMING prepares students to

work in entry-level positions in computer programming. The program emphasizes knowledge and skills required to design, develop, test, and document structured and object-oriented programs utilizing a variety of programming language.

Major Code: 3164 Total Credits: 61-63

Program Notes: ++ indicates any module.
Students must earn a grade of "C" or better for each course listed in the "Required Courses" area.

Program Prerequisites: 3 Credits
CRE101
College Critical Reading (3) or
Equivalent by assessment 3

Required Courses: Credits: 24
CIS105
Survey of Computer Information Systems 3
BPC/CIS117DM
Microsoft Access: Database Management (3) **OR**
+CIS276DA   MySQL Database (3) **OR**
+CIS276DB   SQL Server Database (3) **OR**
+CIS276DC   Oracle Database (3) 3
BPC/CIS133DA Internet/Web Development Level I 3
CIS126DL   Linux Operating System (3) **OR**
MST150++   Microsoft Windows (3) 3
+CIS150AB
Object-Oriented Programming Fundamentals 3
+CIS159   Visual Basic Programming I 3
+CIS162AD   C#: Level I.. 3
+CIS163AA   Java Programming: Level I 3

Restricted Electives: Credits: 15
+CIS162AB   C++: Level I... 3
+CIS166AA   Introduction to JavaScripting (3) **OR**
+CIS166AB   Web Scripting with Perl/CGI (3) **OR**
+CIS166AC   Web Scripting with (ASP).NET (3) **OR**
+CIS166AD   Web Scripting with (JSP) (3) **OR**
+CIS166AE   Web Scripting with (PHP) (3) **OR**
+CIS166AF   Web Scripting with Python (3) 3
+CIS259   Visual Basic Programming II............... 3
+CIS262AB   C++: Level II 3
+CIS262AD   C# Level II 3
+CIS263AA   Java Programming: Level II................ 3
BPC/CIS224
Project Management Microsoft
Project for Windows... 3
+CIS249   Software Testing for Quality Assurance 3
+CIS250   Management of Information Systems . 3
+CIS190

Introduction to Local Area Networks
(3) **OR**
CNT140   Cisco Networking Basics (4) **OR**
CNT140AA
Cisco Networking Fundamentals (4)
OR
+MST140   Microsoft Networking Essentials (3) 3-4

General Education: Credits: 22-24
First-Year Composition

Any approved general education
course in the First Year
Composition area 6
Oral Communication
    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
                    Required Program Prerequisites 0
Mathematics
    MAT120   Intermediate Algebra (5) **OR**
    MAT121   Intermediate Algebra (4) **OR**
    MAT122   Intermediate Algebra (3) 3-5
Humanities and Fine Arts

Any approved general education course in the Humanities and Fine Arts Area   3
Social and Behavioral Sciences
                    SBU200 Society and Business 3
Natural Sciences

Any approved general education
course from the Natural Sciences
Area 4

THE CERTIFICATE OF COMPLETION (CCL) IN COMPUTER PROGRAMMING prepares students

for entry-level positions in computer programming.

The program emphasizes knowledge and skills required

to design, develop, test, and document structured and

object-oriented program utilizing a variety of programming languages.
Major Code: 5207 Total Credits: 30

Program Notes: ++ indicates any module
Students must earn a grade of "C" or better for all courses required within the program.

Required Courses: Credits: 24
CIS105
Survey of Computer Information Systems........................ 3
BPC/CIS117DM
Microsoft Access: Database
Management (3) **OR**
+CIS276DA   MySQL Database (3) **OR**
+CIS276DB   SQL Server Database (3) **OR**
+CIS276DC   Oracle Database (3) 3
BPC/CIS133DA Internet/Web Development Level I 3
CIS126DL   Linux Operating System (3) **OR**
MST150++   Microsoft Windows (3) 3
+CIS150AB
Object-Oriented Programming Fundamentals 3
+CIS159   Visual Basic Programming I 3
+CIS162AD   C#: Level I.. 3
+CIS163AA   Java Programming: Level I 3

Restricted Electives: Credits: 6

+CIS162AB	C++: Level I	3
+CIS166AA	Introduction to JavaScripting (3) **OR**	
+CIS166AB	Web Scripting with Perl/CGI (3) **OR**	
+CIS166AC	Web Scripting with (ASP).NET (3) **OR**	
+CIS166AD	Web Scripting with (JSP) (3) **OR**	
+CIS166AE	Web Scripting with (PHP) (3) **OR**	
+CIS166AF	Web Scripting with Python (3)	3
+CIS259	Visual Basic Programming II	3
+CIS262AB	C++: Level II	3
+CIS262AD	C# Level II	3
+CIS263AA	Java Programming: Level II	3

BPC/CIS224
Project Management Microsoft
Project for Windows 3
+CIS249
Software Testing for Quality
Assurance   3
+CIS250   Management of Information Systems . 3
+CIS190
Introduction to Local Area Networks
(3) **OR**
CNT140   Cisco Networking Basics (4) **OR**
CNT140AA

Cisco Networking Fundamentals
(4) **OR**
+MST140
Microsoft Networking Essentials (3) 3-4

THE CERTIFICATE OF COMPLETION (CCL) IN SOFTWARE QUALITY ASSURANCE in quality and

testing are an integral part of software design, development, and construction. The Software Quality Assurance program prepares students to work in a variety of environments. The program emphasizes the importance of quality control in the software environment, the tools used in a testing environment, and how to apply quality assurance concepts in the working environment. The program is designed for both people seeking to enter a career in software quality assurance as well as those already working in the field who wish to advance and update their knowledge and skills.

Major Code: 5393 Total Credits: 12

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

Program Prerequisites: Credits: 3

CIS150AB
Object-Oriented Programming Fundamentals 3

CIS159	Visual Basic Programming I	3
CIS162AB	C++: Level I	3
CIS162AD	C#: Level I	3
CIS163AA	Java Programming: Level I	3

Required Courses: Credits: 12

+CIS244	Testing Software Tools	3
+CIS246	Software Quality	3

+CIS248
Engineering Quality in Software Development 3
+CIS249
Software Testing for Quality
Assurance   3

THE CERTIFICATE OF COMPLETION (CCL) IN PROGRAMMING AND SYSTEM ANALYSIS

provides an in-depth exploration of different computer language and technical skills. Includes, but is not limited to the following: operating systems, local area networks, team roles, and dynamics. An Associate in Applied Science (AAS) is also available.

Major Code: 5048 Total Credits: 24

Required Courses: Credits: 21

CIS105
Survey of Computer Information Systems 3

BPC/CIS224
Project Management Microsoft Project for Windows...... 3
CIS126DA   UNIX Operations System (3) **OR**
CIS126DL   Linux Operating System (3) **OR**
MST150
Microsoft Windows Professional
(3) **OR**
MST150VI
Microsoft Windows Vista
Administration (3) **OR**
MST150XP
Microsoft Windows XP Professional
(3)   3
+CIS150   Programming Fundamentals (3) **OR**
+CIS150AB
Object-Oriented Programming Fundamentals (3) 3
+CIS151
Computer Game Development –
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) 3
+CIS225
Business Systems Analysis and
Design (3) **OR**
+CIS225AB
Object Oriented Analysis and Design
(3) **OR**
+CIS250
Management of Information Systems
(3)   3
+BPC/CIS217AM...
Advanced Microsoft Access: Database Management (3) **OR**
+CIS119DO   Introduction to Oracle: SQL (3) **OR**
+CIS276DA   My SQL Database (3) 3

Restricted Electives: Credits: 3
+CIS251   Computer Game Development-Level II3
+CIS259   Visual Basic Programming II............... 3
+CIS262++   Any C Programming: Level II course . 3
+CIS263AA   Java Programming: Level II................ 3

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN WEB DEVELOPER is designed to give students a set of

skills that would allow them to develop interactive and dynamic websites that access data stored in databases. Completing the

program may lead to such positions as web technician, web designer, web programmer, and web developer.
Major Code: 3084 Total Credits: 64

Program Notes: Students must earn a grade of "C" or better for all courses required within the program

Required Courses: Credits: 27
BPC/CIS133DA Internet/Web Development Level I 3
BPC/CIS224
Project Management Microsoft Project for Windows...... 3
BPC/CIS117DM
Microsoft Access: Database
Management (3) **OR**
+CIS276DA   MySQL Database (3) **OR**
+CIS276DB   SQL Server Database (3) **OR**
+CIS276DC   Oracle Database (3) 3
+CIS150AB
Object-Oriented Programming Fundamentals 3
+CIS166AA   Introduction to JavaScript 3
+CIS233DA   Internet/Web Development Level II... 3

+CIS234   XML Application Development 3
+CIS250   Management of Information Systems . 3
+BPC/CIS290AC
Computer Information Systems Internship...................... 3

Restricted Electives: Credits: 12

BPC/CIS120DC Flash: Digital Animation 3
CIS126DL   Linux Operating System 3
+CIS159   Visual Basic Programming I 3
+CIS162AD   C#: Level I.. 3
+CIS163AA   Java Programming: Level I 3
+CIS166AB   Web Scripting with Perl/CGI 3
+CIS166AC
Web Scripting with Active Server
Pages (ASP).NET 3
+CIS166AD
Web Scripting with Java Server Pages (JSP) 3
+CIS166AE
Web Scripting with PHP: Hypertext Preprocessor (PHP)3
+BPC/CIS217AM..
Advanced Microsoft Access: Database Management....... 3
+CIS233DC
Internet Web Development
Dreamweaver   3
+CIS259   Visual Basic Programming II............... 3
+CIS262AD   C# Level II 3
+CIS263AA   Java Programming: Level II................ 3
MST150
Microsoft Windows Professional (3) **OR**
MST150XP
Microsoft Windows XP
Professional (3)   3

General Education: Credits: 25-27

First Year Composition

Any approved general education
course in the First-Year Composition Area...................... 6
Oral Communication

Any approved general education course in the Oral Communication Area   3
Critical Reading
    CRE101   College Critical Reading (3) **OR**
             Equivalent by assessment.................... 3
Mathematics

Any approved general education
course in the Mathematics Area..................................... 3-5
Humanities and Fine Arts

Any approved general education
course in the Humanities and Fine
Arts Area   3
Social and Behavioral Sciences
    SBU200   Society and Business 3
Natural Sciences

Any approved general education
course from the Natural Sciences
Area 4

THE CERTIFICATE OF COMPLETION (CCL) IN WEB DEVELOPER is designed to give students a set of

skills that would allow them to develop interactive and dynamic websites that access data stored in databases. Completing the
program may lead to such positions as web technician, web designer, web programmer, and web developer.
Major Code: 5060 Total Credits: 30

Program Notes: Students must earn a grade of "C" or better in all courses within the program

Required Courses: Credits: 18

BPC/CIS117DM

Microsoft Access: Database Management (3) **OR**

+CIS276DA   MySQL Database (3) **OR**

+CIS276DB   SQL Server Database (3) **OR**

+CIS276DC   Oracle Database (3) 3

BPC/CIS133DA   Internet/Web Development Level I 3

+CIS150AB

Object-Oriented Programming Fundamentals 3

+CIS166AA   Introduction to JavaScript 3

BPC/CIS224

Project Management Microsoft Project for Windows...... 3

+CIS233DA   Internet/Web Development Level II... 3

Restricted Electives: Credits: 12

BPC/CIS120DC   Flash: Digital Animation 3

CIS126DL   Linux Operating System 3

+CIS159   Visual Basic Programming I 3

+CIS162AD   C#: Level I... 3

+CIS163AA   Java Programming: Level I 3

+CIS166AB   Web Scripting with Perl/CGI 3

+CIS166AC

Web Scripting with Active Server

Pages (ASP).NET 3

+CIS166AD

Web Scripting with Java Server Pages (JSP) 3

+CIS166AE

Web Scripting with PHP: Hypertext Preprocessor (PHP) 3

+BPC/CIS217AM...

Advanced Microsoft Access:

Database Management 3

+CIS234   XML Application Development 3

+CIS259   Visual Basic Programming II.............. 3

+CIS262AD   C# Level II 3

+CIS263AA   Java Programming: Level II................ 3

+MST150   Microsoft Windows Professional (3)

                 OR

+MST150XP

Microsoft Windows XP

Professional (3)   3

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN WEB DESIGNER is designed to give students a set of

skills that could allow them to develop simple websites with static information. Completing the program may lead to such positions as web technician and web designer assistant or to serve as a departmental or personal web publisher.

Major Code: 3085 Total Credits: 63

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

Required Courses: Credits: 33

BPC/CIS120DC   Flash: Digital Animation 3

BPC/CIS120DF   Computer Graphics: Adobe Photoshop 3

BPC/CIS133DA   Internet/Web Development Level I 3

+CIS166AA   Introduction to Java Scripting 3

+CIS220DC

Flash: Advanced Animation and ActionScript 3

+CIS233DA   Internet/Web Development Level II... 3

+CIS233DC

Internet Web Development: Dreamweaver 3

+CIS234   XML Application Development 3

+CIS235   e-Commerce 3

+CIS243   Internet/Web Development Level III . 3

BPC/CIS290AC

Computer Information Systems Internship (3) **OR**

+CIS298AC   Special Projects (3) .... (3)

Restricted Electives: Credits: 6

BPC/CIS120DB   Computer Graphics: Adobe Illustrator 3

BPC/CIS120DK   Introduction to Digital Video Editing . 3

CIS120DL
Digital Video Compositing: After
Effects   3
+CIS166AB   Web Scripting with Perl/CGI 3
+CIS166AE
Web Scripting with PHP: Hypertext Preprocessor (PHP)3
+CIS220DK
Advanced Digital Video Production: Premiere................. 3
BPC/CIS224
Project Management Microsoft Project for Windows...... 3
+CIS291   Business Video Projects 3
MTC/TCM120
Introduction to Sound Design for Film and Video 3

General Education: Credits: 25-27

First Year Composition

Any approved general education course in the First-Year Composition Area   6
Oral Communication

Any approved general education course in the Oral Communication Area   3
Critical Reading
   CRE101   College Critical Reading (3) **OR**
                    Equivalent by assessment..................... 3
Mathematics

Any approved general education course in the Mathematics Area   3-5
Humanities and Fine Arts

Any approved general education course in the Humanities and Fine Arts Area   3
Social and Behavioral Sciences
   SBU200   Society and Business 3
Natural Sciences

Any approved general education course from the Natural Sciences Area 4

THE CERTIFICATE OF COMPLETION (CCL) IN WEB DESIGNER is designed to give students a set of skills

that could allow them to develop simple websites with static information. Completing the program may lead to such positions as web

technician and web designer assistant or to serve as a departmental or personal web publisher.

Major Code: 5344 Total Credits: 19

Program Notes: Students must earn a grade of "C" or better for all courses required within the program

Required Courses: Credits: 19

BPC/CIS133DA Internet/Web Development Level I 3
BPC/CIS120DC Flash: Digital Animation 3
BPC/CIS120DF Computer Graphics: Adobe Photoshop3
+CIS233DA   Internet/Web Development Level II... 3
+CIS233DC
Internet Web Development: DreamWeaver 3
+CIS284
Certified Internet Web (CIW)
Associate Certification Preparation Course 4

THE CERTIFICATE OF COMPLETION (CCL) IN ADVANCED WEB DESIGNER is designed to give

students a set of skills that would allow them to develop comprehensive and interactive Web sites and e-commerce. Completing the

program will prepare students for such positions as web technician, web designer, web marketing

or e-commerce manager.

Major Code: 5345 Total Credits: 31

Program Notes: Students must earn a grade of "C" or better for all courses required within the program

Required Courses: Credits: 31

Certificate of Completion in Web Designer (5344) 19
+CIS166AA   Introduction to JavaScripting 3
+CIS235   e-Commerce 3

+CIS243   Internet/Web Development Level III . 3
+CIS282AC
Volunteerism for Computer Information Systems: A Service Learning
Experience (3) **OR**
+BPC/CIS290AC
Computer Information System
Internship (3)   3

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN WEB SERVER ADMINISTRATOR is designed to

give students a set of skills that would allow them to develop comprehensive and interactive websites as well as to setup and maintain web servers. Completing the program may lead to such positions as web technician, web designer, web programmer, and web server administrator.

Major Code: 3087 Total Credits: 62

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

Required Courses: Credits: 28-29

BPC/CIS133DA Internet/Web Development Level I 3
BPC/CIS117DM
Microsoft Access: Database Management (3) **OR**
+CIS276DA   MySQL Database (3) **OR**
+CIS276DB   SQL Server Database (3) **OR**
+CIS276DC   Oracle Database (3) 3
+CIS166AA   Introduction to JavaScript 3
+CIS166AB   Web Scripting with Perl/CGI (3) **OR**
+CIS166AE
Web Scripting with PHP: Hypertext Preprocessor (PHP) (3)   3
+CIS233DA   Internet/Web Development Level II ... 3
CIS126DL   Linux Operating System (3) **AND**
+CIS226AL
Internet/Intranet Server
Administration-Linux (3) **OR**
+CIS240DL   Linux Network Administration (3) **OR**
MST150   Microsoft Windows Professional (3) **OR**
MST150XP
Microsoft Windows XP Professional
(3) **AND**
+MST152   Microsoft Windows Server (4) **OR**
+MST152DA   Microsoft Windows 2000 Server (4) **OR**
+MST152DB   Microsoft Windows 2003 Server (4) *6-7*
BPC/CIS224
Project Management Microsoft Project for Windows...... 3
CNT140AA   Cisco Networking Fundamentals 4

Restricted Electives: Credits: 9

BPC/CIS120DC Flash: Digital Animation 3
BPC/CIS120DF Computer Graphics: Adobe Photoshop 3
+CIS220DC
Flash: Advanced Animation and ActionScript 3
+CIS233DC
Internet Web Development: Dreamweaver 3
+CIS234   XML Application Development 3
+CIS235   e-Commerce 3
+CIS250   Management of Information Systems . 3
+BPC/CIS290AC
Computer Information Systems Internship 3

General Education: Credits: 25-27

First Year Composition

Any approved general education course in the First-Year Composition Area   6
Oral Communication

Any approved general education course in the Oral Communication Area   3

Critical Reading

CRE101   College Critical Reading (3) **OR**
                Equivalent by assessment......................3
Mathematics

Any approved general education course in the Mathematics Area   3-5
Humanities and Fine Arts

Any approved general education course in the Humanities and Fine Arts Area   3
Social and Behavioral Sciences
    SBU200   Society and Business 3
Natural Sciences

Any approved general education course from the Natural Sciences Area 4

THE CERTIFICATE OF COMPLETION (CCL) IN WEB SERVER ADMINISTRATOR is designed to give

students a set of skills that would allow them to develop comprehensive and interactive websites as well as to setup and maintain web servers. Completing the program may

lead to such positions as web technician, web designer,

web programmer, and web server administrator.

Major Code: 5342 Total Credits: 25-26

Program Notes: Students must earn a grade of "C" or better for all courses required within the program

Required Courses: Credits: 25-26
BPC/CIS133DA Internet/Web Development Level I 3
BPC/CIS117DM
Microsoft Access: Database
Management (3) **OR**
CIS276DA   MySQL Database (3) **OR**
CIS276DB   SQL Server Database (3) **OR**
CIS276DC   Oracle Database (3) 3
+CIS166AA   Introduction to JavaScripting 3
+CIS166AB   Web Scripting with Perl/CGI (3) **OR**
+CIS166AE
Web Scripting with PHP: Hypertext Preprocessor (PHP) (3)   3
+CIS233DA   Internet/Web Development Level II...3
CIS126DL   Linux Operating System (3) **AND**
+CIS226AL
Internet/Intranet Server
Administration-Linux (3) **OR**
+CIS240DL   Linux Network Administration (3) **OR**
MST150   Microsoft Windows Professional (3) **OR**
MST150XP
Microsoft Windows XP Professional (3) **AND**
+MST152   Microsoft Windows Server (4) **OR**
+MST152DA   Microsoft Windows 2000 Server (4) **OR**
+MST152DB   Microsoft Windows 2003 server (4).*6-7*
CNT140AA   Cisco Networking Fundamentals *4*

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN GAME TECHNOLOGY is a discipline that includes the

development and management of dynamic environments for games and related visualization applications. The Associate of Applied Science in Game Technology will help prepare students for entry-level career opportunities with studios, corporations, organizations, educational institutions, government agencies, advertising and entertainment industries that require visual and interactive content to support, enhance, entertain, and/or market their product or service.

The curriculum brings together business concepts and game technology to prepare students for careers as Game Programmer, Environment Artist, Production Artist, Tools Programmer, Character Modeler, Character Animator, Game Designer, Game Developer, or Multimedia Designer/Developer.

Major Code: 3145 Total Credits: 62

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

Program Prerequisites: Credits: 0-3
CRE101
College Critical Reading (3) **OR**
                Equivalent as indicated by assessment0-3

Required Courses: Credits: 37

CIS105
Survey of Computer Information Systems 3
+CIS107   The Electronic Game Industry 3
+CIS108   Electronic Portfolio Development 1
BPC/CIS120DC Flash: Digital Animation 3
+CIS150AB
Object-Oriented Programming Fundamentals 3
+CIS151
Computer Game Development – Level I 3
+ART/ADA170
Three-Dimensional Computer Design (3) **OR**
CIS130DA   3D Studio Max: Modeling (3) 3
+ADA/ART/
MMT184   Computer Animation (3) **OR**
CIS130DB   3D Studio Max: Animation (3) 3
BPC/CIS120DF
Computer Graphics: Adobe Photoshop (3) **OR**
BPC/CIS120DG Fireworks: Web Graphics (3) 3
+CIS220DC
Advanced Web Programming with Macromedia Flash ... 3
CIS230DA   3D Studio Max Materials 3
CIS251   Computer Game Development-Level II 3
+MMT216   Multimedia Project Management (3) **OR**
BPC/CIS224
Project Management Microsoft Project for Windows (3) 3

Restricted Electives: Credits: 3
CIS253
Computer Game Development-
Level III   3
CIS230DB
3D Studio Max: Lighting and
Rendering   3
+MTC/TCM120
Introduction to Sound Design for Film and Video 3
BPC/CIS120DB Computer Graphics: Adobe Illustrator 3

General Education: Credits: 22-24
First-Year Composition

Any approved general education course in the First-Year Composition Area   6
Oral Communication

Any approved general education course in the Oral Communication Area   3
Critical Reading

Met by CRE101 or equivalent as indicated by assessment in Program Prerequisite area   0
Mathematics
     MAT120   Intermediate Algebra (5) **OR**
     MAT121   Intermediate Algebra (4) **OR**
     MAT122   Intermediate Algebra (3) **OR**

Satisfactory completion of a higher level mathematics course   3-5
Humanities and Fine Arts

Any approved general education course in the Humanities and Fine Arts Area   3
Social and Behavioral Sciences
     SBU200   Society and Business 3
Natural Sciences

Any approved general education course from the Natural Sciences Area 4

THE CERTIFICATE OF COMPLETION (CCL) IN GAME TECHNOLOGY is a discipline that includes the
development and management of dynamic environments for games and related visualization applications. The Certificate of Completion in Game Technology will help prepare students for entry-level career opportunities with studios, corporations, organizations, educational institutions, government agencies, advertising and entertainment industries that require visual and interactive content

to support, enhance, entertain and/or market their product
or service.

Possible entry-level or internship positions leading to careers after completing this certificate program may include 3D Animator, Production Artist, 3D Modeler, Game Designer, Game Developer, or Multimedia Designer/Developer.

Major Code: 5637 Total Credits: 28

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

Required Courses: Credits: 25

CIS105
Survey of Computer Information Systems 3
+CIS107   The Electronic Game Industry 3
+CIS151
Computer Game Development –
Level I   3
+ART/ADA170   Three-Dimensional Computer Design (3)   **OR**
CIS130DA   3D Studio Max: Modeling (3) 3
+ADA/ART/
MMT184   Computer Animation (3) **OR**
CIS130DB   3D Studio Max: Animation (3) 3
BPC/CIS120DC Computer Graphics: Macromedia Flash 3
BPC/CIS120DF
Computer Graphics: Adobe Photoshop (3) **OR**
BPC/CIS120DG
Computer Graphics: Macromedia Fireworks (3) 3
+CIS220DC
Advanced Web Programming with Macromedia Flash ... 3
+CIS108   Electronic Portfolio Development 1

Restricted Electives: Credits: 3

+CIS150AB
Object-Oriented Programming Fundamentals 3
+MMT216   Multimedia Project Management 3
+MTC/TCM120
Introduction to Sound Design for Film and Video 3
BPC/CIS120DB Computer Graphics: Adobe Illustrator 3
BPC/CIS224
Project Management Microsoft Project for Windows 3

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN MULTIMEDIA AND BUSINESS TECHNOLOGY

is a discipline that integrates business applications with multiple digital media types including text, graphics, animation, audio, and video and then delivers this interactive material electronically. The Associate of Applied Science in Multimedia and Business Technology will help prepare students for technical career opportunities with corporations, organizations, educational institutions, government agencies, entertainment, and advertising industries that require interactive content to support, enhance, and/or market their product or service.

The curriculum brings together business concepts and multimedia technology to prepare students for careers such as a Multimedia Producer, Multimedia Scriptwriter, Multimedia Developer, Multimedia Designer, Computer-Based Training or Instructional Designer, Digital Graphic Designer, Webpage Developer, Interface Designer, Video/Audio Specialist, Video Editor or Animator.

Major Code: 3147 Total Credits: 62

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

Program Prerequisites: Credits 3

CRE101   College Critical Reading (3) **OR**
               Equivalent as indicated by assessment 3

Required Courses: Credits: 40

ART142   Introduction to Digital Photography... 3
BPC/CIS120DB
Computer Graphics: Adobe Illustrator (3) **OR**
BPC/CIS120DF
Computer Graphics: Adobe Photoshop (3) **OR**
BPC/CIS120DG Fireworks: Web Graphics (3) 3
BPC/CIS120DC Flash: Digital Animation 3
BPC/CIS120DK Introduction to Digital Video Editing . 3
CIS105

Survey of Computer Information Systems 3
+CIS/MMT140   Survey of Multimedia Technology 2
+MTC/TCM120
Introduction to Sound Design for Film and Video 3
+MMT216   Multimedia Project Management (3) **OR**
CIS224
Project Management Microsoft Project for Windows (3) 3
+CIS233DC
Internet Web Development: Dreamweaver 3
+CIS291   Business Video Projects 3
+CIS220DK
Advanced Digital Video Production: Premiere 3
CIS106AA   Captivate: Video Presentations (1) **OR**
CIS106AB   Camtasia: Video Presentations (1) 1
CIS120DL
Digital Video Compositing: After
Effects   3
MMT292   Multimedia Update 1
CIS220DC
Flash: Advanced Animation and ActionScript 3

General Education: Credits: 22-24
First-Year Composition

Any approved general education course in the First-Year Composition Area   6
Oral Communication

Any approved general education course in the Oral Communication Area   3
Critical Reading

Met by CRE101 or equivalent as indicated by assessment in Program Prerequisite area.   0
Mathematics
   MAT120   Intermediate Algebra (5) **OR**
   MAT121   Intermediate Algebra (4) **OR**
   MAT122   Intermediate Algebra (3) **OR**

Satisfactory completion of a higher
level mathematics course 3-5
Humanities and Fine Arts

Any approved general education course in the Humanities and Fine Arts Area   3
Social and Behavioral Sciences
   SBU200   Society and Business 3
Natural Sciences

Any approved general education course from the Natural Sciences Area 4

THE CERTIFICATE OF COMPLETION (CCL) IN MULTIMEDIA TECHNOLOGY is a discipline that
integrates multiple digital media types including text, graphics, animation, audio, and video and then delivers this interactive material electronically. The Certificate of Completion in Multimedia Technology will help prepare students for entry-level career opportunities with corporations, organizations, educational institutions, government agencies, entertainment, and advertising industries that require interactive content to support, enhance and/or market their product or service.

Possible entry-level or internship positions leading to careers after completing this certificate program may include Multimedia Producer, Multimedia Scriptwriter, Multimedia Developer, Computer-Based Training or Instructional Designer, Digital Graphic Designer, Webpage Designer, Webpage Developer, Interface Designer, Video/Audio Specialist, Video Editor, Animator, or Multimedia Designer.

Major Code: 5576 Total Credits: 27

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

Required Courses: Credits: 27
CIS105
Survey of Computer Information Systems 3
+CIS/MMT140   Survey of Multimedia Technology 2
BPC/CIS120DB
Computer Graphics: Adobe
Illustrator (3) **OR**

BPC/CIS120DF
Computer Graphics: Adobe Photoshop (3) **OR**
BPC/CIS120DG
Computer Graphics: Macromedia Fireworks (3) 3
ART142   Introduction to Digital Photography... 3
BPC/CIS120DC Computer Graphics: Macromedia Flash 3
BPC/CIS120DK Introduction to Digital Video Editing . 3
+MTC/TCM120
Introduction to Sound Design for Film and Video 3
+MMT216   Multimedia Project Management (3) **OR**
CIS224
Project Management Microsoft Project for Windows (3) 3
+CIS233DC
Internet Web Development: Dreamweaver 3
+CIS108   Electronic Portfolio Development 1

Construction Certificates/Degrees

- **Associate in Applied Science in Construction**

- **Certificate of Completion in Building Inspection**

- **Certificate of Completion in Computer Aided Design and Drafting – CADD Level I**

- **Certificate of Completion in Construction Drafting – CADD Level III**

- **Certificate of Completion in Home Inspection**

- **Certificate of Completion in Plan Review**

- **Certificate of Completion in Pre-Contracting Licensing**

- **Certificate of Completion in Survey and Civil Drafting – CADD II**

Department Chairperson: Jon D'Ambrosio
Contact: (480) 461-7137
Program Director: Mehrzad Khorsandi
Contact: (480) 461-7257

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN CONSTRUCTION prepares students to work

as technicians in construction drafting, construction inspection, or construction management. A drafting technician may work in a surveying, civil engineering,

or architecture firm/agency using board and/or computer

for drafting residential, commercial, and industrial construction. An inspection technician may perform

in home inspection, building inspection, or plan review.

A management technician may work in various construction companies/agencies managing field or office by planning, scheduling, cost estimating, and addressing safety issues.

Major Code: 3502 Total Credits: 67

Program Notes: Students must earn a grade of "C" or better for all courses listed within the program.
++ indicates any module.

Program Prerequisites: Credits: 3-5
MAT120   Intermediate Algebra (5) **OR**
MAT121   Intermediate Algebra (4) **OR**
MAT122   Intermediate Algebra (3) 3-5

Required Courses: Credits: 18-20
CNS101   Construction and Culture 3
CNS130   Computer Aided Design and Drafting 3
CNS175
Working Drawing Analysis: Blueprint Reading 3

CNS180
Building Construction Methods, Materials, and Equipment   3
CNS181   Cost Estimating I 3
MAT150   College Algebra/Functions (5) **OR**
MAT151   College Algebra/Functions (4) **OR**
MAT152   College Algebra/Functions (3) 3-5

Restricted Electives: Credits: 27
Students will choose one of the three tracks

Track I-Construction Drafting   Credits: 27
ARC160   Site Planning 3
+ARC161
Residential Architecture Drafting I: Computer & Board . 3
+ARC162
Advance Residential Architecture Drafting II: Computer & Board   3
+ARC163
Commercial Architecture Drafting I: Computer & Board 3
+ARC164
Advance Commercial Architecture Drafting II: Computer & Board   3
BLT140   Environmentally Responsible Building 3
BLT262
Introduction International Residential Code (IRC) 3
BLT263   Building Codes 3
+CET101   Surveying I 3
+CET102   Surveying II 3
+CET201
Boundary Control and Legal
Principles I   3
+CET202
Boundary Control and Legal
Principles II   3
+CET257   Route and Construction Surveying 3
+CNS201
Construction Management: Office Operation 3
+CNS230
Computer Aided Design & Drafting (CADD) 3D for Construction and Architecture (CADD II)   3
+CNS240
Advanced Computer Aided Design & Drafting (CADD) for Construction and Architecture (CADD III)   3
+CNS250   Civil Drafting I: Land Development ... 3
+CNS251   Civil Drafting II: Land Development . 3
+CNS252   Civil Drafting III: Land Development 3
CNS261   Microcomputers for Constructors 3
+CNS282++
Volunteerism for Construction:
A Service-Learning Experience (any suffixed courses) 1-3
+CNS290++
Construction Internship (any suffixed courses)............. 1-3
+CNS296++   Cooperative Education 1-3
+CNS298++   Special Project 1-3

Track II-Construction Inspection   Credits: 27
+ARC161
Residential Architecture Drafting I: Computer & Board . 3
+ARC163
Commercial Architecture Drafting I: Computer & Board 3
ELC123
Residential Electrical Wiring and Codes 3
BLT121   Electrical Codes 3
BLT127   Plumbing Codes 3
BLT128   Mechanical Codes 3
BLT140   Environmentally Responsible Building 3
BLT262
Introduction International Residential Code (IRC) 3
BLT263
Building Codes   3
+CNS200

Construction Management: Field Operation 3
+CNS201
Construction Management: Office Operation 3
CNS263   Electrical Construction Fundamentals 3
+CNS271   Home Inspection Structure................. 3
+CNS272
Home Inspection Plumbing,
Electrical & HVAC... 3
+CNS273
Home Inspection Insulation
and Interior   3
+CNS274
Home Inspection Roofing
and Exteriors   3
+CNS282++
Volunteerism for Construction:
A Service-Learning Experience (any suffixed courses) 1-3
+CNS285
Introduction to Residential
Plan Review   3
+CNS286
Introduction to Commercial
Plan Review   3
+CNS290++
Construction Internship (any suffixed courses)............. 1-3
+CNS296++   Cooperative Education....................... 1-3
+CNS298++   Special Project 1-3

Track III-Construction Management   Credits: 27
BLT140   Environmentally Responsible Building 3
BLT262
Introduction International Residential Code (IRC) 3
BLT263   Building Codes 3
+CET101   Surveying I 3
+CET102   Surveying II 3
CNS182
Construction Estimating and Print Reading 4
+CNS200
Construction Management: Field Operation 3
+CNS201
Construction Management (Office Operation) 3
CNS221
Applied Engineering Mechanics-Statics............................ 3
CNS243
Heavy Construction Equipment, Methods, and Materials 3
+CNS260   Strength of Materials............................ 3
CNS261   Microcomputers for Constructors 3
CNS263   Electrical Construction Fundamentals 3
+CNS282++
Volunteerism for Construction:
A Service-Learning Experience
(any suffixed courses).. 1-3
+CNS290++
Construction Internship (any suffixed courses)............. 1-3
+COM225   Public Speaking.................................... 3
ECN211   Macroeconomic Principles................... 3
ECN212   Microeconomic Principles.................... 3
GBS206   Business Law (UCC) 3
+GBS221   Business Statistics................................ 3
+CNS296++   Cooperative Education....................... 1-3
+CNS298++   Special Project 1-3

General Education: Credits: 22
First-Year Composition

Any approved general education course in the First-Year Composition area   6
Oral Communication

| COM100 | Introduction to Human Communication | 3 |

Critical Reading
+CRE101   College Critical Reading (3) or
            Equivalent as indicated by assessment 3

Mathematics

Met by MAT150, MAT151, or MAT152, in required courses area   0

Humanities and Fine Arts

Any approved general education course in the Humanities and Fine Arts area   3

Social and Behavioral Sciences

Any approved general education course from the Social and Behavioral Sciences area   3

Natural Sciences
    PHY111   General Physics I.................................4

THE CERTIFICATE OF COMPLETION (CCL) IN BUILDING INSPECTION prepares the student for a

career in public/governmental agencies as an inspector in various areas of the building inspection field. 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, such as mechanical, electrical, plumbing, etc.

Major Code: 5554 Total Credits: 21

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

Required Courses: Credits: 21

BLT121   Electrical Codes 3
BLT127   Plumbing Codes....................................3
BLT128   Mechanical Codes................................3
BLT262
Introduction International Residential Code (IRC) 3
BLT263   Building Codes 3
CNS175
Working Drawing Analysis: Blueprint Reading...............3
+CNS282AC

Volunteerism for Construction:
A Service Learning Experience (3) **OR**
+CNS290AC   Construction Internship (3) **OR**
+CNS296WC   Cooperative Education (3) **OR**
+CNS298AC   Special Projects (3) 3

THE CERTIFICATE OF COMPLETION (CCL) IN COMPUTER AIDED DESIGN AND DRAFTING - CADD LEVEL I prepares the student to work as a junior draftsperson for any construction or architecture related design and

drafting company/agency. In this program, the student develops skills and gains knowledge necessary to perform introductory computer drafting responsibilities.

Major Code: 5498 Total Credits: 9

Program Notes: Students must earn a grade of "C" or better for each course listed in the required courses area.

Required Courses: Credits: 9

CNS130   Construction Drawing Foundation 3
+CNS230
Computer Aided Design and Drafting (CADD) 3D for Construction and Architecture (CADD II)   3
+CNS240
Advanced Computer Aided Design and Drafting (CADD) for Construction and Architecture (CADD III)   3

THE CERTIFICATE OF COMPLETION (CCL) IN CONSTRUCTION DRAFTING - CADD LEVEL III

prepares the student to work as an advanced construction draftsperson for construction-related design and drafting companies/agencies. The student will develop knowledge
of and skills for commonly used computer software applications. Students will be able to perform various construction drafting-related functions necessary for
any architecture, civil, and construction-related work.

Major Code: 5502 Total Credits: 27

Program Notes: Students must earn a grade of "C" or better for each course listed in the required courses area.

Required Courses: Credits: 27

+ARC150   Architectural Desktop I 3
+ARC161   Residential Architecture Drafting 3
+ARC163   Commercial Architecture Drafting 3
CNS130   Construction Drawing Foundation 3
+CNS230
Computer Aided Design & Drafting (CADD) 3D for Construction and Architecture (CADD II) 3
+CNS240
Advanced Computer Aided Design & Drafting (CADD) for Construction and Architecture (CADD III) 3
+CNS250   Civil Drafting I: Land Development ... 3
+CNS251   Civil Drafting II: Land Development . 3
+CNS282AC
Volunteerism for Construction:
A Service-Learning Experience (3) **OR**
+CNS290AC Construction Internship (3) **OR**
+CNS296WC Cooperative Education (3) **OR**
+CNS298AC Special Projects (3) 3

THE CERTIFICATE OF COMPLETION (CCL) IN HOME INSPECTION prepares the student for a career in

home inspection. The certificate provides the student with the knowledge necessary to seek Arizona State Home Inspection certification. In addition to completing these courses, the student must also acquire additional hours of mentored home inspections in order to qualify for the state certification exam.
Major Code: 5505 Total Credits: 21

Program Notes: Students must earn a grade of "C" or better for each course listed in the required courses area.

Required Courses: Credits: 21
CNS175
Working Drawing Analysis: Blueprint Reading 3
+CNS201
Construction Management: Office Operation 3
+CNS271   Home Inspection Structure................. 3
+CNS272
Home Inspection Plumbing, Electrical
& HVAC 3
+CNS273
Home Inspection: Insulation and
Interior 3
+CNS274
Home Inspection: Roofing and
Exteriors 3
+CNS282AC
Volunteerism for Construction:
A Service-Learning Experience (3) **OR**
+CNS290AC Construction Internship (3) **OR**
+CNS296WC Cooperative Education (3) **OR**
+CNS298AC Special Projects (3) 3

THE CERTIFICATE OF COMPLETION (CCL) IN PLAN REVIEW prepares students who currently have

knowledge of architecture, engineering, or related fields or who are currently working for governmental agencies in lower level, related, positions and are seeking jobs in public agencies/governmental or private companies who work in these capacities for the code compliance plan review field. The student gains the knowledge and develops skills necessary to review residential and commercial plans for code compliance.
Major Code: 5508 Total Credits: 27

Program Notes: Students must earn a grade of "C" or better for all course listed within the program.

Required Courses: Credits: 27
+ARC161   Residential Architecture Drafting 3
+ARC163   Commercial Architecture Drafting...... 3
BLT262
Introduction International Residential Code (IRC) 3
BLT263   Building Codes 3
CNS130   Construction Drawing Foundation 3
CNS180
Building Construction Methods, Materials, and Equipment 3
+CNS285

Introduction to Residential Plan
Review   3
+CNS286
Introduction to Commercial Plan
Review   3
+CNS282AC
Volunteerism for Construction:
A Service-Learning Experience (3) **OR**
+CNS290AC   Construction Internship (3) **OR**
+CNS296WC   Cooperative Education (3) **OR**
+CNS298AC   Special Projects (3) 3

THE CERTIFICATE OF COMPLETION (CCL) IN PRE-CONTRACTING LICENSING prepares the

student for a career as a general contractor. Before one can practice as a general contractor, the State of Arizona requires that a passing score is obtained on the general contractor's exam. With this certificate student will gain the knowledge and develop the skills required to function as a junior contractor and/or to help them prepare for the state general contracting exam.
Major Code: 5509 Total Credits: 21

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

Required Courses: Credits: 21
BLT263   Building Codes 3
CNS175
Working Drawing Analysis: Blueprint Reading 3
CNS180
Building Construction Methods, Materials, and Equipment   3
CNS181   Cost Estimating I 3
+CNS200
Construction Management: Field Operation 3
+CNS201
Construction Management: Office Operation 3
+CNS282AC
Volunteerism for Construction:
A Service Learning Experience (3) **OR**
+CNS290AC   Construction Internship (3) **OR**
+CNS296WC   Cooperative Education (3) **OR**
+CNS298AC   Special Projects (3) 3

THE CERTIFICATE OF COMPLETION (CCL) IN SURVEY AND CIVIL DRAFTING - CADD LEVEL II prepares the student to work as a construction drafting technician for civil engineering, surveying, and construction-related

company/agency. The student will be equipped with the knowledge and skills of software applications to perform various construction drafting (computer and board) related responsibilities for surveying, civil engineering, and construction-related work.
Major Code: 5501 Total Credits: 27

Program Notes: Students must earn a grade of "C" or better for each course listed in the required courses area.

Required Courses: Credits: 27
+CET101   Surveying I 3
+CET102   Surveying II 3
CNS130   Construction Drawing Foundation 3
+CNS230
Computer Aided Design & Drafting (CADD) 3D for Construction and Architecture (CADD II)   3
+CNS240
Advanced Computer Aided Design & Drafting (CADD) for Construction and Architecture (CADD III)   3
+CNS250   Civil Drafting I: Land Development ... 3
+CNS251   Civil Drafting II: Land Development . 3
+CNS252   Civil Drafting III: Land Development 3
+CNS282AC
Volunteerism for Construction:
A Service-Learning Experience (3) **OR**
+CNS290AC   Construction Internship (3) **OR**
+CNS296WC   Cooperative Education (3) **OR**
+CNS298AC   Special Projects (3) 3

Culinary Studies Certificates/Degrees

-
Associate in Applied Science in Culinary Studies
- **Certificate of Completion in Culinary Studies**

Department Chairperson: Linda Collins
Contact: (480) 461-7077

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN CULINARY STUDIES is designed to teach basic cooking

principles and techniques in a state-of-the-art setting. The emphasis is on skills needed for employment

in a commercial food operation where food is prepared

and served in volume. Instruction includes principles of professional cooking and baking, volume food production, food sanitation

and safety, purchasing, menu planning, customer service, and basic nutrition concepts. A Certificate of Completion (CCL) is also

available.

Major Code: 3063 Total Credits: 62

Program Notes: ++ indicates any module.
Students must earn a grade of "C" or better in all courses within the program.

Required Courses: Credits: 32
FON/HRM102   Menu Planning 2
FON104
Certification in Food Service Safety and Sanitation......... 1
FON118   Commercial Baking Techniques.......... 3
+FON124   Customer Service Practicum................ 4
FON179   Garde Manger 3
FON180
Principles and Skills for Professional Cooking 3

Students must select six (6) credits from the following courses:
FON181   French Cuisine (3) **OR**
FON182   American Regional Cuisine (3) **OR**
FON183   International Cuisine (3) **OR**
FON184   Pacific Rim Cuisine (3) **OR**
FON218
Commercial Baking: Classical Desserts (3) **OR**

+FON220   Advanced Pastry Arts (3) 6
+FON190   Professional Cooking Practicum.......... 7
FON202   Purchasing for Food Service Systems . 3

Restricted Electives: Credits: 6
ACC111   Accounting Principles I........................ 3
BPC+++++   Any BPC Course(s)........................... 1-3
CIS+++++   Any CIS Course(s)............................ 1-3
FON+++++
Any FON Course(s) except courses used to satisfy Required Courses area.   3
GBS131   Business Calculations 3
GBS205
Legal, Ethical, and Regulatory Issues in Business............ 3
MGT229   Management and Leadership I 3
MGT253
Owning and Operating a Small
Business   3
MKT271   Principles of Marketing........................ 3

General Education Requirements: Credits: 24-27
First-Year Composition

Any approved General Education course in the First-Year Composition area.   6
Oral Communication

Any approved General Education course in the Oral Communication area.   3
Critical Reading

Any approved General Education course in the Critical Reading area.   3
Mathematics

Any approved General Education course in the Mathematics area.   3-5
Humanities and Fine Arts

Any approved General Education course in the Humanities and Fine Arts area   2-3
Social and Behavioral Sciences
   ECN211   Macroeconomic Principles (3) **OR**
   ECN212   Microeconomic Principles (3) **OR**
   PSY101   Introduction to Psychology (3) **OR**
   SOC101   Introduction to Sociology (3) 3
Natural Sciences
   +FON241   Principles of Human Nutrition 3
   +FON241LL

Principles of Human Nutrition Laboratory 1

THE CERTIFICATE OF COMPLETION (CCL) IN CULINARY STUDIES is designed to teach basic cooking

principles and techniques in a state-of-the-art setting. Emphasis is on skills needed for employment in a commercial food operation where food is prepared and served in volume. Instruction includes principles of professional cooking and baking, volume food production, food sanitation and safety, purchasing, menu planning, customer service, and basic nutrition concepts. An Associate in Applied Science (AAS) degree is also available.

Major Code: 5516 Total Credits: 35

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

Required Courses: Credits: 35
FON/HRM102   Menu Planning 2
FON104

Certification in Food Service Safety and Sanitation......... 1
FON118   Commercial Baking Techniques 3
+FON124   Customer Service Practicum................ 4
FON179   Garde Manger 3
FON180

Principles and Skills for Professional Cooking 3

Students must select six (6) credits from the following courses.
FON181   French Cuisine (3) **OR**
FON182   American Regional Cuisine (3) **OR**
FON183   International Cuisine (3) **OR**
FON184   Pacific Rim Cuisine (3) **OR**
FON218

Commercial Baking: Classical Desserts (3) **OR**
+FON220   Advanced Pastry Arts (3) 6
+FON190   Professional Cooking Practicum.......... 7
FON202   Purchasing for Food Service Systems . 3
+FON241   Principles of Human Nutrition 3

Dental Degree

-
Associate in Applied Science in Dental Hygiene

Department Chairperson: Jon D'Ambrosio
Contact: (480) 461-7137
Program Director: Phebe Blitz
Contact: (480) 654-7772

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN DENTAL HYGIENE prepares students to practice entry-

level dental hygiene. Dental hygiene students will provide preventive and therapeutic services, and will develop a commitment to the community through extramural opportunities serving diverse populations.

The program is a blend of academic and clinical coursework that requires attention to detail and motivation to complete tasks on a timeline. Graduates are employed in private dental offices, hospitals, schools, and clinics within their community.

Major Code: 3831 Total Credits: 98-102.5

The Commission on Dental Accreditation of the American Dental Association (211 E. Chicago Ave., Chicago, Il. 60611-2678, (312) 440-4653) grants accreditation to the Phoenix College, Rio Salado, and Mesa 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.

Applicants who are accepted and enroll in a MCCCD
Dental Hygiene program will be exposed to blood-borne
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.

Program Notes: Students must earn a grade of "C" or better for all courses that will be applied toward the degree.
All General Education requirements are met by program prerequisites as indicated.
Students should consult with an advisor in selecting courses to meet the General Education areas.

Admission Criteria:
A high school diploma or GED equivalency is required.
Ability to fully participate in classroom, laboratory, or clinical setting program activities. Submit current CPR card for Health Care Provider and maintain current status throughout the program. 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 fingerprinting clearance card. Completion of program prerequisites. Formal application and admission to the program is required.

Program Prerequisites: Credits: 40-44.5
The credit hour ranges are subject to change depending on the students' educational experiences. Students must select one of the following two options.

OPTION 1   Credits: 40
Biology courses (BIO156 and BIO181) and HCC course (HCC109) may be waived by the Program Director for the student who has one year of high school biology and the current CPR certification at the Health Care Provider or Professional Rescuer level.
BIO156
Introductory Biology for Allied Health (4) **OR**
BIO181
General Biology (Majors) (4) **OR**
One year of high school biology 4
+BIO202   Human Anatomy and Physiology II.... 4
+BIO205   Microbiology.. 4
+CHM138   Chemistry for Allied Health................. 3
+CHM138LL
Chemistry for Allied Health
Laboratory   1
EMT/HCC/
RES109
CPR for Health Care Provider **OR**

Current CPR certification at the
Health Care Provider or Professional
Rescuer level   0.5

General Education Requirements: Credits: 28
First Year Composition

+Any approved general education courses in the First Year Composition area.   6

Oral Communication

Any approved general education course in the Oral Communication area.   3
Critical Reading
   +CRE101   College Critical Reading (3) **OR**
              Equivalent as indicated by assessment 3
Mathematics
   +MAT102   Mathematical Concepts/Applications (3)   **OR**
              Equivalent course **OR**

Satisfactory completion of a higher-level mathematics course   3
Humanities and Fine Arts

Any approved general education course in the Humanities and Fine Arts area.   3

Natural Sciences
    BIO201   Human Anatomy and Physiology I 4
Social and Behavioral Sciences
    PSY101   Introduction to Psychology (3) **AND**
    SOC101
Introduction to Sociology (3)............................ 6

OPTION 2 Credits: 44.5
BIO156
Introductory Biology for Allied Health (4) **OR**
BIO181
General Biology (Majors) (4) **OR**
                One year of high school biology 4
BIO202   Human Anatomy and Physiology II.... 4
+BIO205   Microbiology.. 4
+CHM138   Chemistry for Allied Health................. 3
+CHM138LL   Chemistry for Allied Health Laboratory1
EMT/HCC/
RES109   CPR for Health Care Provider (0.5) **OR**

Current CPR certification at the Health Care Provider **OR**
                Professional Rescuer level................. 0.5

General Education Requirements: Credits: 28
First Year Composition

+Any approved general education courses in the First Year Composition area.   6
Oral Communication

Any approved general education course in the Oral Communication area.   3
Critical Reading
    +CRE101   College Critical Reading (3) **OR**
                Equivalent as indicated by assessment 3
Mathematics
    +MAT102   Mathematical Concepts/Applications (3)   **OR**
                Equivalent course **OR**

Satisfactory completion of a higher level mathematics course   3
Humanities and Fine Arts

Any approved general education course in the Humanities and Fine Arts area.   3
Natural Sciences
    BIO201   Human Anatomy and Physiology I 4
Social and Behavioral Sciences
    PSY101   Introduction to Psychology (3) **AND**
    SOC101   Introduction to Sociology (3) 6

Required Courses: Credits: 58
+DHE110   Pharmacology 3
+DHE112   Oral Pathology 3
+DAE/DHE114   Emergency Medicine............................ 2
+DHE119   Head and Neck Anatomy..................... 3
+DHE120   Pre-Clinical Dental Hygiene............... 6
+DAE/DHE122
Dental Anatomy, Embryology and Histology 2
+DAE/DHE124   Dental Radiography 2
+DHE125   Dental Radiography Laboratory 1
+DHE127   Prevention of Dental Disease 3
+DHE132   Dental Hygiene Theory I..................... 3
+DHE133   Dental Hygiene Clinic I 3
+DAE203   Dental Materials.................................. 2
+DAE204   Dental Materials Laboratory 1
+DHE212   Dental Hygiene Theory I..................... 2
+DHE213   Dental Hygiene Clinic II...................... 5
+DHE219   Practice Management........................... 2
+DHE225   Periodontics 3
+DHE227   Dental Anesthesia................................. 2

+DHE229　　　　Community Oral Health 3
+DHE232　　　　Dental Hygiene Theory III 2
+DHE233　　　　Dental Hygiene Clinic III 5

General Education: Credits: 0
First Year Composition:

Met by any approved First Year Composition courses in the Program Prerequisites area.　0
Oral Communication:

Met by any approved general education course in the in the Program Prerequisites area.　0
Critical Reading:

Met by CRE101 College Critical Reading (3) **OR**

Equivalent as indicated by assessment in Program Prerequisites area.　　0
Mathematics:

Met by MAT102 Mathematical Concepts/Applications **OR**
　　　　　　Equivalent course **OR**

Satisfactory completion of a higher level mathematics course in Program Prerequisites area.0
Humanities and Fine Arts:

Met by any approved general education course in the Humanities and Fine Arts area in the Program Prerequisites area.　　　0
Natural Sciences:

Met by BIO201 Human Anatomy and Physiology I in the Program Prerequisites area.　　0

Social and Behavioral Sciences:

Met by PSY101 Introduction to Psychology (3) **AND**

SOC101 Introduction to Sociology (3) in the Program Prerequisites area.　　　0

Digital Arts Certificate/Degree

-
Associate in Applied Science in Digital Arts
-
Certificate of Completion in Digital Arts: Digital Illustration
-
Certificate of Completion in Digital Arts: Digital Photography
-
Certificate of Completion in Digital Arts: Graphic Design
-
Certificate of Completion in Digital Arts: Web Design

Department Chairperson: Sarah Capawana
Contact: (480) 461-7516

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN DIGITAL ARTS is designed for the student who wishes to develop marketable multimedia skills. The program allows the student to develop his/her skills in the areas of Web Design, Digital Photography, Digital Illustration, and Graphic Design. It allows for the development of an individual's personal interest, prepares students for employment, and upgrades skills of those already employed in this field. Employment opportunities are included in multimedia such as digital photographer, web designer, multimedia artist, graphic designer, and digital illustrator.
Major Code: 3081 Total Credits: 62-65

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

Required Courses: Credits: 37-40
ART100　　　　Introduction to Computer Graphic Art1
ART111　　　　Drawing I.. 3
ADA/ART112　Two-Dimensional Design 3
ART113　　　　Color... 3

ART142	Introduction to Digital Photography... 3
+ADA/ART177	Computer-Photographic Imaging........ 3
+ART255	Art Marketing (3) **OR**
ART255AA	Self-Promotion (1) **AND** ....
+ART255AB	The Portfolio (1) **AND**
+ART255AC	Marketing Fine Art (1) 3
+ART202	Digital Arts Survey 3

Select one of the following four (4) tracks: Credits 15-18

Track I-Web Design   Credits: 18
BPC/CIS133DA
Internet/Web Development Level I (3) **OR**

+ADA/ART169	Two-Dimensional Computer Design (3) 3
+ADA/ART183	Computer Aided Graphic Arts I 3
+ART/MMT190	Art of Web Site Design 3
+ART192	Advanced Web Presentation Design... 3
+MMT216	Multimedia Project Management (3) **OR**
+ART203	Aesthetics of Web Design (3) 3
+ART200	Animation and Interactivity 3

Track II-Digital Illustration   Credits: 15
ART116	Life Drawing I 3
+ART122	Drawing and Composition II 3
+ADA/ART169	Two-Dimensional Computer Design .. 3
+ART270	
Intermediate Computer Photographic Imaging 3
+ADA/ART289	Computer Illustration 3

Track III-Digital Photography   Credits: 15
ART131	Photography I 3
+ART132	Photography II 3
+ART143	Intermediate Digital Photography....... 3
+ART270	
Intermediate Computer Photographic Imaging 3
+ART274	
Advanced Computer Photographic Imaging 3

Track IV-Graphic Design   Credits: 15
+ART143	Intermediate Digital Photography (3) **OR**
+ADA/ART289	Computer Illustration (3) 3
+ART/MMT190	Art of Web Site Design 3
+ADA/ART169	Two-Dimensional Computer Design .. 3
+ART/ADA183	Computer Aided Graphic Arts I 3
+ADA/ART283	Computer Aided Graphic Arts II 3

General Education: Credits: 25
First-Year Composition

+Any approved General Education course in the First-Year Composition
area   6
Oral Communication

Any approved General Education course in the Oral Communication area   3
Critical Reading

+Any approved General Education course in the Critical Reading area   3
Mathematics

+Any approved General Education course in the Mathematics area   3
Humanities and Fine Arts

Any approved General Education
course from the Humanities and Fine Arts area 3
Social and Behavioral Sciences

Any approved General Education course from the Social and Behavioral Sciences area.   3

Natural Sciences

Any approved General Education course from the Natural Sciences area 4

THE CERTIFICATE OF COMPLETION (CCL) IN DIGITAL ARTS: DIGITAL ILLUSTRATION

prepares students to work in a specialized field of computer art and illustration as commercial illustrators, graphic designers, fine artists, background illustrators, and multimedia artists. The program emphasizes principles of art and develops knowledge and skills required to solve design and compositional problems. The program is designed for both those seeking to enter a career in media arts and those already working in the field who wish to advance and update their knowledge and skills.

Major Code: 5631 Total Credits: 19

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

Program Prerequisites: Credits: 3

ART111   Drawing I (3) **OR**
              Permission of Department or Division 3

Required Courses: Credits: 19

ART100   Introduction to Computer Graphic Art1
ART116   Life Drawing I 3
+ART122   Drawing and Composition II 3
+ART169   Two-Dimensional Computer Design .. 3
+ART177   Computer-Photographic Imaging........ 3
+ART270
Intermediate Computer Photographic Imaging 3
+ART289   Computer Illustration 3

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 retouchers. 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.

Major Code: 5632 Total Credits: 22

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

Required Courses: Credits: 22

ART100   Introduction to Computer Graphic Art1
ART131   Photography I 3
+ART132   Photography II 3
ART142   Introduction to Digital Photography... 3
+ART143   Intermediate Digital Photography....... 3
+ART177   Computer-Photographic Imaging........ 3

+ART270
Intermediate Computer Photographic Imaging 3
+ART274
Advanced Computer Photographic Imaging.................... 3

THE CERTIFICATE OF COMPLETION (CCL) IN DIGITAL ARTS: GRAPHIC DESIGN prepares student

to work in a specialized field of graphic design as production artists, graphic designers, art directors, pre-press specialists, and service bureau personnel. The program emphasizes design and production principles and develops the student's knowledge and skills required to solve graphic design and layout problems encountered in various print media. The program is designed for both those seeking to enter a career in graphic art and those already working in the field who wish to advance and update their knowledge and skills.

Major Code: 5633 Total Credits: 22

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

Required Courses: Credits: 22

ART100   Introduction to Computer Graphic Art1

ADA/ART112	Two-Dimensional Design 3
ART142	Introduction to Digital Photography... 3
+ADA/ART169	Two-Dimensional Computer Design .. 3
+ADA/ART177	Computer-Photographic Imaging........ 3
+ADA/ART183	Computer Aided Graphic Arts I 3
+ART/MMT190	Art of Web Site Design 3
+ADA/ART283	Computer Aided Graphic Arts II 3

THE CERTIFICATE OF COMPLETION (CCL) IN DIGITAL ARTS: WEB DESIGN prepares students

to work as web page designers and media-rich content producers for commercial, educational, Internet and intranet sites. The program emphasizes principles of art, and develops knowledge and skills required to solve design
and compositional problems with graphics, streaming video and audio media, and virtual-reality models. The program is designed for both those seeking to enter a career in web page design and those already working in the field who wish to advance and update their knowledge and skills.

Major Code: 5629 Total Credits: 22

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

Required Courses: Credits: 22

ART100	Introduction to Computer Graphic Art1	
BPC/CIS133DA		
Internet/Web Development Level I (3) **OR**		
+ART169	Two-Dimensional Computer Design (3)	3
+ART177	Computer-Photographic Imaging........ 3	
+ART183	Computer Aided Graphic Arts I 3	
+ART/MMT190	Art of Web Site Design 3	
+ART192	Advanced Web Presentation Design... 3	
+MMT/VPT216	Multimedia Project Management (3) **OR**	
+ART203	Aesthetics of Web Design (3) 3	
+ART200	Animation and Interactivity 3	

Drafting Certificates/Degrees

-
Associate in Applied Science in Electro/Mechanical Drafting
-
Certificate of Completion in Electro/Mechanical Drafting
-
Certificate of Completion in Computer Aided Drafting
- **Certificate of Completion in Mechanical Drafting**

Department Chairperson: Jon D'Ambrosio
Contact: (480) 461-7137

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN ELECTRO/MECHANICAL DRAFTING prepares

students to work as draftee technicians in machine drafting, Computer Numerical Control (CNC) programming, manufacturing process sheets, and electronics. Students develop skills in drawing block, schematic, and logic diagrams, printed wiring board drawings, and integrated circuit drawings. The program emphasizes current technological needs in the drafting industry.

Major Code: 3504 Total Credits: 66

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

Program Prerequisites: Credits: 3

| GTC107 | Technical Mathematics I (3) **OR** |

Equivalent or satisfactory score on a placement exam 3

Required Courses: Credits: 20

DFT110	Technical Drafting I 3	
+DFT111	Technical Drafting II 3	
+DFT112	Technical Drafting III 3	
+DFT115		
Geometric Dimensioning and Tolerancing........................ 3		
+DFT252AA	Computer Aided Drafting I: AutoCAD3	
+DFT254AA	Computer Aided Drafting II: AutoCAD	3

GTC106AA   Industrial Safety 2

Restricted Electives: Credits: 24

Students must select one of the following 2 tracks:

Track I-Micro Circuit Mask Design   Credits: 24
+DFT245AA   Integrated Circuit Design-CMOS IA . 3
+DFT245AB   Integrated Circuit Design-CMOS IB . 3
+ELE105   Algebra-Trigonometry for Technology 5
+ELE111   Circuit Analysis I 4
+ELE131   Digital Logic and Circuits.................... 3
+ELE181
Computer Programming for
Technology   3
GTC110
Semiconductor Processing
Technology I   3

Track II-C.N.C. Programming   Credits: 24
GTC102
Machine Processes, Theory and Application 3
+GTC/MET108   Technical Mathematics II 3
+GTC/MET206   CNC Programming 3
GTC216   Properties of Materials........................ 3
+GTC236   CAD/CAM CNC Programming.......... 3
+GTC266   Solids CAD/CAM Programming 3
GTC276   Solids Programming 3
MET131   Lean Manufacturing............................ 3

General Education: Credits: 22

First-Year Composition
  +ENG101   First Year Composition (3) **OR**
  ENG107   First Year Composition for ESL (3) **AND**
  ENG111   Technical Writing (3)........................... 6
Oral Communication
  COM100
Introduction to Human Communication (3) **OR**
  COM110   Interpersonal Communication (3) **OR**
  COM230   Small Group Communication (3) 3
Critical Reading
  CRE101   College Critical Reading (3) **OR**
               Equivalent as indicated by assessment 3
Mathematics

Met by ELE105 or GTC108 in Required Courses area ... 0
Humanities and Fine Arts

Any approved general education course from the Humanities and Fine Arts area   3
Social and Behavioral Sciences

Any approved general education course from the Social and Behavioral Sciences area   3
Natural Sciences

Any approved general education course from the Natural Sciences area   4

THE CERTIFICATE OF COMPLETION (CCL) IN ELECTRO/MECHANICAL DRAFTING prepares

students for careers as detail drafting technicians or electronic drafting technicians who prepare block diagrams, schematic diagrams, logic diagrams, printed wiring board drawings, and integrated circuit drawings. The program develops the knowledge and skills required to interpret engineering sketches and data in order to make formal, approved drawings.

Major Code: 5551 Total Credits: 43

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

Required Courses: Credits: 43
DFT110   Technical Drafting I............................ 3
+DFT111   Technical Drafting II 3
+DFT112   Technical Drafting III........................ 3

```
+DFT115
Geometric Dimensioning and Tolerancing....................... 3
+DFT245AA      Integrated Circuit Design-CMOS IA . 3
+DFT245AB      Integrated Circuit Design-CMOS IB . 3
+DFT252AA      Computer Aided Drafting I: AutoCAD3
+DFT254AA      Computer Aided Drafting II: AutoCAD     3
+ELE105        Algebra-Trigonometry for Technology 5
+ELE111        Circuit Analysis I ................................. 4
ELE181         Computer Programming for Technology     3
GTC104         Manufacturing Processes ..................... 4
GTC110         Semiconductor Processing
               Technology I ........................................ 3
```

THE CERTIFICATE OF COMPLETION (CCL) IN COMPUTER AIDED DRAFTING prepares students for

entry-level positions in firms that require drafting services. The program reflects the current needs of the drafting industry.
Major Code: 5547 Total Credits: 18

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

Required Courses: Credits: 18
```
CIS105
Survey of Computer Information Systems ....................... 3
DFT110         Technical Drafting I ............................ 3
+DFT111        Technical Drafting II ........................... 3
+DFT252AA      Computer Aided Drafting I: AutoCAD3
+DFT254AA      Computer Aided Drafting II: AutoCAD     3
+DFT256AA
Computer Aided Drafting III:
AutoCAD        3
```

THE CERTIFICATE OF COMPLETION (CCL) IN MECHANICAL DRAFTING curriculum is designed to

provide a liberal as well as technical base of skills in the present-day mechanical drafting field. The program is current, and reflects the latest technological needs of the industry. The various certificates provide a stepping stone path to the Associate Degree. Those students who are working in the industry while taking the program are especially encouraged to obtain the certificates as they progress through the program.
Major Code: 5600 Total Credits: 34

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

Required Courses: Credits: 34
```
DFT110         Technical Drafting I ............................ 3
DFT11          Technical Drafting II ........................... 3
DFT112         Technical Drafting III ......................... 3
DFT113         Technical Drafting IV ......................... 3
DFT115
Geometric Dimensioning and Tolerancing....................... 3
+DFT252AA      Computer Aided Drafting I: AutoCAD3
+DFT254AA      Computer Aided Drafting II: AutoCAD     3
+DFT256AA
Computer Aided Drafting III:
AutoCAD        3
GTC104         Manufacturing Processes ..................... 4
GTC108         Technical Mathematics II .................... 3
QCT270         Measurements for Quality Control I ... 3
```

Education Certificates/Degrees

-
Associate in Applied Science in Instructional Assistance
-
Certificate of Completion in Instructional Assistance
-

Certificate of Completion in Bilingual Endorsement

•

Certificate of Completion in ESL Endorsement

•

Certificate of Completion in Reading Specialist Endorsement

Department Chairperson: Dr. Nora Amavisca Reyes
Contact: (480) 461-7781

THE ASSOCIATE IN APPLIED (AAS) IN INSTRUCTIONAL ASSISTANCE prepares students to work as

instructional assistants. The program emphasizes the philosophical, cultural, and linguistic processes involved in teaching children. Students develop knowledge and skills required of the instructional assistant through a combination of courses in methodology and practicum experience.

Major Code: 3119 Total Credits: 62

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

Required Courses: Credits: 33-35
CFS/ECH176 Child Development.............................. 3
EDU221 Introduction to Education.................... 3
EDU225
Foundations for Serving English Language Learners (ELL) 3
EDU230 Cultural Diversity in Education 3

Students must select one of the following four tracks:

Track I-Teacher Assisting Credits: 21-23
EDU161 Family Centered Services 3
EDU222 Introduction to the Exceptional Learner 3
+EDU210
Methods for Working with the ESL Student.................... 3
EDU/HUM/
STO292 The Art of Storytelling 3
+ECH/
EDU296WC Cooperative Education......................... 3

Any Foreign Language Course(s) or credit by examination 6-8

Track II-ESL Teacher Aide Credits: 21-23
+EDU210
Methods for Working with the ESL Student.................... 3
+EDU213
Reading and Writing Strategies in an ESL/Bilingual Setting 3
+EDU216
Introduction to Assessment of Linguistically Diverse Learners 3
+EDU245 Internship in Bilingual/ESL Education 3
+ENG213 Introduction to the Study of Language 3

Any Foreign Language Course(s) **OR** credit by examination 6-8

Track III-Bilingual Teacher Aide Credits: 23
Proficiency in Spanish is required for students taking Track III
+EDU211
Methods for Working with the Bilingual Student 3
+EDU212
English as a Second Language for Bilingual Students 3
+EDU216
Introduction to Assessment of Linguistically Diverse Learners 3
+EDU245 Internship in Bilingual/ESL Education 3
+ENG213 Introduction to the Study of Language 3
+SPA103
Elementary Spanish for Spanish
Speakers I 4
+SPA104
Elementary Spanish for Spanish
Speakers II 4

Track IV-Special Education Teacher Aide   Credits: 23

EDU161   Family Centered Services 3
+EDU206
Classroom Strategies for the Exceptional Learner 3
EDU222   Introduction to the Exceptional Learner   3
EDU270   Learning and the Brain 3
+EDU296WC   Cooperative Education........................ 3
SLG101
American Sign Language I (4) **OR**
                higher-level course............................... 4
+SLG102   American Sign Language II (4) **OR**
                higher-level course.............................. 4

Restricted Electives: Credits: 4-6

ARH217   Mexican Art History 3
ASB222
Buried Cities and Lost Tribes:
Old World (3) **OR**
ASB223
Buried Cities and Lost Tribes: New World (3) **OR**
ASB245   Southwestern Anthropology (3) 3
CFS116   Discipline and Guidance 3
+ECH/CFS212   Creative Activities for the Young Child 3
+CFS278   Early Childhood Education 3
CFS280
Children with Special Needs in Early Childhood Education   3
ECH274   Books and Verse for the Young Child. 1
ECH275
Literacy Development of the Young Child 1
+ECH277
Language and Literacy for the Bilingual Child................. 1
ECH279
Early Childhood Curriculum Development 1
EPD260   Technology in Education Overview 3
ENH112   Chicano Literature 3
HIS109   Mexican American History and Culture 3
HIS145   History of Mexico............................... 3
POS221   Arizona Constitution 1
SOC140   Racial and Ethnic Minorities 3
SOC142   Sociology of Chicano Community 3
SWU171   Introduction to Social Welfare 3
THP211   Creative Drama 3

General Education: Credits: 25

First-Year Composition
    +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
    +COM225   Public Speaking (3) **OR**
    +COM230   Small Group Communication (3) 3
Critical Reading
    CRE101   College Critical Reading (3) **OR**
                Equivalent as indicated by assessment 3
Mathematics
    +MAT102   Mathematical Concepts/Applications (3)   **OR**

Satisfactory completion of a higher-level mathematics course   3
Humanities and Fine Arts
    EDU/ENH291............................ Children's Literature   3
Social and Behavioral Sciences
    POS110   American National Government.......... 3
Natural Sciences

Any approved general education course from the Natural Sciences area   4

THE CERTIFICATE OF COMPLETION (CCL) IN INSTRUCTIONAL ASSISTANCE provides course-work

which focuses on meeting the educational needs of learners. Program requirements include coursework in foundations of education and language as well as practical application coursework, including a practicum within a classroom setting. All certificate program requirements can be used toward completion of the Instructional Assistance Associate in Applied Science (AAS) Program.

Major Code: 5119 Total Credits: 28

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

Required Courses: Credits: 28

CFS/ECH176	Child Development	3
EDU221	Introduction to Education	3
EDU225		
Foundations for Serving English Language Learners (ELL)		3
EDU230	Cultural Diversity in Education	3
+ENG101	First Year Composition (3) **OR**	
+ENG107	First Year Composition for ESL (3)	3

Students must select one of the following four tracks:

Track I-Teacher Assisting   Credits: 13

+EDU210		
Methods for Working with the ESL Student		3
EDU222		
Introduction to the Exceptional Learner		3
+ECH/EDU296WC	Cooperative Education	3
	Any Foreign Language Course.	4

Track II-ESL Teacher Aide   Credits: 13

+EDU210		
Methods for Working with the ESL Student		3
+EDU245	Internship in Bilingual/ESL Education	3
+ENG213		
Introduction to the Study of Language		3
	Any Foreign Language Course.	4

Track III-Bilingual Teacher Aide   Credits: 13

Proficiency in Spanish is required for students taking Track III

+EDU211		
Methods for Working with the Bilingual Student		3
+EDU245	Internship in Bilingual/ESL Education	3
+ENG213	Introduction to the Study of Language	3
+SPA103		
Elementary Spanish for Spanish Speakers I		4

Track IV-Special Education Teacher Aide   Credits: 13

EDU206		
Classroom Strategies for the Exceptional Learner		3
EDU222	Introduction to the Exceptional Learner	3
+ECH/		
EDU296WC	Cooperative Education	3
SLG101	American Sign Language I (4) **OR**	
	higher-level course.	4

THE CERTIFICATE OF COMPLETION (CCL) IN BILINGUAL ENDORSEMENT is designed for certified

teachers pursuing bilingual endorsement. The Bilingual Endorsement Certificate program provides background in the philosophical, cultural and linguistic processes involved in the education of English language learners. Instruction in methodology, as well as a practicum within a bilingual classroom setting are required for successful completion of the program. Includes all necessary coursework toward Bilingual Endorsement in the state of Arizona. Valid Arizona teaching certificate is required for state endorsement.

Major Code: 5127 Total Credits: 29

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

Required Courses: Credits: 29

+EDU220

Introduction to Serving English Language Learners (ELL) (3) OR

+EPD220

Introduction to Serving the English Language Learner for Certified

Teachers (3) 3

EDU230 Cultural Diversity in Education 3

+EPD241

Methods for Teaching the Bilingual Student 3

+EPD244

Reading and Writing in SEI/ESL/Bilingual Settings 3

+EPD246

Teaching and Assessment of English Language Learners (ELL) 3

+EPD247

Practicum for English as a Second Language (ESL)/Bilingual Teachers 3

+ENG213

Introduction to the Study of Language

(3) **OR**

+SLC201

Introduction to Linguistics (3) 3

+SPA103

Elementary Spanish for Spanish Speakers I (4) **OR**

higher-level course 4

+SPA104

Elementary Spanish for Spanish Speakers II (4) **OR**

higher-level course 4

THE CERTIFICATE OF COMPLETION (CCL) IN ESL ENDORSEMENT prepares certified teachers to earn

the English as a Second Language Endorsement in Arizona. The program emphasizes the philosophical, cultural, and linguistic processes involved in teaching English language learners. Students develop knowledge and skills required of teachers working with English language learners through a combination of courses in methodology and practicum experience in an ESL classroom. This program includes all coursework required for those with valid Arizona teaching certificates to qualify for SEI and ESL endorsement in Arizona.

Major Code: 5126 Total Credits: 27

Program Notes: Students must earn a grade of "C" or better for all courses required within the program.
++ indicates any module

Required Courses: Credits: 27

+EDU220

Introduction to Serving English Language Learners (ELL) (3) **OR**

+EPD220

Introduction to Serving the English Language Learner for Certified

Teachers (3)

EDU230

Cultural Diversity in Education 3

+EDU233

Structured English Immersion (SEI) and English as a Second Language (ESL) Teaching Methods (3) **OR**

+EPD233

Structured English Immersion and English as a Second Language Teaching Method for Certified Teachers (3) 3

+EPD244

Reading and Writing in SEI/ESL/Bilingual Settings 3

+EPD246

Teaching and Assessment of English Language Learners (ELL) 3

EPD247

Practicum for English as a Second Language (ESL)/Bilingual Teachers 3

+ENG213

Introduction to the Study of Language (3) **OR**

+SLC201

Introduction to Linguistics (3) 3

Choose 6 credits from the following Foreign Language courses:

ARB+++ any ARB/Arabic course **OR**

FRE+++ any FRE/French course **OR**

GER+++ any GER/German course **OR**

ITA+++   any ITA/Italian course **OR**
JPN+++   any JPN/Japanese course **OR**
SPA+++   any SPA/Spanish course **OR**
SLG+++   any SLG/Sign Language course 6

CERTIFICATE OF COMPLETION (CCL) IN READING SPECIALIST ENDORSEMENT qualifies

certified teachers for the Reading Specialist Endorsement

as specified by the Arizona Department of Education. The program provides background in decoding, diagnosis, and remediation of reading, and requires a practicum in a K-12 classroom setting. This program includes all coursework required for those with valid Arizona teaching certificates to qualify for the Reading Specialist Endorsement in Arizona.

Major Code: 5128 Total Credits: 15

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

Required Courses: Credits: 12
EDU270AA   Elementary Reading and Decoding..... 3
+EDU270AB   Secondary Reading and Decoding 3
+EPD275
Diagnosis and Remediation of Reading K-12 3
+EPD279   Reading Practicum K-12 3

Restricted Electives: Credits: 3
+EPD244
Reading and Writing in SEI/ESL/Bilingual Settings 3
EDU271   Phonics Based Reading and Decoding 3
EDU/ENH291   Children's Literature 3

Electronics Certificates/Degrees

-
Associate in Applied Science in Electronic Engineering Technology
-
Associate in Applied Science in Electronics Technology
- **Certificate of Completion in Electronic Technology**

Department Chairperson: Jon D'Ambrosio
Contact: (480) 461-7137

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN ELECTRONIC ENGINEERING TECHNOLOGY work

as engineering assistants, field engineers, prototype designers, specification writers, technical representatives, etc. They work for firms involved in electronic design, manufacturing, service, or development. The Electronic Engineering Technology program of study at Mesa Community College (MCC) is designed to provide the student with an AAS degree and at the same time allow for the maximum number of transfer credits to four-year institution.

Major Code: 3224 Total Credits: 70

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

Program Prerequisites: Credits: 3-5
MAT120   Intermediate Algebra (5) **OR**
MAT121   Intermediate Algebra (4) **OR**
MAT122   Intermediate Algebra (3) **OR**

Equivalent or satisfactory score on a placement exam ..3-5

Required Courses: Credits: 47
ECE102
Engineering Analysis Tools and Techniques..................... 2
ECE103
Engineering Program Solving and Design........................ 2
ELE113   DC Circuit Analysis 4
ELE114   AC Circuit Analysis............................. 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
MAT220	Analytic Geometry & Calculus I......... 5
MAT231	Calculus with Analytic Geometry II.... 4
PHY111	General Physics I................................ 4
PHY112	General Physics II (4) **OR**
CHM130	Fundamental Chemistry (3) **AND**
CHM130LL	Fundamental Chemistry Laboratory (1)4

General Education: Credits: 23-26

First-Year Composition
   +ENG101
First Year Composition (3) **AND**
   ENG111
Technical Writing (3) 6
Oral Communication
   COM100
Introduction to Human Communication (3) **OR**
   COM110   Interpersonal Communication (3) **OR**
   COM230
Small Group Communication (3) 3
Critical Reading
   CRE101
College Critical Reading (3) **OR**
                       Equivalent as indicated by assessment 3
Mathematics
   MAT150   College Algebra/Functions (5) **OR**
   MAT151   College Algebra/Functions (4) **OR**
   MAT152   College Algebra/Functions (3) **OR**
   MAT182
Plane Trigonometry (3) 3-5
Humanities and Fine Arts

Any approved general education
course in the Humanities and Fine Arts Area 2-3
Social and Behavioral Sciences

Any approved general education course from the Social and Behavioral Sciences area   3
Natural Sciences

Met by PHY111 **AND** PHY112 **OR** CHM130 **AND** CHM130LL in required courses area   0

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN ELECTRONICS TECHNOLOGY prepares 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. The program provides a broad algebra-based background and emphasizes current needs and trends in the electronics industry. The AAS program combines coursework in electronics technology with a General Education curriculum.

Major Code: 3220 Total Credits: 71-72

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

Program Prerequisites: Credits: 3

| ELE101 | Beginning Algebra for Technology...... 3 |

Required Courses: Credits: 54

ELE105	Algebra-Trigonometry for Technology 5
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 & Circuits II 4
ELE241	Microprocessor Concepts 4
ELE/ELT243	Microprocessor Applications 3

ELE251	Electronic Measurements	3
ELE261	Communication Systems	3
ELE263	Digital Data Communications	4
GTC104	Manufacturing Processes	4
GTC106AA	Industrial Safety	2
GTC185	Electro-Mechanical Devices	4

General Education Requirements: Credits: 17-18

First-Year Composition

+Any approved General Education course in the First Year Composition area   6

Oral Communication

Any approved General Education course in the Oral Communication area   3

Critical Reading

Any approved General Education course in the Critical Reading area (3) **OR**
Equivalent by assessment   3

Mathematics

Met by ELE105, in Required Courses area.   0

Humanities and Fine Arts

Any approved general education
course in the Humanities and Fine Arts Area   2-3

Social and Behavioral Sciences

Any approved general education course from the Social and Behavioral Sciences Area   3
PSY125   Leadership and Group Dynamics
PSY125 is recommended.

Natural Sciences

Met by ELE111, ELE112, ELE121, ELE131 in Required Courses area. 0

THE CERTIFICATE OF COMPLETION (CCL) IN ELECTRONIC TECHNOLOGY prepares 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. The program provides a broad algebra-based background and emphasizes current needs and trends in the electronics industry.

Major Code: 5591 Total Credits: 33

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

Required Courses: Credits: 33

ELE105	Algebra-Trigonometry for Technology	5
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
GTC106	Industrial Safety	2
GTC185	Electro-Mechanical Devices	4

Exercise Science Certificates/Degrees

- **Associate in Applied Science in Recreation Management**
- **Certificate of Completion in Recreation Management**
- **Associate in Applied Science in Strength, Nutrition, and Personal Training**
-

Certificate of Completion in Strength and Conditioning Personal Trainer

-

Certificate of Completion in Nutrition for Fitness and Wellness

Department Chairperson: Ann Stine
Contact: (480) 461-7546

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN RECREATION MANAGEMENT is designed to

prepare students for entry-level positions in the recreation field and provides the first half of a four-year undergraduate program of study in Recreation Management and/or Leadership. The program focuses on the positive application of play, recreation, and leisure across the life span. Along with required general education courses, the program includes foundational and practical experience in the programming and delivery of recreational services and the development of communication, group facilitation, management, leadership, and technical skills.

Major Code: 3053 Total Credits: 60-64

Program Notes: A grade of "C" or better is required for all courses within the program.
++ indicates any module.

Required Courses: Credits: 32-34

BPC110
Computer Usage and Applications (3) **OR**
CIS105
Survey of Computer Information
Systems (3)   3
COM100
Introduction to Human Communications (3) **OR**
COM110   Interpersonal Communication (3) 3
HES154
First Aid/Cardiopulmonary
Resuscitation   3
MGT101   Techniques of Supervision (3) **OR**
MGT126
Customer Service Skills and
Strategies (3)   3
REC120   Leisure and the Quality of Life (3) **OR**
REC160   Leisure and Society (3) 3
REC150AB   Outdoor Adventure Skills.................... 3
REC210   Leisure Delivery Systems 3
REC230
Programming of Recreation
Services (3) **OR**
+HRM145   Events Management (3)...................... 3
REC250   Recreation Leadership 3
REC282AA
Volunteerism for Recreation:
A Service-Learning Experience (1) **OR**
REC282AB
Volunteerism for Recreation:
A Service-Learning Experience (2) **OR**
REC282AC
Volunteerism for Recreation:
A Service-Learning Experience (3) 1-3

Physical Recreational Activities.. 4
Students must select four (4) different activities from the following list:

PED101BP   Physical Activities: Backpacking (1) **OR**
PED102BP   Physical Activities: Backpacking (1) **OR**
PED201BP   Physical Activities: Backpacking (1) **OR**
PED202BP   Physical Activities: Backpacking (1) **OR**
PED101DL
Physical Activities: Cross Country Skiing (1) **OR**
PED102DL
Physical Activities: Cross Country Skiing (1) **OR**
PED201DL
Physical Activities: Cross Country Skiing (1) **OR**

PED202DL
Physical Activities: Cross Country Skiing (1) **OR**
PED101DX
Physical Activities: Rock Climbing (1) **OR**
PED102DX
Physical Activities: Rock Climbing (1) **OR**
PED201DX
Physical Activities: Rock Climbing (1) **OR**
PED202DX   Physical Activities: Rock Climbing (1) **OR**
PED101ER   Physical Activities: Camping (1) **OR**
PED102ER   Physical Activities: Camping (1) **OR**
PED201ER   Physical Activities: Camping (1) **OR**
PED202ER   Physical Activities: Camping (1) **OR**
PED101GF   Physical Activities: Cycling (1) **OR**
PED102GF   Physical Activities: Cycling (1) **OR**
PED201GF   Physical Activities: Cycling (1) **OR**
PED202GF   Physical Activities: Cycling (1) **OR**
PED101LK   Physical Activities: Hiking (1) **OR**
PED102LK   Physical Activities: Hiking (1) **OR**
PED201LK   Physical Activities: Hiking (1) **OR**
PED202LK   Physical Activities: Hiking (1) **OR**
PED101PT
Physical Activities: Mountain Biking the Southwest (1) **OR**
PED102PT
Physical Activities: Mountain Biking the Southwest (1) **OR**
PED201PT
Physical Activities: Mountain Biking the Southwest (1) **OR**
PED202PT
Physical Activities: Mountain Biking the Southwest (1) **OR**
PED101RL
Physical Activities: Recreational Sports (1) **OR**
PED102RL
Physical Activities: Recreational Sports (1) **OR**
PED201RL
Physical Activities: Recreational Sports (1) **OR**
PED202RL
Physical Activities: Recreational Sports (1) **OR**
REC155++   Any REC Recreation activity modules

Restricted Electives: Credits: 6

AIS113   Proposal Writing 3
ARH145   History of American Indian Art 3
COM263
Elements of Intercultural
Communication   3
COM281   Communication Activities 1
CPD102AS   Conflict Resolution 2
CPD103BL   Dynamics of Leadership (2) **OR**
LDR101   Emerging Leaders I (2) 2
EXS265   Theory of Coaching 3
GBS120   Workplace Communication Skills 3
GCU221   Arizona Geography 3
HES100   Healthful Living 3
HIS105   Arizona History 3
HIS106   Southwest History 3
HRM110   Introduction to Hospitality and Tourism   3

General Education: Credits: 22-24

First-Year Composition

+Any approved general education course from the First-Year Composition area   6
Oral Communication

Met by COM100 or COM110 in the Required Courses area   0
Critical Reading
    +CRE101
College Critical Reading (3) **OR**

equivalent as indicated by assessment. 3
Mathematics

+Any approved general education course from the Mathematics area.   3-5
Humanities and Fine Arts

Any approved general education course from the Humanities and Fine Arts area. 3
Social and Behavioral Sciences

Any approved general education course from the Social and Behavioral Sciences area.   3
Natural Sciences

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

THE CERTIFICATE OF COMPLETION (CCL) IN RECREATION MANAGEMENT is designed to prepare
students with entry-level skills for the expanding field of recreation. The program provides a foundation for the positive application of play, recreation, and leisure across the life span. Through classroom and experiential learning activities, students gain knowledge of and practical experience in the programming and delivery of recreation services, and develop communication, group facilitation, management, and leadership skills. Participation in recreation activity courses equips students with the technical skills necessary to plan, lead, and facilitate safe outdoor recreation adventures and programs.
Major Code: 5469 Total Credits: 39-41

Program Notes: A grade of "C" or better is required for all courses within the program.
++ indicates any module.

Required Courses: Credits: 33-37
BPC110
Computer Usage and Applications (3) **OR**
CIS105
Survey of Computer Information
Systems (3)   3
COM100
Introduction to Human Communications (3) **OR**
COM110   Interpersonal Communication (3) 3
HES154
First Aid/Cardiopulmonary
Resuscitation   3
MGT101   Techniques of Supervision (3) **OR**
MGT126
Customer Service Skills and
Strategies (3)   3
REC120   Leisure and the Quality of Life (3) **OR**
REC160   Leisure and Society (3) 3
REC150AB   Outdoor Adventure Skills.................... 3
REC210   Leisure Delivery Systems 3
REC230
Programming of Recreation
Services (3) **OR**
HRM145   Events Management (3)....................... 3
REC250   Recreation Leadership 3
REC282AA
Volunteerism for Recreation:
A Service-Learning Experience (1) **OR**

REC282AB
Volunteerism for Recreation:
A Service-Learning Experience (2) **OR**
REC282AC
Volunteerism for Recreation:
A Service-Learning Experience (3) 1-3
REC296WA   Cooperative Education (1) **OR**
REC296WB   Cooperative Education (2) **OR**
REC296WC   Cooperative Education (3) **OR**
REC298AA   Special Projects (1) **OR**
REC298AB   Special Projects (2) **OR**
REC298AC   Special Projects (3) 1-3

Physical/Recreational Activities...4
Students must select four (4) different activities from the following list:

PED101BP   Physical Activities: Backpacking (1) **OR**
PED102BP   Physical Activities: Backpacking (1) **OR**
PED201BP   Physical Activities: Backpacking (1) **OR**
PED202BP   Physical Activities: Backpacking (1) **OR**
PED101DL
Physical Activities: Cross Country Skiing (1) **OR**
PED102DL
Physical Activities: Cross Country Skiing (1) **OR**
PED201DL
Physical Activities: Cross Country Skiing (1) **OR**
PED202DL
Physical Activities: Cross Country Skiing (1) **OR**
PED101DX
Physical Activities: Rock Climbing (1) **OR**
PED102DX
Physical Activities: Rock Climbing (1) **OR**
PED201DX
Physical Activities: Rock Climbing (1) **OR**
PED202DX   Physical Activities: Rock Climbing (1) **OR**
PED101ER   Physical Activities: Camping (1) **OR**
PED102ER   Physical Activities: Camping (1) **OR**
PED201ER   Physical Activities: Camping (1) **OR**
PED202ER   Physical Activities: Camping (1) **OR**
PED101GF   Physical Activities: Cycling (1) **OR**
PED102GF   Physical Activities: Cycling (1) **OR**
PED201GF   Physical Activities: Cycling (1) **OR**
PED202GF   Physical Activities: Cycling (1) **OR**
PED101LK   Physical Activities: Hiking (1) **OR**
PED102LK   Physical Activities: Hiking (1) **OR**
PED201LK   Physical Activities: Hiking (1) **OR**
PED202LK   Physical Activities: Hiking (1) **OR**
PED101PT
Physical Activities: Mountain Biking the Southwest (1) **OR**
PED102PT
Physical Activities: Mountain Biking the Southwest (1) **OR**
PED201PT
Physical Activities: Mountain Biking the Southwest (1) **OR**
PED202PT
Physical Activities: Mountain Biking the Southwest (1) **OR**
PED101RL
Physical Activities: Recreational Sports (1) **OR**
PED102RL
Physical Activities: Recreational Sports (1) **OR**
PED201RL
Physical Activities: Recreational Sports (1) **OR**
PED202RL
Physical Activities: Recreational Sports (1) **OR**
REC155++
Any recreational activity modules

Restricted Electives: Credits: 6
AIS/MGT113   Proposal Writing 3
ARH145   History of American Indian Art 3
COM263
Elements of Intercultural
Communication   3
COM281   Communication Activities.....................1
CPD102AS   Conflict Resolution...............................2
CPD103BL   Dynamics of Leadership (2) **OR**
LDR101   Emerging Leaders I (2).......................2
GBS120   Workplace Communication Skills 3
GCU221   Arizona Geography 3
HES100   Healthful Living 3

HIS105	Arizona History 3
HIS106	Southwest History............................... 3
HRM110	Introduction to Hospitality and Tourism	3
PED265	Theory of Coaching 3

THE ASSOCIATE OF APPLIED SCIENCE (AAS) IN STRENGTH, NUTRITION, AND PERSONAL TRAINING prepares students with the knowledge and experience required to be eligible for the American College of Sports Medicine (ACSM) Health and Fitness Instructor Certification, ACSM personal trainer certification, the National Strength and Conditioning Association (NSCA) personal trainer certification, and the American Council on Exercise (ACE) personal trainer certification. This degree will provide students with a stronger educational background, making them more marketable in the field of fitness and nutrition. This degree will also meet the needs of individuals with existing degrees in such fields as Exercise Physiology, Nutrition, Athletic Training and other health-related disciplines. Registered dietitians, clinical exercise physiologists, personal trainers, exercise specialists, strength and conditioning specialists, coaches, athletes and others interested in acquiring knowledge in exercise, nutrition, and health are also eligible for this program.

Major Code: 3059 Total Credits: 66-69

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

Required Courses: Credits: 41-42

EXS112
Professional Applications of Fitness Principles................. 3
EXS125   Introduction to Exercise Physiology ... 3
+EXS139
Practical Applications of Personal Training Skills and Techniques Internship (3) **OR**
+EXS139AA
Practical Applications of Personal Training Skills and Techniques Internship (1) **AND**

+EXS139AB
Practical Applications of Personal Training Skills and Techniques Internship (2) **OR**
+EXS285
Exercise Program Design and
Instruction (3)   3
EXS145
Guidelines for Exercise Testing and Prescription............. 3
FON100   Introductory Nutrition 3
+FON210
Sports Nutrition and Supplements for Physical Activities 3
+FON230   Nutrition for Special Populations........ 3
+FON247   Weight Management Theory 3
HES154
First Aid/Cardiopulmonary
Resuscitation (3) **OR**

BLS Health Care Provider and First Aid Certification.... 3
MGT253
Owning and Operating a Small
Business   3
PSY101   Introduction to Psychology.................. 3
+PSY215   Introduction to Sport Psychology 3

AND
Choose one of the following series for 5-6 credits:

Series 1   Credits: 6
EXS212CR
Instructional Competency Laboratory: Cardiorespiratory Exercises and Activities 2
EXS212FL
Instructional Competency Laboratory: Flexibility and Mind-Body Exercises   2
EXS212SC
Instructional Competency Lab: Muscular Strength and Conditioning   2

OR
Series 2   Credits: 5
EXS130
Strength Fitness-Physiological Principles and Training Techniques   3

EXS132
Cardiovascular Fitness: Physiological Principles and Training Techniques (2) **OR**
EXS212CR
Instructional Competency Laboratory: Cardiorespiratory Exercise and
Activities (2)   2

OR
Series 3   Credits: 5
EXS132
Cardiovascular Fitness: Physiological Principles and Training Techniques (2) **OR**
EXS212CR
Instructional Competency Laboratory: Cardiorespiratory Exercise and
Activities (2)   2
+EXS275
Methods of Enhancing Physical Performance 3

General Education: Credits: 25-27
First Year Composition
   ENG101   First Year Composition (3) **AND**
   ENG102   First Year Composition (3) **OR**
   ENG107   First-Year Composition for ESL (3) **AND**
   ENG108   First-Year Composition for ESL (3) ... 6
Oral Communication
   COM100
Introduction to Human Communication (3) **OR**................
   COM110   Interpersonal Communication (3) 3
Critical Reading
   CRE101   College Critical Reading 3
Mathematics
   MAT120   Intermediate Algebra (5) **OR**
   MAT121   Intermediate Algebra (4) **OR**
   MAT122   Intermediate Algebra (3) 3-5
Humanities and Fine Arts

Any approved general education course in the Humanities and Fine Arts area   3
Social and Behavioral Sciences
   CFS205
Human Development (3) **OR**
   HES100   Healthful Living (3) 3
Natural Sciences
   BIO160
Introduction to Human Anatomy and Physiology............ 4

THE CERTIFICATE OF COMPLETION (CCL) IN STRENGTH AND CONDITIONING PERSONAL TRAINER prepares students for employment in the fitness industry as Strength and Conditioning Personal Trainers/Coaches.

This curriculum provides students with a fundamental knowledge of human physiology and anatomy, prevention and treatment of exercise-related injuries, emergency response readiness, health appraisals and assessments; application of exercise fitness principles and strength training techniques; a fundamental knowledge of nutrition, weight control, stress management and exercise physiology, and biomechanics; skills in exercise testing and fitness measures, as well as writing exercise prescriptions and program designs for diverse populations.
Major Code: 5445 Total Credits: 31-34

Required Courses: Credits: 31-34
BIO160
Introduction to Human Anatomy and Physiology............ 4
EXS112
Professional Applications of Fitness Principles................. 3
EXS125   Exercise Science 3
EXS130
Strength Fitness-Physiological Principles and Training Techniques   3
EXS145
Guidelines for Exercise Testing and Prescription............. 3
+EXS275
Methods of Enhancing Physical Performance (3) **OR**

EXS212CR
Instructional Competency Laboratory: Cardiorespiratory Exercise and Activities (2) **AND**
EXS212FL
Instructional Competency Laboratory: Flexibility and Mind-Body Exercises (2) **AND**
EXS212SC
Instructional Competency Lab: Muscular Strength and Conditioning (2) 3-6
+EXS285
Exercise Program Design and Instruction (3) **OR**
+EXS139
Practical Applications of Personal Training Skills and Techniques Internship (3)   3
HES100   Healthful Living (3) **OR**
WED110
Principles of Physical Fitness and Wellness (3)............... 3
HES154
First Aid/Cardiopulmonary Resuscitation (3) **OR**

BLS Health Care Provider and First Aid Certification (3)3
HES271
Prevention and Treatment of Athletic Injuries.................. 3

THE CERTIFICATE OF COMPLETION (CCL) IN NUTRITION FOR FITNESS AND WELLNESS will

provide personal trainers and other nutrition paraprofessionals with a foundational nutrition background in non-clinical settings. Students acquire the knowledge and skills to work in a general community setting, with a focus on improving well-being and healthy lifestyles.
Major Code: 5302 Total Credits: 21

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

Required Courses: Credits: 21
Students must complete Required Courses in Block One before enrolling in Block Two courses.
FON100 may not be taken for credit if credit has been earned in FON100AA and/or FON100AC.

Block One
EXS130
Strength Fitness-Physiological Principles and Training Techniques   3
FON100   Introductory Nutrition (3) **OR**
FON100AA   Introductory Nutrition I (2) **AND**
+FON100AC
Introductory Nutrition II (1) **OR**
                Equivalent FON course 3
FON247   Weight Management Theory............... 3

AND
Block Two
EXS112
Professional Applications of Fitness Principles................. 3
EXS125   Exercise Science 3
FON210
Sports Nutrition and Supplements for Physical Activity . 3
FON230   Nutrition for Special Populations........ 3

Fire Science/Paramedicine Certificates/Degrees

-
Associate in Applied Science in Emergency Response and Operations

Department Chairperson: Sonia Jones
Contact: (480) 461-7050

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN EMERGENCY RESPONSE AND OPERATIONS

provides students with a curriculum specific to the student's individual needs in addition to the knowledge and skills needed in today's changing public safety workplace. The program develops education, skills, and techniques for planning, responding, and

mitigating various emergency situations within the student's specific discipline with emphasis on effective response and operations.

The curriculum combines coursework in public safety emergency services with a general education component.

Major Code: 3112 Total Credits: 60.5-61

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

Admission Criteria:
Students pursuing Track I, Fire Operations **OR**

Track II, Advanced Emergency Medical Technology-Paramedic may be required to complete a program entrance exam as appropriate **OR** Permission of Program Director.

Program Prerequisites: Credits: 6-8
Track I, Fire Operations
+EMT/FSC104
Basic Emergency Medical Technology (8) **OR**

Permission of Program Director 8

OR
Track II, Advanced Emergency Medical Technology-Paramedic

Current validation in Basic Life Support (BLS) Health Care Provider/Professional Rescuer **OR**
+EMT235   Emergency Cardiac Care (3) **AND**
+EMT236
Pharmacology in an Emergency Setting (3) **OR**
        Permission of Program Director 6
        OR
        Advanced Cardiac Life Support course
        OR
        Emergency Cardiac Care course, **AND**
        EMT-Paramedic Certification **AND**

Current employment as an EMT Paramedic
        OR
        Permission of Program Director

Required Courses: Credits: 17.5–18
Students must select one of the following three tracks:

Track I-Fire Operations   Credits: 18
+FSC102   Fire Department Operations 11
FSC105   Hazardous Materials/First Responder 3
FSC130   Fitness for Firefighters/CPAT 1
FSC134   Fitness and Conditioning/Firefighters. 3

OR
Track II-Advanced Emergency Medical Technology-Paramedic   Credits: 17.5
+EMT242   Pediatric Advanced Life Support (1) **OR**
+EMT265
Pediatric Education for Prehospital Providers: Advanced (1)   1
+EMT240   Advanced Cardiac Life Support 2
+EMT245   Trauma Management I 2
+EMT272AA
Advanced Emergency Medical Technology 12.5

OR
Track III-Emergency Management   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

Restricted Electives: Credits: 17-18
Any AJS or EMT or FSC prefixed courses not listed in the Required Courses area.

AJS+++++   Any approved AJS prefixed course . 1-6
DPR+++++   Any approved DPR prefixed course 1-6
EMT+++++   Any approved EMT prefixed course 1-6
FSC+++++   Any approved FSC prefixed course . 1-6
LET+++++   Any approved LET prefixed course . 1-6

General Education: Credits: 25

First-Year Composition

Any approved general education courses from the First-Year Composition area.   6
Oral Communication

Any approved general education course from the Oral Communication area.   3
Critical Reading

Any approved general education course from the Critical Reading area   3
Mathematics

Any approved general education course from the Mathematics area.   3
Humanities and Fine Arts

Any approved general education course from the Humanities and Fine Arts area.   3
Social and Behavioral Sciences

Any approved general education course from the Social and Behavioral Sciences area.   3
Natural Sciences

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

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 fire department operations, hazardous materials incidents, tactics, strategy, 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.

Major Code: 5304 Total Credits: 18

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

Required Courses: 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

THE CERTIFICATE OF COMPLETION (CCL) IN BASIC FIREFIGHTER is designed for students who need

(1) advanced training as professional firefighters, (2) basic preparation courses for a career in fire services, and/or (3) more comprehensive information about the fire hazard and prevention. Certificate can be used by professional firefighters for promotions and salary advancement within the Fire Services. The program will provide courses for plant safety for fire protection personnel and basic emergency services for laypersons who need intensive first aid training. The unique feature of the program is that the instructors are professional firefighters and/or licensed Emergency Medical Training Personnel.

Major Code: 5486 Total Credits: 30

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

Required Courses: Credits: 30

+EMT/FSC104   Basic Emergency Medical Technology 8
+EMT/FSC238
Vehicular Extrication and Patient Stabilization................ 2
+FSC102   Fire Department Operations 11

FSC105   Hazardous Materials First Responder 3
FSC108   Fundamentals of Fire Prevention 3
+FSC208
Firefighter Safety/Building
Construction   3

THE CERTIFICATE OF COMPLETION (CCL) IN FIRE OFFICER I can be used by professional firefighters for

promotions and salary advancement within the Fire Services. The program will provide courses for experienced professional firefighters who desire to learn advanced fireground tactics and strategy, building construction, practical incident command, supervisory training of personnel, and human resource management.

Major Code: 5420 Total Credits: 15

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

Admission Criteria:
Formal application and acceptance into the Fire Officer I program.

Required Courses: Credits: 15
FSC202   Supervisory Training for Firefighters 3
+FSC204   Firefighting Tactics and Strategy 3
+FSC205
Command Strategies for Major Emergencies 3
+FSC208
Firefighter Safety and Building Construction 3
+FSC214
Human Resources Management in Fire Service 3

THE CERTIFICATE OF COMPLETION (CCL) IN FIREFIGHTER OPERATIONS provides the opportunity

for individuals seeking employment in various firefighting settings to acquire the minimum standard firefighting skills needed in the field.

Major Code: 5557 Total Credits: 25-26

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

Admission Criteria:
Completion of Program Prerequisites. Formal application and admission to the program is required.

Program Prerequisites: Credits: 11-12
+EMT/FSC104   Basic Emergency Medical Technology 8
FSC105   Hazardous Materials/First Responder 3
FSC130
Fitness for Firefighters/CPAT (1) **OR**
              Permission of Program Director 1

Required Courses: Credits: 14
+FSC102   Fire Department Operations 11
FSC134
Fitness and Conditioning for
Firefighters   3

THE CERTIFICATE OF COMPLETION (CCL) IN BASIC EMERGENCY MEDICAL TECHNOLOGY

Mesa Community College. with the cooperation of the local Fire Departments, hospitals and ambulance agencies. has developed an excellent sequence of Emergency Medical Programs. Each level is designed to provide the next sequence of skill required to progress upward in the emergency health care field and qualifies the student for state licensing sanctioned by the Arizona Department of Health Services.

Major Code: 5270 Total Credits: 8

Required Courses: Credits: 8
EMT/FSC104   Basic Emergency Medical Technology 8

THE CERTIFICATE OF COMPLETION (CCL) IN ADVANCED EMERGENCY MEDICAL TECHNOLOGY (PARAMEDIC) program includes advanced techniques of emergency care, stabilization, and

immobilization of victims of illness and injury. Recognition and documentation of signs and symptoms of illness and injury, intervention, and evaluation of the interventions are other areas of the program. Techniques for assessment include basic electrocardiographic rhythm identification, administration of oxygen, medications approved by the Arizona Department of Health Services Bureau of Emergency Medical Services, advanced airway techniques, use of specific immobilization devices, peripheral

intraosseous and central intravenous techniques, defibrillation, synchronized cardioversion, transcutaneous pacing, preparation and care during transportation.

Major Code: 5276 Total Credits: 39.5-45.5

Admission Criteria:

Formal application and admission to the program is required. Minimum ninth-grade-level reading proficiency.

Program Prerequisites: Credits: 15

A grade of "C" or better is required for all courses in the Program Prerequisites area.

Certificate of Completion in Basic Emergency Medical Technology (5143)		8
BIO156	Human Biology for Allied Health (4) **OR**	
BIO181	General Biology (Majors) I (4) 4	
PSY101	Introduction to Psychology (3) **OR**	
SOC140	Racial and Ethnic Minorities (3) 3	

Required Courses: Credits: 38.5

Students must earn a grade of "C" or better in each course within the Required Courses area and students must earn a GPA of 2.5 for all courses in the Required Courses area.

+EMT235 Emergency Cardiac Care 3
+EMT236 Pharmacology in an Emergency Setting 3
+EMT272AA
Advanced Emergency Medical Technology (12.5) **AND**
+EMT272AB
Advanced Emergency Medical Technology (12.5)......... 25
+EMT272LL
Advanced Emergency Medical Technology Practicum . 7.5

Restricted Electives: Credits: 1-8

Students must earn a grade of "C" or better in each Restricted Elective course with an EMT prefix, with a GPA of 2.5 for all Restricted Electives with EMT prefixes.

+BIO201 Human Anatomy and Physiology I 4
+BIO202 Human Anatomy and Physiology II.... 4
+EMT/FSC104 Basic Emergency Medical Technology 8
+EMT/FSC238
Vehicular Extrication and Patient Stabilization................ 2
+EMT240 Advanced Cardiac Life Support 2
+EMT245 Trauma Management I........................ 2
+EMT246 Trauma Management II 4
EMT258   Victimology & Crisis Management...... 3
+EMT265
Pediatric Education for Prehospital Providers 1
+PSY266 Abnormal Psychology 3

THE CERTIFICATE OF COMPLETION (CCL) IN INTERMEDIATE EMERGENCY MEDICAL TECHNOLOGY Mesa Community College, with the cooperation of local fire departments, hospitals and ambulance agencies,

has developed an excellent sequence

of Emergency Medical Programs. Each level is designed

to provide the next sequence of skill required to progress upward in the emergency health care field and qualifies

the student for state licensing sanctioned by the Arizona Department of Health Services.

Major Code: 5470 Total Credits: 18

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

Program Prerequisites: Credits: 8

Certificate of Completion in Basic Emergency Medical Technology (5270) 8

Required Courses: Credits: 18

EMT208
Intermediate Emergency Medical Technology 16
+EMT/FSC238
Vehicular Extrication and Patient Stabilization................ 2

Fashion Merchandising and Design Certificates/Degrees

- **Associate in Applied Science in Fashion Merchandising and Design**

- **Certificate of Completion in Alteration Specialist**

- **Certificate of Completion in Costume Design and Production**

- **Certificate of Completion in Image Consultant**

- **Certificate of Completion in Retail Sales Manager**

Department Chairperson: Linda Collins
Contact: (480) 461-7077
Program Director: Evonne Bowling
Contact: (480) 461-7140

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN FASHION MERCHANDISING AND DESIGN

prepares students for entry-level positions in fashion merchandising. Students acquire a basic knowledge of textiles, clothing construction, display and visual merchandising, and the fashion industry. The program offers opportunities for students to select courses that reflect a special area of interest such as business management, advertising, or fashion illustration.

Major Code: 3260 Total Credits: 62

Program Notes: ++ indicates any modules.
Students must earn a grade of "C" or better for all courses within in the "Required Courses" area.

Required Courses: Credits: 9

TEC105	Cultural Aspects of Clothing	3
TEC111	Clothing Construction (3) **OR**	
TEC250	Apparel Quality Analysis (3)	3
TEC222	Textiles	3

Restricted Electives: Credits: 28

Students will select one of three tracks:

Track I-Fashion Merchandising   Credits: 28

ACC109	Accounting Concepts	3
MKT/TEC200	Retail Buying	3
MKT271	Principles of Marketing	3
MKT/TEC109	Introduction to Fashion Merchandising	3
MKT/TEC151	Display and Visual Merchandising	3
+TEC255	Fashion Retail Merchandising	3
+TEC260	Fashion Sales Management	3
+TEC272AA	Retail Merchandising Internship	1

Select six (6) credits from the following courses:

ART131	Photography I	3
ART142	Introduction to Digital Photography	3
BPC110	Computer Usage and Applications	3
CIS105	Survey of Computer Information Systems	3
+GBS233	Business Communication	3
MGT229	Management and Leadership I	3
+MGT230	Management and Leadership II	3
MGT251	Human Relations in Business	3
MGT253	Owning and Operating a Small Business	3
MKT101	Introduction to Public Relations	3
MKT263	Advertising Principles	3
+MKT/TEC274AC	Fashion Merchandising Study Tour	3
TEC106	History of Fashion	3
+TEC221	Computer-Assisted Fashion Design	3

+TEC241
Advanced Computer-Assisted Fashion Design................. 3
TEC+++++
Any TEC prefixed course not listed
under Required Courses area... 3

Track II-Fashion Design   Credits: 28
TEC106   History of Fashion................................ 3
+TEC124   Advanced Clothing Construction 3
TEC125   Fashion Design 3
TEC134   Fashion Illustration I............................ 3
+TEC221   Computer-Assisted Fashion Design 3
+TEC223   Tailoring.. 3
+TEC225   Pattern Design I 3
+TEC226   Draping for Fashion Design 3
+TEC236   Portfolio Development 1
INT150   Color and Design (3) **OR**
+TEC135   Fashion Illustration II (3) **OR**
+TEC230   Pattern Design II (3) **OR**
+TEC271AC   Fashion Design Internship (3) **OR**
+MKT/
TEC274AC   Fashion Merchandising Study Tour (3)3
TEC+++++
Any TEC prefixed course not listed
under Required Courses area... 3

Track III-Fashion Retailing   Credits: 28
ACC111   Accounting Principles I........................ 3
+ACC230   Uses of Accounting Information I
CIS105
Survey of Computer Information Systems........................ 3
ECN211   Macroeconomic Principles.................... 3
ECN212   Microeconomic Principles..................... 3
+GBS220   Quantitative Methods in Business....... 3
+GBS221   Business Statistics................................. 3
MKT271   Principles of Marketing........................ 3
TEC109   Introduction to Fashion Merchandising3
TEC200   Retail Buying 3
TEC272++   Retail Merchandising Internship (1-3) 1-3
TEC+++++
Any TEC prefixed course not listed
under Required Courses area... 3

General Education: Credits: 25-27
First Year Composition
    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 Writing (3)............................ 6

Oral Communication
    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
    CRE101   College Critical Reading (3) **OR**
    CRE111
Critical Reading for Business and Industry (3) **OR**
                Equivalent as indicated by assessment 3
Mathematics
    MAT120   Intermediate Algebra (5) **OR**
    MAT121   Intermediate Algebra (4) **OR**
    MAT122   Intermediate Algebra (3)...................3-5
Humanities and Fine Arts

Any approved general education course in the Humanities and Fine Arts area
   ARH+++++
Any ARH Art Humanities course recommended 3
Social and Behavioral Sciences

Any approved general education course in the Social and Behavioral Sciences area   3
Natural Sciences

Any approved general education course in the Natural Sciences area   4

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-make garments as a profession. Students completing the certificate can expect entry-level positions in the alteration profession for retailers, dry-cleaning industry, or their own alteration establishment.
Major Code: 5556 Total Credits: 20-22

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

Program Prerequisites: Credits: 3
TEC111   Clothing Construction 3

Required Courses: Credits: 20-22
TEC112AB   Alteration of Ready Made Garments .. 2
TEC122   Sewing with Knits 3
+TEC124   Advanced Clothing Construction 3
TEC129   Sewing with a Serger 2
TEC222   Textiles 3
+TEC223   Tailoring 3
+TEC227   Couture Sewing 3
TEC277++
Alteration Internship (any module)
(1-3) 1-3

THE CERTIFICATE OF COMPLETION (CCL) IN COSTUME DESIGN AND PRODUCTION is

designed for students with an interest in costuming. Students learn to design and make costumes and apply appropriate makeup. They develop the ability to design appropriate costumes for period community theatre, opera, dance, and living history programs including the makeup, and manage the costume wardrobe. Completers of this certificate will have interned with college or community stage production crews for a minimum of 240 hours.
Major Code: 5406 Total Credits: 30

Program Notes: Students must earn a grade of "C" or better for all course required within the program.
++ indicates any modules.

Required Courses: Credits: 30
TEC106   History of Fashion 3
TEC111   Clothing Construction 3
+TEC124   Advanced Clothing Construction 3
TEC125   Fashion Design (3) **OR**
TEC134   Fashion Illustration I (3) 3
TEC222   Textiles 3
+TEC223   Tailoring 3
+TEC225   Pattern Design I 3
+TEC230   Pattern Design II 3
THP115   Theatre Makeup 3
THP201++   Theatre Production (any module) (1-3)1-3

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.
Major Code: 5402 Total Credits: 24

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

Required Courses: Credits: 24

COM110	Interpersonal Communication	3
FON100	Introductory to Nutrition	3
INT150	Color and Design	3
PSY132	Psychology and Culture (3) **OR**	
TEC105	Cultural Aspects of Clothing (3)	3
TEC222	Textiles	3
TEC245	Wardrobe Strategies	3
TEC250	Apparel Quality Analysis	3
TEC275AC	Image Consultant Internship	3

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. Completers of this certificate will have interned with a store manager for a minimum of 240 hours. Career placement would be at the Department or Area Sales Manager position.

Major Code: 5405 Total Credits: 24

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

Program Prerequisites: Credits: 3

MKT/TEC109   Introduction to Fashion Merchandising 3

Required Courses: Credits: 24

BPC110	Computer Usage and Applications (3) **OR**	
CIS105	Survey of Computer Information Systems (3)	3
MGT229	Management and Leadership I (3) **OR**	
MGT253	Owning and Operating a Small Business (3)	3
TEC151	Display and Visual Merchandising	3
TEC222	Textiles	3
TEC250	Apparel Quality Analysis	3
TEC255	Fashion Retail Merchandising	3
TEC260	Fashion Sales Management	3
TEC272++	Retail Merchandising Internship (any module) **OR**	(1-3)
TQM101	Quality Customer Service (3)	3

Geographic Information Systems Certificates/Degrees

- Associate in Applied Science in Geospatial Technologies

- Certificate of Completion in Geographic Information System (GIS)

Program Director: Karen Blevins
Contact: (480) 461-7358

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.

Major Code: 3108 Total Credits: 60

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 program director.
++ indicates any module.

Program Prerequisites: Credits: 3-8

The credit hour range is subject to change depending on the student's educational experiences and track selected.

Track I-User/Analyst   None

Track II-Developer
MAT120   Intermediate Algebra (5) **OR**
MAT121   Intermediate Algebra (4) **OR**
MAT122   Intermediate Algebra (3) **OR**

Satisfactory score on District placement exam.

Track III-Transfer Emphasis
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**

Satisfactory score on District placement exam

Required Courses: Credits: 29-34
GCU102   Introduction to Human Geography..... 3
GPH111   Introduction to Physical Geography ... 4
+GPH219   Introduction to GIS Using ArcGIS..... 3
+GPH220   Intermediate GIS Using ArcGIS......... 3
GPH230   Spatial Database I 3
GPH270
Introduction to Cartography and Geospatial Technologies3
+GPH273   Advanced GIS Using ArcGIS (3) **OR**
+GPH298++
Special Projects (any suffixed course)
(1-3) 1-3

Students must select one of three (3) tracks.

Track I-User Analyst   Credits: 12
CIS105
Survey of Computer Information Systems........................ 3
BPC/CIS117DM
Microsoft Access: Database
Management   3
+CIS159   Visual Basic Programming I (3) **OR**
DFT110   Technical Drafting I (3) 3
+GPH235   Internet Mapping Using ArcIMS (3) **OR**
GPH275   Remote Sensing, GPS, and GIS (3) 3

Track II-Developer   Credits: 9
+CSC110
Introduction to Computer Science for Majors.................. 3
CSC181
Applied Problem Solving with Visual BASIC (3) **OR**
+CSC281
Advanced Programming with Visual Basic (3) 3
+GPH235   Internet Mapping Using ArcIMS (3) **OR**
GPH275   Remote Sensing, GPS, and GIS (3) 3

Track III-Transfer Emphasis   Credits: 14
+CSC110
Introduction to Computer Science for Majors.................. 3
CSC181
Applied Problem Solving with Visual BASIC 3
+CSC200   Principles of Computer Science (Java)3
+MAT220   Calculus with Analytic Geometry I 5

Restricted Electives: Credits: 6
GPH+++++
Any GPH Physical Geography course(s)

not listed under Required Course area 6

General Education: Credits: 25-27

First-Year Composition

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

Any approved general education course in the Oral Communication area 3

Critical Reading

Any approved general education course in the Critical Reading area   3

Mathematics

+Any approved general education course in the Mathematics area   3-5

Humanities and Fine Arts

Any approved general education course from the Humanities and Fine Arts area   3

Social and Behavioral Sciences

Any approved general education course from the Social and Behavioral Sciences area   3

Natural Sciences

Any approved general education course from the Natural Sciences area   4

THE CERTIFICATE OF COMPLETION (CCL) IN GEOGRAPHIC INFORMATION SYSTEM (GIS)

provides a core curriculum based on a solid foundation in GIS concepts, as opposed to training in GIS software only. This program equips students with fundamental GIS concepts and skills that can be applied in a variety of public and private work environments where spatial data analysis is required. An Associate in Applied Science (AAS) is also available.

Major Code: 5135 Total Credits: 22-30

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 program director.
++ indicates any module.

Program Prerequisites: Credits: 3-6

The credit hour range is subject to change depending on the student's educational experiences and track selected.

Track I-User/Analyst   None

Track II-Developer

MAT120	Intermediate Algebra (5) **OR**	
MAT121	Intermediate Algebra (4) **OR**	
MAT122	Intermediate Algebra (3) **OR**	

Satisfactory score on District placement exam.

Track III-Transfer Emphasis

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**	

Satisfactory score on District placement exam

Required Courses: Credits: 22-30

+GPH219	Introduction to GIS Using ArcGIS..... 3	
+GPH220	Intermediate GIS Using ArcGIS......... 3	
GPH230	Spatial Database I 3	
GPH270		

Introduction to Cartography and Geospatial Technologies3

GPH111

Introduction to Physical Geography (4) **OR**
+GPH273
Advanced GIS Using ArcGIS (3) **OR**
+GPH298++
Special Project (any suffixed course)
(1-3) 1

<div align="center">**AND**</div>

Students must select one of three (3) tracks:

Track I-User/Analyst   Credits: 12
CIS105
Survey of Computer Information Systems 3
CIS117DM
Microsoft Access: Database
Management   3
+CIS159   Visual Basic Programming I (3) **OR**
DFT110   Technical Drafting I (3) 3
+GPH235   Internet Mapping Using ArcIMS (3) **OR**
GPH275   Remote Sensing, GPS, and GIS (3) 3

Track II-Developer   Credits: 9
+CSC110
Introduction to Computer Science for Majors 3
CSC181
Applied Problem Solving with Visual Basic (3) **OR**
+CSC281
Advanced Programming in Visual
Basic (3)   3
+GPH235   Internet Mapping Using ArcIMS (3) **OR**
GPH275   Remote Sensing, GPS, and GIS (3) 3

Track III-Transfer Emphasis   Credits: 14
+CSC110
Introduction to Computer Science for Majors 3
CSC181
Applied Problem Solving with Visual Basic 3
+CSC200   Principles of Computer Science (Java)3
+MAT220   Calculus with Analytic Geometry I 5

Horticulture Certificates/Degrees

-
Associate in Applied Science in Urban Horticulture
- **Certificate of Completion in Landscape Aide**
- **Certificate of Completion in Landscape Specialist**

Department Chairperson: Jon D'Ambrosio
Contact: (480) 461-7137
Program Director: SueAn Stewart
Contact: (480) 461-7125

THE ASSOCIATE IN APPLIED SCIENCE IN (AAS) URBAN HORTICULTURE prepares students

to work as technicians, supervisors, managers, or owners

in wholesale or retail nurseries, landscape design and construction operations, or landscape management companies. In addition, the program prepares students

for careers with local, state, and federal government agencies involved with the technical phases of the Urban Horticulture industry.

The curriculum combines coursework in horticulture with General Education components. Graduates may transfer to a Bachelor of Science degree.

Major Code: 3030 Total Credits: 67

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

Required Courses: Credits: 42

AGB130
Establishing and Running an Agribusiness.......................3
AGB139   Agribusiness Computer Operations 3
AGL189   Landscape Design I............................3
AGS164   Plant Growth and Development..........4
AGS168   Grounds Equipment Management 3
AGS183   Urban Plant Identification and Use 3
AGS192   Urban Plant Care 3
AGS260   Origin and Composition of Soils 4
AGS262
Irrigation Design, Installation,
Operation, and Trouble Shooting......................................3
AGS268   Insect, Weed and Pest Control 4

Students must select 1 of the following 5 tracks:

Track I-Landscape Design & Installation   Credits: 9
AGL181   Landscape Construction Techniques .. 3
+AGL190   Landscape Design II 3
+AGL282   Landscape Computer Aided Design.... 3

Track II-Nursery Operations   Credits: 9
AGS186
Greenhouse Management and Construction.....................3
AGS187   Indoor Foliage Plants 3
AGS285   Propagation of Horticultural Plants 3

Track III-Landscape Management   Credits 9
AGS182   Gardening Practices and Techniques.. 2
AGS187   Indoor Foliage Plants 3
AGS284   Lawn and Turf Care.............................3
AGS296WA   Cooperative Education.........................1

Track IV-Turfgrass Management   Credits: 9
AGL181   Landscape Construction Techniques .. 3
AGS261   Soil Fertility and Management 3
AGS284   Lawn and Turf Care.............................3

Track V-Floriculture/Floral Design   Credits: 9
AGB140   Commercial Floral Design 3
AGB142   Floriculture 3
AGS182   Gardening Practices and Techniques.. 2
AGS296WA   Cooperative Education.........................1

General Education: Credits 25-27
First Year Composition
    ENG101   First-Year Composition (3) **AND**
    ENG102   First-Year Composition (3).................6
Oral Communication
    COM110   Interpersonal Communication 3
Critical Reading
    CRE101   College Critical Reading (3) **OR**
                Equivalent as indicated by assessment 3
Mathematics
    MAT102
Mathematical Concepts/Applications
(3) **OR**
    MAT120   Intermediate Algebra (5) **OR**
    MAT121   Intermediate Algebra (4) **OR**
    MAT122   Intermediate Algebra (3) **OR**

Equivalent as indicated by assessment **OR**

approved math course which are required in a specific AAS program **OR**

satisfactory completion of a higher mathematics course 3-5

Humanities and Fine Arts

Any approved general education course in the Humanities and Fine Arts area   3
Social and Behavioral Sciences

Any approved general education course in the Social and Behavioral Sciences area   3
Natural Sciences

Any approved general education course in the Natural Sciences area   4

CERTIFICATE OF COMPLETION (CCL) IN LANDSCAPE AIDE emphasizes the technology of production and management. The program is designed to prepare students to become employed as technicians, supervisors, managers, or owners in nurseries or landscape construction. In addition, the program prepares students for jobs with government agencies or other agencies involved with the technical phases of the Urban Horticulture industry.

Major Code: 5069 Total Credits: 13

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

Required Courses: Credits: 13
AGL181   Landscape Construction Techniques .. 3
AGL189   Landscape Design I............................ 3
AGS164   Plant Growth and Development.......... 4
AGS183   Urban Plant Identification and Use 3

CERTIFICATE OF COMPLETION (CCL) IN LANDSCAPE SPECIALIST emphasizes the technology of production and management. The program is designed to prepare students to become employed as technicians, supervisors, managers, or owners in nurseries or landscape construction and maintenance. In addition, the program prepares students for jobs with government agencies or other agencies involved with the technical phases of the Urban Horticulture industry.

Major Code: 5073 Total Credits: 27

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

Required Courses: Credits: 27
Certificate of Completion in Landscape Aide (5069) 13
AGB139   Agribusiness Computer Operations 3
AGL185
Establishing and Running an Agribusiness....................... 3
AGS260   Origin and Composition of Soils 4
AGS268   Insect, Weed and Pest Control 4

Industrial Education Certificate/Degree

-
Associate in Applied Science in Industrial Education

Department Chairperson: Jon D'Ambrosio
Contact: (480) 461-7137

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN INDUSTRIAL EDUCATION includes a variety

of technical courses common to the standard grades

7-12 industrial technology curriculum. This degree is the content specific technical foundation needed for industrial technology instruction. Students obtaining this degree can then pursue a four-year industrial technology education degree.

Major Code: 3061 Total Credits: 66

*Program Notes: **ELE105 required for Electronics Track III. Students must earn a grade of "C" or better for all courses within the Required Courses area.*

Program Prerequisites: Credits: 3
GTC107
Technical Mathematics I (3) **OR**

Technical Mathematics placement test score 3

Required Courses: Credits: 26-28

APT151	Automotive Brake Systems	4
DFT110	Technical Drafting I	3
EDU222		

Introduction to the Exceptional Learner (3) **OR**

EDU230	Cultural Diversity in Education (3)	3
ELE100	Concepts of Electricity and Electronics	3
+ELE101		

Beginning Algebra for Technology (3) **OR**

+**ELE105

Algebra-Trigonometry for Technology
(5) **OR**

+GTC108	Technical Mathematics II (3)	3-5
GTC104	Manufacturing Processes	4
GTC127	Beginning Woodworking	3
WLD101	Welding I	3

Restricted Electives: Credits: 18

Take 3 courses from one track, 2 courses from another track, and 1 course from an additional track:

Track I-Automotive

APT111	Internal Combustion Engine Theory	3
APT141	Alignment, Steering, and Suspension	6
APT161	Auto Electrical/Electronic Systems I	4
APT181	Engine Performance and Diagnosis I	6

Track II-Drafting

+DFT115

Geometric Dimensioning and Tolerancing..............3

DFT121	Introduction to Architectural Drafting	3
+DFT122	Residential Architectural Drafting	3
+DFT252AA	Computer Aided Drafting I: AutoCAD	3
+DFT254AA	Computer Aided Drafting II: AutoCAD	3

Track III-Electronics

+ELE111	Circuit Analysis I	4
+ELE112	Circuit Analysis II	4
+ELE121	Solid State Devices and Circuits I	4
+ELE131	Digital Logic and Circuits	3
+ELE222	Solid-State Devices and Circuits II	4

Track IV-Manufacturing

GTC102

Machine Processes, Theory, and Application 3

GTC170	Plastics Technology	3
GTC185	Electro-Mechanical Devices	4
+GTC206	CNC Programming	3
GTC216	Properties of Materials	3
+GTC236		

CAD/CAM Computer Numerical
Control (CNC) Programming..........................3

Track V-Welding

GTC129	Manufacturing Welding	3
WLD106	Arc Welding	5
+WLD201	Welding II	3
+WLD206		

Advanced Welding: Heliarc and Wire Feed 5

+WLD208	Advanced Arc Welding: Certification	5

Track VI-Woods

+GTC128	Intermediate Woodworking	3
GTC130	Furniture Construction I	3
+GTC131	Furniture Construction II	3
GTC144	Introduction to Cabinetmaking	3

+GTC145   Advanced Cabinetmaking 3

General Education: Credits: 22

First Year Composition

Any approved general education course in the First Year Composition area   6

Oral Communication
    COM225   Public Speaking (3) **OR**
    COM230   Small Group Communication (3) 3

Critical Reading
    CRE101   College Critical Reading (3)
                    at "C" level or above **OR**
                    equivalent as indicated by assessment . 3

Mathematics

Met by ELE101, or ELE105 or GTC108 in Required Courses area   0

Humanities and Fine Arts

Any approved general education course in the Humanities and Fine Arts area   3

Social and Behavioral Sciences
    EDU221   Introduction to Education.................... 3

Natural Sciences

Any approved general education course in the Natural Sciences area   4

Interior Design Certificates/Degrees

- **Associate in Applied Science in Interior Design**

- **Certificate of Completion in Interior Design: Advanced**

- **Certificate of Completion in Interior Merchandising**

Director: Sally Kroelinger
Contact: (480) 461-7134

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN INTERIOR DESIGN program prepares students to work

in an entry-level interior design position. The program provides both general education and interior design classes including basic design, color theory and application, architectural and furniture history, drafting and computer aided design (CAD) for interior design, space planning, interior materials, rendering, and codes and regulations. Studio projects allow students to identify, research, solve, and present residential design problems.

Major Code: 3093 Total Credits: 67

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

Required Courses: Credits: 45

ARH101   Prehistoric Through Gothic Art (3) **OR**
ARH102
Renaissance Through Contemporary
Art (3)   3
INT100   Interior Design Drafting...................... 3
INT105   Introduction to Interior Design 3
INT115   Historical Architecture and Furniture 3
INT120   Modern Architecture and Furniture ... 3
+INT140
Introduction to CAD for Interior
Design   3
+INT145   Drawing and Rendering....................... 3
INT150   Color and Design................................. 3
INT160   Fabrics for Interiors 3
+INT170   Interior Materials 3
+INT175   Custom Design 3
+INT190   Space Planning 3
+INT200   Advanced CAD for Interior Design.... 3

| +INT205 | Residential Design | 3 |
| +INT260 | Interior Codes and Regulations | 3 |

General Education: Credits: 22

First-Year Composition

+Any approved general education courses from the First-Year Composition area   6

Oral Communication

+Any approved general education course from the Oral Communication area   3

Critical Reading

+Any approved general education course from the Critical Reading area (3) **OR**
Equivalent as indicated by assessment. 3

Mathematics

+Any approved general education course from the Mathematics area   3

Humanities and Fine Arts

Met by INT115 and INT120, in Required Courses area. 0

Social and Behavioral Sciences

| PSY101 | Introduction to Psychology | 3 |

Natural Sciences

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

THE CERTIFICATE OF COMPLETION (CCL) IN INTERIOR DESIGN: ADVANCED provides a

comprehensive program intended to prepare students for professional status in the field of interior design. Additional interiors coursework beyond the AAS is done in building systems (lighting; acoustics; plumbing; heating, ventilation, and air conditioning (HVAC)), advanced presentation skills, professional practice and commercial studio. An integral part of the program is a design internship which provides on-the-job experience under the supervision of a professional interior designer, and the development of a portfolio. This program is accredited by the Council for Interior Design Accreditation (CIDA), formerly known as FIDER.
Major Code: 5482 Total Credits: 27

Program Notes: Students must earn a grade of "C" or better for all courses required within the program.
++ indicates any module.

Restricted Electives:

Students should select restricted electives that are not part of the general education courses in the AAS Interior Design degree this allows for a broader general education experience.

Admission Criteria:

Completion of Associate in Applied Science in Interior Design, or equivalent, and permission of Program Director.

Required Courses: Credits: 18

+INT215	Professional Practices	3
+INT230	Presentation Techniques	3
+INT265	Building Systems	3
+INT270	Commercial Design	3

Students are required to complete a total of three (3) credits from the following courses:

+INT271AA	Interior Design Internship (1) **OR**	
+INT271AB	Interior Design Internship (2) **OR**	
+INT271AC	Interior Design Internship (3)	3
+INT290	Advanced Commercial Design	3

Restricted Electives: Credits: 9

ARH+++++
Any ARH Art Humanities prefixed course except courses used to satisfy the AAS requirements   3
ASB102
Introduction to Cultural and Social Anthropology 3

ASB211	Women in Other Cultures	3
ASB235	Southwest Archaeology	3
BIO+++++	Any BIO Biology prefixed course	3-5
CFS157	Marriage and Family Life	3
CFS/ECH176	Child Development	3
CFS205	Human Development	3

+CFS259	Sexuality Over the Life Span 3
CHM+++++	Any CHM Chemistry prefixed course 4
ECN+++++	Any ECN Economics prefixed course. 3
ENH+++++	
Any ENH English Humanities prefixed course................ 3
HIS+++++	Any HIS History prefixed course........ 3
HUM+++++	Any HUM Humanities prefixed course 3
MAT+++++	
Any MAT Mathematics prefixed	
course	3-5
MHL+++++	
Any MHL Music: History/Literature prefixed course 3
PHI+++++	Any PHI Philosophy course 3
PHY+++++	Any PHY Physics prefixed course 3
PSY125	Leadership and Group Dynamics........ 3
PSY+++++	
Any PSY Psychology prefixed course, except PSY101 ... 3
REL+++++	
Any REL Religious Studies prefixed course.................... 3
SBU200	Society and Business 3
SOC+++++	Any SOC Sociology prefixed course... 3
THE111	Introduction to Theatre....................... 3
HUM/THE205	Introduction to Cinema 3
HUM/THE210	Contemporary Cinema 3
+THE220	Modern Drama 3

THE CERTIFICATE OF COMPLETION (CCL) IN INTERIOR MERCHANDISING is intended to provide

the student with the knowledge and creative skills required for careers in the home furnishings, colorizing, visual merchandising, and home-staging industries. Students will study design principles and elements, color theory, drafting, furniture layout, historical and modern architecture and furniture, fabrics, and other factors utilized in interior merchandising. Elective coursework allows the student to take specific courses that will help prepare them for the particular segment of the industry they are most interested in pursuing.

Major Code: 5429 Total Credits: 30

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

Required Courses: Credits: 21

INT100	Interior Design Drafting...................... 3
INT105	Introduction to Interior Design 3
INT115	Historical Architecture and Furniture 3
INT120	Modern Architecture and Furniture ... 3
INT150	Color and Design................................. 3
INT160	Fabrics for Interiors 3
+INT170	Interior Materials 3

Restricted Electives: Credits: 9

AGB140	Commercial Floral Design 3
AGS187	Indoor Foliage Plants 3
ARH100	Introduction to Art 3
ART111	Drawing I... 3
ADA/ART112	Two-Dimensional Design 3
ART131	Photography I....................................... 3
GTC130	Furniture Construction I...................... 3
+GTC131	Furniture Construction II 3
GTC144	Introduction to Cabinetmaking 3
+GTC145	Advanced Cabinetmaking 3
MGT251	Human Relations in Business 3
MKT/TEC151	Display and Visual Merchandising 3
MKT263	Advertising Principles 3
MKT268	Merchandising 3
MKT271	Principles of Marketing....................... 3
TEC126	Sewing for the Home........................... 3
TEC128	Home Upholstery 3
INT/ART/	
MKT+++	

Journalism/Public Relations Degrees

- **Associate in Applied Science in Journalism**
- **Associate in Applied Science in Public Relations**

Director: Jack Mullins
Contact: (480) 461-7270

THE ASSOCIATE OF APPLIED SCIENCE (AAS) IN JOURNALISM provides students with general, practical,

and marketable skills that will enable them to

seek entry-level employment in news and feature writing

for newspapers, magazines, community journals, online websites, and radio and television. The program includes development of a portfolio that will exhibit students' abilities to write both news and feature stories. The development of news judgment is also 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.

Major Code: 3120 Total Credits: 62

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

Required Courses: Credits: 34-36

CIS105
Survey of Computers Information Systems 3
+ENG216   Persuasive Writing on Public Issues ... 3
+JRN125   Photo Editing 3
+JRN133
Development of Small Publications (3) **OR**
JRN205   Copyediting (3) 3
+JRN201   News Writing 3
+JRN203   Writing for Online Media 3
JRN215   News Production 3
JRN225   Photojournalism 3
JRN234   Feature Writing 3
+JRN240   ++ Journalism Internship 1-3
MCO120   Media and Society 3
+MCO220   Cultural Diversity and the Media 3

Restricted Electives: Credits: 3

ENH110   Introduction to Literature 3
ENH112   Chicano Literature 3
ENH113   Writers/Directors and Current Issues . 3
ENH114   African-American Literature 3
ENH206   Nature and Environmental Literature 3
+GBS233   Business Communication 3
HIS243   History of World Religions 3
REL243   World Religions 3
HUM107   Humanities Through the Arts 3
HUM125   The Urban Experience 3
HUM201   Humanities: Universal Themes 3
+HUM250   Ideas and Values in the Humanities 3
+HUM251   Ideas and Values in the Humanities 3
+JRN212   Broadcast Writing 3
+JRN236   Advanced Practicum: Public Relations 3
MGT251   Human Relations in Business 3

General Education: Credits: 25-27

First-Year Composition
    +ENG101   First-Year Composition (3) **AND**
    +ENG102   First-Year Composition (3) **OR**
    +ENG111   Technical Writing (3) 6
Oral Communication
    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
  +CRE101   College Critical Reading (3) **OR**
                  equivalent as indicated by assessment . 3
Mathematics
  +MAT102
Mathematical Concepts Applications (3) **OR**
  +MAT120   Intermediate Algebra (5) **OR**
  +MAT121   Intermediate Algebra (4) **OR**
  +MAT122   Intermediate Algebra Accelerated (3) **OR**

Satisfactory completion of a higher level mathematics courses   3-5
Humanities and Fine Arts

Any approved general education course from the Humanities and Fine Arts
Area 3
Social and Behavioral Sciences

Any approved general education course from the Social and Behavioral Sciences Area   3

Natural Sciences

Any approved general education course from the Natural Sciences Area 4

THE ASSOCIATE OF APPLIED SCIENCE (AAS) IN PUBLIC RELATIONS provides students with general,

practical, and marketable skills that will enable them to seek entry-level employment in public relations, such as press relations, community or consumer relations, market research, in-house publications, political campaigns, fund raising, and volunteer recruitment. The program includes development of a portfolio that will exhibit students' ability to write both news and feature stories,
to develop and plan events, and to produce brochures, advertisements, or small publications with desktop publishing. The curriculum combines coursework in public relations with a General Education component.
Major Code: 3674 Total Credits: 64

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

Required Courses: Credits: 36
ART131   Photography I 3
BPC110   Computer Usage and Applications 3
JRN125   Photo Editing 3
JRN133   Development of Small Publications 3
JRN201   Newswriting (3) **OR**
JRN212   Broadcast Writing (3) 3
JRN215   News Production 3
JRN234   Feature Writing 3
JRN235   Practicum: Public Relations 3
MCO120   Media and Society 3
MKT101   Introduction to Public Relations 3
MKT263   Advertising Principles 3
MKT267   Principles of Salesmanship 3

Restricted Electives: Credits: 3
GBS233   Business Communication 3
JRN236   Advanced Practicum: Public Relations 3
MGT251   Human Relations in Business 3

General Education: Credits: 25-27
First-Year Composition
  ENG101   First-Year Composition (3) **AND**
  ENG102   First-Year Composition (3) **OR**
  ENG111   Technical Writing (3) 6
Oral Communication
  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
   CRE101   College Critical Reading (3) **OR**
                   equivalent as indicated by assessment . 3
Mathematics
   MAT102
Mathematical Concepts Applications (3) **OR**

MAT120   Intermediate Algebra (5) **OR**
MAT121   Intermediate Algebra (4) **OR**
MAT122   Intermediate Algebra Accelerated (3) **OR**

satisfactory completion of a higher level mathematics courses   3-5
Humanities and Fine Arts

Any approved general education course from the Humanities and Fine Arts
Area 3
Social and Behavioral Sciences

Any approved general education course from the Social and Behavioral Sciences Area   3
Natural Sciences

Any approved general education course from the Natural Sciences Area 4

Library Science and Technology Certificates/Degrees

- **Associate in Applied Science in Library Information Technology**
- **Certificate of Completion in Library Information Technology: Basic**
- **Certificate of Completion in Library Information Technology: Advanced**
- **Certificate of Completion in Library Information Technology: Practitioners**
- **Certificate of Completion in Library Information Technology: School Library Media Center**

Department Chairperson: Lorna Peralta
Contact: (480) 461-7675

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN LIBRARY INFORMATION TECHNOLOGY

prepares students for paraprofessional positions in libraries and information organizations, and upgrades the skills of staff presently working in those settings. The program also serves those wishing to change careers or change their current assignment. Individual courses serve as a continuing education option for employees of libraries or information organizations.
Major Code: 3392 Total Credits: 64

Program Notes: ++ indicates any module
Students must earn a grade of "C" or better for all courses required within the program.

Required Courses: Credits: 30
+LBT101
Foundation of Libraries and Information Services........... 3
+LBT110
Introduction to Technical Services and Collection Management 3
+LBT130
Introduction to Reference Skills and Resources 3
+LBT140
Multi-media for Libraries and Information Centers......... 3
+LBT150   Introduction to Public Services 3
+LBT160
Introduction to Library Information Systems................... 3
+LBT271
Library Information Industry Careers and Portfolio Development   1
+LBT272AA
Library Information Industry Careers (1) **OR**

+LBT272AB
Library Internship in Public Services (1) **OR**
+LBT272AC
Library Internship in Media Services or Information Services (1)   1

Students should choose one of the following three tracks:

Track I-Library Information Technician   Credits: 10
LBT212   Introduction to Archival Methods (2) **OR**
LBT215
Cataloging and Classification of Library Materials (2) **OR**
LBT217   Serials Management (1) **OR**
LBT218   Basic Materials Repair (1) **OR**
LBT219
Collection Maintenance and Shelf Management (1) **OR**
LBT234   Advanced Internet Research (1) **OR**
LBT252
Customer Service and Supervisory Skills for Paraprofessionals (1) **OR**
LBT254
Library Services for Children and Young Adults (2) **OR**
LBT255
Organization and Management of the Small Library (3) **OR**
LBT262
Computer Maintenance and Security for Libraries (1) **OR**
LBT265
Database Management for Libraries (1) **OR**
LBT266   Advances in Information Systems (1) **OR**
LBT270   Practicum Projects (1) **OR**
LBT273
Special Topics in Library Information Services (1) **OR**
LBT274
Independent Study in Library Information Services (1) OR
IFS101
Information Skills in the Digital
Age (3)   10

Track II-Library Practitioner   Credits: 10
LBT255
Organization and Management of the Small Library 3
LBT212   Introduction to Archival Methods (2) **OR**
LBT215
Cataloging and Classification of Library Materials (2) **OR**
LBT217   Serials Management (1) **OR**
LBT218   Basic Materials Repair (1) **OR**
LBT219
Collection Maintenance and Shelf Management (1) **OR**
LBT234   Advanced Internet Research (1) **OR**

LBT252
Customer Service and Supervisory Skills for Paraprofessionals (1) **OR**
LBT254
Library Services for Children and Young Adults (2) **OR**
LBT262
Computer Maintenance and Security for Libraries (1) **OR**
LBT265
Database Management for Libraries (1) **OR**
LBT266   Advances in Information Systems (1) **OR**
LBT270   Practicum Projects (1) **OR**
LBT273
Special Topics in Library Information Services (1) **OR**
LBT274
Independent Study in Library Information Services (1) **OR**
IFS101   Information Skills in the Digital Age (3) *7*

Track III-School Library Media Center   Credits: 10
LBT255

Organization and Management of the Small Library....... 3
LBT254
Library Services for Children and
Young Adults   2
ENH/EDU291   Children's Literature 3
LBT212   Introduction to Archival Methods (2) **OR**
LBT215
Cataloging and Classification of Library Materials (2) **OR**
LBT217   Serials Management (1) **OR**
LBT218   Basic Materials Repair (1) **OR**
LBT219
Collection Maintenance and Shelf Management (1) **OR**
LBT234   Advanced Internet Research (1) **OR**
LBT252
Customer Service and Supervisory Skills for Paraprofessionals (1) **OR**
LBT262
Computer Maintenance and Security for Libraries (1) **OR**
LBT265
Database Management for Libraries (1) **OR**
LBT266   Advances in Information Systems (1) **OR**
LBT270   Practicum Projects (1) **OR**
LBT273
Special Topics in Library Information Services (1) **OR**
LBT274
Independent Study in Library Information Services (1) OR
IFS101
Information Skills in the Digital Age (3) 2

Restricted Electives: Credits: 9

BPC+++++
Any BPC Business-Personal Computers prefixed course (3-6) **OR**
CIS+++++
Any CIS Computer Information Systems prefixed course (3-6) **OR**
ENH+++++
Any ENH English Humanities prefixed course (3-6) **OR**
IFS+++++
Any IFS Information Studies prefixed course (3-6) **OR**
LBS+++++
Any LBS Library Skills prefixed course (3-6)...............3-6
LBT+++++
Any LBT Library Technology prefixed course.............. 1-9
+ART190   Art of Website Design.......................... 3
CIS105
Survey of Computer Information Systems 3
CIS133DA   Internet/Web Development Level I 3
+CIS233BA   Internet/Web Development Level II-B1
+CIS233DA   Internet/Web Development Level II... 3
+COM225   Public Speaking................................... 3
+COM230   Small Group Communication 3
COM263
Elements of Intercultural
Communication   3
CPD102AH   Stress Management 2
CPD103BA   Women in Transition............................ 2
EDU/ENH291   Children's Literature 3
EDU292   The Art of Storytelling 3
IFS101   Information Skills for the Digital Age. 3
MCO120   Media and Society 3
+MCO220   Cultural Diversity and the Media........ 3
OAS101
Computer Typing I: Keyboarding and Formatting........... 3
OAS111AA   Computer Keyboarding I 1
+PSY255   Psychology of the Information Age 3
TQM101   Quality Customer Service.................... 3

General Education: Credits: 25

First-Year Composition

Any approved general education course from the First-Year Composition Area   6
Oral Communication

Any approved general education course from the Oral Communication Area   3
Critical Reading
    CRE101   College Critical Reading (3) **OR**
                Equivalent as indicated by assessment 3
Mathematics

Any approved general education course from the Mathematics Area   3
Humanities and Fine Arts

Any approved general education course in the Humanities and Fine Arts Area   3
Social and Behavioral Sciences

Any approved general education course from the Social and Behavioral Sciences Area   3
Natural Sciences

Any approved general education course from the Natural Sciences Area 4

THE CERTIFICATE OF COMPLETION (CCL) IN LIBRARY INFORMATION TECHNOLOGY:

BASIC provides an introduction to library information services and practical skills for entry-level employment as a page, clerk, or library information assistant/technician, as well as to upgrade the skills of staff who presently work in library information organizations.

Major Code: 5911 Total Credits: 20

Program Notes: ++ indicates any module
Students must earn a grade of "C" or better for all courses required within the program

Required Courses: Credits: 20

+LBT101
Foundation of Libraries and Information Services........... 3
+LBT110
Introduction to Technical Services and Collection Management 3
+LBT130
Introduction to Reference Skills and Resources 3
+LBT140
Multi-media for Libraries and Information Centers 3
+LBT150   Introduction to Public Services 3
+LBT160
Introduction to Library Information Systems 3
+LBT271
Library Information Industry Careers and Portfolio Development   1
+LBT272AA
Library Information Industry Careers (1) **OR**
+LBT272AB
Library Internship in Public Services (1) **OR**
+LBT272AC
Library Internship in Media Services or Information Services (1)   1

THE CERTIFICATE OF COMPLETION (CCL) IN LIBRARY INFORMATION TECHNOLOGY:

ADVANCED provides an opportunity for library employees or others to take basic and specialized courses leading to a thorough background as a library information technician.

Major Code: 5913 Total Credits: 30

Program Notes: ++ indicates any module
Students must earn a grade of "C" or better for all courses required within the program

Required Courses: Credits: 20

+LBT101
Foundation of Libraries and Information Services........... 3
+LBT110
Introduction to Technical Services and Collection Management 3
+LBT130
Introduction to Reference Skills and Resources 3

+LBT140
Multi-media for Libraries and Information Centers 3
+LBT150   Introduction to Public Services 3
+LBT160
Introduction to Library Information Systems 3
+LBT271
Library Information Industry Careers and Portfolio Development   1
+LBT272AA
Library Information Industry Careers (1) **OR**
+LBT272AB
Library Internship in Public Services (1) **OR**
+LBT272AC
Library Internship in Media Services or Information Services (1)   1

Restricted Electives: Credits: 10
Select 10 credits from the following courses:

IFS101   Information Skills in the Digital Age .. 3
LBT212   Introduction to Archival Methods 2
+LBT215
Cataloging and Classification of Library Materials 2
+LBT217   Serials Management 1
LBT218   Basic Materials Repair 1
LBT219
Collection Maintenance and Shelf Management 1
+LBT234   Advanced Internet Research 1
+LBT252
Customer Service and Supervisory
Skills for Paraprofessionals 1
LBT254
Library Services for Children and
Young Adults   2
LBT255
Organization and Management of the Small Library 3
+LBT262
Computer Maintenance and Security for Libraries 1
+LBT265   Database Management for Libraries ... 1
+LBT266   Advances in Information Systems 1
+LBT270   Practicum Projects 1
+LBT271   Library Information Industry Careers 1
+LBT272++   Library Internship (Any module) 1-3
+LBT273
Special Topics in Library Info Services (May be repeated)   1-3
+LBT274
Independent Study in Library Information Services 1

THE CERTIFICATE OF COMPLETION (CCL) IN LIBRARY INFORMATION TECHNOLOGY:
PRACTITIONERS will qualify students working as a library manager or director to apply for certification through the regional
Western Council of State Libraries Practitioner Certification program.
Major Code: 5549 Total Credits: 23

Required Courses: Credits: 23

Certificate of Completion Library Information Technology:
Basic (5911)   20
+LBT255
Organization and Management of the Small Library 3

THE CERTIFICATE OF COMPLETION (CCL) IN LIBRARY INFORMATION TECHNOLOGY:
SCHOOL LIBRARY MEDIA CENTER prepares and upgrades the skills of staff working in school library media centers.
Major Code: 5550 Total Credits: 28

Required Courses: Credits: 28

Certificate of Completion Library Information Technology: Basic (5911) 20
EDU/ENH291   Children's Literature 3

+LBT254
Library Services for Children and
Young Adults   2
+LBT255
Organization and Management of the Small Library 3

Manufacturing Technology Certificates/Degrees

- **Associate in Applied Science in Automation Technology**
- **Certificate of Completion in Automation Technology Level I**
- **Certificate of Completion in Automation Technology Level II**
- **Certificate of Completion in Automation Technology Level III**
- **Associate in Applied Science in Machining and Product Development**
- **Associate in Applied Science in Manufacturing Engineering Technology**
- **Associate in Applied Science in Manufacturing Technology**
- **Certificate of Completion in Electromechanical Manufacturing Technology**
- **Certificate of Completion in CAD/CAM/CNS I**
- **Certificate of Completion in CAD/CAM/CNS II**
- **Certificate of Completion in Machining I**
- **Certificate of Completion in Machining II**
- **Certificate of Completion in Manufacturing Management**
- **Certificate of Completion in Manufacturing Welding**

Department Chairperson: Jon D'Ambrosio
Contact: (480) 461-7137

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN AUTOMATION TECHNOLOGY prepares students

to work with 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 utilize, but are not limited to, robotic, mechanical, hydraulic, pneumatic, electronic, optical, and thermal devices. The Automation Technician will gain the skills through this program to define, integrate, install, program, and maintain complex control systems.
Major Code: 3000 Total Credits: 64-68

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

Admission Criteria:
Math assessment score on District placement exam placing students into MAT090 or higher, or permission of department.

Required Courses: Credits: 30
ATP101
Introduction to Automated Systems and Robotics 2
ATP105
Engineering Documentation 2
ATP110   Basic Manufacturing Processes 2
ATP130   DC Circuit Analysis 2

ATP135   AC Circuit Analysis..............................2
ATP150
Fluid Power 1 - Hydraulics, Pneumatics, and Vacuum Concepts   2
ATP175
Introduction to Motors and Motor Controls.....................2
ATP180   PLC 1 - Introduction to Ladder Logic 2
ATP200   Sensors and Measurement 2
ATP215   Digital and Analog Circuits 2
ATP222   Servo Systems......................................2
ATP290   Lean Techniques and Six Sigma..........3
CIS105
Survey of Computer Information Systems.......................3
FAC/GTC/MIT/
OSH106   Industrial Safety 2

Restricted Electives: Credits: 9-11

Students should select one track, and take the required electives therein.

Track 1-Process Control Systems and Programming Credits: 9

ATP160
PLC 2 - HMI Interfaces and Function Block Programming   2
ATP245
Introduction to Solid Modeling - Solidworks 3
ATP251
Fluid Power 2 - Automation
Applications   2
ATP260
Automation System Integration 1 2

Track 2-Electromechanical and Hybrid Systems Credits: 11

ATP235   CNC Programming 2
ATP245
Introduction to Solid Modeling - Solidworks 3
ATP251
Fluid Power 2 - Automation
Applications   2
+ATP260   Automation System Integration 1........2
+ATP265   Automation System Integration 2........2

General Education: Credits: 25-27

First Year Composition
   +ENG101   First-Year Composition (3) **AND**
   +ENG111   Technical and Professional Writing (3)6

      +(ENG102 First-Year Composition
      is acceptable only if ENG111 is not
      available)
      Oral Communication
   COM110   Interpersonal Communication 3
Critical Reading
   +CRE101   College Critical Reading (3) **OR**
                 Equivalent as indicated by Assessment 3
Mathematics
   +MAT120   Intermediate Algebra (5) **OR**
   +MAT121   Intermediate Algebra (4) **OR**
   +MAT122   Intermediate Algebra (3) **OR**
                 ....
Equivalent or satisfactory completion of a higher level mathematics course.   3-5
Humanities and Fine Arts

Any approved general education course in the Humanities and Fine Arts Area   3
Social and Behavioral Sciences
   SOC101   Introduction to Sociology.....................3
Natural Sciences

Any approved general studies course in the Natural Sciences Area   4

THE CERTIFICATE OF COMPLETION (CCL) IN AUTOMATION TECHNOLOGY LEVEL I program

introduces the student to automated systems used by companies to produce a variety of products. The emphasis is on the student awareness of the many issues a company must deal with when employing automation and the issues related to control of the equipment.

Major Code: 5000 Total Credits: 17

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

Admission Criteria:

Math assessment score placing students into MAT090 or higher, or permission of department.

Required Courses: Credits: 17

ATP101
Introduction to Automated Systems and Robotics 2
ATP105
Engineering Documentation 2
ATP110   Basic Manufacturing Processes 2
CIS105
Survey of Computer Information Systems 3
COM100   Introduction to Human Communication   3
+ENG101   First Year Composition 3
FAC/GTC/MIT/
OSH106   Industrial Safety 2

THE CERTIFICATE OF COMPLETION (CCL) IN AUTOMATION TECHNOLOGY LEVEL II program

allows students to be able to evaluate and troubleshoot minor system problems and contribute to their solution or correction. Companies may authorize these employees to perform specific repairs and adjustments. If there are major system problems, this person is expected to recognize the situation and report the technical information to the appropriate repair person.

Major Code: 5630 Total Credits: 15-17

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

Admission Criteria:

Math assessment score placing students into MAT090 or higher, or permission of department.

Program Prerequisites: Credits: 17

Certificate of Completion in Automation Technology Level I (5000)

Required Courses: Credits: 15-17

ATP130DC   Circuit Analysis 2
ATP135AC   Circuit Analysis 2
+ATP150
Fluid Power 1 - Hydraulics, Pneumatics, and Vacuum Concepts   2
ATP175
Introduction to Motors and Motor Controls..................... 2
ATP180
PLC 1 - Introduction to Ladder Logic 2
+ATP200   Sensors and Measurement 2
+MAT120   Intermediate Algebra (5) OR
+MAT121   Intermediate Algebra (4) OR
+MAT122   Intermediate Algebra (3) OR

Equivalent or higher-level mathematics course..............3-5

THE CERTIFICATE OF COMPLETION (CCL) IN AUTOMATION TECHNOLOGY LEVEL III program

allows students to be to lead the technical efforts to maintain, troubleshoot, and repair most of the faults that would occur routinely in an automated system. People at this level are usually familiar with all electrical, system controls, and mechanical aspects of the system and would support the company team in the day-to-day supervision of the technical and procedural activities related to the equipment.

Major Code: 5696 Total Credits: 10

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

Admission Criteria:

Math assessment score placing students into MAT090
or higher, or permission of department.

Program Prerequisites: Credits: 15-17

Certificate of Completion in Automation Technology
Level II (5630) 15-17

Required Courses: Credits: 10
+ATP215   Digital and Analog Circuits 2
+ATP222   Servo Systems 2
ATP290   Lean Techniques and Six Sigma 3
+ENG111   Technical and Professional Writing 3

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN MACHINING AND PRODUCT DEVELOPMENT PROGRAM will prepare students to enter the job market with the entry-level skills to be able to develop

new products with input from engineering sketches and drawings. The program will provide students with the broad range of skills and abilities, including machining skills, electro-mechanical assembly abilities, and product test and prove-out knowledge. Much of the program is designed to provide hands-on experience, with various machine shop machines and their accessories, as well as a suitable amount of related classroom material. Students who complete the program will have basic machining skills required to solve problems and technical challenges, and be able to work well in a product development environment or a custom, low-volume production environment.

Major Code: 3542 Total Credits: 66-69

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

Program Prerequisites: Credits: 3
GTC/MET107   Technical Mathematics I (3) **OR**

Satisfactory score on math placement
test   3

Required Courses: Credits: 44-47
DFT114   Machine Trades Blueprint Reading 3
+DFT115
Geometric Dimensioning and Tolerancing......................... 3
+DFT252AA   Computer Aided Drafting I: AutoCAD 3
ELE100   Concepts of Electricity and Electronics 3
GTC102
Machine Processes, Theory and Application 3
GTC104   Manufacturing Processes 4
FAC/GTC/MET/
OSH106   Industrial Safety 2
+GTC/MET108 Technical Mathematics II 3
+GTC185   Electro-Mechanical Devices 4
+GTC/MET206 CNC Programming 3
GTC216   Properties of Materials 3
+GTC223   Advanced Machine Tools 3
+GTC208   Statistical Process Control (3) **OR**
MET131   Lean Manufacturing (3) **OR**
QCT143   Principles of Quality Assurance (3) 3
GTC129   Manufacturing Welding (3) **OR**
WLD101   Welding I (3) 3
GTC296++
Cooperative Education (any suffixed course) (1-4) **OR**
GTC298++
Special Projects (any suffixed course)
(1-3) 1-4

General Education: Credits: 22
First-Year Composition
   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 Writing (3) 6
Oral Communication

+Any approved General Education course in the Oral Communication area   3

Critical Reading
   CRE101   College Critical Reading (3) **OR**
                 Equivalent as indicated by assessment. 3
Mathematics

Met by GTC/MET108 in the Required Courses area. 0
Humanities and Fine Arts

Any approved general education course in the Humanities and Fine Arts Area   3

Social and Behavioral Sciences

Any approved general education course from the Social and Behavioral Sciences Area   3
Natural Sciences

Any approved general education course from the Natural Sciences Area 4

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN MANUFACTURING ENGINEERING

TECHNOLOGY prepares technologists with both conceptual and practical applications of processes, materials, and products

related to manufacturing industries. The curriculum combines coursework in technology with a General Education component.
Major Code: 3512 Total Credits: 66

Program Prerequisites: Credits: 3
+ELE101
Beginning Algebra for Technology (3) **OR**

Equivalent **OR** Satisfactory score on a placement test **OR**
+GTC108   Technical Mathematics II (3) 3

Required Courses: Credits: 48
+CHM130   Fundamental Chemistry (3) **AND**
CHM130LL   Fundamental Chemistry Lab (1) 4
DFT114   Machine Trades Blueprint Reading 3
+DFT115
Geometric Dimensioning and Tolerancing........................ 3
+DFT252AA   Computer Aided Drafting I, AutoCAD 3
+ELE105   Algebra-Trigonometry for Technology 5
GTC102
Machine Process, Theory and Application........................ 3
GTC104   Manufacturing Processes 4
GTC106AA   Industrial Safety 2
GTC185   Electro-Mechanical Devices 4
+GTC206   CNC Programming 3
GTC216   Properties of Materials......................... 3
+PHY111   General Physics I................................. 4
+PHY112   General Physics II 4
WLD101   Welding I (3) **OR**
GTC129   Manufacturing Welding (3)................. 3

General Education: Credits: 18
First-Year Composition
   +ENG101   First-Year Composition (3) **AND**
   +ENG102   First-Year Composition (3)................. 6
Oral Communication
   COM225   Public Speaking 3
Critical Reading

+Any approved General Education course in the Critical Reading area   3
Mathematics

Met by ELE105 in Required Courses area **OR**

Met by GTC108 in Program Prerequisites area. 0
Humanities and Fine Arts
   REL101   Introduction to Religion (3) **OR**
   HUM108   Contemporary Humanities (3) 3
Social and Behavioral Sciences

ECN211   Macroeconomic Principles...................3
Natural Sciences

Met by CHM130 AND CHM130LL in Required Course area. 0

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN MANUFACTURING TECHNOLOGY prepares

students for employment as technicians and managers in the manufacturing industry. The program provides skills in computer programming and operation for current and future needs of the manufacturing industry. Students also gain knowledge, skills, and experience in traditional machining and manufacturing processes. The program is comprised of specialized curriculum in manufacturing technology, emphasizing mathematical and scientific theory, and a general education component.

Major Code: 3616 Total Credits: 61-69

Program Notes: ++ indicates any module.
Students must earn a grade of "C" or better for each course listed in the "Required Courses" area.

Program Prerequisites: Credits: 3
GTC/MET107   Technical Mathematics I (3) **OR**

Satisfactory score on math placement test........................3

Required Courses: Credits: 40-47
DFT114   Machine Trades Blueprint Reading 3
+DFT115
Geometric Dimensioning and Tolerancing........................3
+DFT252AA
Computer Aided Drafting I:
AUTOCAD   3
GTC104
Manufacturing Processes 4
FAC/GTC/MIT/
OSH106   Industrial Safety 2
+GTC/MET108   Technical Mathematics II 3
GTC216   Properties of Materials.......................3
+GTC296++
Cooperative Education (any suffixed course) (1-4) **OR**
+GTC298++
Special Projects (any suffixed course)
(1-3) 1-4

Students must select one of the following three (3) tracks:

Track I-CNC/CAD/CAM   Credits: 18
GTC102
Machine Processes, Theory and Application 3
+GTC/MET206   CNC Programming 3
+GTC236   CAD/CAM CNC Programming..........3
+GTC266   Solids Modeling...................................3
+GTC276   Solids Programming.............................3
+GTC208   Statistical Process Control (3) **OR**
QCT143   Principles of Quality Assurance (3) **OR**
MET131   Lean Manufacturing (3)......................3

Track II-Electro-Mechanical   Credits: 22
ELE100   Concepts of Electricity and Electronics3
GTC102
Machine Processes, Theory and Application 3
+GTC181   Introduction to Fluid Power 3
+GTC185   Electro-mechanical Devices................4
+GTC/MET206   CNC Programming 3
GTC129   Manufacturing Welding (3) **OR**
WLD101   Welding I (3) 3
+GTC208   Statistical Process Control (3) **OR**
QCT143   Principles of Quality Assurance (3) **OR**
MET131   Lean Manufacturing (3)......................3

Track III-Management   Credits: 20-21
MET131   Lean Manufacturing...........................3
MGT147   Supply Chain Management 3

MGT229	Management and Leadership I 3
MGT251	Human Relations in Business (3) **OR**
MGT253	Owning and Operating a Small
	Business (3) 3
MKT271	Principles of Marketing........................ 3
CSM/TQM101	Quality Customer Service (3) **OR**
TQM220	Leadership and Empowerment
	Strategies (2) **OR**
TQM230	Teamwork Dynamics (2) **OR**
TQM240	

Project Management in Quality Organizations (2) 2-3

| +GTC208 | Statistical Process Control (3) **OR** |
| QCT143 | Principles of Quality Assurance (3) ... 3 |

General Education: Credits: 21-22

First-Year Composition
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 Writing (3)........................... 6

Oral Communication
COM100

Introduction to Human Communication (3) **OR**
| COM110 | Interpersonal Communication (3) **OR** |
| COM230 | Small Group Communication (3) .... 3 |

Critical Reading
| CRE101 | College Critical Reading (3) **OR** |
| | Equivalent by assessment..................... 3 |

Mathematics

Met by GTC/MET108 in Required Courses area 0
Humanities and Fine Arts

Any approved general education
course in the Humanities and Fine Arts Area 2-3
Social and Behavioral Sciences

Any approved general education course from the Social and Behavioral Sciences Area   3
        PSY125 is recommended.
Natural Sciences

Any approved general education course from the Natural Sciences Area   4

THE CERTIFICATE OF COMPLETION (CCL) IN ELECTROMECHANICAL MANUFACTURING TECHNOLOGY is designed to provide the student with

the basic skills to be successful as an entry-level maintainer of simple to medium complexity electro-mechanical equipment. The basis for the program is the ability to
read engineering drawings and electrical schematics in
the quest to maintain and repair equipment. These skills
are augmented with a good basis of mathematical theory,
an introduction to machines and the machining processes, and instruction regarding the support of manufacturing equipment
through effective maintenance of equipment.

Major Code: 5621 Total Credits: 34

Program Prerequisites: Credits: 3

GTC107   Technical Mathematics I (3) or

Satisfactory score on math placement test......................... 3

Required Courses: Credits: 34

DFT114	Machine Trades Blueprint Reading 3
DFT252AA	Computer Aided Drafting I: AutoCAD 3
ELE100	Concepts of Electricity and Electronics 3
GTC104	Manufacturing Processes.................... 4

GTC106	Industrial Safety	2
+GTC108	Technical Mathematics II	3
GTC181	Introduction to Fluid Power	3
+GTC185	Electro-mechanical Devices	4
GTC216	Properties of Materials	3
MET131	Lean Manufacturing	3
GTC208	Statistical Process Control (3) **OR**	
QCT143	Principles of Quality Assurance (3)	3

THE CERTIFICATE OF COMPLETION (CCL) IN CAD/CAM/CNC I introduces the skills needed to translate

product sketches and engineering designs into electronic design systems that are the basis for CAD (Computer Aided Design) and CAM (Computer Aided Manufacturing) that follows. The data from CAD/CAM becomes the machine language to operate the CNC (Computer Numerical Control) systems that produce the machined product on CNC lathes, milling machines, and other manufacturing equipment.

Major Code: 5616 Total Credits: 15

Program Notes: Students must earn a grade of "C" or better for all courses required within the "Required Courses" area.

Program Prerequisites: Credits: 3

GTC107	Technical Mathematics I (3) **OR**	

Satisfactory score on math placement test......................... 3

Required Courses: Credits: 15

+GTC108	Technical Mathematics II	3
+GTC206	CNC Programming	3
GTC216	Properties of Materials	3
+GTC236	CAD/CAM CNC Programming (3) **OR**	
+GTC276	Solids Programming (3)	3
+GTC266	Solids Modeling	3

THE CERTIFICATE OF COMPLETION (CCL) IN CAD/CAM/CNC II builds on the skills and knowledge

developed by the student in the Level I Program. The additional courses are designed to improve the student's understanding of the manufacturing processes employed
in a modern manufacturing business to produce the CAD designs into an end product. The focus of these classes is
to understand the limitations and capabilities of the manufacturing equipment in producing precision products. All courses apply to the AAS in Manufacturing Technology CAD/CAM/CNC option should the student desire to pursue additional education.

Major Code: 5647 Total Credits: 30

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

Required Courses: Credits: 30

Certificate of Completion in CAD/CAM/CNC I (5616)		15
DFT114	Machine Trades Blueprint Reading	3
+DFT115 Geometric Dimensioning and Tolerancing		3
GTC104	Manufacturing Processes	4
GTC106	Industrial Safety	2
+GTC208	Statistical Process Control (3) **OR**	
MET131	Lean Manufacturing (3)	3

THE CERTIFICATE OF COMPLETION (CCL) IN MACHINING I introduces the skills and knowledge

for application in a modern precision manufacturing work environment. Precision machining involves shaping metals and other materials to close tolerances and customer specification using precision machine tools. Tools such as lathes, milling machines, and others are CNC (Computer Numerical Control) operated. The program combines classroom instruction with hands-on operation of machine tools to produce metal products.

Major Code: 5614 Total Credits: 15

Program Notes: Students must earn a grade of "C" or better for required within the program.

Required Courses: Credits: 15

DFT114	Machine Trades Blueprint Reading	3
GTC102		

Machine Processes, Theory and Application 3
+GTC108   Technical Mathematics II 3
+GTC206   CNC Programming 3
GTC216   Properties of Materials........................ 3

THE CERTIFICATE OF COMPLETION (CCL) IN MACHINING II adds to the knowledge and skills obtained in

the Level I program to further prepare students for employment in a precision machining establishment.

This level further emphasizes the national metalworking standards for industry and the role of statistical and process control techniques to produce the final product. All courses apply to the AAS in Machining and Product Development should the student desire to pursue additional education.

Major Code: 5645 Total Credits: 33

Program Notes: Students must earn a grade of "C" or better for required within the program.

Required Courses: Credits: 33

Certificate of Completion in
Machining I (5614).. 15
+DFT115
Geometric Dimensioning and Tolerancing........................ 3
+DFT252AA   Computer Aided Drafting I: AutoCAD3
GTC129   Manufacturing Welding...................... 3
+GTC223   Advanced Machine Tools..................... 3
+GTC208   Statistical Process Control (3) 3
MET131   Lean Manufacturing............................ 3

THE CERTIFICATE OF COMPLETION (CCL) IN MANUFACTURING MANAGEMENT prepares

students to work in supervisory or managerial positions in a manufacturing industry. The program is designed to provide an overview of manufacturing management issues for those wanting to become supervisors or managers or for those already working in the field who want to advance and update their knowledge and skills.

Major Code: 5625 Total Credits: 29-30

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

Program Prerequisites: Credits: 3
GTC107   Technical Mathematics I (3) **OR**

Satisfactory score on math placement test........................ 3

Required Courses: Credits: 29-30
DFT114   Machine Trades Blueprint Reading 3
GTC104   Manufacturing Processes.................... 4
GTC106   Industrial Safety 2
+GTC108   Technical Mathematics II 3
+GTC208   Statistical Process Control 3
+GTC216   Properties of Materials........................ 3
MGT229   Management and Leadership I 3
MGT147   Supply Chain Management 3
MET131   Lean Manufacturing............................ 3
TQM101   Quality Customer Service (3) **OR**
TQM220

Leadership and Empowerment Strategies (2) **OR**
TQM230   Teamwork Dynamics (2) **OR**
TQM240

Project Management in Quality Organizations (2) 2-3

THE CERTIFICATE OF COMPLETION (CCL) IN MANUFACTURING WELDING provides skill

development in oxyacetylene (gas) and electric (arc) welding. Classes are conducted in laboratories that are equipped with modern industrial welding equipment and emphasize skill development in advanced welding techniques utilizing tig and mig machines.

Major Code: 5620 Total Credits: 26

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

Program Prerequisites: Credits: 0-3
GTC107   Technical Mathematics I (3) **OR**

Satisfactory score on math placement test........................ 3

Required Courses: Credits: 26

DFT114   Machine Trades Blueprint Reading 3
GTC102
Machine Processes, Theory and Application 3
GTC104   Manufacturing Process 4
GTC106AA   Industrial Safety 2
+GTC108   Technical Mathematics II 3
GTC129   Manufacturing Welding 3
+WLD206
Advanced Welding - Heliarc and Wire Feed 5
+WLD215   Welding Fabrication 3

Micro Circuit Mask Design Certificates/Degrees

-
Associate in Applied Science in Micro Circuit Mask Design
-
Certificate of Completion in Micro Circuit Mask Design

Department Chairperson: Jon D'Ambrosio
Contact: (480) 461-7137

THE ASSOCIATE OF APPLIED SCIENCE (AAS) IN MICRO CIRCUIT MASK DESIGN prepares students

to work in the microcircuit design 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. The curriculum combines coursework in microcircuit mask design with a general education component.

Major Code: 3505 Total Credits: 63

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

Program Prerequisites: Credits: 6

CSC100
Introduction to Computer Science for Non-Computer Majors   3
ELE101   Beginning Algebra for Technology 3

Required Courses: Credits: 41

DFT110   Technical Drafting I 3
+DFT245AA   Integrated Circuit Design-CMOS IA . 3
+DFT245AB   Integrated Circuit Design-CMOS IB . 3
+DFT252AA   Computer Aided Drafting I: AutoCAD 3
+DFT254AA   Computer Aided Drafting II: AutoCAD   3
+ELE105   Algebra-Trigonometry for Technology 5
+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
GTC110   Semiconductor Processing Technology I 3

General Education: Credits: 22

First-Year Composition
   +ENG101   First Year Composition (3) **OR**
   ENG107   First Year Composition for ESL (3) **AND**
   ENG111
Technical Writing (3) 6
Oral Communication
   COM100
Introduction to Human Communication (3) **OR**
   COM110   Interpersonal Communication (3) **OR**
   COM230   Small Group Communication (3) 3
Critical Reading
   CRE101   College Critical Reading (3) **OR**
              Equivalent as indicated by assessment 3
Mathematics

Met by ELE105 in Required Courses

area 0
Humanities and Fine Arts

Any approved general education course from the Humanities and Fine Arts
area 3
Social and Behavioral Sciences

Any approved general education course from the Social and Behavioral Sciences area   3
Natural Sciences
    CHM130   Fundamental Chemistry (3) **AND**
    CHM130LL   Fundamental Chemistry (1)................ 4

THE CERTIFICATE OF COMPLETION (CCL) IN MICRO CIRCUIT MASK DESIGN prepares students

to work in the microcircuit design 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.
Major Code: 5504 Total Credits: 36

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

Program Prerequisites: Credits: 6
CSC100
Introduction to Computer Science for Non-Computer Majors   3
ELE101   Beginning Algebra for Technology...... 3

Required Courses: Credits: 36
DFT110   Technical Drafting I............................. 3
+DFT245AA   Integrated Circuit Design-CMOS IA . 3
+DFT245AB   Integrated Circuit Design-CMOS IB . 3
+DFT252AA   Computer Aided Drafting I: AutoCAD3
+DFT254AA   Computer Aided Drafting II: AutoCAD   3
+ELE105   Algebra-Trigonometry for Technology 5
+ELE111   Circuit Analysis I................................. 4
+ELE131   Digital Logic and Circuits.................... 3
ELE181   Computer Programming for Technology3
GTC110   Semiconductor Processing Technology I3
+GTC296WC   Cooperative Education......................... 3

Mortuary Science Degree

- **Associate in Applied Science in Mortuary Science**

Department Chairperson: Jon D'Ambrosio
Contact: (480) 461-7137

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN MORTUARY SCIENCE includes studies in public

health; business management; natural sciences; legal, ethical and regulatory concerns; and clinical requirements associated with the mortuary field. The curriculum combines coursework in mortuary science with a general education component. The program is accredited by the American Board of Funeral Service Education (ABFSE). Graduation from the program prepares the student to sit for the National Board examination and begin state internship requirements.
Major Code: 3765 Total Credits: 67-68

Program Notes: Every student must take the National Board Examination as a requirement for graduation. The cost of that exam is the responsibility of the student.

Admission Criteria:
Students must complete all program prerequisites with a minimum G.P.A. of 2.5, and must have proof of high school graduation or GED or permission of program director.

Program Prerequisites: Credits: 10-11
ACC107
Bookkeeping Theory and Practice (4) **OR**
ACC111   Accounting Principles I (3)...............3-4
BPC/CIS+++++   Any BPC or CIS course....................... 1
GBS205

Legal, Ethical, and Regulatory Issues in Business............ 3
MGT253
Owning and Operating a Small
Business   3

Required Courses: Credits: 32
MSP101   Orientation to Funeral Service 1
MSP201
History and Sociology of Funeral
Service   3
MSP202   Embalming.. 4
MSP203   Microbiology for Funeral Service 3
MSP204   Chemistry for Funeral Service............. 3
MSP205   Mortuary Administration I 3
MSP206   Mortuary Administration II................. 3
MSP207   Restorative Art 4
MSP208
Legal, Regulatory, and Ethical Issues in Funeral Service 3
MSP209   Pathology for Funeral Service 3
MSP210   Counseling for Funeral Service 2

General Education: Credits: 25
First-Year Composition

+Any approved general education course in the First Year Composition Area   6
Oral Communication
    COM100
Introduction to Human Communication (3) **OR**
    COM110   Interpersonal Communication (3) 3
Critical Reading

Any approved general education course in the Critical Reading Area   3
Mathematics
    MAT102
Mathematical Concepts/Applications (3) **OR**

Equivalent as indicated by assessment **OR**

Satisfactory completion of a higher level mathematics course.   3
Humanities and Fine Arts

Any approved general education course in the Humanities and Fine Arts Area
                REL243 is recommended...................... 3
Social and Behavioral Sciences
    PSY101   Introduction to Psychology (3) **OR**
    PSY156   Understanding Death and Dying (3) .. 3
Natural Sciences
    BIO160
Introduction to Human Anatomy and Physiology............ 4

Music Certificates/Degrees

-
Associate in Applied Science in Audio Production Technologies
-
Certificate of Completion in Audio Production Technologies
- **Certificate of Completion in Sound Design**
-
Associate in Applied Science in Music Business
- **Certificate of Completion in Music Business**

Department Chairperson: Sue Anne Lucius
Contact: (480) 461-7577

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN AUDIO PRODUCTION TECHNOLOGIES

program offers students an opportunity to receive training on industry-standard equipment by instructors with real-world experience and professional resumes. Students learn the concepts and theory associated with recording arts technologies while applying them in lab settings appropriate to their skill levels. Students completing the degree in Audio Production Technologies will gain the knowledge base, competency, and confidence they need to enter the commercial music marketplace.

Major Code: 3024 Total Credits: 64-69

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

Required Courses: Credits: 39-41

MTC191	Electronic Music I	3
+MTC192	Electronic Music II	3
MUC109 Music Business: Merchandising and the Law		3
MUC110 Music Business: Recording and Mass Media		3
+MUC111	Digital Audio Workstation I (DAW I)	3
+MUC112	Digital Audio Workstation II (DAW II)	3
MUC195	Studio Music Recording I (3) **OR**	
MUC195AA	Studio Music Recording I (3)	3
+MUC196	Studio Music Recording II	3
+MUC297AA	Music Internship	1

Select one of two (2) tracks

Track I-Audio Production   Credits: 14

MTC101	Introduction to Music Theory	3
MTC103	Introduction to Aural Perception	2
MUC197	Live Sound Reinforcement I	3
+MUC198	Live Sound Reinforcement II	3
MTC180	Computer Literacy for Musicians (3) **OR**	
+MUC295	Studio Music Recording III (3)	3

Track II-Sound Design Track   Credits: 16

+MTC105	Music Theory I	3
+MTC106	Aural Perception I	1
MTC/TCM120 Introduction to Sound Design for Film and Video		3
+MTC/TCM220 Advanced Sound Design for Film and Video		3
+MUC194 Introduction to Audio Mixing Techniques		3
+MUC292	Sound Design III	3

General Education: Credits: 25-28

First-Year Composition

+Any approved general education courses from the First-Year Composition area   6
Oral Communication

Any approved general education course from the Oral Communication area   3
Critical Reading
   +CRE101
College Critical Reading (3) **OR** equivalent as indicated by assessment.   0-3
Mathematics

+Any approved general education course from the Mathematics area   3

Humanities and Fine Arts

Any approved general education course from the Humanities and Fine Arts area   6

MHL140 or MHL145 or MHL153 recommended.
Social and Behavioral Sciences

Any approved general education course from the Social and Behavioral Sciences area   3
Natural Sciences

Any approved general education course from the Natural Sciences area   4

THE CERTIFICATE OF COMPLETION (CCL) IN AUDIO PRODUCTION TECHNOLOGIES certificate

and degree program offers students an opportunity to receive training on industry-standard equipment by instructors with real-world experience and professional resumes. Students learn the concepts and theory associated with recording arts technologies while applying them in lab settings appropriate to their skill levels. Students completing the Audio Production program will gain the knowledge base, competency, and confidence they need to enter the commercial music marketplace.
Major Code: 5334 Total Credits: 39

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

Required Courses: Credits: 39

MTC101	Introduction to Music Theory	3
MTC103	Introduction to Aural Perception	2
MTC180	Computer Literacy for Musicians (3) **OR**	
+MUC295	Studio Music Recording III (3)	3
MTC191	Electronic Music I	3
+MTC192	Electronic Music II	3
MUC109 Music Business: Merchandising and the Law		3
MUC110 Music Business: Recording and Mass Media		3
+MUC111	Digital Audio Workstation I (DAW I)	3
+MUC112	Digital Audio Workstation II (DAW II)	3
MUC195	Studio Music Recording I (3) **OR**	
MUC195AA	Studio Music Recording I (3)	3
+MUC196	Studio Music Recording II	3
MUC197	Live Sound Reinforcement I	3
+MUC198	Live Sound Reinforcement II	3
+MUC297AA	Music Internship	1

THE CERTIFICATE OF COMPLETION (CCL) IN SOUND DESIGN offers students an opportunity to learn

concepts associated with Sound Design production and recording arts technologies while applying them in lab settings. Upon completion of the core courses, students will have acquired skills allowing them the opportunity to apply for a broad range of positions in the audio post-production field including: film & television, animation, radio, theatre, and commercial advertising.
Major Code: 5686 Total Credits: 41

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

Admission Criteria:
Formal application and admission to the program is required.

Required Courses: Credits: 41

+MTC105	Music Theory I	3
+MTC106	Aural Perception I	1
+MTC/TCM120 Introduction to Sound Design for Film and Video		3
MTC191	Electronic Music I	3
+MTC192	Electronic Music II	3
+MTC/TCM220 Advanced Sound Design for Film and Video		3
MUC109 Music Business: Merchandising and the Law		3
MUC110 Music Business: Recording and Mass Media		3
+MUC111	Digital Audio Workstation I (DAW I)	3
+MUC112	Digital Audio Workstation II (DAW II)	3
+MUC194 Introduction to Audio Mixing Techniques		3
MUC195	Studio Music Recording I (3) **OR**	
MUC195AA	Studio Music Recording I (3)	3

+MUC196	Studio Music Recording II 3
+MUC297AA	Music Internship 1
+MUC292	Sound Design 3

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN MUSIC BUSINESS program is an innovative curriculum

designed to prepare students for today's music industry. The certificate and degree with a music business emphasis are designed for both the performing musician and the business student with limited performing experience. This program combines a flexible curriculum with an emphasis in business and marketing, along with music industry related courses and experiences.

Major Code: 3017 Total Credits: 62

Program Notes: Students must earn a grade of "C" or better for all courses required within the program.
++ indicates any module.

Required Courses: Credits: 37

ACC109	Accounting Concepts (3) **OR**
ACC111	Accounting Principles I (3)................. 3
BPC128	Introduction to Desktop Publishing.... 1
CIS131AA	Doing Business on the Internet 1
+COM259	

Communication in Business and Professions 3

| GBS151 | Introduction to Business .... 3 |

MUC209
Music Business: Industry Leadership
and E-Commerce (3) **OR**
MGT253
Owning and Operating a Small
Business (3) 3

| MKT271 | Principles of Marketing........................ 3 |

MTC101
Introduction to Music Theory (3) **OR**
Higher Level 3
MUC109
Music Business: Merchandising and
the Law 3
MUC110
Music Business: Recording and Mass Media................... 3

| +MUC111 | Digital Audio Workstation I (DAW I) 3 |
| MUC195 | Studio Music Recording I .... 3 |

+MUC295A
Self-Promotion for Music... 1
+MUC297AB
Music Internship 2
SBS230
Financial and Tax Management for
Small Business 2

Restricted Electives: Credits: 3

MHL+++
Any MHL Music: History/Literature course................... 3

General Education: Credits: 22-25

First-Year Composition

| ENG101 | First-Year Composition (3) **AND** |
| ENG102 | First-Year Composition (3) .... 6 |

Oral Communication

Any approved general education course in the Oral Communication area3
Critical Reading
    CRE101
College Critical Reading (3) **OR**   Equivalent as indicated by
assessment 0-3
Mathematics

+Any approved general education
course in the Mathematics area... 3
Humanities and Fine

Any approved general education
course from the Humanities and Fine Arts area 3
Social and Behavioral Sciences

Any approved general education
course from the Social and Behavioral Sciences area 3
Natural Sciences

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

THE CERTIFICATE OF COMPLETION (CCL) IN MUSIC BUSINESS program is an innovative curriculum

designed to prepare students for today's music industry. The certificate and degree with a music business emphasis are designed for both the performing musician and the business student with limited performing experience. This program combines a flexible curriculum with an emphasis in business and marketing, along with music industry-related courses and experiences.
Major Code: 5258 Total Credits: 40

Program Notes: Students must earn a grade of "C" or better for all courses required within the program.
++ indicates any module.

Required Courses: Credits: 37
ACC109   Accounting Concepts (3) **OR**
ACC111   Accounting Principles I (3) 3
BPC128   Introduction to Desktop Publishing.... 1
CIS131AA   Doing Business on the Internet 1
+COM259
Communication in Business and Professions 3
GBS151   Introduction to Business 3
MGT253
Owning and Operating a Small Business (3) **OR**
+MUC209
Music Business: Industry Leadership and E-Commerce (3)   3
MKT271   Principles of Marketing....................... 3
MTC101
Introduction to Music Theory (3) **OR**
Higher Level   3
MUC109
Music Business: Merchandising and
the Law   3
MUC110
Music Business: Recording and Mass Media.................... 3
+MUC111   Digital Audio Workstation I (DAW I) 3
MUC195   Studio Music Recording I 3
+MUC295AA   Self Promotion for Music..................... 1
+MUC297AB   Music Internship 2
SBS230
Financial and Tax Management for
Small Business   2

Restricted Electives: Credits: 3
MHL+++
Any MHL Music: History/Literature prefixed course 3

Network Administration Certificates/Degrees

- **Associate in Applied Science Linux Networking Administration**
- **Certificate of Completion in Linux Associate**
- **Certificate of Completion in Linux Networking Administration**

- **Certificate of Completion in Linux Professional**
- **Certificate of Completion in Computer Hardware and Desktop Support**
- **Associate in Applied Science in Microsoft Applications Development**
- **Certificate of Completion in Microsoft Applications Development**
- **Certificate of Completion in Microsoft Desktop Support Technology**
- **Associate of Applied Science in Network System Administration**
- **Certificate of Completion in Network Administration: Cisco Network Associate**
- **Certificate of Completion in Network Administration: Cisco Network Professional**
- **Certificate of Completion in Network Administration: Microsoft Windows**
- **Certificate of Completion in Network Security**

Department Chairperson: Linda Collins
Contact: (480) 461-7077

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN LINUX NETWORKING ADMINISTRATION

will help to 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. These classes will ensure a student's knowledge and skill level in preparation for employment or for improving current professional skills. Objectives for a variety of industry certifications are encompassed within course and program objectives.

Major Code: 3013 Total Credits: 61-62

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

Required Courses: Credits: 24-25

+BPC170
Computer Maintenance I: A+ Prep (3) **OR**
+BPC273
Advanced Server Computer Maintenance: Server+Prep (3)   3
CIS126DL   Linux Operating System (3) **OR**
CIS126AL   Linux Operating System I (1) **AND**
+CIS126BL   Linux Operating System II (1) **AND**
+CIS126CL   Linux Operating System III (1) 3
+CIS238DL   Linux System Administration 3
+CIS239DL   Linux Shell Scripting 3
+CIS240DL   Linux Network Administration 3
+CIS271DL   Linux Security 3
+CIS190
Introduction to Local Area Networks
(3) **OR**
CNT140   Cisco Networking Basics (4) **OR**
MST140
Microsoft Networking
Essentials (3)   3-4
MST150++
Microsoft Windows Professional
(Any module)   3

Restricted Electives: Credits: 12

BPC110
Computer Usage and Applications (3) **OR**
CIS105
Survey of Computer Information
Systems (3)   3
BPC/CIS120DF   Computer Graphics: Adobe Photoshop3

BPC/CIS121AB   Microsoft Command Line Operations 1
BPC/CIS133DA   Internet/Web Development Level I 3
+BPC170   Computer Maintenance I: A+ Prep 3
BPC/CIS224
Project Management Microsoft Project for Windows...... 3
+BPC270   Microcomputer Maintenance II 3
+BPC273
Advanced Server Computer Maintenance: Server+Prep . 3
BPC/CIS120DC   Computer Graphics: Macromedia Flash 3
+CIS190   Introduction to Local Area Networks (3)
CNT140   Cisco Networking Basics (4) **OR**
MST140
Microsoft Networking Essentials
(3) **OR**   3-4
+CIS233DA   Internet/Web Development Level II... 3
+CIS270
Essentials of Network and Information Security.............. 3
+CIS296WC   Cooperative Education......................... 3
CIS298AC   Special Projects.................................... 3
+CNT120   Adobe Web Design 3
+CNT150   Cisco Network Router Technologies .. 4
+CNT160
Cisco Switching Basics and Intermediate Routing 3
+CNT170   Cisco Wide Area Networks (WAN) ... 3
MST150++
Microsoft Windows Professional (Any module).............. 3
+MST152++
Microsoft Windows Server (Any
module)   4
+MST155
Implementing Windows Network Infrastructure 3
+MST157
Implementing Windows Directory Services 3
+MST232
Managing a Windows Network Environment.................. 3
CIS250   Management of Information Systems . 3
CIS280   Current Topics in Computing.............. 3

General Education: Credits: 25

First-Year Composition
   +ENG101   First-Year Composition (3) **AND**
   +ENG102   First-Year Composition (3)................. 6

Oral Communication

Any approved general education course from the Oral Communication area.   3
Critical Reading
   +CRE101   College Critical Reading (3) **OR**
               Equivalent as indicated by assessment. 3
Mathematics
   +MAT102

Mathematical Concepts/Applications (3)
OR Higher   3
Humanities and Fine Arts

Any approved general education course from the Humanities and Fine Arts area.   3
Social and Behavioral Sciences

Any approved general education course from the Social and Behavioral Sciences area.   3
Natural Sciences

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

THE CERTIFICATE OF COMPLETION (CCL) IN LINUX ASSOCIATE will help to 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. These classes will ensure a student's knowledge and skill level in preparation for employment or for improving current professional skills. Objectives for a variety of industry certifications are encompassed within course and program objectives.
Major Code: 5219 Total Credits: 24

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

Required Courses: Credits: 12

CIS126DL	Linux Operating System (3) **OR**	
CIS126AL	Linux Operating System I (1) **AND**	
+CIS126BL	Linux Operating System II (1) **AND**	
+CIS126CL	Linux Operating System III (1)	3
+CIS238DL	Linux System Administration	3
+CIS240DL	Linux Network Administration	3
+CIS271DL	Linux Security	3

Restricted Electives: Credits: 12

BPC/CIS121AB   Microsoft Command Line Operations 1
BPC/CIS133DA
Internet/Web Development Level I (3) **OR**
+CNT120   Adobe Web Design (3) 3
+BPC170   Computer Maintenance I: A+ Prep 3
BPC/CIS224
Project Management Microsoft Project for Windows 3
+BPC273
Advanced Server Computer Maintenance: Server+Prep . 3
CIS105
Survey of Computer Information Systems 3

+CIS190
Introduction to Local Area Networks (3) **OR**
CNT140   Cisco Networking Basics (4) **OR**
MST140   Microsoft Networking Essentials (3)3-4
+CIS233DA   Internet/Web Development Level II ... 3
+CIS239DL   Linux Shell Scripting 3
+CIS270
Essentials of Network and Information Security 3
+CNT150   Cisco Networking Router Technologies 4
MST150   Microsoft Windows Professional 3
CIS280   Current Topics in Computing 3

THE CERTIFICATE OF COMPLETION (CCL) IN LINUX NETWORKING ADMINISTRATION will

help to 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.

These classes will ensure a student's knowledge and skill level in preparation for employment

or for improving current professional skills. Objectives for

a variety of industry certifications are encompassed within course and program objectives.
Major Code: 5225 Total Credits: 36-37

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

Required Courses: Credits: 24-25

+BPC170
Computer Maintenance I: A+ Prep (3) **OR**
+BPC273
Advanced Server Computer
Maintenance (3)   3

CIS126DL	Linux Operating System (3) **OR**	
CIS126AL	Linux Operating System I (1) **AND**	
+CIS126BL	Linux Operating System II (1) **AND**	
+CIS126CL	Linux Operating System III (1)	3
+CIS238DL	Linux System Administration	3
+CIS239DL	Linux Shell Scripting	3
+CIS240DL	Linux Network Administration	3
+CIS271DL	Linux Security	3

+CIS190
Introduction to Local Area Networks (3) **OR**
CNT140   Cisco Networking Basics (4) **OR**
MST140   Microsoft Networking Essentials (3)3-4
MST150++
Microsoft Windows Professional (Any module.)..............3

Restricted Electives: Credits: 12

BPC110
Computer Usage and Applications (3) **OR**
CIS105
Survey of Computer Information
Systems (3)   3
BPC/CIS120DF   Computer Graphics: Adobe Photoshop3
BPC/CIS121AB   Microsoft Command Line Operations 1
BPC/CIS133DA   Internet/Web Development Level I 3
+BPC170   Computer Maintenance I: A+ Prep 3

BPC/CIS224
Project Management Microsoft Project for Windows...... 3
+BPC270   Microcomputer Maintenance II 3
+BPC273
Advanced Server Computer Maintenance: Server+Prep . 3
CIS120DC   Computer Graphics: Macromedia Flash3
+CIS190   Introduction to Local Area Networks (3)
CNT140   Cisco Networking Basics (4) **OR**
MST140
Microsoft Networking Essentials
(3) **OR**   3-4
+CIS233DA   Internet/Web Development Level II ... 3
CIS250   Management of Information Systems . 3
+CIS270
Essentials of Network and Information Security.............. 3
CIS280   Current Topics in Computing............. 3
+CIS296WC   Cooperative Education........................ 3
CIS298AC   Special Projects..................................... 3
+CNT120   Adobe Web Design 3
+CNT150   Cisco Network Router Technologies .. 4
+CNT160
Cisco Switching Basics and
Intermediate Routing... 3
+CNT170
Cisco Wide Area Networks (WAN) Technologies........... 3
MST150++
Microsoft Windows Professional (Any module)............... 3
+MST152++
Microsoft Windows Server (any
module)   4
+MST155
Implementing Windows Network Infrastructure 3
+MST157
Implementing Windows Directory Services 3
+MST232
Managing a Windows Network Environment 3

THE CERTIFICATE OF COMPLETION (CCL) IN LINUX PROFESSIONAL will help to 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. These classes will ensure a student's knowledge and skill level in preparation for employment or for improving current professional skills. Objectives for a variety of industry certifications are encompassed within course and program objectives.

Major Code: 5204 Total Credits: 12

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

Required Courses: Credits: 6

CIS126DL   Linux Operating System (3) **OR**
CIS126AL   Linux Operating System I (1) **AND**
+CIS126BL   Linux Operating System II (1) **AND**
+CIS126CL   Linux Operating System III (1) 3
+CIS238DL   Linux System Administration 3

Restricted Electives: Credits: 6

BPC/CIS121AB   Microsoft Command Line Operations 1
+BPC170   Computer Maintenance I: A+ Prep 3
+BPC273
Advanced Server Computer Maintenance: Server+ Prep 3
CIS105
Survey of Computer Information Systems 3
+CIS190   Introduction to Local Area Networks . 3
+CIS240DL   Linux Network Administration 3
+CIS270
Essentials of Network and Information Security.............. 3
+CIS271DL   Linux Security 3
CNT140
Cisco Networking Basics (4) **OR**
MST140   Microsoft Networking Essentials (3)3-4
+CNT150   Cisco Networking Router Technologies4
MST150++
Microsoft Windows Professional (Any module.).............. 3
CIS280   Current Topics in Computing.............. 3

THE CERTIFICATE OF COMPLETION (CCL) IN COMPUTER HARDWARE AND DESKTOP

SUPPORT is designed to provide training to work in an entry-level computer maintenance and help-desk position. Students will

be provided the opportunity to apply technical concepts, fundamentals, and interpersonal skills in a help-desk environment through

an internship.

Major Code: 5026 Total Credits: 16-20

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

Required Courses: Credits: 16-20

BPC110
Computer Usage and Applications (3) **OR**
CIS105
Survey of Computer Information
Systems (3)   3
BPC/CIS121AB   MS-DOS Operating System 1
+BPC170   Computer Maintenance I: A+ Prep 3
+BPC171   Recycling Used Computer Technology1
+BPC270   Microcomputer Maintenance II 3
CIS102   Customer Service/Technical Support.. 1
+CIS190
Introduction to Local Area Networks
(3) **OR**
CNT140   Cisco Networking Basics (4) **OR**
MST140   Microsoft Networking Essentials (3)3-4
+BPC/CIS290AA
Computer Information Systems Internship (1) **OR**
+BPC/CIS290AB
Computer Information Systems Internship (2) **OR**
+BPC/CIS290AC
Computer Information Systems Internship (3) **OR**
+CIS296W+
Cooperative Education (Any
CIS296WA-WD module.) (1-4) 1-4

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN MICROSOFT APPLICATIONS

DEVELOPMENT is designed to provide training for developers who develop, deploy, and maintain applications and
components using Visual Studio: Visual Basic (VB), C++, and Structured Query Language (SQL). It also provides training for
Microsoft Certified Application Developer (MCAD) certification examinations. The MCAD credential is appropriate for

professionals who use Microsoft technologies to develop and maintain department-level applications, components, Web or desktop clients, or back-end data services or work in teams developing enterprise applications. The program of study combines the technical aspects of the certificate program with selected general education courses in the area of English, communications, mathematics, humanities, social and behavioral sciences, and the
natural sciences.

Microsoft Certified Application Developers are professionals who use Microsoft technologies to develop and maintain department-level applications, components, Web or desktop clients, or back-end data services, or who work in teams developing enterprise applications.

Opportunities: Career opportunities include programmer, programmer analyst, and software developer.

Students entering the Microsoft Applications Development program often come with background or experience in the computer programming area. Students must consult with
a program advisor, as the program prerequisites may not
be necessary and may be waived as requirements to the program.

Major Code: 3838 Total Credits: 60-62

Program Notes: Students must earn a grade of "C"
or better for all courses required within the program.
++ indicates any module.

Program Prerequisites: Credits: 6
CIS105
Survey of Computer Information Systems 3
+CRE101
College Critical Reading (3) **OR**

Equivalent as indicated by assessment **OR** ....
                            Permission of Department or Division 3

Required Courses: Credits: 22
BPC/CIS133DA
Internet/Web Development Level I (3) **OR**
BPC/CIS133AA
Internet/Web Development Level I-A (1) **AND**
+BPC/CIS133BA
Internet/Web Development Level I-B (1) **AND**
+BPC/CIS133CA
Internet/Web Development
Level I-C (1)   3
CIS102
Interpersonal and Customer Service Skills for IT Professionals 1
+CIS159   Visual Basic Programming I 3
+CIS259   Visual Basic Programming II............... 3
+CIS164AG
Oracle: Data Modeling and Relational Database Design (2) **OR**
+MST146
Data Modeling and Relational Database Design (2) 2
+MST172
Visual Basic .NET Web Application Development 4
+MST176
Visual Basic .NET XML Web Services Development 3
+MST254
Microsoft SQL Server Design and Implementation 3

Restricted Electives: Credits: 16
+CIS119DO   Introduction to Oracle: SQL 3
+CIS150   Programming Fundamentals................ 3
+CIS162++   Any CIS162 course.............................. 3
+CIS163AA   Java Programming: Level I 3
+CIS190
Introduction to Local Area Networks (3) **OR**
CNT140   Cisco Networking Basics (4) **OR**
MST140   Microsoft Networking Essentials (3)3-4
+CIS225AB   Object-Oriented Analysis and Design 3
+CIS235   e-Commerce 3

Students may select no more than four (4) credits combined from CIS290AA-AC and CIS296WA-WD courses.
+CIS290A+

Computer Information Systems Internship (any module) (1-3) **OR**
+CIS296W+
Cooperative Education
(any module) (1-4)..1-4
+MST150++   Any MST150 course 3
+MST152++   Any MST152 course 3-4
+MST244   Microsoft SQL Server Administration 3
MST298A+   Special Projects (any module) 1-3

General Education: Credits: 22-24
First-Year Composition
+ENG101   First-Year Composition (3) **AND**
+ENG102   First-Year Composition (3) **OR**
+ENG107   First-Year Composition for ESL (3) **AND**
+ENG108   First-Year Composition for ESL (3) ... 6
Oral Communication

Any approved general education course in the Oral Communication area 3
Critical Reading

Met by CRE101 in the Program Prerequisites area 0
Mathematics
+MAT120   Intermediate Algebra (5) **OR**
+MAT121   Intermediate Algebra (4) **OR**
+MAT122   Intermediate Algebra (3) **OR**
              Equivalent **OR**

Satisfactory completion of a higher level mathematics course   3-5
Humanities and Fine Arts

Any approved general education course in the Humanities and Fine Arts area   3

Social and Behavioral Sciences

Any approved general education course in the Social and Behavioral Sciences area   3
Natural Sciences

Any approved general education course in the Natural Sciences area   4

THE CERTIFICATE OF COMPLETION (CCL) IN MICROSOFT APPLICATIONS DEVELOPMENT
is designed to provide training for developers who develop, deploy, and maintain applications and components using Visual Studio: Visual Basic (VB), C++, and Structured Query Language (SQL). It also provides training for Microsoft Certified Application Developer (MCAD) certification examinations. The Microsoft Certified Application Developer (MCAD) credential is appropriate for professionals who use Microsoft technologies to develop and maintain department-level applications, components, Web or desktop clients, or back-end data services, or who work in teams developing enterprise applications.

Opportunities: Career opportunities include programmer, programmer analyst, and software developer.

Students entering the Microsoft Applications Development program often come with background or experience in the computer programming area. Students must consult with a program advisor as the program prerequisites may not be necessary and may be waived as requirements to the program.
Major Code: 5838 Total Credits: 22

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

Program Prerequisites: Credits: 6
CIS105
Survey of Computer Information Systems........................ 3
+CRE101
College Critical Reading (3) **OR**

Equivalent as indicated by assessment (3) **OR**
              Permission of Department or Division 3

Required Courses: Credits: 22
BPC/CIS133DA
Internet/Web Development Level I (3) **OR**
BPC/CIS133AA
Internet/Web Development Level I-A (1) **AND**

+BPC/CIS133BA
Internet/Web Development Level I-B (1) **AND**
+BPC/CIS133CA
Internet/Web Development Level I-C (1)..............................3
CIS102
Interpersonal and Customer Service Skills for IT Professionals 1
+CIS159   Visual Basic Programming I 3
+CIS164AG
Oracle: Data Modeling and Relational Database Design 2
+CIS259   Visual Basic Programming II............... 3
+MST172
Visual Basic .NET Web Application Development.......... 4
+MST176
Visual Basic .NET XML Web Services Development..... 3
+MST254
Microsoft SQL Server Design and Implementation......... 3

THE CERTIFICATE OF COMPLETION (CCL) IN MICROSOFT DESKTOP SUPPORT

TECHNOLOGY is designed to provide training to work in an entry-level computer maintenance and help-desk position.

Students will develop the skills to successfully troubleshoot desktop environments running on the Microsoft Windows operating system. Courses in the program also help to prepare for the Microsoft Certified Desktop Support Technician (MCDST) examinations.
Major Code: 5473 Total Credits: 18-19

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

Program Prerequisites: Credits: 2
In lieu of the courses listed below, students with experience in the information technology field may meet these program prerequisite requirements with the permission of the instructor.
BPC/CIS121AB   MS-DOS Operating System 1
CIS102
Interpersonal and Customer Service Skills for IT Professionals 1

Required Courses: Credits: 18-19
BPC110
Computer Usage and Applications (3) **OR**
CIS105
Survey of Computer Information
Systems (3)   3
+BPC170   Computer Maintenance I: A+ Prep 3
+CIS190
Introduction to Local Area Networks (3) **OR**
CNT140   Cisco Networking Basics (4) **OR**
MST140   Microsoft Networking Essentials (3)3-4
+MST141
Supporting Microsoft Windows Client Operating Systems   3
+MST142
Supporting Applications on Microsoft Windows Client Operating Systems   3
MST150XP   Microsoft Windows XP Professional .. 3

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN NETWORK SYSTEM ADMINISTRATION

provides students with background knowledge and skills required for learning the specific tasks and industry recognized standards associated with computer networks and data communications. The student will develop skills and knowledge required to perform local area network administration and management. The curriculum combines course in network administration with a General Education component.
Major Code: 3208 Total Credits: 66

Program Notes: Students must earn a grade of "C" or better in all courses within the program.
++ indicates any module.
The Network core courses will also prepare students towards certification in Microsoft and Novell.

Program Prerequisites: Credits: 3
CRE101   College Critical Reading (3) **OR**
                 Equivalent by assessment......................3

Required Courses: Credits: 32

CIS105
Survey of Computer Information Systems 3
+BPC170　　　　Computer Maintenance I: A+ Prep 3
BPC270　　　　Microcomputer Maintenance II 3
CIS126++　　　Unix Operating System (Any module) 3
+CIS163AA　　　Java Programming: Level I 3
+MST150++
Microsoft Windows Professional (Any module) 3
+CIS266　　　　Network Service and Support 4
+CIS270
Essentials of Network and Information Security.............. 3
CNT140　　　　Cisco Networking Basics (4) OR
CNT140AA　　　Cisco Networking Fundamentals (4) .. 4
TQM240
Project Management in Quality Organizations 3

Restricted Electives: Credits: 12

May select any courses except courses used to satisfy Required Courses.

CIS175CB
Designing a Microsoft Windows 2000 Directory Services Infrastructure 2
CIS175CC
Designing a Microsoft Windows 2000 Networking Services Infrastructure　　　　2
CIS175CE
Supporting a Microsoft Windows 2000 Network Infrastructure 3
CIS175CF
Implementing and Administering Microsoft Windows 2000 Directory Services　　3
CIS175CG
Designing a Secure Microsoft Windows 2000 Network .. 3
CIS238　　　　Advanced Unix System Administration 3
+CIS238　　　　Advanced Unix System Administration 3
+CIS238DL　　　Linux System Administration 3
+CIS238US　　　Unix Security 3
+CIS240DL　　　Linux Network Administration 3
+CIS247DA　　　Cyber Forensics and Incident Handling 3
+CIS271DL　　　Linux Security 3
+MST150++
Microsoft Windows Professional (Any module) 3
MST152DA　　　Microsoft Windows 2000 Professional 4
MST152DB　　　Microsoft Windows 2003 Professional 4
+MST155
Implementing Windows Network Infrastructure 3

+MST157
Implementing Windows Directory Services 3
+MST240
Microsoft Transmission Control Protocol/Internet Protocol (TCM/IP)　　3
+MST253
Designing a Microsoft Windows 2000 Directory Services Infrastructure 3
+CNT150　　　　Cisco Networking Router Technologies 4
+CNT150AA　　　Cisco Routing Protocols and Concepts 4
+CNT160
Cisco Switching Basics and
Intermediate Routing... 3
+CNT160AA
Cisco Local Area Networking (LAN) Switching and Wireless　4
+CNT170
Cisco Wide Area Networks (WAN) Technologies........... 3
+CNT170AA
Cisco Accessing the Wide-Area
Network (WAN) 4
+CNT181　　　　Cisco Securing IOS Networks 4
+CNT182
Cisco Secure PIX Firewall
Configuration　　3
+CNT200
CCNP: Building Scalable Cisco Internetworks (BSCI) . 4

+CNT210
Cisco CCNP II: Implementing Secure Converged Wide Area Networks 4
+CNT220
Cisco CCNP: Building Multilayer Switched Networks ... 4
+CNT230
Cisco CCNP IV: Optimizing Converged Networks 4
+CNT240   Cisco Voice over IP 4
+CNT145   Voice and Data Cabling 4
+CNT185   Cisco Network Security 4
+CNT186   Fundamentals of Wireless LANs 4
+CSC120   Digital Design Fundamentals 4
ELE100   Concepts of Electricity and Electronics 3
+ELT131   Digital and Logic Circuits 4

General Education: Credits: 22-24

First-Year Composition
    ENG101   First-Year Composition (3) **AND**
    ENG102   First-Year Composition (3) 6
Oral Communication
    COM100
Introduction to Human Communication (3) **OR**
    COM225   Public Speaking (3) **OR**
    COM230   Small Group Communication (3) 3
Critical Reading
                   Met by program prerequisites. 0
Mathematics
    MAT150   College Algebra Concepts (5) **OR**
    MAT151   College Algebra (4) **OR**
    MAT152++   College Algebra (3) 3-5
Humanities and Fine Arts
    PHI214   Business Ethics (3) **OR**

Any approved general education course in the Humanities and Fine Arts Area   3
Social and Behavioral Sciences
    ECN211   Macroeconomic Principles (3) **OR**
    ECN212   Microeconomic Principles (3) 3

Natural Sciences
    PHY101   Introduction to Physics 4

THE CERTIFICATE OF COMPLETION (CCL) IN NETWORK ADMINISTRATION: CISCO NETWORK ASSOCIATE provides students with background knowledge and skills required for learning the specific tasks

and industry recognized standards associated with computer networks and data communications. This program also prepares

students to complete the required certification tests for Cisco certification.

Major Code: 5205 Total Credits: 30-32

Program Notes: Students must earn a grade of "C" or better for all courses within the program.
The Network core courses will also prepare students towards certification in Microsoft and Novell.

Program Prerequisites: Credits: 6

CIS105
Survey of Computer Information Systems 3
CRE101   College Critical Reading 3

Required Courses: Credits: 30-32

+BPC170
Computer Maintenance I: A+ Prep (3) **OR**
+BPC270   Microcomputer Maintenance II (3) 3
CIS126++   Unix Operating System (Any module) 3
MST150   Microsoft Windows Professional 3
+CIS266   Network Service and Support 4
+CIS270
Essential of Network and Information Security 3
CNT140   Cisco Networking Basics (4) **OR**
CNT140AA   Cisco Networking Fundamentals (4) .. 4
+CNT150
Cisco Networking Router Technologies (4) **OR**

+CNT150AA
Cisco Routing Protocols and
Concepts (4)   4
+CNT160
Cisco Switching and Intermediate Routing (3) **OR**
+CNT160AA
Cisco Local Area Networking (LAN) Switching and Wireless (4)   3-4
CNT170
Cisco Wide Area Networks (WAN) Technologies (3) **OR**
+CNT170AA
Cisco Accessing the Wide–Area
Network (WAN) (4) 3-4

THE CERTIFICATE OF COMPLETION (CCL)
IN NETWORK ADMINISTRATION: CISCO NETWORK PROFESSIONAL will equip students

with marketable skills for learning the specific tasks and industry-recognized standards associated with network professional who can install, configure, and troubleshoot local and wide area networks for enterprise organizations with networks comprised of 100 to 500 or more nodes.

The coursework emphasizes security, converged networks, quality of service (QoS), virtual private networks (VPN), broadband technologies, and integrating technologies in the network infrastructure. The program also prepares students to complete the required certification tests in Cisco Certified Network Professional (CCNP) certification, which indicates advanced or journeyman knowledge of networks.

Major Code: 5328 Total Credits: 31

Program Notes: ++ indicates any module.
Students must earn a grade of "C" or better for all courses within the program.
The Network core courses will also prepare students towards certification in Microsoft and Novell.

Program Prerequisites: Credits: 30-32
Network Administration: Cisco Network
Associate (5205) 30-32

Required Courses: Credits: 31
+CIS266   Network Service and Support 4
+CIS270
Essential of Network and Information Security 3
+CNT186   Fundamentals of Wireless LANs......... 4
+CNT200   Cisco Networking Advanced Routing. 4
+CNT210
Cisco Networking Remote-Access Networks 4
+CNT220
Cisco Networking Multi-Layer
Switching   4
+CNT230   Cisco Network Troubleshooting.......... 4
+CNT240   Cisco Voice over PD 4

THE CERTIFICATE OF COMPLETION (CCL) IN NETWORK ADMINISTRATION: MICROSOFT
WINDOWS provides students with background knowledge and skills required for learning the specific tasks and industry

recognized standards associated with computer networks and data communications. This program also prepares students to complete the required certification tests for Microsoft Administrator.

Major Code: 5124 Total Credits: 29-30

Program Notes: Students must earn a grade of "C" or better for all courses within the program.
The Network core courses will also prepare students towards certification in Microsoft and Novell.

Program Prerequisites: Credits: 6
CIS105
Survey of Computer Information Systems........................ 3
CRE101
College Critical Reading (3) **OR** 3
                    Equivalent by assessment

Required Courses: Credits: 29-30
+BPC170   Computer Maintenance I: A+ Prep (3)   **OR**
+BPC270   Microcomputer Maintenance II (3) 3
+CIS175CE

Supporting a Microsoft Windows 2000 Network Infrastructure (3) **OR**
+MST155
Implementing Windows Network Infrastructure (3) 3
+CIS175CF
Implementing and Administering Microsoft Windows 2000 Directory
(3) **OR**
+MST157
Implementing Windows Directory Services (3) **OR**
+CIS175CB
Designing a Microsoft Windows 2000 Directory Services Infrastructure (2) **OR**
+MST253
Designing a Microsoft Windows 2000 Directory Services Infrastructure (3)   2-3
MST150   Microsoft Windows Professional......... 3
CNT140   Cisco Networking Basics (4) **OR**
CNT140AA   Cisco Networking Fundamentals (4) .. 4
+CIS266   Network Service and Support 4
+CIS270
Essentials of Network and Information Security.............. 3
+MST152DA   Microsoft Windows 2000 Server (4) **OR**
+MST152DB   Microsoft Windows 2003 Server (4)... 4

THE CERTIFICATE OF COMPLETION (CCL) IN NETWORK SECURITY program is designed to equip

students with marketable skills and knowledge for adaptation to specific tasks and industry recognized standards associated with computer networks and data communications. This program also prepares students to complete the required certification tests for several industry certifications, including Cisco, Security and relevant certifications. Relevant certification tests are identified in Windows, and other individual course descriptions.

Major Code: 5188 Total Credits: 22

Program Notes: ++ indicates any module.
Students must earn a grade of "C" or better for all courses within the program.
The Network core courses will also prepare students towards certification in CISCO and Microsoft.

Program Prerequisites: Credits 3
+ CIS170
Cisco Wide Area Networks (WAN) Technologies (3) **OR**
               CCNA Industry Certification 3

Required Courses: Credits: 22
CIS175CG
Designing a Secure Microsoft 2000 Network (3) **OR**
+MST259
Designing Windows Network Security (3)....................... 3
+CIS238US   UNIX Security (3) **OR**
CIS271DL   Linux Security (3) 3
CIS247DA   Cyber Forensics and Incident Handling 3
+CIS270
Essentials of Network and Information Security.............. 3
CNT186   Fundamentals of Wireless LANs......... 4
+CNT182
Cisco Secure Pix Firewall
Configuration   3
AJS123   Ethics and the Administration of Justice   3

Nursing Certificates/Degrees

- **Associate in Applied Science in Nursing**
- **Certificate of Completion in Practical Nursing**
- **Certificate of Completion in Nurse Assisting**

Department Chairperson: Debbie Bittner
Contact: (480) 461-7262

THE ASSOCIATE IN APPLIED SCIENCE (AAS) NURSING PROGRAM is available at nine of the Maricopa

Community Colleges. Clinical experiences are provided in a variety of healthcare settings. The Nursing Program provides eligibility for students 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 National League for Nursing Accrediting Commission (NLNAC), 61 Broadway, 33rd Floor, New York, NY 10006, (212) 363-5555, ext. 153.

Major Code: 3812 Total Credits: 61-74

Program Offerings

This program is offered at the following sites:

Chandler Gilbert Community College .... (480) 988-8880
Estrella Mountain Community College ..... (623) 935-8949
GateWay Community College .... (602) 286-8178
Glendale Community College .... (623) 845-3350
Mesa Community College .... (480) 461-7600
Mesa Community College/Boswell .... (623) 974-7835
Paradise Valley Community College........... (602) 787-7060
Phoenix College   .... (602) 285-7427
Rio Salado College...................................... (480) 517-8580
Scottsdale Community College .... (480) 423-6137

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.

All nursing applicants for licensure will be fingerprinted to permit the Department of Public Safety to obtain state and federal criminal history information. If there is any question about eligibility for licensure or certification, contact the nursing education consultant at the Arizona State Board of Nursing (602) 889-5150.

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. 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 & Safety Requirements for the 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.
Students must provide a copy of their current and valid Fingerprint Clearance Card upon application.

Grade Requirements

Students must obtain a "C" grade or better in all courses required within the program.

Course Fee Information

Please see class schedule for information regarding course fees.

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

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-health care settings. The AAS degree in Nursing

provides the graduate with an educational foundation for articulation into the university setting.

The Nursing Program is approved by the Arizona State Board of Nursing and accredited by the National League for Nursing Accrediting Commission (NLNAC), 61 Broadway, 33rd Floor, New York, NY 10006, (212) 363-5555, ext. 153.

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

The Nursing Program's Core Values of Caring, Holism, Nursing Role Development, Critical Thinking, Safe Practice, and Information Management and Technology are integrated into the student learning outcomes/program competencies.

Admission Criteria:
- High school diploma or GED.
- Formal application and admission to the program is required.
- A passing score on a nursing program admission test is required to complete an application.
- Applicants for Advanced Placement must receive a passing score on a practical nursing content exam for placement into Block 3.
- The final decision rests with the Nursing Program Chair at the College to which the student is accepted.

The Nursing Program Chair reserves the right to deny acceptance of an admission application if the applicant was 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 in Nursing Assisting 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.

Program Prerequisites: Credits: 10-20
Area Note: The credit hour range is subject to change depending on the student's educational experience.

BIO156
Introductory Biology for Allied Health (4) **OR**
BIO181
General Biology (Majors) I (4) **OR**
    One year of high school biology 0-4
+BIO201   Human Anatomy and Physiology I 4
+CHM130   Fundamental Chemistry (3) **AND**
+CHM130LL
Fundamental Chemistry Laboratory (1) **OR**
    One year of high school chemistry ...0-4
+MAT120   Intermediate Algebra (5) **OR**
+MAT121   Intermediate Algebra (4) **OR**
+MAT122   Intermediate Algebra (3) **OR**

Satisfactory completion of higher-level mathematics course   3-5

PSY101   Introduction to Psychology (3) **OR**
+PSY240   Developmental Psychology (3)............ 3

Required Courses: Credits: 35
+NUR151   Nursing Theory and Science I........... 10
+NUR171   Nursing Theory and Science II 8
+NUR251   Nursing Theory and Science III.......... 8
+NUR271   Nursing Theory and Science IV 7
+NUR291   Nursing Clinical Capstone 2

Restricted Electives: None.

Free Electives: None.

General Education: Credits: 16-19
First-Year Composition
    +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

Waived. 0

Critical Reading
   CRE101   College Critical Reading (3) **OR**

Equivalent by assessment................. 0-3

Mathematics

Met by MAT120, or MAT121, or MAT122 **OR**

Satisfactory completion of higher level mathematics course in Program Prerequisites area.   0

Humanities and Fine Arts

Any approved course in the Humanities and Fine Arts area.   2

Natural Science
   +BIO202   Human Anatomy and Physiology II (4)
                AND
   +BIO205   Microbiology (4)................................. 8

Social and Behavioral Sciences

Met by PSY101 or PSY240 in Program Prerequisites area.   0

THE PRACTICAL NURSING CERTIFICATE OF COMPLETION (CCL) PROGRAM is available at nine of

the Maricopa Community Colleges. Clinical experiences are provided in a variety of healthcare settings. The Practical Nursing Program provides eligibility for students to apply for the national exam for the practical nurse license. Licensing requirements are the exclusive responsibility of the Arizona State Board of Nursing.

Major Code: 5957 Total Credits: 31-41

The Practical Nursing Certificate of Completion (CCL) Program is approved by the Arizona State Board of Nursing.

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 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 applicants for certification and licensure will be fingerprinted to permit the Department of Public Safety to obtain state and federal criminal history information. If there is any question about eligibility for licensure or certification, contact the nursing education consultant at the Arizona State Board of Nursing (602) 889-5150.

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. 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 & Safety Requirements for the 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.
Students must provide a copy of their current and valid Finger Print Clearance Card upon application.

Grade Requirements

Students must obtain a "C" grade or better or pass in "P/Z" graded courses in all courses in program.

Course Fee Information

Please see class schedule for information regarding course fees.

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.

Practical Nurse Exit Option

Following completion of the practical nurse level program
of study, the student is eligible to apply for licensure as
a practical nurse. Licensed Practical Nurses (LPN) are employed in acute, long-term, and community-based health care agencies under the direction of a registered nurse. Practical Nurses function within their legal scope of practice and use professional standards of care in illness care and health promotion activities for clients and families across the life span.

The Associate in Applied Science in Nursing degree program is approved by the Arizona State Board of Nursing and accredited by the National League for Nursing Accrediting Commission (NLNAC), 61 Broadway, 33rd Floor, New York, NY 10006, (212) 363-5555, ext. 153.

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

The Nursing Program's Core Values of Caring, Holism, Nursing Role Development, Critical Thinking, Safe Practice, and Information Management and Technology are integrated into the student learning outcomes/program competencies.

Admission Criteria

- High school diploma or GED.
- Formal application and admission to the program
  is required.
- A passing score on a nursing program admission test
  is required to complete an application.

The Nursing Program Chair reserves the right to deny acceptance of an admission application if the applicant was 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 in Nursing Assisting and/or license as a Practical Nurse must remain in good standing with the Board of Nursing. 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.

Program Prerequisites: Credits: 10-20

Area Note: The credit hour range is subject to change depending on the student's educational experience.

BIO156
Introductory Biology for Allied Health (4) **OR**
BIO181
General Biology (Majors) I (4) **OR**
                One year of high school biology 0-4
+BIO201   Human Anatomy and Physiology I 4
+CHM130   Fundamental Chemistry (3) **AND**
+CHM130LL
Fundamental Chemistry Laboratory (1) **OR**
                One year of high school chemistry ... 0-4
+MAT120   Intermediate Algebra (5) **OR**
+MAT121   Intermediate Algebra (4) **OR**
+MAT122   Intermediate Algebra (3) **OR**

Satisfactory completion of higher-level mathematics course   3-5
PSY101   Introduction to Psychology (3) **OR**
+PSY240   Developmental Psychology (3)............ 3

Required Courses: Credits: 21

+NUR151   Nursing Theory and Science I........... 10
+NUR171   Nursing Theory and Science II 8
+NUR191   Practical Nursing Transition Course.. 3

THE CERTIFICATE OF COMPLETION (CCL) IN NURSE ASSISTING prepares students for entry-level

employment in various health care settings as a nursing assistant. The program combines classroom instruction with clinical laboratory, skilled care and acute-care experiences. Students who complete the program are eligible to take a written and practical certification examination and work as
a Certified Nursing Assistant. Licensing requirements are the exclusive responsibility of the Arizona State Board of Nursing.

Major Code: 5963 Total Credits: 6

The MCCD Nurse Assisting Program is approved by the Arizona State Board of Nursing.

Waiver of Licensure/Certification Guarantee

Admission or completion from the MCCD Nurse Assisting Program does not guarantee obtaining a license or certificate to practice nursing. 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 of 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 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.

Health & Safety Requirements for MCCD Nurse Assisting Program

1.
Students must submit a completed Health and Safety Documentation Checklist and maintain current status throughout the program.
2.
Students must submit CPR card for Health Care Provider and maintain current status throughout the program.
3.
Students must submit a current Fingerprint Clearance Card.
4.
Health Provider Signature Form signed by a licensed health care provider.
5. Negative urine drug screen.

Grade Requirements:

Student must obtain a "C" grade or better in all courses.

Course Fee Information:

Please see class schedule for information regarding course fees.

University Transfer Students

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 through the Arizona State Board of Nursing to practice in a health care agency as a certified nurse assistant. Completion of the nurse assistant program of study provides job ready-skills
as a nursing assistant. Students may apply to the Nursing Program after completing the prerequisite courses and admission requirements.

Program Notes: 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 current Health Care Provider CPR
Card are required before beginning courses.

All students must submit a copy of a Fingerprint Clearance Card with their application for the Maricopa Community College District Nursing Program.

Program Prerequisites: None.

Required Courses: Credits: 6
+NUR158   Nurse Assisting.................................... 6

Nutrition Certificates/Degrees

- **Associate in Applied Science in Sustainable Food Systems**
- **Certificate of Completion in Sustainable Food Systems**
- **Associate in Applied Science in Strength, Nutrition, and Personal Training**
- **Certificate of Completion in Nutrition for Fitness and Wellness**

Program Director: Lori Zienkewicz
Contact: (480) 461-7379

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN SUSTAINABLE FOOD SYSTEMS is designed

for a diverse student population, including those who are currently working within the food service industry and
are interested in building upon their culinary skills in sustainable practices, as well as those with no culinary background. The
program provides students with an overview of the nation's current food model and alternative methods for altering this model and
creating more sustainable foods. Courses include concepts supporting
the real food movement, which represents re-educating the individual and the community on the way food is purchased, brought to
the table, and consumed. In addition, courses will cover sanitation guidelines, basic principles, and preparation techniques for the
cooking and baking process. The program includes a Certificate of Completion (CCL) in Sustainable Food Systems and an Associate
in Applied Science (AAS) in Sustainable Food Systems.
Major Code: 3127 Total Credits: 63-64

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

Admission Criteria

Formal application and admission into the Sustainable Food Systems program is required. Applications are available from a program
advisor.

Program Prerequisites: None

Required Courses: Credits: 42

Certificate of Completion in Sustainable Food Systems (5158)   42

Restricted Electives: None

Free Electives: None

General Education: Credits: 21-22

First Year Composition

+Met by ENG101 in the Required Courses area **AND**
   +ENG102   First-Year Composition (3) **OR**
   +ENG111   Technical Writing (3)........................... 3
Oral Communication
   COM100
Introduction to Human Communication (3) **OR**
   COM110
Interpersonal Communication (3) 3
Critical Reading
   +CRE101   College Critical Reading (3) **OR**
   +CRE111
Critical Reading for Business and Industry (3) **OR**
             Equivalent as indicated by assessment 3
Mathematics
   +MAT102
Mathematical Concepts/Applications (3) **OR**

Satisfactory completion of a higher level mathematics course   3
Humanities and Fine Arts

Any approved general education course in the Humanities and Fine Arts area   3
Social and Behavioral Sciences

| ECN211 | Macroeconomic Principles (3) **OR** | |
| ECN212 | Microeconomic Principles (3) .... | 3 |

Natural Sciences
| BIO105 | Environmental Biology (4) **OR** | |
| CHM107 | Chemistry and Society (3) .... | 3 |

THE CERTIFICATE OF COMPLETION (CCL) IN SUSTAINABLE FOOD SYSTEMS program is designed
for a diverse student population, including those who are currently working within the food service industry and are interested in building upon their culinary skills in sustainable practices, as well as those with no culinary background. The program provides students with an overview of the nation's current food model and alternative methods for altering this model and creating more sustainable foods. Courses include concepts supporting
the real food movement, which represents re-educating the individual and the community on the way food is purchased, brought to the table, and consumed. In addition, courses will cover sanitation guidelines, basic principles and preparation techniques for the cooking and baking process. The program includes a Certificate of Completion (CCL) in Sustainable Food Systems and an Associate in Applied Science (AAS)
in Sustainable Food Systems.

Major Code: 5158 Total Credits: 42

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

Admission Criteria
Formal application and admission into the Sustainable Food Systems program is required. Applications are available from a program advisor.

Program Prerequisites: Credits: 3
| +ENG101 | First-Year Composition........................ | 3 |

Required Courses: Credits: 39
| AGS182 | Gardening Practices and Techniques.. | 2 |
| FON100 | Introductory Nutrition .... | 3 |

FON104
Certification in Food Service Safety and Sanitation......... 1
| FON118 | Commercial Baking Techniques (3) **OR** | |
| FON135 | Cooking Life (3) .... | 3 |

FON122
Principles of Food and Beverage
Service 3
FON143	Food and Culture.................................	3
FON160	Modern Food Systems	3
+FON161	Sustainable Food Production Systems	3
+FON162	Organic Foods Production...................	3
+FON163	Sustainable Restaurant Practices	3

FON180
Principles and Skills for Professional Cooking 3
+FON271AC
Culinary Studies Internship (3) 6

Students must complete six (6) credits of internship.
| +PHI216 | Environmental Ethics........................... | 3 |

THE ASSOCIATE OF APPLIED SCIENCE (AAS) IN STRENGTH, NUTRITION, AND PERSONAL TRAINING prepares students with the knowledge and experience required to be eligible for the American College of Sports
Medicine (ACSM) Health and Fitness Instructor Certification, ACSM personal trainer certification, the National Strength and Conditioning Association (NSCA) personal trainer certification, and the American Council on Exercise (ACE) personal trainer certification. This degree will provide students with a stronger educational background making them more marketable in the field of fitness and nutrition. This degree will also meet the
needs of individuals with existing degrees in such fields as Exercise Physiology, Nutrition, Athletic Training and other health-related disciplines. Registered dietitians, clinical exercise physiologists, personal trainers, exercise specialists, strength and conditioning specialists, coaches, athletes and others interested in acquiring knowledge in exercise, nutrition and health are also eligible for this program.

Major Code: 3059 Total Credits: 66-69

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

Required Courses: Credits: 41-42
EXS112

Professional Applications of Fitness Principles................ 3
EXS125   Introduction to Exercise Physiology ... 3
+EXS139
Practical Applications of Personal Training Skills and Techniques Internship (3) **OR**
+EXS139AA
Practical Applications of Personal Training Skills and Techniques Internship (1) **AND**
+EXS139AB
Practical Applications of Personal Training Skills and Techniques Internship (2) **OR**
+EXS285
Exercise Program Design and
Instruction (3)   3
EXS145
Guidelines for Exercise Testing and Prescription............. 3
FON100   Introductory Nutrition 3
+FON210
Sports Nutrition and Supplements for Physical Activities 3
+FON230   Nutrition for Special Populations........ 3
+FON247   Weight Management Theory 3
HES154
First Aid/Cardiopulmonary Resuscitation (3) **OR**

BLS Health Care Provider and First Aid Certification.... 3
MGT253
Owning and Operating a Small
Business   3
PSY101   Introduction to Psychology.................. 3
+PSY215   Introduction to Sport Psychology 3

AND
Choose one of the following series for 5-6 credits:

Series 1 Credits: 6
EXS212CR
Instructional Competency Laboratory: Cardiorespiratory Exercises and Activities 2
EXS212FL
Instructional Competency Laboratory: Flexibility and Mind-Body Exercises   2
EXS212SC
Instructional Competency Lab: Muscular Strength and Conditioning   2
OR
Series 2 Credits: 5
EXS130
Strength Fitness: Physiological Principles and Training Techniques   3
EXS132
Cardiovascular Fitness: Physiological Principles and Training Techniques (2) **OR**
EXS212CR
Instructional Competency Laboratory: Cardiorespiratory Exercise and Activities (2)   2
OR
Series 3 Credits: 5
EXS132
Cardiovascular Fitness: Physiological Principles and Training Techniques (2) **OR**

EXS212CR
Instructional Competency Laboratory: Cardiorespiratory Exercise and
Activities (2)   2
+EXS275
Methods of Enhancing Physical Performance 3

General Education: Credits: 25-27
First Year Composition
    ENG101   First Year Composition (3) **AND**
    ENG102   First Year Composition (3) **OR**
    ENG107   First-Year Composition for ESL (3) **AND**
    ENG108
First-Year Composition for ESL (3) 6
Oral Communication
    COM100
Introduction to Human Communication (3) **OR**

COM110
Interpersonal Communication (3) 3
Critical Reading
    CRE101   College Critical Reading 3
Mathematics
    MAT120   Intermediate Algebra (5) **OR**
    MAT121   Intermediate Algebra (4) **OR**
    MAT122   Intermediate Algebra (3) 3-5
Humanities and Fine Arts

Any approved general education course in the Humanities and Fine Arts area   3
Social and Behavioral Sciences
    CFS205   Human Development (3) **OR**
    HES100   Healthful Living (3) 3
Natural Sciences
    BIO160
Introduction to Human Anatomy and Physiology............ 4

THE CERTIFICATE OF COMPLETION (CCL) IN NUTRITION FOR FITNESS AND WELLNESS will

provide personal trainers and other nutrition paraprofessionals with a foundational nutrition background, in non-clinical settings. Students acquire the knowledge and skills to work in a general community setting, with a focus on improving well-being and healthy lifestyles.

Major Code: 5302 Total Credits: 21

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

Required Courses: Credits: 21
Students must complete Required Courses in Block 1 before enrolling in Block 2 courses.
FON100 may not be taken for credit if credit has been earned in FON100AA and/or FON100AC.

Block 1
EXS130
Strength Fitness-Physiological Principles and Training Techniques   3
FON100   Introductory Nutrition (3) **OR**
FON100AA   Introductory Nutrition I (2) **AND**
+FON100AC
Introductory Nutrition II (1) **OR**
        Equivalent FON course 3

FON247
Weight Management Theory 3
AND
Block 2
EXS112
Professional Applications of Fitness Principles................. 3
EXS125   Exercise Science 3
FON210
Sports Nutrition and Supplements for Physical Activity . 3
FON230   Nutrition for Special Populations........ 3

Real Estate Certificates/Degrees

-
Associate in Applied Science in Certified Residential Appraiser
-
Certificate of Completion in Licensed Real Estate Appraiser
- **Certificate of Completion in Residential Appraisal**
- **Certificate of Completion in Real Estate**

Department Chairperson: Linda Collins
Contact: (480) 461-7077

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN CERTIFIED RESIDENTIAL APPRAISER

prepares students for the appraisal of residential land and real property. Licensed Real Estate Appraisal students will be prepared for

the National Uniform State Certified Residential Real Property Appraiser Examination or its equivalent. Upon completion, students will have completed the necessary education requirements designated by the National Appraisal Qualification Board.

Major Code: 3104 Total Credits: 60-63

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

Required Courses: Credits: 24

BPC110
Computer Usage and Applications (3) **OR**
CIS105
Survey of Computer Information
Systems (3)   3
+GBS219   Statistics for Real Estate Appraisers ... 3
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 land Cost Approach 1
+REA275
Residential Sales Comparison and Income Approaches... 2
REA276AA
Residential Report Writing and Case Studies I 1
REA277   Statistics, Modeling and Finance......... 1

+REA278
Advanced Residential Applications and Case Studies...... 1
+REA281   Principles of Real Estate Law.............. 3
+REA282   Real Estate Finance............................ 3

Restricted Electives: Credits: 9-12

OAS108   Business English 3
GBS151   Introduction to Business 3
MGT251   Human Relations in Business 3
MKT271   Principles of Marketing....................... 3
REA179   Real Estate Principles I....................... 3
+REA180   Real Estate Principles II 3
+REA285   Real Estate Selling.............................. 3
+REA288   Real Estate Investment Strategy 3
CSM/TQM101   Quality Customer Service.................... 3
TQM240
Project Management in Quality Organizations 2

General Education: Credits: 27

First-Year Composition

+Any approved General Education course in First Year composition   6
Oral Communication

+Any approved General Education course in the Oral Communication area   3
Critical Reading
    CRE101   College Critical Reading (3) **OR**
                    Equivalent as indicated by assessment. 3
Mathematics
    MAT120   Intermediate Algebra............................ 5
Humanities and Fine Arts

Any approved general education course in the Humanities and Fine Arts Area   3
Social and Behavioral Sciences
    ECN211   Macroeconomic Principles (3) **OR**
    ECN212   Microeconomic Principles (3).............. 3
Natural Sciences

Any approved general education course from the Natural Sciences Area 4

THE CERTIFICATE OF COMPLETION (CCL) IN LICENSED REAL ESTATE APPRAISER will prepare

students for a career as a Real Estate Residential Appraiser. Licensed Real Estate Appraisal students will be prepared for the National Uniform State Certified Residential

Real Property Appraiser Examination or its equivalent. Upon completion, students will have completed the necessary education requirements designated by the National Appraisal Qualification Board.

Major Code: 5615 Total Credits: 30

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

Required Courses: Credits: 30

BPC110
Computer Usage and Applications (3) **OR**
CIS105
Survey of Computer Information
Systems (3)   3
OAS108   Business English (3) **OR**
ENG101   English Composition (3) 3
ECN211   Macroeconomics (3) **OR**
ECN212   Microeconomics (3)............................. 3
REA282   Real Estate Finance.............................. 3
GBS219   Statistics for Real Estate Appraisers ... 3
+REA281   Principles of Real Estate Law.............. 3
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
REA277   Statistics, Modeling and Finance......... 1
+REA278
Advanced Residential Applications and Case Studies...... 1

THE CERTIFICATE OF COMPLETION (CCL) IN RESIDENTIAL APPRAISAL 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.

Major Code: 5619 Total Credits: 15

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

Required Courses: Credits: 15

REA179   Real Estate Principles I........................ 3
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
REA277   Statistics, Modeling and Finance......... 1
REA278

Advanced Residential Applications and Case Studies 1

THE CERTIFICATE OF COMPLETION (CCL) IN REAL ESTATE prepares students to become accredited

financial planners. The program emphasizes tax and investment management, securities, insurance, pension plans, and real estate. Completion of the certificate and several years of related experience qualify the students to sit for the national Certified Financial Planner (CFP) exam, administered by the International Board of Standards and Practices for Certified Financial Planners, Inc. (IBCFP).

Major Code: 5653 Total Credits: 18

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

Required Courses: Credits: 18

REA179	Real Estate Principles I	3
REA180	Real Estate Principles II	3
+REA281	Principles of Real Estate Law	3
+REA282	Real Estate Finance (3) **OR**	
+REA285	Real Estate Selling (3)	3
+REA283	Property Management (3) **AND**	
+REA288		

Real Estate Investment Strategy (3) **OR**
REA270

Basic Appraisal Principles (2) **AND**
REA273
Residential Market Analysis Highest and Best Use (1) **AND**
+REA271   Basic Appraisal Procedures (2) **AND**
REA274
Residential Appraiser Site Valuation and Cost Approach (1)   6

Veterinary Technology Degree

-
Associate in Applied Science in Veterinary Technology

Department Chairperson: Jon D'Ambrosio
Contact: (480) 461-7137
Program Director: Dr. Jill Sheport
Contact: (480) 461-7488

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN VETERINARY TECHNOLOGY 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.

Major Code: 3015 Total Credits: 78

Program Notes: Students must earn a grade of "C" or better in all program prerequisite and required courses.

Admission Criteria:
- High school graduation or GED equivalency.
- Completion of program prerequisites.
- Formal application and admission to the Veterinary Technology/Animal Health program.

Program Prerequisites: Credits: 23-25

ANS110AA	Introduction to Animal Science	3
BIO181	General Biology (Majors) I	4
CHM130	Fundamental Chemistry (3) **AND**	
+CHM130LL	Fundamental Chemistry Laboratory (1)	4
+CRE101		

College Critical Reading (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) **OR**
+ENG111   Technical Writing (3)..........................3
+MAT120   Intermediate Algebra (5) **OR**
+MAT121   Intermediate Algebra (4) **OR**
+MAT122   Intermediate Algebra (3)..................3-5

Required Courses: Credits: 43

AGB132

Agribusiness Accounting and Office Management........... 3

AGB139   Agribusiness Computer Operations 3
+ANH200   Veterinary Clinical Pathology Methods3
+ANH205

Clinical Veterinary Anatomy and Physiology 3

+ANH210   Animal Nursing 2
+ANH220   Animal Pharmacology 3
+ANH230   Veterinary Radiography and Imaging. 3
+ANH240

Veterinary Anesthesia, Surgery, and Emergency Nursing3

+ANH250AA   Veterinary Technician Internship..... 0.5
+ANH250AB   Veterinary Technician Internship..... 0.5
+ANH250AC   Veterinary Technician Internship..... 0.5
+ANH250AD   Veterinary Technician Internship..... 0.5
+ANS112   Animal Science and Health Practices.. 2
+ANS222   Animal Anatomy and Physiology 3
+ANS222LL

Animal Anatomy and Physiology Laboratory................... 1

+ANS223AA   Animal Diseases.................................... 3
+BIO205   Microbiology... 4
EQS105   Principles of Equine Science................ 3
+EQS298AA   Special Projects..................................... 1
HCC145AA

Medical Terminology for Health Care Workers I 1

Restricted Electives: Credits: 3-4

ANS212   Livestock Production and Management3
ANS213   Animal Feeding..................................... 3
+BIO240   General Genetics 4
+BIO280   Animal Behavior 3
EQS120   Equine Anatomy and Physiology 3
EQS130   Equine Business and Law 3
EQS140   Equine Behavior 3

SBU200   Society and Business 3

Any combination of ANS296 and/or ANS298 courses to total 3-4 credits

ANS296++

Cooperative Education (any suffixed courses) **AND**

ANS298++

Special Projects (any suffixed
courses)   3-4

General Education: Credits: 9

First-Year Composition

Met by any combination of ENG courses in the Program Prerequisites area   0

Oral Communication

   COM100   Introduction to Human Communication   **OR**
   COM110   Interpersonal Communication 3

Critical Reading

Met by CRE101 in Program Prerequisites area 0

Mathematics

Met by MAT120 OR MAT121 **OR** MAT122 in Program Prerequisites area   0
Humanities and Fine Arts

Any approved general education course in the Humanities and Fine Arts area.   3
Social and Behavioral Sciences
    ECN100   Economics in American Society (3) **OR**
    ECN211   Macroeconomic Principles (3) **OR**
    ECN212   Microeconomic Principles (3) 3
Natural Sciences

Met by BIO181 in Program Prerequisites area 0

Welding Certificates/Degrees

•
Associate in Applied Science in Welding Technology
• **Certificate of Completion in Welding**

Department Chairperson: Jon D'Ambrosio
Contact: (480) 461-7137
Program Director: Rod Hammil
Contact: (480) 461-7131

THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN WELDING TECHNOLOGY prepares students to work

in the field of oxyacetylene (gas) and electric (arc) processes. The program emphasizes knowledge and skill required to work with modern industrial welding equipment using advanced welding techniques including mig (metal inert gas) and tig (tungsten inert gas).

Major Code: 3244 Total Credits: 65-69

Program Notes: Students must earn a grade of "C" or better for all courses within the program.
++ indicates any module.

Program Prerequisites: Credits: 3
GTC/MET107   Technical Mathematics I (3) **OR**

Satisfactory score on Technical Mathematics placement test   3

Required Courses: Credits: 41-42
DFT110   Technical Drafting I 3
+DFT111   Technical Drafting II 3
GTC102
Machine Processes, Theory and Application (3) **OR**
GTC104   Manufacturing Processes (4) 3-4
GTC106AA   Industrial Safety 2
+GTC/MET108 Technical Mathematics II 3
GTC216   Properties of Materials......................... 3
WLD101   Welding I (3) **OR**
GTC129   Manufacturing Welding (3) 3
WLD103   Basic Blacksmithing and Metal Shaping 3
WLD106   Arc Welding 5
+WLD206   Advanced Weld - Heliarc and Wire Feed 5
+WLD208   Advanced Arc Welding - Certification 5
WLD225   Welding Inspection and Quality Control 3

Restricted Electives: Credits: 3-5
DFT+++++
Any DFT prefixed course(s) except courses used to satisfy Required Courses area
GTC+++++
Any GTC prefixed course(s) except courses used to satisfy Required Courses area
QCT+++++   Any QCT prefixed course(s)
WLD+++++
Any WLD prefixed course(s) except courses used to satisfy Required Courses area

General Education: Credits: 21-22
First-Year Composition
    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 Writing (3)........................... 6	

Oral Communication
COM100
Introduction to Human Communication (3) **OR**
COM110   Interpersonal Communication (3) **OR**
COM230
Small Group Communication (3) 3

Critical Reading
CRE101   College Critical Reading (3) **OR**
          Equivalent by assessment..................... 3

Mathematics

Met by GTC108 in "Required Course" area. 0
Humanities and Fine Arts

Any approved General Education
course in the Humanities and Fine Arts Area 2-3

Social and Behavioral Sciences

Any approved General Education course from the Social and Behavioral Sciences Area

PSY125 Leadership and Group Relations recommended.3
Natural Sciences

Any approved General Education course from the Natural Sciences Area4

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.
Major Code: 5444 Total Credits: 27

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

Program Prerequisites: Credits: 3
GTC/MET107   Technical Mathematics I (3) **OR**
              Satisfactory score on Technical
              Mathematics placement test................. 3

Required Courses: Credits: 27
DFT110	Technical Drafting I............................. 3
GTC216	Properties of Materials......................... 3
WLD101	Welding I 3
WLD106	Arc Welding.. 5

+WLD206
Advanced Welding - Heliarc and Wire Feed 5
+WLD208   Advanced Arc Welding - Certification 5
+WLD225
Welding Inspection and Quality
Control   3

MARICOPA COUNTY COMMUNITY COLLEGE DISTRICT

The following are a portion of the Administrative Regulations used in managing the day-to-day operations of the Maricopa County Community College District (MCCCD) and are subject to change. Administrative Regulations are amended, adopted, or deleted as necessary and are subject to a formal approval process. Administrative Regulations are referenced as "AR" followed by a regulation number, which corresponds with the regulations on the MCCCD web site: **www.maricopa.edu/publicstewardship/governance/adminregs/adminregs_toc.php**

Some regulations include reference to Arizona Revised Statutes from the State of Arizona and are noted as "ARS" followed by a reference number.

1.
General Statement (AR 2.4.1)

The Maricopa Community Colleges are dedicated to providing a healthy, comfortable and educationally productive environment for students, employees and visitors.

2.
Nondiscrimination Policy (AR 2.4.2)

It is the policy of the Maricopa Community Colleges (consisting of Chandler-Gilbert Community College, the District Office, Estrella Mountain Community College, GateWay Community College, Glendale Community College, Maricopa Skill Center, Southwest Skill Center, Mesa Community College, Paradise Valley Community College, Phoenix College, Rio Salado College, Scottsdale Community College, and South Mountain Community College) to promote equal employment opportunities through a positive continuing program. This means that Maricopa will not discriminate, nor tolerate discrimination, against any applicant or employee because of race, color, religion, gender, sexual orientation, national origin, age, disability, or veteran status. Additionally, it is the policy of the Maricopa Community Colleges to provide an environment for each job applicant and employee that is free from sexual harassment, as well as harassment and intimidation on account of an individual's race, color, religion, gender, sexual orientation, national origin, age, disability, or veteran status.

This nondiscrimination policy covers all aspects of the employment relationship and admission to, access to, and treatment of students in the Maricopa Community Colleges' programs and activities including vocational education. This policy also prohibits discrimination on the basis of sexual orientation in the admission and treatment of students in the Maricopa Community Colleges' programs and activities and in the hiring, treatment, promotion, evaluation, and termination of employees.

3.
Equal Opportunity Statement (AR 2.4.3)

It is the policy of the Maricopa Community Colleges to promote equal employment opportunities through a positive continuing program. This means that Maricopa will not discriminate, nor tolerate discrimination, against any applicant or employee because of race, color, religion, gender, sexual orientation, national origin, age, disability, or veteran status. Additionally, it is the policy of the Maricopa Community Colleges to provide

an environment for each job applicant and employee that is free from sexual harassment, as well as harassment and intimidation on account of an individual's race, color, religion, gender, sexual orientation, national origin, age, disability, or veteran status.

Affirmative Action Statements

1.

Affirmative Action Policy Statement for Individuals with Disabilities

In conformance with the provisions of Section 503 of the Rehabilitation Act of 1973, as amended, and the implementing regulations, 41 CFR 60-741.5 (a), as amended, Maricopa Community College District will not discriminate, or tolerate discrimination, against any applicant or employee because of physical or mental disability in regard to any position for which the known applicant or employee is qualified. Maricopa agrees to take affirmative action to employ, advance in employment and otherwise treat known qualified individuals with disabilities without regard to their physical or mental disability in all human resources selection and decision practices, such as the following: advertising, benefits, compensation, discipline (including probation, suspension, and/or termination for cause or layoff), employee facilities, performance evaluation, recruitment, social/recreational programs, and training. Maricopa will also continue to administer these practices without regard to race, color, religion, gender, sexual orientation, national origin, age, disability, or veteran status.

Additionally, all applicants and employees are protected from coercion, intimidation, interference, or discrimination for filing a complaint or assisting in an investigation under the Act.

2.

Affirmative Action Policy Statement for Other Eligible Veterans, Special Disabled Veterans, and Vietnam Era Veterans

In conformation with the Vietnam Era Veterans Readjustment Assistance Act of 1974, the Veterans Employment Opportunities Act of 1998, and the implementing regulations, 41 CFR 60-250(k), Maricopa County Community College District will not discriminate, or tolerate discrimination, against any applicant or employee because he or she is a special disabled veteran or Vietnam era veteran in regard to any position for which the known applicant or employee is qualified. Maricopa agrees to take affirmative action to employ, advance in employment, and otherwise treat known qualified special disabled veterans and Vietnam era veterans without discrimination based upon their disability or veteran status in all human resources section and decision practices, such as the following: advertising, benefits, compensation, discipline (including probation, suspension, and/or termination for cause or layoff), employee facilities, performance evaluation, recruitment, social/recreational programs, and training. Maricopa will continue to administer these practices without regard to race, color, religion, gender, sexual orientation, national origin, age, disability, or veteran status. Additionally, Maricopa agrees to post all suitable job openings at the local office of the State employment service where the job opening occurs. This includes full-time, temporary greater than 3 days' duration, and part-time employment. Finally, all applicants and employees are protected from coercion, intimidation, interference, or discrimination for filing a complaint or assisting in an investigation under the Act.

3.

Notice of Americans with Disabilities Act (ADA)/Section 504 of the Rehabilitation Act/Title IX Coordinator

Dr. Sonya Pearson, Dean of Student Affairs, ADA/504/Title IX Coordinator, Mesa Community College, 1833 W. Southern Ave., Mesa, AZ 85202, 480-461-7651

Under the ADA and Section 504, the District and its colleges recognize the obligation to provide overall program accessibility throughout its locations for persons with disabilities. The designated ADA/504/Title IX Coordinator at each college will provide information as to the existence and location of services, activities and facilities that are accessible to and usable by persons with disabilities. Requests for accommodation should be addressed to the coordinator. Likewise, under Title IX, there is an obligation to provide services and program accessibility in a gender-neutral manner.

Students with disabilities may request catalog information in an alternative format from the college ADA/504 Coordinator.

Declarations De Acción Afirmativa

1.
Póliza de No Descriminación

Es la póliza de los Colegios Comunitarios del Condado de Maricopa (The Maricopa Community Colleges) que consisten del Centro de Apoyo del Distrito, los colegios comunitarios de Chandler-Gilbert, Estrella Mountain, Gateway, Glendale, Mesa, Paradise Valley, Phoenix, Rio Salado, Scottsdale, South Mountain y el Centro de Capacitación de Maricopa, proveer igualdad en las oportunidades de empleo mediante un programa continuo positivo. Esto significa que Maricopa no descriminará o tolerará descriminación en contra de ningún aplicante o empleado debido a su raza, color, religión, sexo, orientación sexual, nacionalidad, edad, incapacitación o por ser veterano incapacitado. Asi mismo, es la póliza de los Colegios Comunitarios proveer para cada aplicante y empleado un ambiente libre de acoso sexual como también de acoso intimidación referente a raza, color, religión, sexo, orientación sexual, nacionalidad, edad o estado de veterano de cualquier individuo.

Esta póliza de no descriminación cubre todos los aspectos de contratación del empleado, ingreso, acceso a, y tratamiento de alumnos en los Colegios Comunitarios de Maricopa los cuáles incluyen también programas de educación vocacional. Esta póliza también prohibe descriminación en base de orientación sexual en la admisión y tratamiento de estudiantes, en sus programas y actividades y en la contratación, tratamiento, promoción/ascensos, evaluación y despido de empleados.

2.
Declaración de Igualdad de Oportunidad

Es la póliza de los Colegios Comunitarios del Condado de Maricopa proveer igualdad en las oportunidades de empleo mediante un programa continuo positivo. Esto significa que Maricopa no descriminará o tolerará descriminación en contra de ningún aplicante o empleado debido a su raza, color, religión, sexo, orientación sexual, nacionalidad, edad, incapacidad o por ser veterano incapacitado. Agregando, es la póliza de los Colegios Comunitarios proveer para cada aplicante y empleado un ambiente libre de acoso sexual como también de acoso e intimidación referente a la raza, color, religión, sexo, orientación sexual, nacionalidad, edad y condición de veterano de cualquier individuo.

3.
Declaración de Acción Afirmativa

Póliza y Declaración de Acción Afirmativa para Individuos con Incapacidades De acuerdo a lo que provee la

Sección 503 de la Ley de Rehabilitación de 1973, como enmienda, y las leyes de implementación, 41 CFR 60-741.5 (a), declara que el Distrito de Colegios Comunitarios de Maricopa no discriminarán o tolerarán descriminación en contra ningún aplicante o empleado debido a su desabilidad/incapacitación física o mental referente a cualquier posición para la cuál el aplicante o empleado ha calificado. Maricopa promete tomar acción afirmativa para emplear, dar ascenso en empleo y tratar a dichos individuos con incapacidades sin hacer incapie en sus incapacidades físicas o mentales en la selección de recursos humanos y prácticas decisivas como son las siguientes: anuncios, beneficios, compensación, disciplina (incluyendo período de prueba, suspensión, y/o terminación de empleo por causa de paro forzoso), facilidades para empleados, evaluación de trabajo, recrutamiento, programas sociales/recreacionales y entrenamiento. Maricopa continuará llevando a cabo éstas prácticas de no discriminar por razones de raza, color, religión, sexo, orientación sexual, nacionalidad, edad, incapacidad o estado de veterano. Asi mismo, todo los aplicantes y empleados estan protegidos en contra de coacción, intimidación, interferencia o discriminación por quejas o por ayudar en una investigación cubierta bajo éste Acto.

4.

Declaración de Póliza de Acción Afirmativa para Otros Veteranos Elegibles, Veteranos con Incapacitación Especial y Veteranos de la Era Vietnamita

Conforme a la ley de Reajuste y Asistencia para los Veteranos de la Era Vietnamita de 1974, acta de Oportunidades de Empleo para Veteranos de 1998 y reglamentos de implementación, 41 CFR 60-250(k), el Distrito de Colegios Comunitarios del Condado de Maricopa no descriminará ni tolerará descriminación en contra de ningún aplicante o empleado veterano o veterano de la Era Vietnamita con desabilidad/incapacitación especial referente a cualquier posición la cual dicho aplicante o empleado califique. Maricopa promete aplicar acción afirmativa para emplear, ascender en empleo y tratar a dichos veteranos incapacitados y de la Era Vietnamita que califiquen sin descriminar base a su desabilidad/incapacitación o condición de veterano en todas las áreas de recursos humanos y decisiones como son las siguientes: anuncios, beneficios, compensación, disciplina (incluyendo período de prueba, suspensión, y/o despido por causa o paro forzoso), facilidades para empleados, evaluación de trabajo, recrutamiento, programas sociales/recreacionales y entrenamiento. Maricopa continuará llevando a cabo estas prácticas sin descriminar por razones de raza, color, religión, sexo, orientación sexual, nacionalidad, edad, incapacidad o condición de veterano. Maricopa promete anunciar todas las oportunidades de empleo disponibles en la oficina local del servicio de empleo del Estado donde el empleo esté disponible. Esto incluye empleo de tiempo completo, temporal de más de tres días de duración y empleo de tiempo medio. Finalmente, todos los aplicantes y empleados están protegidos en contra de coacción, intimidación, interferencia o descriminación por quejas o por ayudar en una investigación cubierta sobre este Acto.

5.

Notificación del Acta de Americanos con Impedimentos (ADA)/Sección 504 del Acta de Rehabilitación/Coordinador del Título IX

Dr. Sonya Pearson, Dean of Student Affairs, ADA/504/Title IX Coordinator, Mesa Community College, 1833 W. Southern Ave., Mesa, AZ 85202, 480-461-7651

De acuerdo a ADA y a la sección 504, el distrito y sus colegios reconocen la obligación de proveer acceso a programas en todas sus localidades a personas incapacitadas. El coordinador designado de ADA/504/Título IX proveerá información tocante a la existencia y localidad de servicios, actividades y facilidades que son accesibles y de utilidad a personas incapacitadas. Solicitudes para acomodación deben ser dirigidas al coordinador. Del mismo modo, bajo el Título IX, hay obligación de proveer acceso a servicios y programas de una manera imparcial segun el género.

Estudiantes incapacitados pueden solicitar información de catálogo en una forma diferente por medio del Coordinador designado por ADA/504 en cada colegio.

VISION

A Community of Colleges … Colleges for the Community

… working collectively and responsibly to meet the life-long learning needs of our diverse students and communities.

MISSION

The Maricopa Community Colleges provide access to higher education for diverse students and communities.
We focus on learning through:
University Transfer Education
General Education
Developmental Education
Workforce Development
Student Development Services
Continuing Education
Community Education
Civic Responsibility
Global Engagement

VALUES

The Maricopa Community Colleges are committed to:

Community

We value all people – our students, our employees, their families, and the communities in which they live and work. We value our global community of which we are an integral part.

Excellence

We value excellence and encourage our internal and external communities to strive for their academic, professional and personal best.

Honesty and Integrity

We value academic and personal honesty and integrity and believe these elements are essential in our learning environment. We strive to treat each other with respect, civility and fairness.

Inclusiveness

We value inclusiveness and respect for one another.
We believe that teamwork is critical, that each team member is important and we depend on each other to accomplish our mission.

Innovation

We value and embrace an innovative and risk-taking approach so that we remain at the forefront of global educational excellence.

Learning

We value lifelong learning opportunities that respond to the needs of our communities and are accessible, affordable, and of the highest quality. We encourage dialogue and the freedom to have an open exchange of ideas for the common good.

Responsibility

We value responsibility and believe that we are each accountable for our personal and professional actions. We are responsible for making our learning experiences significant and meaningful.

Stewardship

We value stewardship and honor the trust placed in us by the community. We are accountable to our communities for the efficient and effective use of resources as we prepare our students for their role as productive world citizens.

GENERAL REGULATION (AR 2.1)

1.
General Statement

Compliance with Policies, Rules and Regulations

Every student is expected to know and comply with all　　　current published policies, rules and regulations as printed in the college catalog, class schedule, and/or student handbook. Copies are available at each college.

Policies, courses, programs, fees and requirements may be suspended, deleted, restricted, supplemented or changed through action of the Governing Board of the Maricopa Community Colleges.

The Maricopa Community Colleges reserve the right to change, without notice, any materials, information, curriculum, requirements and regulations.

Note: The regulations that comprise the student section contain language that appears in various sources such as the Catalog Common Pages and the Student Handbook. All areas became Administrative Regulations with the 1996 adoption of the Governance Model. Changes are made annually either through the Administrative Regulations approval process, or by Board approval for those items that fall under its statutory duty, such as Tuition and Fees. In an effort to prevent duplication, topics in this section may be incorporated by reference, as they are featured in other areas of the manual and are noted accordingly.

The Maricopa County Community College District Vision, Mission and Values that are featured in the Common Pages are a part of approved Governing Board policy and are located in the policy section of the manual. As such, the following statement related to Outcomes Assessment that appears in the Common Pages is presented here as a general statement.

2.
Outcomes Assessment

The mission of the Maricopa Community Colleges is "to create and continuously improve affordable, accessible, and effective learning environments for the lifelong educational needs of the diverse communities we serve." In order to evaluate how successfully the Maricopa County Community College District accomplishes this mission, student outcomes will be assessed as part of the continuous improvement process.

Students may be asked to participate in a variety of assessment activities at each college. Assessment results will be used to improve educational programs, services and student learning.

Admission/Registration/Enrollment

ADMISSION POLICY (AR 2.2.1)
Persons meeting the admissions criteria may attend any Maricopa Community College of their choice. Falsification of any admission materials or official college records may be cause for denial or cancellation of admission. Exceptions to the admissions policies may be requested through the Admissions and Standards Committee. Admission is determined in accordance with state law (A.R.S. §§15-1805.01 and 15-1821) and regulations of the Maricopa Community Colleges Governing Board.

ADMISSION CLASSIFICATIONS

1.
Admission of Regular Students

Admission to the community college in Arizona may be granted to any person who meets at least one of the following criteria:

A.

Is a graduate of a high school, which is accredited by a regional accrediting association as defined by the United States Office of Education or approved by a State Department of Education or other appropriate state educational agency.

B.

Has a high school certificate of equivalency.

C.

Is at least 18 years of age and demonstrates evidence of potential success in the community college.

D.

Is a transfer student in good standing from another college or university.

2.
Admission of Students Under 18 Years of Age

A.

Admission to the community colleges in Arizona shall be granted to any student who is under age 18 and who completes course prerequisites and meets any one of the following requirements:

i.

A composite score of 93 or more on the Preliminary Scholastic Aptitude Test (PSAT).

ii.

A composite score of 930 or more on the Scholastic Aptitude Test (SAT).

iii.

A composite score of twenty-two or more on the American College Test (ACT).

iv.

A passing score on the relevant portions of the Arizona Instrument to Measure Standards test (AIMS).

v.

The completion of a college placement test designated by the community college district that indicates the student is at the appropriate college level for the course.

vi.

Is a graduate of a private or public high school or has a high school certificate of equivalency.

B.

A community college may limit the number of semester hours in which the student may enroll to not more than six (6) credit hours.

C.

Home-schooled students are exempt from this sub-section.

D.

A student shall not be denied admission because of age, lack of a high school diploma or high school certificate of equivalency, grade in school, lack of permission of school officials or lack of concurrent enrollment in a public or private school, if the student has achieved at least a specified score on a college entrance examination.

3.
Specialized Vocational/Training Program

Students who enroll in vocational courses may be admitted on an individual basis with the approval of college officials if the student meets the established requirements of the courses for which the student enrolls and the college officials determine that the student's admission is in the best interest of the student.

4.
Western Undergraduate Exchange Program

The Western Undergraduate Exchange (WUE) program is a student exchange program coordinated by the Western Interstate Commission for Higher Education (WICHE) and administered by the Arizona Board of Regents. Through WUE, students who reside in western states (Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming) and meet the eligibility requirements pay 150 percent of the regular resident tuition plus fees. Students must mark prominently on the Student Information Form that they seek admission as WUE students. Students may not apply as out-of-state students and expect to receive the WUE tuition rate after admitted. Once admitted as WUE students, students may not petition for in-state residency. Further information may be obtained from the Admissions and Records Office/Office of Student Enrollment Services.

5.
Admission of F-1 Nonimmigrant Students

Prospective students should contact the Admissions and Records Office/Office of Student Enrollment Services or designated office for the International student application form(s). When completed, the form(s) should be returned to the Admissions and Records Office/Office of Student Enrollment Services or the International Education office with all requested supporting documents. After the file has been reviewed, a notice will be sent to the applicant indicating either acceptance or denial of admission.

To be guaranteed consideration for admission, all application materials must be received by July 1 for the fall semester and November 1 for the spring semester.

Prospective students seeking admission based on F-1 nonimmigrant status must provide proof of secondary school completion with documentation comparable to a United States high school diploma or higher degree. It is recommended that F-1 nonimmigrant students have graduated in the upper 50% of their secondary school (high school or equivalent) in order to ensure success in academic classes at this college. Applicants for admission to the college must have high school and college (if applicable) transcripts sent directly from the high school or college to the Admissions and Records Office/Office of Student Enrollment Services or designated office. In addition, it is the applicant's responsibility to have all transcripts translated into English and evaluated by a foreign credential evaluation service if necessary.

A.
Admission to Academic Programs

Applicants who wish to enroll in an academic program at the college must present evidence of English language proficiency. If the Test of English as a Foreign Language (TOEFL) is used to satisfy this requirement, the applicant must attain a score of at least 500 (on the paper based TOEFL) or 61 (on the Internet-based TOEFL, known as the iBT). If the International Language Testing System (IELTS) is used to satisfy this requirement, an IELTS overall Band Score of 5.5 or better is required, and a minimum IELTS individual Band Score of 5.0 on each module is recommended. The dean or director of admissions and records of the college may accept other proof of English language proficiency for admission purposes, such as the ASSET ACCUPLACER, COMPASS or CELSA tests.

B.
Admission to an Intensive English Program

Applicants for admission to an Intensive English Program are advised to check with individual colleges for their respective admission requirements. Applicants must provide evidence of at least an intermediate command of English by way of one or more of the following criteria:

i.

At least six years of English language instruction as shown by the applicant's school transcript(s);

ii.

A minimum TOEFL score of 400 (on the paper based TOEFL) or 23 (on the Internet-based test);

iii.

An original letter of recommendation from a teacher, school principal or headmaster/ headmistress, or the director of an English language institute attesting to the applicant's proficiency at the intermediate level;

iv.

Other credentials, test scores, interview results,

or evidence accepted by the coordinator of an intensive English program or the college's responsible designee. Students admitted to an Intensive English Program will not be allowed to enroll in courses outside those officially designated as part of the program unless and until they have met all of the prerequisites or other course requirements.

v.

Foreign students under certain types of visas may need special permission to enroll and should contact the appropriate college official.

C. Financial Support

Evidence of financial support will be required prior

to issuance of the I-20 form. The colleges have no scholarship or financial aid provisions for foreign students; therefore, students must be fully prepared to meet the necessary financial obligations for the full time they will be in the United States. The colleges estimate

a student's average expenses for 10 months to be:

Tuition and Fees	$ 7,570
Living Expenses	10,140
Books	1,200
Health Insurance	1,000
Total	$ 19,910

D.
Dependent Financial Guarantee

Evidence of financial support for dependents of F-1 students (spouse and dependent children) is also required: $5,000 for the first dependent and $2,500 for each additional dependent.

E.
Health Insurance

All F-1 students who have an I-20 issued by one of the Maricopa Community Colleges are required to purchase the Maricopa Community Colleges' international student health insurance plan. Health insurance coverage for dependents of F-1 students is highly recommended.

The Maricopa Community Colleges contracts with an insurance provider annually to offer a health insurance plan for F-1 students. For more information contact the college Admissions and Records Office/Office of Student Enrollment Services or designated international student office.

Footnotes:
(1) Based on 2009-2010 tuition and fee schedule.
(2)
Based on estimated living expenses for two (2) semesters (10 months).
(3)
Based on average new and used textbook prices. Assumes books are sold at the end of the semester.
(4)
Based on the 2009-2010 insurance premiums for the mandatory Maricopa Community Colleges International Student Health Plan.
(5)
Applicants must provide evidence of this minimum amount of financial support before an I-20 is issued.

ADMISSION INFORMATION (AR 2.2.2)

Students must file a Student Information Form with the Admissions and Records Office/Office of Student Enrollment Services at the college of attendance. There is no charge for this service.

1.

Student Status

    A.

Freshman - A student who has completed fewer than 30 credit hours in 100-level courses and above.

    B.

Sophomore - A student who has completed 30 credit hours or more in 100-level courses and above.

    C.

Unclassified - A student who has an associate degree or higher.

2.
Student Identification Number

Disclosure of the social security number is voluntary (A.R.S. §15-1823). However, students must use social security numbers for reporting information pertaining to potential educational tax credits and for processing federal financial aid applications and Veterans Administration benefits.

3.
Residency for Tuition Purposes (Appendix S-1)

All students are classified for tuition purposes under one of the following residency classifications:

    A.

Maricopa County resident

    B.

Out-of-County resident

    C.

Out-of-State resident (including F-1 non-immigrant students)

    D.

Unclassified, Out-of-County/Out-of-State (1-6 credit hours system-wide)

Residency for tuition purposes is determined in accordance with state law (A.R.S. §§15-1801 et seq.) and regulations of the Maricopa Community Colleges Governing Board. All of the Maricopa Community Colleges are subject to the above statutes and regulations. Students who have questions about their residency should contact the Admissions and Records Office/Office of Student Enrollment Services for clarification.

A.
Implementation

    i.

Domicile status must be established before the student registers and pays fees. It is the student's responsibility to register under the correct domicile status.

    ii.

Enforcement of domicile requirements shall be the responsibility of the Chancellor of the Maricopa Community Colleges. The Chancellor has charged the Director of Admissions and Records or other designee at each college to make the initial domicile classification. In determining a student's classification, the college may consider all evidence, written or oral, presented by the student and any other information received from any source which is relevant to determining classification. The college may request written sworn statements or sworn testimony of the student.

    iii.

A request for review of the initial classification may be made to a district review committee. The request must be in writing, signed by the student and accompanied by a sworn statement of all facts relevant to the matter. The request must be filed with the admissions officer of the college within ten days of receipt of notification of classification as a non-resident. Failure to properly file a request for review within the prescribed time limit constitutes a waiver of review for the current enrollment period. The decision of the review committee shall be final.

B.

Definitions

   i.

"Armed Forces of the United States" means the Army, the Navy, the Air Force, the Marine Corps, the Coast Guard, the commissioned corps of the United States Public Health Services, the National Oceanographic and Atmospheric Administration, the National Guard, or any military reserve unit of any branch of the Armed Forces of the United States.

   ii.

"Continuous attendance" means enrollment at one of Maricopa Community Colleges as a full-time or part-time student for a normal academic year since the beginning of the period for which continuous attendance is claimed. Students need not attend summer sessions or other such intersession beyond the normal academic year in order to maintain continuous attendance.

   iii.

"Maricopa County resident" means an individual who has lived in Maricopa County for at least fifty (50) days before the first day of classes of the semester. In-state residency must be established prior to county residency for those moving from other states. Refer to section C for guidelines.

   iv.

"Domicile" means a person's true, fixed, and permanent home and place of habitation. It is the place where he or she intends to remain and to which he or she expects to return when he or she leaves without intending to establish a new domicile elsewhere.

   v.

"Emancipated person" means a person who is neither under a legal duty of service to his parent nor entitled to the support of such parent under the laws of this state.

   vi.

"Full-time student" means one who registers for
at least twelve (12) credit hours per semester.

   vii.

"Part-time student" means one who registers for   fewer than twelve (12) credit hours per semester.

   viii. "Parent" means a person's father, or mother, or if one   parent has custody, that parent, or if there is no   surviving parent or the whereabouts of the parents are unknown, then a guardian of an unemancipated   person if there are not circumstances indicating that   such guardianship was created primarily for the   purpose of conferring the status of an in-state student   on such unemancipated person.

C.

Criteria for Determining Residency

   i.

In-State Student Status

     1.

Except as otherwise provided in this article, no person having a domicile elsewhere than in this state is eligible for classification as an in-state student for tuition purposes.

     2.

A person is not entitled to classification as an in-state student until the person is domiciled in this state for one year preceding the official starting day of the semester, except that a person whose domicile is in this state is entitled to classification as an in-state student if the person meets one of the following requirements:

       a.

The person's parent's domicile is in this state and the parent is allowed to claim the person as an exemption for state and federal tax purposes.

       b.

The person is an employee of an employer which transferred the person to this state for employment purposes or the person is the spouse of such an employee.

       c.

The person is an employee of a school District in this state and is under contract to teach on a full-time basis, or is employed as a full-time non-certified classroom aide, at a school within that school District. For purposes of this paragraph, the person is eligible for classification as an in-state student only for courses necessary to complete the requirements for certification by the state board of education to teach in a school District in this

state. No member of the person's family is eligible for classification as an in-state student if the person is eligible for classification as an in-state student pursuant to this paragraph, unless the family member is otherwise eligible for classification as an in-state student pursuant to this section.

      d.

The person's spouse has established domicile in this state for at least one year and has demonstrated intent and financial independence and is entitled to claim the student as an exemption for state and federal tax purposes or the person's spouse was temporarily out of state for educational purposes, but maintained a domicile in this state. If the person is a non-citizen, the person must be in an eligible visa status pursuant to federal law to classify as an in-state student for tuition purposes.

      3.

The domicile of an unemancipated person is that of such person's parent.

      4.

An unemancipated person who remains in this state when such person's parent, who had been domiciled in this state, removes from this state is entitled to classification as an in-state student until attainment of the degree for which currently enrolled, as long as such person maintains continuous attendance.

      5.

A person who is a member of the Armed Forces of the United States and who is stationed in this state pursuant to military orders or who is the spouse or a dependent child of a person who is a member of the Armed Forces of the United States and who is stationed in this state pursuant to military orders is entitled to classification as an in-state student. The student does not lose in-state student classification while in continuous attendance toward the degree for which he or she is currently enrolled.

      6.

A person who is a member of the Armed Forces of the United States or the spouse or a dependent of a member of the Armed Forces of the United States is entitled to classification as an in-state student if the member of the Armed Forces has claimed this state as the person's state of home record for at least twelve consecutive months before the member of the Armed Forces, spouse or dependent enrolls in a university under the jurisdiction of the Arizona Board of Regents or a community college under jurisdiction of a community college district governing board. For purposes of this subsection, the requirement that a person be domiciled in this state for one year before enrollment to qualify for in-state student classification does not apply.

      7.

A person who is honorably discharged from the Armed Forces of the United States shall be granted immediate classification as an in-state student on honorable discharge from the armed forces and, while in continuous attendance toward the degree for which currently enrolled, does not lose in-state student classification if the person has met all of the following requirements:

      a.

Declared Arizona as the person's legal residence with the person's branch of service at least one year prior to discharge from the Armed Forces.

      b.

Demonstrated objective evidence of intent to be a resident of Arizona which, for the purposes of this section, include at least one of the following:

      1.

An Arizona driver license

      2.

Arizona motor vehicle registration

      3.

Employment history in Arizona

      4.

Arizona voter registration

      5.

Transfer of major banking services to Arizona

      6.

Change of permanent address on all pertinent records

      7.

Other materials of whatever kind or source relevant to domicile or residency status

      c.

Filed an Arizona income tax return with the Arizona Department of Revenue during the previous tax year.

8.

A person who is a member of an Indian tribe recognized by the United States Department of the Interior whose reservation land lies in the state and extends into another state and who is a resident of the reservation is entitled to classification as an in-state student.

ii.

Alien In-State Student Status

1.

An alien is entitled to classification as an in-state refugee student if such person has been granted refugee status in accordance with all applicable laws of the United States and has met all other requirements for domicile.

2.

In accordance with the Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (P.L. 104-208; 110 Stat. 3009-546), a person who was not a citizen or legal resident of the United States or who is without lawful immigration status is not entitled to classification as an in-state student pursuant to A.R.S. §15-1802 or entitled to classification as a county resident pursuant to

A.R.S. §15-1802.01.

3.

In establishing domicile, the alien must not hold a visa that prohibits establishing domicile in this state. After meeting other domicile requirements, students holding valid, unexpired visas in the following categories may be classified as in-state students:

A

Foreign Government Official or Adopted Child of a Permanent Resident

E   Treaty Traders

G

Principal Resident Representative of Recognized Foreign Member Government to International Staff

K

Spouse or Child of Spouse of a U.S. Citizen, Fiancé or Child of Fiancé of U.S. Citizen

L

Intracompany Transferee, or Spouse or Child

N6   NATO-6

V

Spouses and Dependent Children of Lawful Permanent Residents

4.

Students who hold visas as listed in section 3 above, or who were issued a visa of a type other than those listed in section 3 above and have submitted an I-485 to Citizenship and Immigration Services (CIS), may establish residency if other domicile requirements have been met. Residency eligibility for I-485 applicants may be considered one year after the date on the CIS Notice of Action letter (I-797) confirming the applicant's approval of permanent resident status. Students must provide required residency documentation in addition to the Notice of Action for residency consideration. In establishing domicile, the alien must be in a status that does not prohibit establishing domicile in this state for at least one year immediately preceding the official starting date of the semester. In the event that an alien student's parent is domiciled in this state and is allowed to claim the student as an exemption for state or federal tax purposes (43.c.i.2.a), the student's parent, in order to establish domicile, must hold a valid, unexpired visa in one of the categories listed in section 3 above.

iii.

Presumptions Relating to Student Status

Unless there is evidence to the contrary, the registering authority of the community college or university at which a student is registering will presume that:

1.

No emancipated person has established a domicile in this state while attending any educational institution in this state as a full-time student, as such status is defined by the community college district governing board or the Arizona Board of Regents, in the absence of a clear demonstration to the contrary.

2.

Once established, a domicile is not lost by mere absence unaccompanied by intention to establish a new

domicile.

3.

A person who has been domiciled in this state immediately before becoming a member of the Armed Forces of the United States shall not lose in-state status by reason of such person's presence in any other state or country while a member of the Armed Forces of the United States.

iv.

Proof of Residency

When a student's residency is questioned, the following proof will be required.

4.

In-State Residency

a.

An affidavit signed by the student must be filed with the person responsible for verifying residency.

b.

Any of the following may be used in determining a student's domicile in Arizona:

1.

Arizona income tax return

2.

Arizona voter registration

3.

Arizona motor vehicle registration

4.

Arizona driver's license

5.

Employment history in Arizona

6.

Place of graduation from high school

7.

Source of financial support

8.

Dependency as indicated on federal income tax return

9.

Ownership of real property

10.

Notarized statement of landlord and/or employer

11.

Transfer of major banking services to Arizona

12.

Change of permanent address on all pertinent records

13.

Other relevant information

5.

County Residency

a.

An affidavit signed by the student must be filed with the person responsible for verifying domicile to prove continuous residency in a county for fifty (50) days, and

b.

Any of the following may be used to determine a student's county residency:

1.

Notarized statements of landlord and/or employer

2.

Source of financial support

3.

Place of graduation from high school

4.

Ownership of real property

> 5.

Bank accounts

> 6.

Arizona income tax return

> 7.

Dependency as indicated on a Federal income tax return

> 8.

Other relevant information

4.

Concurrent Enrollment in Arizona Public Institutions of Higher Education (A.R.S. §15-1807) (Appendix S-3)

Under Arizona Revised Statutes §15-1807, it is unlawful for any non-resident student to register concurrently in two or more public institutions of higher education in this state, including any university, college or community college for a combined student credit hour enrollment of more than six (6) credit hours without payment of non-resident tuition at one of such institutions. Any non-resident student desiring to enroll concurrently in two or more public institutions of higher education in this state, including any university or community college for a combined total of more than six (6) credit hours who is not subject to non-resident tuition at any of such institutions shall pay the non-resident tuition at the institution of his choice in an amount equivalent to non-resident tuition at such institution for the combined total of credit hours for which the non-resident student is concurrently enrolled.

OTHER ADMISSION INFORMATION (AR 2.2.3)

1.

Veterans

By Arizona statute, any failing grades from any Arizona   university or community college that were received prior to military service will not be used to determine admission to the community college for the honorably discharged veterans with two years' service in the Armed Forces of the United States. Students admitted or readmitted to the community college under this statute are subject to progression, retention, graduation and other academic regulations and standards. (Also see Withdrawal - Appendix S-7)

2.

Ability to Benefit -Classifications

Federal guidelines require that students without a high school diploma or certificate of equivalency who are applying for financial aid must demonstrate the ability to benefit. Evaluation during the admission process results in the student being admitted to the college with the status of REGULAR, REGULAR WITH PROVISIONAL REQUIREMENTS or SPECIAL.

> A.

"REGULAR" status, for the purpose of 2.2.3.2, is granted to an individual admitted to the college who is a high school graduate or has a GED certificate. A student without a high school diploma or GED certification and beyond the age of compulsory high school attendance may be a regular status student if the student has been assessed to benefit from college instruction by receiving qualifying scores on approved assessment instruments. All regular status students must be pursuing a degree/certificate or be in an eligible program.

> B.

"REGULAR WITH PROVISIONAL REQUIREMENTS" status, for the purpose of 2.2.3.2, is granted to a student admitted to the college who is not a high school graduate, does not have a GED certificate, and is beyond the age of compulsory high school attendance but has been assessed to benefit from college instruction requiring developmental/remedial coursework and is pursuing a degree/certificate or be in an eligible program.

> C.

"SPECIAL" status, for the purpose of 2.2.3.2, is granted to a student admitted to the college for concurrent enrollment or pursuing one or more courses of special interest and who meets all the requirements for

admission.

3.
Transcripts

The Maricopa Community Colleges reserve the right to require an official transcript for admission to specific programs, for verification of course requisites and for determination of academic standing. The official transcript must be mailed directly from the source institution to the college Admissions and Records Office/Office of Student Enrollment Services. It is the student's responsibility to ensure that official transcripts have been received and are complete.

Students entering as high school graduates may be required to submit high school transcripts. Students entering as GED recipients may be required to present a copy of the high school equivalency certificate or official report of qualifying GED scores.

4.
Educational Assessment

All students are encouraged to undergo an educational   assessment to determine course placement. Prospective students who do not possess a high school diploma or GED equivalence certificate are required to complete an educational assessment to determine their ability to benefit from college instruction. See Student Course Placement Process (AR 2.2.7)

CREDIT FOR PRIOR LEARNING (AR 2.2.4)

The Maricopa Community Colleges recognize that learning takes place in a variety of situations and circumstances. Many students have significant, demonstrable learning from experiences outside the traditional academic environment. Therefore, prior learning, not life experience, is the basis for the award of college credit. Students may be awarded no more than 30 credit hours, unless required by a specific program of study, within the Maricopa Community Colleges using one or more of the following assessment methods recommended by the Council for Adult and Experiential Learning (CAEL) and the American Council on Education (ACE):
- Articulated Programs
- Credit By Evaluation
- College-Level Equivalency Examinations

Credit awarded for prior learning does not count as hours in residence for graduation requirements. Exceptions may be granted at some MCCCD colleges for specially approved programs. No more than 20 credit hours may be applied to AGEC. Credit received through Prior Learning Assessment is transferable within the Maricopa Community Colleges but is not necessarily transferable to other colleges and universities. Therefore, students are strongly advised to meet with a program advisor or contact the college or university they plan to attend. For further information on Prior Learning Assessment, contact the Admissions and Records Office/Office of Student Enrollment Services.

1.
Credit by Evaluation

The Maricopa Community Colleges offer credit by evaluation. The American Council on Education (ACE) evaluates military training and experiences as well as non-collegiate sponsored training programs and recommends credit awards based on this evaluation. The number of credits listed in the ACE guide are recommendations only.

A college is not required to grant a student the number of credits recommended. The credits are included on a student's transcript.

   A.
Educational Experiences in the Armed Services

The Maricopa Community Colleges may award credit for military experiences based on the ACE Guide to the Evaluation of Educational Experiences in the Armed Services. A student may receive college credit if:

1)

Training parallels a discipline area offered through the Maricopa Community Colleges, and

2)

Credit meets a program requirement or is used as elective credit.

Upon request, individuals who have successfully completed Basic Training, four (4) credit hours in Physical Education will be awarded as indicated in the ACE Guide and the Community College of the Air Force Catalog. Official documentation of military training is required.

B.

College Credit Recommendation Service (CREDIT)

ACE evaluates training programs offered by business, industry, and government and publishes its credit recommendations in *The National Guide to College Credit for Workforce Training*. If a student has received training that appears in the guide, he or she may receive college credit if:

1)

training parallels a discipline area offered through the Maricopa Community Colleges, and

2)

credit meets a program requirement or is used as elective credit.

C.

Departmental Credit by Evaluation

Students may apply for Departmental Credit By Evaluation in certain courses by obtaining the appropriate form in the Admissions and Records Office/Office of Student Enrollment Services, and completing applicable paperwork and other requirements of the college, including payment of required fee. See fee schedule for appropriate fee. Fees are not refundable if a student fails to obtain credit. Students may not request:

1)

The evaluation of a course a second time;

2)

The evaluation of a course while currently enrolled in the course;

3)

To establish credit in a previously completed course; and

4)

To establish credit for a lower level of a course in   which credit has been received. Exceptions may be granted at some MCCCD colleges for their unique programs of study.

Certain departments have additional requirements that must be met before credit may be granted through departmental credit by evaluation. When credit is granted as outlined above, a notation of "credit by evaluation," and the number of credits will appear on the student's transcript. These credits are not used in computing the grade point average. Credit by evaluation is transferable within the Maricopa Community Colleges, but is not necessarily transferable to other colleges and universities.

2.
College-Level Equivalency Examinations

ACE has published credit recommendations for a number of national standardized examinations such as the ones listed below in the *Guide to Educational Credit By Examination*. The Maricopa Community Colleges use these recommendations as guidelines to award credit for equivalent Maricopa Community Colleges coursework as well as elective credit. Scores must be sent directly to the Admissions and Records Office/Office of Student Enrollment Services from the specific testing company(s) before credit is awarded. **All equivalency is subject to future review and possible catalog change.**

A.

Advanced Placement Examinations

Students who have taken an advanced placement course of the College Entrance Examination Board (CEEB) in their secondary school and who have taken an Advanced Placement Examination of the CEEB may receive course credit with a score of 3, 4 or 5. Scores must be received directly from CEEB before credit is awarded.

English AP Recommendation:

EXAM	SCORE	CREDIT HOURS/	EQUIVALENCY
English-Language and Composition	5 or 4	6 credit hrs/ENG101, eligible for Honors ENG102	ENG100, AA, AC, AD
English-Literature and Composition	5 or 4	6 credit hrs/ENG101,	ENH110, eligible for

Math AP Recommendation:

EXAM	SCORE	CREDIT HOURS/EQUIVALENCY
Math-Calculus AB	5, 4 or 3	MAT220 or MAT221
Math-Calculus BC	5, or 4	3 credit hrs/MAT220 or MAT 221, and MAT 230 or MAT 231, upon completion of MAT 241, MAT220 or MAT221
Computer Science A and AB	4 or 5	CSC100

B.

College Level Examination Program

The Maricopa Community Colleges may award credit to individuals who have received a score of 500 or more for the 1986 version of the College Level Examination Program (CLEP) General Examinations (610 on the 1978 version) and who meet or exceed the American Council on Education (ACE) recommended scores for awarding credit on the CLEP subject examinations. The ACE credit-granting score recommendation will be 50 (on the 20-80 scale) for all CLEP computer-based exams beginning July 1, 2001.

- Credit received through CLEP is transferable within the Maricopa Community Colleges, but is not necessarily transferable to other colleges and universities.

- Rio Salado College and Paradise Valley Community College are national CLEP test sites. For more information on registering for the CLEP examinations, contact Rio Salado College or Paradise Valley Community College.

English Composition:

Students pursuing credit for ENG 101 must take the English Composition with Essay. The Maricopa Community Colleges do not award credit for ENG 102 through CLEP examination.

Foreign Languages:

Credit earned through CLEP examination for French, German, and Spanish meets the language proficiency requirements of the Maricopa Community Colleges. For CLEP examinations taken prior to July 1, 2001, the Maricopa Community Colleges will grant credit based on the scaled scores indicated below:

COURSE	SPANISH	FRENCH	GERMAN	CREDIT
101	40-49	39-48	39-45	4 (101)
102	50-54	49-53	46-50	8 (101, 102)
201	55-61	54-62	51-59	12 (101, 102, 201)
202	62-80	63-80	60-80	16 (101, 102, 201, 202)

At the discretion of the individual college, an oral exam at the 202 level may be administered.

C.
Defense Activity for Non-traditional Education Support Examination Program

The Maricopa Community Colleges may award credit for the Defense Activity for Non-Traditional Education Support (DANTES) Examination Program to individuals who meet or exceed the ACE recommended scores for awarding credit on the DANTES subject examinations. The Maricopa Community Colleges do not award credit for ENG 102 through DANTES examination. Credit received through DANTES is transferable within the Maricopa Community Colleges, but is not necessarily transferable to other colleges and universities.

The **Assessment Center at Rio Salado College**
is a national test site. For additional information
on registering for DANTES examinations,
call **(480) 517-8560.**

D.
American College Testing Proficiency Examination Program

The Maricopa Community Colleges may award credit for the American College Testing Proficiency Examination Program (ACT-PEP) based on the scores earned.

E.
Departmental Credit By Examination

Students may apply for Departmental Credit By Examination in certain courses by obtaining the appropriate form in the Admissions and Records Office/Office of Student Enrollment Services, paying the required fee, and completing the examination and other requirements of the college. See fee schedule for appropriate fees.

Students may not request:

1)
To challenge a course a second time;

2)
To challenge a course while currently enrolled in the course;

3)
To establish credit in a previously completed course; and

4)
To establish credit for a lower level of a course in which credit has been received.

- Exceptions may be granted at some MCCCD colleges for their unique programs of study.

- Certain departments may have additional requirements that must be met before credit may be granted through departmental credit by examination.

- Only grades of A, B, C, D or P earned as a result of this examination will be recorded on the student's transcript. Fees are not refundable after the examination has been administered, regardless of results.

- When credit is granted as outlined above, a notation of "credit by examination," a grade and the number of credits will appear on the student's transcript. The grade is used in computing the grade point average.

College Level Examination Program (CLEP)

NOTE: The changes to English Composition CLEP were agreed upon at their respective Articulation Task Force (ATF) meetings this year and were approved by APASC members in April, 2008. These cut scores, which represent equivalencies,
are the be implemented July 1, 2009.

Examination		MCCCD	
General	Score	Sem. Hrs.	Equivalency
English Composition qualifies for ENG101	60 (Fall 2009 or later),	3	With essay
	50 (July 1, 2001), 600 (1986 version), 500 (1978 version)		
Humanities	50 (July 1, 2001 or later), 500 (prior to July 1, 2001)	6	Elective Credit
Mathematics	50 (July 1, 2001 or later), 500 (prior to July 1, 2001)	3	MAT122
Natural Sciences	50 (July 1, 2001 or later), 500 (prior to July 1, 2001)	8	Elective Credit*
Social Sciences & History	50 (July 1, 2001 or later), 500 (prior to July 1, 2001)	5	Elective Credit

Subject			
Accounting, Principles of Credit	ACE Score	6	ACC Elective
American Government	ACE Score	3	POS110
American Literature	ACE Score	6	ENH241, 242
Analyzing & Interpreting Literature	ACE Score	3	Elective Credit
Biology Credit*	ACE Score	8	BIO Elective
Calculus (Calculus with Elem Functions)	ACE Score	4	MAT221
Chemistry Credit*	ACE Score	9	CHM Elective
College Algebra (1993) (replaces College Algebra [1979])		ACE Score	3 MAT152
College Algebra – Trigonometry	ACE Score	3	MAT152
English Literature	ACE Score	3	Elective Credit
French Language	50-54	4	FRE101
French Language	55-61	8	FRE101, 102
French Language 201	62-65	12	FRE101, 102,
French Language 201, 202	66-80	16	FRE101, 102,
Freshman College Composition ENG101	ACE Score	3	With Essay
German Language	39-45	4	GER101
German Language	46-50	8	GER101, 102
German Language 201	51-59	12	GER101, 102,
German Language 201, 202	60-80	16	GER101, 102,
Human Growth & Development	ACE Score	0	No Credit
Information Systems & Computer Applications Credit	ACE Score	3	CIS Elective
Intro to Educational Psychology Credit	ACE Score	3	EDU Elective
Introductory Business Law Credit	ACE Score	3	GBS Elective
Introductory Psychology	50	3	PSY101
Introductory Sociology	ACE Score	3	SOC101
Mathematics, College	ACE Score	3	MAT142
Macroeconomics, Principles of (replaces Introductory Macroeconomics)		ACE Score	3 ECN211
Management, Principles of Credit	ACE Score	3	MGT Elective

Marketing, Principles of	ACE Score	3	MKT271
Microeconomics, Principles of (replaces Introductory Microeconomics)	ACE Score	3 ECN212	
Spanish Language	50-54	4	SPA101
Spanish Language	55-65	8	SPA101, 102
Spanish Language	66-67	12	SPA101, 102, 201,
Spanish Language	68-80	16	SPA101, 102, 201, 202
Trigonometry	ACE Score	3	MAT182
U.S. History I – Early Colonization to 1877	ACE Score	6	HIS103
U.S. History II – 1865 to the Present	ACE Score	3	HIS104
Western Civilization I – Ancient Near East to 1648	ACE Score	6	HIS100, 101
Western Civilization II – 1648 to the Present	ACE Score	3	HIS102

The general studies requirement in Natural Sciences (SQ and SG) and Literacy and Critical Inquiry (L) are not satisfied by CLEP

Advanced Placement Credit

NOTE: The changes to AP scores to include Japanese were agreed upon at their respective Articulation Task Force (ATF) meetings this year and were approved by APASC members in April, 2008. These cut scores, which represent equivalencies,
are the be implemented fall 2009.

Examination	Score	MCCCD	Sem. Hrs.
Art–History		5 or 4	ARH101, 102 6
	3	ARH101, 102	3
Art–Studio–Drawing	5	ART111, 112	6
	4	ART111	3
Art–Studio–General	5	ART111, 112	6
	4	ART112	3
Biology	5 or 4	BIO181, 182	8
	3	BIO100 or Equivalent	4
Chemistry		5 or 4	CHM151/151LL & CHM1
	3	CHM151, 151LL	4
Computer Science A	5 or 4	CSC100	3
Computer Science AB	5 or 4	CSC100	3
Economics – Introductory Macroeconomics	5 or 4	ECN211	3
Economics – Introductory Microeconomics	5 or 4	ECN212	3
English – Language & Composition	5 or 4	ENG100AA, AC, AD and ENG101	6
English – Literature & Composition	5 or 4	ENG101 and ENH110	6
Environmental Science	5 or 4	No credit	3
French–Language	5, 4, or 3	FRE101, 102, 201, 202	16
French–Literature	5, 4, or 3	FRE101, 102, 201, 202	16
German–Language	5, 4, or 3	GER101, 102, 201, 202	16
German–Literature	5, 4, or 3	GER101, 102, 201, 202	16
History–American	5 or 4	HIS103, HIS104	6
History–European	5 or 4	HIS101, HIS102	6
	3		3
Japanese-Language	5	JPN101, 102, 201, and 202	20
	4	JPN101, 102 and 201	15
	3	JPN101 and 102	10
Latin–Language	5	LAT101, 102, 201, 202	16
	4	LAT101, 102, 201	12
	3	LAT101, 102	8
Mathematics–Calculus AB	5, 4, or 3	MAT220 or MAT221	4 or 5
Mathematics–Calculus BC MAT2418 to 10	5 or 4	MAT220 or MAT221 and MAT230 or MAT231 upon completion of	
	3	MAT220 or MAT221	4 or 5
Music	5 or 4	MTC105	3
Physics B	5 or 4	PHY111, PHY112	8
	3	PHY111	4
Physics C – Electricity & Magnetism	5, 4 or 3	PHY112 with laboratory coursework	4
Physics C – Mechanics	5, 4 or 3	PHY111 with laboratory coursework	4
Political Science – American Government	5 or 4	POS110	3

Political Science – Comparative Government and Politics	5 or 4	POS140	3
Psychology	5 or 4	PSY101	3
Spanish–Language	5, 4, or 3	SPA101, 102, 201, 202	16
Spanish–Literature	5, 4, or 3	SPA101, 102, 201, 202	16
Statistics	5, 4, or 3	MAT206	3

F.
International Baccalaureate Diploma/Certificate

Students who present an International Baccalaureate Diploma/Certificate may qualify for college credit. MCCCD College grants credit for college-level courses only. A grade of 5 qualifies a student to receive credit for one introductory course. No credit is awarded for English B (English as a Second Language). Credit is awarded according to the "International Baccalaureate Diploma/Certificate Credit" table.

International Baccalaureate Diploma/Certificate Credit

Examination	Score	Sem. Hrs.	Equivalency
Art/Design	7, 6 or 5	6	ART111, 112
	4	3	ART112
Biology	7, 6 or 5	8	BIO181, 182
	4	4	BIO181
Chemistry	7, 6 or 5	9	CHM151, 152
	4	4	CHM151
Economics	7, 6 or 5	6	ECN111, 212
	4	3	ECN211
English A	7, 6 or 5	6	ENG101, ENG100AB, AC, AD
	4	3	ENG100AB, AC, AD
English B	No credit		None
Foreign Language A or B*	7, 6 or 5	8	Foreign Language 101, 102
	4	4	Foreign Language 101
History–American	7, 6 or 5	6	HIS103, 104
	4	3	HIS103
History–European	7, 6 or 5	6	HIS101, 102
	4	3	HIS101
Human Geography	5, 4, or 3	3	GCU102
Mathematics	7, 6, 5 or 4	4	MAT221
Physics	7, 6 or 5	8	PHY111, 112
	4	4	PHY111

3.
Health Care Integrated Educational System (HCIES) Credit for Prior Learning
A. National/Regional Credential Recognition

Students who have recognized credentials related
to healthcare may request an evaluation for course competency equivalency on a case-by-case basis through the Integrated Competency Assessment Network (ICAN). For more information contact
the ICAN office at **(480) 731-8240** or by email at **ican@domail.maricopa.edu.**
Website:
www.healthcare.maricopa.edu/healthcarecourses.php When national or regional credentials are determined
to be equivalent to the competencies demonstrated in corresponding courses, the recognition of external credentials will fulfill graduation credit requirements
for the identified courses through Credit by Evaluation.

B. Credit by Examination and Credit by Skills   Demonstration Assessment

Health care students may apply for credit for prior learning in certain courses. Specific information

and required forms can be found on
www.healthcare.maricopa.edu/healthcarecourses.php Credit by Examination in the HCIES is determined through the use of HCIES Competency Assessment Tests (CATs) and/or Skills Demonstration Assessment under the direction of the HCIES Integrated Competency Assessment Network (I CAN). Students may apply for HCIES Health Care Pathway/Program Advanced Placement in certain courses by obtaining the appropriate form(s) in the Admissions and Records Office/Office of Student Enrollment Services, paying the required fee(s), and successfully completing the examination and/or skills demonstration and other requirements of the college. See fee schedule for appropriate fee. Fees are not refundable if a student fails to obtain credit. Students may not request:

1.
To challenge a course a second time;
2.
To challenge a course while currently enrolled
in the course;
3.
To establish credit in a previously completed course; or
4.
To establish credit for a lower level of a course
in which credit has been received.

Certain health care pathways/programs have additional requirements which must be met before credit may be granted through HCIES credit by examination and credit by skills demonstration assessment.

Grades of A, B, C, D, or P earned as a result of examination or skills assessment will be recorded on the student's transcript. Fees are not refundable after the examination/skills demonstration has been administered, regardless of results. A grade of P/Z is not used in computing the grade point average.

When credit is granted as outlined above, a notation of "CREDIT BY EXAMINATION," "CREDIT BY EVALUATION," or "CREDIT BY SKILLS DEMONSTRATION," and the number of credits will appear on the student's transcript. If a grade is assigned, it will be used in computing the grade point average.

4.
Transfer Credit
A.
Transfer credit into MCCCD
A student entering into one of the Maricopa Community Colleges after having attended another post-secondary institution can have coursework evaluated for transfer credit. To be eligible for evaluation, course work must appear on an official transcript from the institution that offered the course work. The admissions and records office at the receiving institution will complete a course-by-course evaluation for all submitted transcripts upon student request. The award of transfer credit shall not express or imply that all transfer credit will be fully applicable toward all Maricopa associate's degree and certificate requirements.
In addition, the age of credit may be considered in applying credit toward degrees and certificate programs. Transfer credit that may be applied to meet associate's degree and certificate requirements at a Maricopa College is not necessarily transferable to other colleges and universities. The processes and policies that govern the award of transfer credit are as follows:
1)
Inter-institutional: Acceptance of courses that fulfill requirements other than general education is determined by individual Maricopa Community Colleges. Credits accepted in transfer from other Maricopa Colleges do not necessarily apply to all Maricopa degree and certificate programs.

2)

Maricopa Skill Center and the Southwest Skill Center: the Maricopa Community Colleges have agreements with the Maricopa Skill Center and the Southwest Skill Center in limited areas of study. Students who have participated in these agreements may be granted credit for prior learning. No fees will be assessed for credits awarded for prior learning. Articulated course/program credit is transferable within the Maricopa Community Colleges, but may not necessarily be transferable to other universities and colleges. Students should contact the admissions and records office/office of student enrollment services for specific terms related to these agreements.

3)

Arizona public community colleges and universities: A course that meets general education requirements at any Arizona public community college district or university will be accepted in transfer to meet comparable general education requirements at any of the Maricopa Community Colleges provided the course was completed with a grade of C or higher (2.0 on a
4.0 scale). On an exception basis, P-grades may
be allowed in the Arizona general education curriculum (AGEC) for credit transferred if documentation collected by the community
college indicates that the p-grade is a C or better. The P-grade exception does not apply to credits awarded by AGEC granting/receiving institutions. Acceptance of courses that fulfill requirements other than general education is determined by individual Maricopa Community Colleges.

4)

Domestic institutions (U.S.): The evaluation
and award of community college transfer credit
for coursework originating at U.S. institutions that are regionally accredited will be based on official transcripts from all institutions previously attended. Regionally accredited institutions of higher education are those that are fully accredited by New England Association of Schools and Colleges, Middle States Association of Colleges and Schools, North Central Association of Colleges and Schools, Northwest Association of Schools and Colleges, Southern Association of Colleges and Schools,
and/or Western Association of Schools and Colleges. Courses from institutions that have earned candidate status from a regional accrediting association will be reviewed on a case-by-case basis.

The admissions and records office at the receiving institution will complete a course-by-course evaluation for all submitted transcripts upon student request, and will determine the acceptance and applicability of transfer credit toward associate's degree and certificate requirements.

5)

Foreign institutions: Credits from foreign institutions will be reviewed for acceptance. It is the student's responsibility to have all transcripts translated into English and evaluated by an international student evaluation service before submitting them to the college.

6)

Limitations on the award of transfer credit: Generally, the Maricopa Community Colleges will not award credit for courses completed at institutions not regionally accredited.

B.
Transfer Credit from MCCCD

The Maricopa Community Colleges have developed formal agreements to facilitate the transfer of credit to four-year colleges and universities. This is accomplished through the development of course and program articulation agreements. The Maricopa Community Colleges articulate with private, public, and international baccalaureate degree granting institutions that have achieved full accreditation or candidacy status with a regional accreditation commission. Maricopa transfer agreements are on behalf of the district as a whole and not with individual colleges within the district. Courses taken at any of the Maricopa Community Colleges are equally transferable by institutions wishing to articulate. Students planning to transfer to a university may be required to submit official transcripts from all institutions attended. The processes and policies that govern the transfer of credit are as follows:

1)

Inter-institutional: Students who transfer from one Maricopa Community College to another must have

transcripts sent to the receiving institution for evaluation. Transcript evaluation will be conducted upon student request. Acceptance of courses that fulfill requirements other than general education is determined by individual Maricopa Community Colleges. Credits transferred from one Maricopa College to another may not necessarily apply to all Maricopa degree or certificate programs.

2)

Arizona public community colleges and universities: Maricopa is a participant in the Arizona statewide transfer system. The aztransfer.com website is the official source of information for the statewide articulation agreements between the Arizona public community colleges and universities (Arizona State University, northern Arizona university, and university of Arizona). Included on the aztransfer.com site is the course equivalency guide (CEG), which shows how courses transfer from Arizona public community colleges and tribal institutions to Arizona state University, Northern Arizona University and the University of Arizona. The transferability of a course does not indicate how the course will apply to meet requirements for specific bachelor's degrees. **www.aztransfer.com/cgi-bin/webobjects/admin_ceg**

3)

Domestic institutions (U.S.): The Maricopa Community Colleges have transfer agreements with U.S. universities and colleges that are regionally accredited. These partnerships are formalized through district-wide articulation agreements and are designed to help students make a smooth transition when transferring from one of the Maricopa Community Colleges to a four-year college or university. To access a list of institutions of higher education with which Maricopa has established an articulation agreement, visit: **www.maricopa.edu/academic/ccta/artic/partner_list.php**

4)

Foreign institutions: The Maricopa Community Colleges have agreements with colleges and universities outside of the U.S. that are approved
by the ministry of education or other appropriate governmental agency. To access a list of international agreements, visit **www.maricopa.edu/academic/ccta/artic/partner_list.php**

5)

Limitations on the transfer of credit: Generally, the following types of courses are not intended for transfer. See an advisor for specific information.

•

Remedial/developmental courses or courses numbered below 100
  • Arizona government university courses
  • Cooperative education
  • Experimental courses
  • Post-baccalaureate courses
  •

Contractual training for business, industry and government
  • Some forms of credit for prior learning
  • Non-credit courses

4.
Servicemen's Opportunity College

The Maricopa Community Colleges recognize the unique educational problems confronting many active duty military personnel in attaining their educational goals. The colleges have, therefore, established themselves as Servicemen's Opportunity Colleges. This means that the colleges recognize the peculiar needs of military personnel in that they provide courses on the various military bases located in Maricopa County and provide opportunities to complete courses through non-traditional means when education is interrupted by military obligations. Maricopa Community Colleges maintain liberal entrance requirements, offer maximum credit for educational experiences obtained in the Military Services, and follow residency statutes applicable to the special needs of servicemen. Maricopa Community Colleges follow the recommendations established by the American Council on Education. If, for any reason, Maricopa Community Colleges' status as a Servicemen's Opportunity College District is discontinued, it will nonetheless maintain its commitment to students previously enrolled. In addition, the option to enter into a "contract for a degree" allows the community college, as the college of record, to grant a degree upon completion of twelve (12) credit hours at the college and the satisfaction of graduation requirements.

ACADEMIC ADVISING (AR 2.2.6)

1.
Academic advising assists students in the formation of educational plans and goals. This is an ongoing process of clarification, evaluation, re-clarification, and re-evaluation.

2.
The ultimate responsibility for making decisions about life goals and educational plans rests with the student. The academic advisor helps to identify and assess alternatives and consequences.

3.
The academic advisor also serves as a resource for accurate information. The advisor is knowledgeable about institutional policies, procedures, programs and resources and assists students in making use of printed and online materials.

4.
Advisors are in a position to help students identify their learning-related needs. Feedback received from advisors could be beneficial and should be used in policy-making decisions at all levels of the institutional administration.

With the help of an academic advisor, students will:

1.
gain an understanding of their academic abilities and interests

2.
be reinforced in their successes

3.
be provided information regarding the nature and purpose of higher education

4.
be referred to counselors and other resources to explore their interests, skills, abilities, and values

5.
define and refine educational goals and objectives and understand the consequences of alternative courses of action

6.
consider alternative careers through counselors, workshops, seminars, and other resources

7.
make course, certificate, and/or degree selections

8.
understand and utilize placement test results

9.
be encouraged to be active participants in their educational planning and college life

10.
be informed of support services that are available and how to make an appointment, if appropriate

11.
be aware of transfer articulation arrangements

12.
be informed about research results and general perceptions of student experiences at the institution

13.
receive accurate printed materials on academic majors, minors, and other degree and program requirements

14.
be encouraged to use the technology, which supports the academic advising process

STUDENT COURSE PLACEMENT PROCESS (AR 2.2.7)

The Maricopa Community Colleges are committed to providing students with opportunities for successful academic experiences. Student academic achievement is directly related to the proper initial course placement. Students choosing to enroll will register for the courses indicated by their English, Mathematics or Reading course placement tests, or in a lower-level course. Initial course placement should be discussed with an advisor or counselor who is skilled in assessing the student's needs and factors that affect student success.

1.

Testing for Course Placement

A.

Students will be required to complete a course placement test under any one of the following conditions:

1)

The student is taking his or her first college credit English, reading and/or math course, or any college course for which English, reading or math is a prerequisite.

2)

The student is pursuing a degree and does not have current valid district approved course placement scores on file or does not have previous college credit in English, reading and math.

3)

The student does not have a high school diploma or GED, and is applying for federal financial aid.

4)

The student for whom English is not the primary language and is taking his or her first English as a Second Language class is required to take a test of English proficiency.

5)

College may determine additional conditions under which students would be required to complete course placement testing. Contact the college for additional conditions.

B.

Students will be strongly encouraged to complete a course placement test under any one of the following conditions:

1)

The student is taking a math course and has a college-level prerequisite on file that is more than five (5) years old.

2)

The student is taking a college course for which English, reading or math is a prerequisite, and such credit is more than five (5) years old.

C.

Students MAY be exempt from a course placement test if at least one of the following conditions apply:

1)

The student has earned an associate or higher degree.

2)

The student has earned college credits from a regionally accredited college in English, reading, and math with a grade of C or higher, and such credit is no more than five (5) years old.

3)

The student has currently valid district approved course placement scores on file

Note: Being exempt from taking a course placement test   does not exempt the student from fulfilling the minimum   graduation requirements.

2.
Course Placement

A.

Students choosing to enroll in the courses indicated will be advised and placed into courses based on highest test or retest scores.

B.

Students will be permitted one re-test in English, reading or by math level after at least a 24-hour waiting period. An additional re-test is permitted one year from the date of student's original or re-test at any course placement testing site.

C.

The vice president of student affairs or designee may approve re-testing for students with special needs or circumstances. The re-test date will then serve as the date of record.

D.

Students may request a Course Placement Waiver from the appropriate department/division chair or designee. The waiver will be granted at the chair/designee's discretion. Additional testing may also be required. The signed waiver will be noted on the student's electronic record.

3.
Implementation of Policy

To ensure consistency of the course placement process within the Maricopa Community Colleges:
A.
All colleges shall accept the same approved course placement instruments.
B.
All colleges shall adhere to the same approved cut-off scores.
C.
Course placement scores, with the exception of the reading exemption, will be valid for two years from the date of the original or re-test.

4.
Evaluation

The Maricopa Community Colleges will provide an ongoing evaluation of the course placement process.

An annual report shall be submitted to the Governing Board to indicate the policy's effectiveness noting the number of students assessed, their placement scores and their success in courses. Every three years a thorough review of the policy and procedures shall be implemented, including recommendations from the English, Reading and Math Instructional Councils regarding cut-off scores, course placement assessment tools and procedures.

REGISTRATION (AR 2.2.8)

Students must register according to the dates indicated, and in the manner described in the college class schedule. To be eligible for registration, students must have completed the appropriate steps listed under the Admissions section. The college may allow early or priority registration. Tuition and fees must be paid or payment arrangements made by the due date to secure class enrollment. Students may not attend a class for which they are not registered.

The colleges reserve the right to enroll students in courses. The final decision for admission to any class for students admitted under section 2 of AR 2.2.1 will be determined by the designated college administrator in consultation with the department chairperson and/or faculty.

TUITION AND FEES (AR 2.2.9)

Tuition and fees are public monies within the jurisdiction and responsibility of the Maricopa Community Colleges Governing Board under the laws and regulations of the State of Arizona and must be administered by the Governing Board. The Governing Board reserves the right to change tuition and fee charges when necessary without notice. All students are classified for tuition purposes under one of the following residency classifications:
1.
Maricopa County resident
2.
Out-of-County resident
3.
Out-of-State resident (including F-1 non-immigrant students)
4.
Unclassified, Out-of-County, Out-of-State (1-6 credit hours system-wide)

Residency for tuition purposes is determined in accordance with state law (A.R.S. §§15-1801 et seq.) and regulations of the Maricopa Community Colleges Governing Board. All of the Maricopa Community Colleges are subject to the above statutes and regulations. Students who have questions about their residency should contact the Admissions and Records Office/Office of Student Enrollment Services for clarification.

Students attending more than one Maricopa Community College will be assessed fees for their enrollment at each of the Maricopa Community colleges/centers. (Students who are considered to be out-of-state residents for tuition and fees purposes should refer to the Concurrent Enrollment in Arizona Public Institutions of Higher Education policy under the Residency section of this publication.)

1.
Time of Payment

All tuition, fees, assessments and deposits must be paid at the time of registration or by the specified deadline date and in accordance with the fee schedule approved by the Maricopa Community Colleges Governing Board.

2.
Tuition and Fees Schedule (Effective July 1, 2009 for Fall, Spring and Summer Sessions)

Current information can be found at
www.maricopa.edu/publicstewardship/governance/adminregs/appendices/S-4.htm

A.
Determine Student Residency Status
Refer to admissions information (AR 2.2.2) of the college catalog for residency information and to review the requirements for classification as a Maricopa County resident. Contact the Admissions and Records Office/Office of Student Enrollment Services if you have questions about residency requirements.

B.
Use the Chart to Locate Tuition Charges
Determine the correct column based on your residency status and then select the number of credit hours. The general tuition chart is provided for reference only.

C.
Add Any Additional Fees
 1)
A one-time, per-semester $15 registration fee is due by the official start of the term (semester) or by the specified due date or at time of registration.
 2)
There may also be additional course fees for classes; please refer to the college schedule for course fees.
 3)
If you choose to audit a class, add an additional fee of $25 per credit hour.
 4)
Additional course fees may apply for specific courses. Check with the college's Admissions and Records Office/Office of Student Enrollment Services for a current listing of course fees.

D.
Pay Your Fees

Payment of fees may be made by cash, check, money order, VISA, MasterCard, Discover or American Express. Payment Plan options are also available.

NOTE: If you do not pay your tuition and fees at the time of registration or by the specified due date, you may be dropped from your classes and may be responsible for the tuition and fees based on the refund schedule which outlines the refund deadlines for each course.

Corporate Tuition Rate – Out-of-State

Training delivered inside the boundaries of Arizona to out-of-state employees of companies which have

contracts with the Maricopa Community Colleges
.... $147.00 per credit hour

Training delivered outside the boundaries of Arizona to out-of-state employees of companies which have contracts with the Maricopa Community Colleges
.... market rate

Skill Center Tuition Rates

Regular	$4.60 per contact hour
Nursing Assistant	$5.60 per contact hour
Practical Nursing	$5.60 per contact hour

Credit by Examination & Credit by Evaluation (excludes Allied Health courses)

Regular Rate	$69.00 per credit hour
Contract Rate	$34.50 per credit hour

3.
Outstanding Debts

Any debt or returned check may revoke a student's current enrollment and the student's right to register in subsequent semesters at all Maricopa Community Colleges. Delinquent debts may require penalties, late charges, collection costs, and/or legal fees to be paid before good standing is restored to the student.

The following procedure will be used for the collection of returned checks and other outstanding debts:
   A.
The designated college official or fiscal officer is responsible for:
      1)
Verifying the student's district wide debt,
      2)
Attempting to notify the student of the debt, and
      3)
Attempting to collect the debt.

   B.
All Maricopa Community College services will be withheld pending payment of debt (at designated college office) with cash, certified check or money order or online with debit or credit card or in person with credit card. Student may be withdrawn from classes.

   C.
If other collection attempts fail, the Maricopa Community Colleges District Office will either collect or use other means available, including:
      1)
Collection agency, requiring payment of collection fees by the student;
      2)
The Tax Refund Setoff Programs as stated in A.R.S. §42-1122;
      3)
Litigation, requiring payment of court costs and legal fees by the student.

   D.
Debt Holds may be lifted by the appropriate College or District business services designee for the extension of services provided that at least one of the following conditions are met:
      1)
MCCCD staff verify that full payment has been made to another College;
      2)
The College can deduct payment from a financial aid award made to the student (referring to student

authorization guidelines for regulations on applying federal financial aid to debt balances);

3)

A third party not related to the student, such as an employer or state agency, makes a verified payment directly to the College;

4)

It is determined and verified with the appropriate MCCCD office that the hold resulted from a system error and the error is due to an activity that requires correction by the appropriate College or District personnel.

4.
Discounted Fees and Waivers

A.

Citizens 62 years of age and older shall be issued ID cards that allow them the privilege of attending events at no cost and that allow them to use the library facilities.

B.
Employees, Dependents and Mandated Groups

The Maricopa Community College District waives tuition and student activity fees for credit-hour courses for employees and their dependents, and for legislatively mandated groups. Special fees and fees for Non-credit/Special lnterest Community Services courses are not waived.

C.
Tuition and Registration Fee Waiver for Members of the Pima-Maricopa Indian Community

Tuition and fee waivers shall be funded through Auxiliary Fund Monies for college credit courses for the enrolled members of the Pima-Maricopa community who live on the Pima-Maricopa Reservation.

All other guidelines and procedures established for the purpose of administering waivers, affidavits and exemptions are outlined in the Maricopa County Community College District tuition waiver manual.

REFUND POLICY (AR 2.2.10)
1.
Refund Policy for Credit Classes

Students who officially withdraw from credit classes (in fall, spring, or summer) within the withdrawal deadlines listed below will receive a 100% refund for tuition, class and registration processing fees. Deadlines that fall on a weekend or a college holiday will advance to the next college workday except for classes fewer than 10 calendar days in length or as specified by the college. Calendar days include weekdays and weekends. Refer to individual colleges for withdrawal and refund processes.

LENGTH OF CLASS FOR 100% REFUND*	OFFICIAL WITHDRAWAL DEADLINES
1-9 calendar days	Prior to the class start date
10-19 calendar days	1 calendar day including the class start date
20-29 calendar days	2 calendar days including the class start date
30-39 calendar days	3 calendar days including the class start date
40-49 calendar days	4 calendar days including the

class start date

50-59 calendar days	5 calendar days including the class start date
60-69 calendar days	6 calendar days including the class start date
70+ calendar days	7 calendar days including the class start date

✻

Course fees and registration processing fees will be refunded only if the student qualifies for a 100% refund. Debts owed to any MCCCD college must be satisfied before any refunds are paid to the student. Refunds for students receiving federal financial assistance are subject to federal guidelines. Requests for exceptions to the refund policy must be filed within one year from the semester in which the course was taken.

2.
Refund Policy for Non-Credit Classes

Unless otherwise specified, students must drop non-credit classes prior to the course start date to be eligible for a 100% refund.

3.
Canceled Classes

When a class is canceled by the college, a 100% refund will be made.

4.
Refund Exceptions

Students withdrawing from a college or from courses for one of the following reasons must submit a written request for a refund exception to the Admissions and Records Office/Office of Student Enrollment Services or designated college official:

A.
A student with a serious illness, verifiable by a doctor's written statement that the illness prevents the student from attending all classes for the semester. The doctor's statement must be on file with the college before a refund can be given.

B.
Serious illness or death of an immediate family member that prevents the student from attending all classes for the semester. Immediate family members include spouse/partner, father, mother, grandfather, grandmother, child, foster child, grandchild, stepchild, sibling, stepsibling, stepfather, stepmother, or spouse's/partner's father, mother, grandfather, grandmother, or in-laws in any one incident. Appropriate documentation must be provided before a refund can be given.

C.
Death of a student. Appropriate documentation must be provided before a refund can be given.

D.
Requests for a total withdrawal from a college or courses for one of the above reasons may result in a partial prorated refund of tuition, provided courses have not been completed.

E.
A student in the Armed Forces or the Arizona National Guard who is called to active duty and assigned to a duty station, verifiable by a copy of the orders, will be allowed to withdraw and receive a 100% refund of tuition, provided courses have not been completed.

STUDENT FINANCIAL ASSISTANCE
(AR 2.2.11 & APPENDIX S-5)

The Maricopa Community Colleges provide students financial assistance to enable access to higher education. Student financial assistance shall be awarded on the basis of demonstrated financial need except where funds

are specified for recognition of special talents and achievements. Additional procedural information on financial assistance is available in Appendix S-5.

Appendix S-5: Student Financial Assistance

The Maricopa Community Colleges provide students financial assistance to enable access to higher education. Student financial assistance shall be awarded on the basis
of demonstrated financial need except where funds are specified for recognition of special talents and achievements.

How to Apply for Federal Financial Aid

New students must complete the Free Application for Federal Student Aid (FAFSA) or FAFSA on the Web at
www.fafsa.ed.gov/. Each academic year, continuing students must reapply by completing a FAFSA, Renewal FAFSA,
or FAFSA on the Web. Scholarships require separate applications. Specific information regarding financial assistance, including application deadlines or priority dates, may be obtained from the college Office of Student Financial Aid.

Types of Aid

Grants, loans, student employment, and scholarship funds may be available from federal, state, and/or private sources.

The Maricopa Community Colleges Foundation offers
a variety of scholarship opportunites. Scholarship opportunities are available year round. However, most scholarships are posted mid-January and most deadlines
are the last week of March. Options are available at
www.maricopa.edu/resdev/scholarships/apply.php or
by calling 480-731-8400.

Distribution of Aid

Criteria by which aid is distributed among eligible financial aid applicants are available on request at the college Office of Student Financial Aid.

Rights and Responsibilities

Students should read all information provided in the process of applying for federal financial aid in order to gain a greater knowledge of all the rights as well as responsibilities involved in receiving that assistance.

Satisfactory Academic Progress

Specific requirements for academic progress for financial aid recipients are applied differently than scholastic standards. In addition to scholastic standards which are explained elsewhere in this catalog, financial aid recipients are also subject to the following Standards of Satisfactory Academic Progress. Specific information is available at the college Office of Student Financial Aid.

Standards of Satisfactory Academic Progress (SAP) for Financial Aid Eligibility

Federal regulations (34CFR 668.32(f) and 668.34) require a student to move toward the completion of a degree or certificate within an eligible program when receiving financial aid. Specific requirements for academic progress for financial aid recipients are applied differently than Scholastic Standards. Federal regulations state that Academic Progress Standards must include a review of all periods of enrollment, regardless of whether or not aid was received. The student must meet the following minimum standards in order to receive financial aid.

1.
Evaluation of Financial Aid Eligibility
   A.
Standards of Satisfactory Academic Progress (SAP) are applied at least once per year, beginning on or about June 1st to determine the eligibility for the following academic year.

B.

The evaluation period will be based on attendance in the immediate prior Spring, Fall, Summer term (example: for 2008-2009 academic year, academic progress will be evaluated on Spring 2010, Fall 2009, and Summer 2009).

C.

Credits evaluated will include credits attempted at the evaluating school and courses funded through consortium agreement.

D.

Students who do not meet the SAP will be notified. The student may follow the appeal process or the reinstatement procedures as outlined in V and VI.

2.

Eligibility

A.

Students must meet the following criteria:

1)

Students who have attempted at least 6 credit hours in the last evaluation period must complete with a passing grade 2/3 of all credits attempted within that evaluation period, OR

2)

Students who have NOT attempted at least 6 credit hours in the last evaluation period must complete with passing grades 2/3 of ALL credits attempted.

AND

B.

All students must meet the following minimum credit hour/cumulative GPA requirement

Credits Attempted*	Min GPA
12-15	1.60
16-30	1.75
31-45	1.90
46 +	2.00

for which grade points are computed.

Note: Grades of F, I, N, W, X, Y, Z and courses not yet graded are considered attempted but not meeting progress standards for the purposes of financial aid.

3.

Maximum Timeframe Eligibility

A.

Students who have attempted more than 150% of the credits required for their program of study are not considered to be making Satisfactory Academic Progress and therefore, are ineligible for financial aid funds.

B.

All evaluated transfer credits will be included when determining maximum timeframe eligibility.

C.

A student with a Bachelor's degree or higher will be considered to have exhausted maximum timeframe eligibility.

D.

A student may appeal as outlined in V.

E.

Reinstatement procedures as outlined in VI are not applicable to Maximum Timeframe Eligibility.

4.

Repeated, Audited, Consortium, Remedial Courses, Summer

A.

Financial aid may be used to cover the cost of repeated courses.

B.

Audited courses, non-credit courses, credit by examination, and any credit for prior learning option (as outlined in the catalog) are excluded when determining eligibility for financial aid.

C.

Courses funded through a consortium agreement are included in determining academic progress.

D.

All attempted remedial credits will be included when evaluating SAP. (A maximum of 30 remedial credit hours, excluding ESL courses may be funded.)

E.

Enrollment in any or all summer sessions within the same calendar year will be considered one term.

5.

Appeal Process

A student who has lost financial aid eligibility due to extenuating circumstances may appeal.

A.

Extenuating circumstances that may be considered include: personal illness or accident, serious illness or death within immediate family, or other circumstances beyond the reasonable control of the student.

B.

All appeals must be in writing to the Financial Aid Office where the student is applying for aid and include appropriate documentation.

C.

Examples of documentation could include an obituary notice, divorce decree, or a letter from a physician, attorney, social services agency, parole officer, etc.

D.

The condition or situation must be resolved which will allow the student the ability to complete course work successfully or an appeal will not be granted.

E.

The outcome of an appeal may include approval, a probationary period, or denial.

F.

A student will be notified in writing of the results of the appeal, and of any restrictions or conditions pertaining to their appeal.

6.

Reinstatement of Financial Aid Eligibility

A.

A student who has lost financial aid eligibility may be reinstated after the student has taken (without federal funds) at least six credit hours in a semester, passed all attempted credit hours, and meets minimum cumulative GPA requirements.

B.

If the student attempts more than six hours, the student will be evaluated on all attempted credit hours within that term.

C.

Classes taken at other colleges will not be taken into consideration for reinstatement purposes.

D.

It is the student's responsibility to notify the Financial Aid Office when this condition has been met.

For more information, please contact the college Financial Aid Office.

Refunds and Repayments

In accordance with federal regulations (CFR 668.22), a student may be required to repay federal financial aid funds if they completely withdraw, are withdrawn, or fail to earn a passing grade from all classes during a semester. Further information is available at the college Office of Student Financial Aid. This could affect a student's ability to receive Financial Aid in the future at any school. For a student receiving Financial Aid, also see Appendix S-7 for Withdrawal procedures.

Award Amount and Level of Enrollment

Award amount is determined, in part, on the level of enrollment. Federal student aid recipients are advised to register at the same time for all classes they intend to take during a semester to maximize award. Some federal

aid may not be awarded for classes added at a later date. Contact the college Office of Student Financial Aid for more information.

If you are receiving federal financial aid it is important to read the information below prior to making a decision to withdraw.

Treatment of Title IV Aid When a Student Withdraws

The law specifies how your school must determine the amount of Title IV program assistance that you earn if you withdraw from school. The Title IV programs that are covered by this law are: Federal Pell Grants, Academic Competitiveness Grants, National SMART grants, TEACH Grants, Stafford Loans, PLUS Loans, Federal Supplemental Educational Opportunity Grants (FSEOGs), and Federal Perkins Loans.

When you withdraw during your payment period or period of enrollment (you may contact the Financial Aid office to define these for you and tell you which one applies) the amount of Title IV program assistance that you have earned up to that point is determined by a specific formula. If you received (or your school or parent received on your behalf) less assistance than the amount that you earned, you may be able to receive those additional funds. If you received more assistance than you earned, the excess funds must be returned by the school and/or you.

The amount of assistance that you have earned is determined on a pro-rata basis. For example, if you completed 30% of your payment period or period of enrollment, you earn 30% of the assistance you were originally scheduled to receive. Once you have completed more than 60% of the payment period or period of enrollment, you earn all the assistance that you were scheduled to receive for that period.

If you did not receive all of the funds that you earned, you may be due a post-withdrawal disbursement. If your post-withdrawal disbursement includes loan funds, your school must get your permission before it can disburse them. You may choose to decline some or all of the loan funds so that you don't incur additional debt. Your school may automatically use all or a portion of your post-withdrawal disbursement of grant funds for tuition, fees, and room and board charges (as contracted with the school). The school needs your permission to use the post-withdrawal grant disbursement for all other school charges. If you do not give your permission, you will be offered the funds. However, it may be in your best interest to allow the school to keep the funds to reduce your debt at the school.

There are some Title IV funds that you were scheduled to receive that cannot be disbursed to you once you withdraw because of other eligibility requirements. For example, if you are a first-time, first-year undergraduate student and you have not completed the first 30 days of your program before you withdraw, you will not receive any FFEL or Direct loan funds that you would have received had you remained enrolled past the 30th day.

If you receive (or your school or parent receives on your behalf) excess Title IV program funds that must be returned, your school must return a portion of the excess equal to the lesser of:
1.
your institutional charges multiplied by the unearned percentage of your funds, OR

2.
the entire amount of excess funds. The school must return this amount even if it didn't keep this amount of your Title IV program funds.

If your school is not required to return all of the excess funds, you must return the remaining amount. Any loan funds that you must return, you (or your parent for a PLUS Loan) repay in accordance with the terms of the promissory note. That is, you make scheduled payments to the holder of the loan over a period of time. Any amount of unearned grant funds that you must return is called an overpayment. The maximum amount of a grant overpayment that you must repay is half of the grant funds you received or were scheduled to receive. You must make arrangements with your school or the Department of Education to return the unearned grant funds.

The requirements for Title IV program funds when you withdraw are separate from any refund policy that your school may have. Therefore, you may still owe funds to the school to cover unpaid institutional charges. Your school may also charge you for any Title IV program funds that the school was required to return. You

can view the tuition refund policy and requirements and procedures for withdrawing from school at **www.maricopa.edu/publicstewardship/governance/adminregs/students/2_2.php**

Veterans' Services (AR 2.9)

The Maricopa Community Colleges' veterans' services offices act as liaisons with the Department of Veterans Affairs. Each program must be approved by the State of Arizona Department of Veterans' Services. Students may be eligible to receive educational benefits if they are registered in courses that apply to the student's approved programs. Application forms, counseling, advisement and tutoring are available for students who are eligible for veteran's educational benefits. Students applying for veteran's educational benefits should allow eight to ten weeks before receiving benefits. The amount of benefits awarded is determined by the Department of Veterans Affairs, and is based on the number of credit hours or clock hours for which a student is enrolled and the length of the enrollment period for each course.

Veteran's benefits available:
- Chapter 30 - Montgomery GI Bill
-
Chapter 31 - Vocational Rehabilitation (separately served through the local VA office)
- Chapter 32 - VEAP Program
-
Chapter 35 - Survivors and dependents of deceased/100% disabled veterans
- Chapter 1606 - Montgomery GI Bill, Selected Reserve

It is the student's responsibility to notify the office that serves veterans at their campus regarding any change in enrollment, address, program of study, enrollment at another institution, or any other change that may impact their veteran's educational benefits.

Those students receiving benefits must follow the VA academic progress policy to continue to receive benefits.

ACADEMIC PROGRESS POLICY FOR STUDENTS RECEIVING VETERAN'S EDUCATIONAL BENEFITS

Credit Hours for which Grade Points are Computed at Resident Maricopa Community College (A, B, C, D, F, and Y)	Minimum Grade Point Average Required
12-15	1.60
16-30	1.75
31-45	1.90
46+	2.00

Department of Veterans Affairs regulations require that all persons using any type of veteran educational assistance program be making satisfactory academic progress toward achievement of their educational objective (program of study). A student who does not meet the minimum standards (see above) will be placed on probation for a maximum of two (2) consecutive semesters. At this point, if satisfactory academic progress has not been demonstrated, veteran educational benefits will be terminated. Benefits may be resumed when the student raises the cumulative grade point average to the required minimum standards or demonstrates the ability to meet these standards through the approval of a written appeal. For appeal procedures, contact the office that serves veterans at your campus.

For additional details and information regarding veteran's educational benefits, contact the office that serves veterans at your campus.

Scholastic Standards

ACADEMIC LOAD (AR 2.3.1)

Students carrying at least twelve (12) credit hours will be considered full-time students for the fall and spring semesters. Three-quarter-time is 9–1.9 credit hours. Half-time is 6–8.9 credit hours. Fewer than six (6) credit hours is considered less than half-time. Academic load for summer and special terms may be defined differently. Contact the Admissions and Records Office/Office of Student Enrollment Services for clarification. As provided in the Reduced Course Load administrative regulation, a student may be deemed a full-time student carrying fewer than twelve credit hours pursuant to an accommodation of a disability.

Courses may vary in length, and begin and end throughout the year. A credit hour indicates the value of an academic credit. Standards for the awarding of credit hours may be time based or competency based. To obtain credit, a student must be properly registered and must pay fees for the course. The fall and spring semesters are typically sixteen (16) weeks in length. Summer sessions are typically five or eight weeks in length.

Students desiring to take more than eighteen (18) credit hours must obtain approval from the designated college official. Ordinarily, only students with a grade point average of 3.0 or higher for the preceding semester or first semester students who were in the upper quarter of their high school graduating class are permitted to carry more than eighteen (18) credit hours.

Students participating in extra-curricular or co-curricular activities or receiving financial assistance may be required to maintain a specified minimum academic load.

Students who are working, have considerable extra-curricular or co-curricular activities, or have been reinstated from academic suspension/probation should plan their academic load accordingly.

Schedule Changes

Students may change their schedule by following the designated procedures at their college of enrollment. It is the student's responsibility to notify the college if he/she will no longer be attending the class (see Appendix S-7 for Withdrawal Procedures).

ATTENDANCE (AR 2.3.2)

- Only persons who are registered for a class at any of the Maricopa Community Colleges may attend that class. Attendance requirements are determined by the course instructor. Students who do not meet the attendance requirement as determined by the course instructor may be withdrawn.

- Students who fail to attend the first scheduled class meeting, or to contact the instructor regarding absence before the first scheduled class meeting may, at the option of the instructor, be withdrawn.

- At the beginning of each course, each faculty member will provide students with written attendance requirements. It is the student's responsibility to consult with the instructor regarding official or unofficial absences. Absences begin to accumulate with the first scheduled class meeting.

- Students bear the responsibility of notifying the Admissions and Records Office/Office of Student Enrollment Services when they discontinue studies in a course or at the college. Please refer to **Appendix S-7** for Withdrawal Procedures.

1.
Official Absences
A.

Official absences are those that occur when students are involved in an official activity of the college, i.e., field trips, tournaments, athletic events, and present an official absence excuse form. Absences for such events shall not count against the number of absences allowed by an instructor or department. Students who must miss a class for an official reason must obtain an official absence verification card from the appropriate vice

president or designee and present it to the appropriate instructor(s) before the absence. Prior arrangements must be made with each instructor for make-up work. If prior arrangements have been made, the student will not be penalized.

    B.

Other official absences include jury duty and subpoenas. Appropriate documentation will be required. Prior arrangements must be made with each instructor for makeup work. If prior arrangements have been made, the student will not be penalized.

    C.

In the event of the death of an immediate family member, absences for periods of up to one week will not be counted against the number of absences allowed by an instructor or department. Students should contact instructor(s) as soon as possible to arrange for make-up work. Appropriate documentation will be required (for example, a copy of the obituary or funeral program). In specialized programs that require clinical rotations, this regulation may not apply.

2.
Religious Holidays

Students shall have the right to observe major religious holidays without penalty or reprisal by any administrator, faculty member or employee of the Maricopa Community Colleges. Absences for such holidays shall not count against the number of absences allowed by an instructor or department. At least one week before the holiday, students shall submit to their instructor(s) a written statement that includes both the date of the holiday and the reason why class attendance is impossible. Prior arrangements must be made with each instructor for make-up work. If prior arrangements have been made, the student will not be penalized.

GRADING (AR 2.3.3)
1.
Policy

It is the policy of the Maricopa Community Colleges that a grade will be assigned at the conclusion of the course. Official grades are available on designated college web sites.

Grade Key

A	Excellent	4 grade points per credit hour
B	Above Average	3 grade points per credit hour
C	Average	2 grade points per credit hour
D	Passing	1 grade point per credit hour
F	Failure	0 grade point per credit hour
I	Incomplete	Not computed in grade point average
IP	Course In Progress	Not computed in grade point average
N	Audit	Not computed in grade point average
P*	Credit	Not computed in grade point average
W	Withdrawn, passing	Not computed in grade point average
Y	Withdrawn, failing	
	(effective Fall 2000)	0 grade point per credit hour
Z	No Credit	Not computed in grade point average

*

A "P" is judged to be equivalent to a grade of C or higher.

2.
Incomplete Grade

    A.

Students who are doing acceptable work may request an incomplete grade "I" if they are unable to complete the course requirements by the end of the term because of illness or other extenuating circumstances. If the request is approved by the instructor, he or she shall define, in a written/electronic contract, how the course will be completed.

B.

Students must complete the requirements within the time period agreed to–maximum time allowed is seven (7) months from the last date of class in which the grade of incomplete was assigned. Students who do not complete the requirements within seven (7) months will have their grade recorded in accordance with the written contract. Students should NOT reregister for the course to complete the contract.

3.
Repeating a Course/Improving a Grade

To improve a previously earned grade, students may repeat the course up to three times after the initial attempt to improve a grade. (A "W" or "Y" is not considered an attempt.) Students planning to repeat a course should seek advisement prior to enrolling. The lower grade(s) for repeated courses will automatically be excluded from the grade point calculation. All enrollments in a course will appear on the transcript. Check individual courses and programs for exceptions.

4.
Credit/No Credit Courses (P/Z)
A.

Some courses may be taken under a credit/no credit grading system. These courses carry grades of P (credit, equivalent to a grade of C or higher) or Z (no credit) and are not computed in the student's grade point average. Credits earned with a grade of P may be counted toward graduation with the exception of AGEC (Arizona General Education Curriculum).
B.

The prescribed time limits are for full-semester classes. Time limits for classes which meet fewer than sixteen (16) weeks are adjusted accordingly. See "**Important Deadlines for Students**".
C.

In courses with credit/no credit (P/Z) grading, the student may request standard grading (A, B, C, D, F), within fourteen (14) days including the date of the first class meeting. The instructor must immediately notify the Admissions and Records Office/Office of Student Enrollment Services.
D.

In courses with standard grading (A, B, C, D, F), the instructor determines if the credit/no credit option is available. If the option is available, the student must obtain the permission of the instructor. The instructor must notify the Admissions and Records Office/Office of Student Enrollment Services within fourteen (14) days including the day of the first class meeting.
E.

It is the student's responsibility to verify the transferability of credit/no credit courses. Some universities place a limitation on the number of credit/no credit courses that can be transferred.

Advisory note: Some institutions outside the Maricopa Community Colleges may translate the Z grade as failing.

5.
Audit Courses
A.

Auditors are those who enroll in a course for the sole purpose of obtaining information; they receive no credit, grades, homework, or tests. If an auditor wishes to earn credit, he or she must change from audit status to credit status within the first week. If a student wishes to audit a course for which he or she is enrolled for credit, the change must be made within the first five (5) weeks of a semester. Auditors are subject to the same attendance policies as other students and must meet the same prerequisite requirements or obtain approval of the instructor. See the fee schedule for charges. Financial aid is not available for audited courses.
B.

The prescribed time limits are for full-semester classes. Time limits for classes which meet fewer than sixteen (16) weeks are adjusted accordingly and appear in the "**Important Deadlines for Students**".

ACADEMIC PROBATION (PROGRESS)

(AR 2.3.4)
1.
Probation

A student will be placed on academic probation after completion of twelve (12) or more credit hours, the student's cumulative grade point average is less than:

Credit Hours for which Grade Points are Computed at Resident Maricopa Community College (A, B, C, D, F, and Y)	Minimum Grade Point Average Required
12-15	1.60
16-30	1.75
31-45	1.90
46 +	2.00

(Students should also be aware that graduation requires a cumulative minimum grade point average of 2.00).

Students on academic probation may take no more than twelve (12) credit hours per semester unless approved by the Admissions and Standards Committee.

2.
Continued Probation

A student on academic probation who fails to raise the cumulative grade point average to the required minimum standards (see above) will be placed on continued probation and may be limited to taking six (6) credit hours. Regulations regarding continued probation do not apply to the summer session. Credit hours earned in summer sessions will be included in the cumulative grade point average.

INSTRUCTIONAL GRIEVANCE PROCESS
(AR 2.3.5 & APPENDIX S-6)

A student who feels that he or she has been treated unfairly or unjustly by a faculty member with regard to an academic process such as grading, testing, or assignments, has the right to appeal according to the approved procedures.

The appeal process for grades expires one year from the date the grade was issued. Steps outlining the process are available in Appendix S-6.

Appendix S-6: Instructional Grievance Process

A student who feels that he/she has been treated unfairly or unjustly by a faculty member (full-time or part-time) with regard to an academic process such as grading, testing or assignments, should discuss the issue first with the faculty member involved. This conference should be requested by the student within fifteen (15) working days from the time the student knew or reasonably should have known about the unfair or unjust treatment.

This instructional grievance process should not be utilized in a case in which a student feels he/she has experienced discrimination. If the student feels that he/she has experienced discrimination on the basis of race, color, religion, national origin, gender, age, disability, veteran status, or sexual orientation, the student should refer to the Discrimination Complaint Procedures for Students as administered by the Vice President for Student Affairs.

Steps for students to follow:

1.

If, within ten (10) working days of the request for the conference with faculty member, the problem is not resolved or the faculty member has been unable to meet with the student, the student may continue the process by filing a written complaint with the Department/Division Chairperson and appropriate administrative officer at the college/center. This written complaint must be filed within ten working days following the previous deadline. The written complaint will be given to the faculty member five days before any official meetings are convened.

2.

Upon receipt of a written complaint, the Department/Division Chair or appropriate college administrative officer will work with the parties in an attempt to resolve the conflict. The faculty may ask that the College Faculty Senate President be in attendance. Every attempt will be made to maintain confidentiality during this process. A faculty member will not be required to respond to a complaint which is not in writing and which, when appropriate, did not have specific documentation including dates, times, materials, etc. The written complaint will be made available to the faculty member.

3.

If the grievance is not resolved at this level within ten working days, the student should forward to vice president of academic affairs or designee, a copy of the original written complaint with an explanation regarding action taken at each prior level. The dean of instruction or appropriate college/center administrative officer will meet with the student, faculty member, the College Faculty Senate President if requested by the faculty member, and Department/Division Chair and attempt to resolve the issues. This level will be the final step in any grievance process regarding grades.

4.

If the grievance, other than those concerning grades, is not resolved by the vice president of academic affairs or designee, it may be forwarded in writing by the student to the college president for final resolution. The college president or designee will issue a final written determination in the grievance process.

Note: The appeal process for grades expires one year from the date the grade was issued.

WITHDRAWAL (AR 2.3.6)

To withdraw from a course or courses from the college, students must follow approved procedures (See **Appendix S-7**). The Office of Admissions and Records provides information about the withdrawal process. The official date of withdrawal is the date the withdrawal is received in the Admissions and Records Office/Office of Student Enrollment Services.

Never attending is not an allowable refund exception or an excuse of the debt incurred through registration. Please see the refund policy.

STUDENT AND FACULTY WITHDRAWAL PROCEDURES (APPENDIX S-7)

STUDENT WITHDRAWAL PROCEDURES

1.

Withdrawal from Specific Courses

A student may officially withdraw from specific courses in the following ways:

A.

Through the 7th week*, a student may initiate an official withdrawal from any course by completing the withdrawal process online using the student self service system or by submitting a course withdrawal form to the Admissions and Records Office/Office of Student Enrollment Services in accordance with the published deadlines. A grade of W (withdrawn, passing – not computed in the grade point average) will be assigned.

B.

After the 7th week*, a student must initiate a withdrawal request with the faculty member. If, after consultation with the student, the faculty member approves the request, a grade of W (withdrawn, passing—not computed in the grade point average) or Y (withdrawn, failing—computed in the grade point average as a failing grade) will be assigned. If the request is not approved, the student will remain in the course.

C.

A student has the right to appeal a withdrawal decision according to the approved procedures. Steps outlining the process are available in Appendix S-6.

*

The prescribed time limits are for full semester classes. Time limits for classes which meet fewer than sixteen (16) weeks are adjusted accordingly. See Important Deadlines for Students. Failure to file an official withdrawal form may result in failing grades and responsibility for course tuition and fees. Refunds will only be processed within the refund period.

2.
Complete Withdrawal from College

Students electing to withdraw from the college must contact the Admissions and Records Office/Office of Enrollment Services no later than two weeks* before the end of the last class meeting and may be required to file
a written request.

A grade of W will be assigned in all courses for students who withdraw by the end of the 7th week* of classes. Withdrawals completed after this time will result in a grade of W (withdrawn, passing – not computed in the grade point average) or Y (withdrawn, failing – computed in the GPA as a failing grade).

*

The prescribed time limits are for full semester classes. Time limits for classes which meet fewer than sixteen (16) weeks are adjusted accordingly. See Important Deadlines for Students. Failure to file an official withdrawal form may result in failing grades and responsibility for course tuition and fees. Refunds will only be processed within the refund period.

3.
Withdrawal of Financial Aid Students

In accordance with federal regulations (34CFR 668.22),
a student may be required to repay federal financial aid funds if they completely withdraw or are withdrawn, or fail to earn a passing grade from all classes during
a semester. Further information is available at the college Office of Student Financial Aid. This could affect a student's ability to receive Financial Aid in the future
at any school.

FACULTY WITHDRAWAL PROCEDURES

A faculty member has the option of withdrawing a student who has accumulated unofficial absences in excess of the number of times indicated in that faculty member's attendance policy in the course syllabus (see AR 2.3.2). Students withdrawn for excessive absences may be reinstated only with the approval of the faculty member.
A grade of W will be assigned through the 7th week*.
After the 7th week*, a grade of W or Y will be assigned. Faculty members electing to withdraw students must record the withdrawal through the online system, including last date of attendance and withdrawal code.

The prescribed time limits are for full semester classes. Time limits for classes which meet fewer than sixteen (16) weeks are adjusted accordingly. See Important Deadlines for Students. Failure to file an official withdrawal form may result in failing grades and responsibility for course tuition and fees. Refunds will only be processed within the refund period.

ACADEMIC RENEWAL (AR 2.3.7)

Students who are returning to this college after a separation of five (5) years or more from the Maricopa Community College District may petition for academic renewal. The request must be in writing and submitted to the Admissions and Records Office/Office of Student Enrollment Services

at the college where the grades were earned.

Academic renewal at one of the Maricopa Community Colleges does not guarantee that colleges outside the Maricopa Colleges will accept this action. Acceptance
of academic renewal is at the discretion of the receiving institution.

1.
Prior to petitioning for academic renewal, the student must demonstrate a renewed academic performance by earning a minimum of twelve (12) credit hours and a cumulative grade point average of 2.5 or higher within Maricopa Colleges after reenrollment.

2.
Upon approval, all courses taken prior to reenrollment with a grade of "A," "B," "C," "D," "F," and "Y" will be annotated as academic renewal on the student's permanent record. All course work affected by academic renewal will not be computed in the grade point average. Courses with grades "A," "B," or "C" will have the associated credit hours counted in the total credit hours earned. Such credit will not be computed in the grade point average.

3.
All course work will remain on the student's permanent academic record, ensuring a true and accurate academic history.

4.
The academic renewal policy may be used only once
at each college and cannot be revoked once approved.

5.
Students who have been granted Academic Renewal
must also meet the Financial Aid Standards of Academic Progress if they wish to receive financial aid.

HONORS PROGRAM (AR 2.3.8)
Each of the Maricopa Community Colleges has an honors program. Interested students should contact the college honors coordinator for information about the program
and available scholarships, including the Chancellor's, Foundation's, and President's scholarships.

President's Honor List
The President's Honor List for each college consists of all students who complete twelve (12) or more credit hours in residence in courses numbered 100 or higher in a given semester with a college semester grade point average of 3.75 or higher.

GENERAL GRADUATION REQUIREMENTS
(AR 2.3.9)
Note: Also see "Catalog Under Which a Student Graduates" (AR 2.2.5)

All students are required to complete the degree and/or certificate requirements as approved by the MCCCD Governing Board. The college reserves the right to make necessary course and program changes in order to meet current educational standards. In addition, students must:

1.
be credited in the Admissions and Records Office/Office of Student Enrollment with not fewer than: 60 semester credit units in courses numbered 100 or above for the Associate in Arts degree, Associate in Science degree, Associate in Transfer Partnership degree, and Associate in General Studies degree; 60 semester credit units for the Associate in Applied Science degree; 62 semester credits for the Associate in Business degrees. For specific certificate programs, be credited with not fewer than the minimum total of credit units required for the certificate program. Students not continuously enrolled, as outlined in the Catalog Under Which a Student Graduates policy, must satisfy current graduation requirements.

2.
have earned a minimum of 12 semester credit units toward the degree or certificate at the district college granting the degree or certificate. The 12 hours in the AAS degree curricula may be in the Required Courses

area and/or Restricted Electives courses. Courses from the General Education Core and Distribution area are excluded. In cases where the certificate requires fewer than 12 credit units, a minimum of six credit units must be completed at the college awarding the certificate. The minimum of six credit hours in the certificate or degree curricula may be in the Required Courses area and/or the Restricted Electives. Courses from the General Education Core and Distribution areas are excluded;

Shared Programs are programs offered at multiple colleges but not available at all colleges. The requirements are identical at all the colleges offering the program.

A shared program requires a minimum of six credit hours from the total program requirements to be completed with a grade of "C" or better at the college awarding the certificate or degree. The exception is the Nursing program. For those shared programs with less than six credit hours, the total hours for the program must be completed at the college awarding the certificate.

3.
have filed an application for the degree or certificate with the Admissions and Records Office/Office of Student Enrollment Services on the date determined by the college/center.

Students must apply for graduation from the college where they have successfully completed Block 4 of the Associate in Applied Science in Nursing.

4.
have a minimum cumulative grade point average of 2.000 at the college granting the degree.

5.
have a minimum cumulative grade point average of 2.000 in all courses used to fulfill degree requirements

Some specific programs have higher grade requirements. It is the student's responsibility to be aware of these program requirements.

6.
have removed, thirty (30) days after the anticipated graduation date, all deficiencies on the record to use those courses toward program completion.

7.
have removed any indebtedness to any MCCCD college /center.

8.
have paid required degree or certificate application fee.See fee schedule for charges.

See Graduation with Honors for information on honors designation.

Certificates/Degrees
The Maricopa Community Colleges offer Certificates of Completion as well as Associate Degrees, one of which is conferred on each student who has completed a program of study. These certificates and degrees are as follows: (1) Certificate of Completion (Career Program Specified); (2) Academic Certificate; (3) General Education Certificate; (4) Associate in Arts; (5) Associate in Science; (6) Associate in Business; (7) Associate in General Studies; (8) Associate in Transfer Partnership; (9) Associate in Applied Science (Career Program Specified).

All candidates for a degree and/or certificate must complete the General Graduation Requirements as approved by the MCCCD Governing Board.

All students are urged to meet with a faculty advisor, program advisor or counselor as soon as possible to determine which program meets their needs and to plan their course of study.

Graduate Guarantee Policy
The Governing Board believes so strongly in the quality of its colleges' occupational training programs that it guarantees graduate competence.

1. Graduation from an Associate of Applied Science (AAS) is designed to prepare a person for entry-level employment in a specific career field. A graduate's ability to perform approved program competencies will be judged by employers. Should the employer of a graduate who has earned an AAS Degree find the employee lacking in the technical skills normally expected of an entry-level employee in the specific career field for which that graduate prepared, the District will provide the graduate with up to the equivalent of twelve (12) credit hours of retraining for no additional tuition.

2. Because technical occupations change rapidly, initial employment in an AAS Degree-related field must occur within one year of graduation from the AAS Degree program in question.

Retraining needs to occur as cost effectively as possible. The graduate's employer must present a list of the graduate's skill deficiencies to the appropriate vice president or designee at the graduate's alma mater. All retraining will be completed in a reasonable time as agreed to by the employer, the student, and the college.

Licensure Disclaimer
Maricopa Community Colleges courses and programs prepare students for entry into a variety of professions. Many of these professions require that a person hold an occupational license or certificate in order to work in a particular field. Typically, a person must meet certain legal requirements before obtaining such a license or certificate. These requirements are established by county, state or federal agencies, and often are based on a person's character, or whether the person has been convicted of a criminal offense. It is possible for a student who has obtained a degree or certificate from a community college to be denied the right to work in a particular profession after completing the degree or certificate because of concerns over the student's character or criminal background. Any student preparing to enter a field for which a professional license or certificate is required is strongly advised to consult with the appropriate government agency that issues such credentials. That agency can provide the student complete information about any requirements the law imposes for working in a particular occupation.

MCCCD General Education Statement
The general education core of the program of study for an associate degree or a certificate helps students develop a greater understanding of themselves, of their relationship with others, and of the richly diverse world in which they live. The general education experience provides students with opportunities to explore broad areas of commonly held knowledge and prepares them to contribute to society through personal, social, and professional interactions with others. General education fosters students' personal development by opening them to new directions, perspectives, and processes.

Through its general education requirements, the Maricopa County Community College District is committed to helping students develop qualities and skills that will serve them throughout their lives. General education opportunities encourage students to:
- Build self-awareness, self-respect, and self-confidence
- Recognize and respect the beliefs, traditions, abilities, and customs of all people and all cultures
- Consider the local, global, and environmental impacts of personal, professional, and social decisions and actions
- Access, evaluate, analyze, synthesize, and use information wisely
- Communicate effectively personally, socially, and professionally
- Think critically, make informed decisions, solve problems, and implement decisions
- Consider the ethical implications of their choices

- Value the learning process throughout their lives
-
Integrate and connect ideas and events in a historical perspective, and see relationships among the past, the present, and the future
- Develop a personal sense of aesthetics
-
Use technological resources appropriately and productively
-
Work cooperatively and respectfully with others to serve their communities

The general education experience at MCCCD is composed of specific elements across the curriculum designed to provide the learner with essential knowledge and skills:
- Communication
- Arts and Humanities
- Numeracy
- Scientific Inquiry in the Natural and Social Sciences
- Information Literacy
- Problem-Solving and Critical Thinking
- Cultural Diversity

GENERAL EDUCATION DESIGNATIONS (EXAMPLE: (FYC), [SB], [HU], ETC.)

Effective Fall 2000, the course evaluation and/or general education designation as listed in the Arizona CEG (Course Equivalency Guide) within the Arizona Course Applicability System (AZCAS) is valid for the term in which the student is awarded credit on the transcript. A course evaluation and/or general education designation may be subject to change. Given that curriculum is dynamic at both MCCCD and the institutions to which MCCCD students transfer, students have the option to petition for general education evaluations and/or general education designations.

The college reserves the right to make necessary course and program changes in order to meet current educational standards.

CATALOG UNDER WHICH A STUDENT GRADUATES (AR 2.2.5)

Students maintaining continuous enrollment at any public Arizona community college or university may graduate according to the requirements of the catalog in effect at the time of initial enrollment or according to the requirements of any single catalog in effect during subsequent terms of continuous enrollment. Students may maintain continuous enrollment whether attending a single public community college or university in Arizona or transferring among public institutions in Arizona while pursuing their degrees.

1.
A semester in which a student earns course credit will be counted toward continuous enrollment. Non-credit courses, audited courses, failed courses, or courses from which the student withdraws do not count toward the determination of continuous enrollment for catalog purposes.

EXAMPLE A

Admitted & Earned Course
Credit at a Public Community
College or University .... Fall '05 (Active)

Continued at a Public
Community College .... Spring '06, Fall '06 (Active)

Transferred to a University.....Spring '07 (2005 or Any   Subsequent Catalog)

EXAMPLE B

Admitted & Earned Course

Credit at a Public Community
College or University .... Fall '02 (Active)

Enrolled But Earned
All Ws, Zs, or Fs ....Spring '03 (Inactive)

   Enrolled in Audit Courses Only....... Fall '03 (Inactive)

   Nonattendance ....Spring '04 (Inactive)

                      Transferred to a University Fall '04 (2004 or Any Subsequent Catalog)

2.

Students who do not meet the minimum enrollment standard stipulated in No. 1 during three consecutive semesters (Fall/Spring) and the intervening summer term* at any public Arizona community college or university are no longer considered continuously enrolled, and must meet requirements of the public Arizona community college or university catalog in effect at the time they are readmitted or of any single catalog in effect during subsequent terms of continuous enrollment after readmission.

EXAMPLE A

Admitted & Earned Course
Credit at a Public Community
College or University .... Fall '02 (Active)

                      Nonattendance................................Spring '03, Fall '03,
                                        Spring '04 (Inactive)

Readmitted & Earned Course
Credit at a Public Community
College .... Fall '04 (Active)

                      Transferred to a University ....Spring '05) 2004 or
                                        Any Subsequent Catalog)

EXAMPLE B

   Admitted & Earned Course
   Credit at a Public Community
   College or University .... Fall '02 (Active)

   Nonattendance ....Spring '03 (Inactive)

Readmitted & Earned Course
Credit at a Public Community
College ....Summer '03 (Active)

   Nonattendance .... Fall '03, Spring '04 (Inactive)

                      Transferred to a University Fall '04 (2002 or Any Subsequent Catalog)

   *

Students are not obligated to enroll and earn course credit during summer terms, but summer enrollment may be used to maintain continuous enrollment status.

3.

Students admitted or readmitted to a public Arizona community college or university during a summer term must follow the requirements of the catalog in effect the following fall semester or of any single catalog in effect during subsequent terms of continuous enrollment.

EXAMPLE

Admitted & Earned Course
Credit at a Public Community
College or University ....Summer '04 (Active)

Continued at a Public
Community College .... Fall '04, Spring '05 (Active)

Nonattendance .... Fall '05 (Inactive)

Readmitted & Earned Course
Credit at a Public Community
College .... Spring '06 (Active)

Transferred to a University ....Summer '06 (2004 or
Any Subsequent Catalog)

4.
Students transferring among Arizona public higher education institutions must meet the admission requirements, residency requirements, and all curricular and academic requirements of the degree-granting institution.

NOTE: University Department Time Limit for Transfer Coursework

In areas of study in which the subject matter changes rapidly, material in courses taken long before graduation may become obsolete or irrelevant. Coursework that is more than eight years old is applicable to completion of degree requirements at the discretion of the student's major department at the university. University departments may accept such coursework, reject it, or request that the student revalidate its substance. The eight-year limit on coursework applies except when program accreditation agencies limit the life of coursework to fewer than eight years. University departments may also require students to satisfy current major requirements rather than major requirements in earlier catalogs, when completing earlier requirements is no longer possible or educationally sound.

The college reserves the right to make necessary course and program changes in order to meet current educational standards.

TRANSCRIPTS FOR TRANSFER (AR 2.3.10)

The transcript is issued upon written request only. Those students who want to transfer to other institutions of higher education, including other Maricopa Community Colleges, must request their transcript be sent from the Admissions and Records Office/Office of Student Enrollment Services. However, transcripts may be shared within the Maricopa Community College District without the written request of the student in compliance with **FERPA**.

Official transcripts will not be issued to students having outstanding debts to any of the Maricopa Community Colleges. The release of transcripts is governed by the guidance of the Family Education Rights and Privacy
Act of 1974 (see **Records Policy in the Student Rights and Responsibilities section** of this manual). There is no charge for unofficial transcripts, or for official transcripts sent between Maricopa Community Colleges. See the **Tuition and Fee Schedule** for charges for other official transcripts.

COLLEGE ENVIRONMENT

SEXUAL HARASSMENT POLICY (AR 2.4.4 & 5.1.8-16) AR 2.4.4

See the **EEO/AA Section** of the Administrative Regulations (AR 5.1.8).

5.1.8 Sexual Harassment Policy for Employees and Students

The policy of the Maricopa County Community College District (MCCCD) is to provide an educational, employment, and business environment free of unwelcome sexual advances, requests for sexual favors, and other verbal and/or physical conduct or communications constituting sexual harassment as defined and otherwise prohibited by state and federal law.

Sexual harassment by and between, employees; students; employees and students; and campus visitors and students or employees, is prohibited by this policy.

Violations of this policy may result in disciplinary action up to and including termination for employees; sanctions up to and including suspension or expulsion for students; and appropriate sanctions against campus visitors.

This policy is subject to constitutionally protected speech rights and principles of academic freedom. Questions about this policy may be directed to the MCCCD EEO/Affirmative Action Office.

5.1.9 Examples of Policy Violations

It shall be a violation of MCCCD's Sexual Harassment Policy for any employee, student or campus visitor to:
1.
Make unwelcome sexual advances to another employee, student or campus visitor;
2.
Make unwelcome requests for sexual favors, whether or not accompanied by promises or threats with regard to the employment or academic relationship;
3.
Engage in verbal or physical conduct of a sexual nature with another employee, student or campus visitor, that may threaten or insinuate, either explicitly or implicitly, that the individual's submission to, or rejection of, the sexual advances will in any way:
    A.
Influence any personnel decision regarding that person's employment, evaluation, wages, advancement, assigned duties, shifts or any other condition of employment or career development; or
    B.
Influence his or her grades, participation in or access to academic programs, class standing or other educational opportunities;
4.
Engage in verbal or physical conduct of a sexual nature that:
    A.
Has the purpose or effect of substantially interfering with an employee's ability to do his or her job; or with a student's ability to learn or participate in a class; or
    B.
Which creates an intimidating, hostile or offensive work or academic environment;
5.
Commit any act of sexual assault or public sexual indecency against any employee or student whether on MCCCD property or in connection with any MCCCD-sponsored activity;
6.
Continue to express sexual interest in another employee, student or campus visitor after being informed or on notice that the interest is unwelcome (reciprocal attraction is not considered sexual harassment);
7.
Engage in other sexually harassing conduct in the workplace or academic environment, whether physical or verbal, including, but not limited to, commentary about an individual's body (or body parts), sexually degrading words to describe an individual, sexually offensive comments, sexually suggestive language or jokes, innuendoes, and sexually suggestive objects, books, magazines, computer software, photographs, cartoons or pictures.

5.1.10 Additional Policy Violations

Supervisors, managers, administrators and faculty who disregard or fail to report allegations of sexual harassment (whether reported by the person who is the subject of the sexual harassment or a witness) are in

violation of this policy.

5.1.11 Responsibility for Policy Enforcement

Employees and students must avoid offensive or inappropriate sexual and/or sexually harassing behavior at work or in the academic environment.

Employees and students are encouraged (but not required) to inform perceived offenders of this policy that the commentary/conduct is offensive and unwelcome.

5.1.12 Complaints

1.
Employees

Employees who experience sexual harassment at work (by a supervisor, co-employee, student or visitor) are urged to report such conduct to the direct attention of their supervisor, their college president or to the Maricopa Community Colleges Equal Employment Opportunity/Affirmative Action Office. If the complaint involves the employee's supervisor or someone in the direct line of supervision, or if the employee for any reason is uncomfortable in dealing with his or her immediate supervisor, the employee may go directly to the Maricopa Community Colleges EEO/AA Office.

2.
Students

Students who experience sexual harassment in the academic environment (by a faculty member, administrator, campus visitor or other student) are urged to report such conduct to the vice president of student affairs or designee at each individual campus. A student may also contact the MCCCD EEO/AA Office to obtain the name and phone number of the college official designated to respond to sexual harassment complaints.

3.
General - Applicable to Both Employees and Students

Complaints will be investigated according to procedures established by the MCCCD EEO/AA Office. Copies of these procedures may be obtained in the college president's office, Office of the Vice President of Student Affairs and the MCCCD EEO/AA Office.

The college/center/MCCCD will investigate all complaints as professionally and expeditiously as possible.

Where investigation confirms the allegations, appropriate responsive action will be taken by the college/center/MCCCD.

5.1.13 Confidentiality

Records will be maintained in a confidential manner to the extent permitted by law and insofar as they do not interfere with MCCCD's legal obligation to investigate and resolve issues of sexual harassment.

5.1.14 Violations of Law

An employee or student may be accountable for sexual harassment under applicable local, state, and/or federal law, as well as under MCCCD policy. Disciplinary action by MCCCD may proceed while criminal proceedings are pending and will not be subject to challenge on the grounds that criminal charges involving the same incident have been dismissed or reduced.

5.1.15 False Statements Prohibited

Any individual who knowingly provides false information pursuant to filing a discrimination charge or during the investigation of a discrimination charge, will be subject to appropriate disciplinary action, up to and including, employment termination or academic dismissal.

5.1.16 Retaliation Prohibited
Retaliation against an employee or student for filing a sexual harassment complaint, or participating in the investigation of a complaint, is strictly prohibited. MCCCD will take appropriate disciplinary action, up to and including employment termination or academic dismissal if retaliation occurs.

EMISSIONS CONTROL COMPLIANCE
(AR 2.4.6)
Pursuant to A.R.S. §15-1444 C, no vehicle shall be allowed to park in any college parking lot unless it complies with A.R.S. §49-542 (the annual vehicle emissions inspection program). At the time of course registration, every out-of-county and out-of-state student will be required to sign an affidavit stating that the student's vehicle meets the requirements of A.R.S. §49-542. Vehicles that are not in compliance are subject to being towed at the owner's expense.

PETITION SIGNATURE SOLICITATION
(AR 2.4.8)
1.
This regulation shall govern access to college premises by representatives who wish to solicit signatures on petitions for the purpose of submission of a ballot proposition to voters, or nomination of a candidate for elective office, in a city-, county-, or state-wide election.
2.
Each college president shall designate general hours of accessibility for solicitation and a location on college premises where all representatives on behalf of any candidate or ballot proposition may solicit signatures. The location shall be in a common area where the solicitation will not serve as an obstruction to student activities or otherwise disrupt the college environment.
3.
All solicitation must take place in designated areas. Standard space may include one or two tables and chairs. Campus restrictions regarding amplification will apply. Representatives may not distribute or make available to students, employees, or college visitors any tangible item, except for informational literature about the proposed candidate or ballot initiative.
4.
Representatives shall notify the designated official at each college or center for their intent to be present on college premises no fewer than three working days prior to soliciting signatures. Upon obtaining authorization, representatives shall be provided a written version of this regulation.

SOLICITATION (AR 2.4.9)
1.
Definitions
A.
A "solicitor" is any non-MCCCD-affiliated entity that would, on the premises of any Maricopa Community College or Center, purport to sell or promote any product, service, or idea, but does not include such an entity that would enter the premises for the purposes of promoting, opposing, or soliciting petition signatures in connection with any political candidate or initiative, or referendum ballot.
B.
A "special event" is a college-sponsored event conducted on college premises for the benefit of students that is based on a particular theme, and for which the college has deemed it essential to invite the participation of solicitors whose products, services or ideas are pertinent to the special event's theme.

2.
Requirements
A.
A solicitor must obtain prior approval for solicitation from the designated official at each college or center. A solicitor who would purport to sell any product or service is responsible for obtaining any necessary tax licenses and must submit to the designated official a certificate of commercial liability insurance and pay to the college or center, in consideration for the opportunity for solicitation, a fee in the amount of $50 per day

or $125 per full week.

B.

Campus restrictions regarding location, time, date, and use of amplification may apply. All requests for space shall be granted on a first-come, first-served basis only upon completion of the requirements contained in this regulation.

C.

All solicitation must take place at tables in designated areas. Standard space will be one or two tables and chairs. Solicitors may be limited to no more than fifty (50) hours of solicitation activity per semester at each college or center.

D.

By requesting the opportunity for solicitation on the premises of a college or center, a solicitor warrants that it may lawfully sell or promote its product, service or idea and that such activity does not violate any law, and does not violate any trademark, copyright, or similar proprietary interest. The activity of any solicitor may not violate any existing Maricopa contract.

E.

The president of every college or center shall establish for such location restrictions governing the activities of solicitors. Such restrictions shall supplement, but shall not replace or waive, this regulation.

F.

A college may waive the fee prescribed in this regulation for any solicitor's participation in a special event if the college determines that such participation will be of particular educational benefit to the interests of that college's students; the participation is sponsored by a club, organization, or academic division; and the participation is approved by the college's Student Life and Leadership department. A college may waive both the fee and the insurance certificate requirements prescribed in this regulation for a student purporting to sell or promote a product or service at a special event, provided that:

1)

Such product or service presents low risk of harm to a potential user;

2)

The product or service is not food or food-related and;

3) The student is soliciting solely on his or her own behalf and not pursuant to any sales agreement, commission agreement, or similar affiliation or contractual relationship with another entity.

G.

Any solicitor who violates this regulation may be deemed a trespasser on college or center premises, and therefore subject to appropriate prosecution within the discretion of the College Safety department and other responsible officials at the college or center. The Maricopa County Community College District, its colleges and centers, assume no responsibility—financial or otherwise—for the acts or omissions of any vendor whose presence on college premises pursuant to this regulation is approved by any college official.

CHILDREN ON CAMPUS (AR 2.4.10)

- Children (younger than 18) may not attend any class unless they are officially registered for the class.

- Children will not be allowed on campus unless participating in an authorized college program or under the supervision of an adult.

CRIME AWARENESS AND CAMPUS SECURITY ACT (AR 2.4.11)

Federal legislation requires the college to maintain data on the types and number of crimes on college property as well as policies dealing with campus security. To obtain additional information on this subject, contact the college Safety and Security Department.

WORKPLACE VIOLENCE PREVENTION (AR 2.4.12)

It is the policy of the Maricopa Community Colleges to promote a safe environment for its employees, students, and visitors. The Maricopa Community Colleges are committed to working with its employees to maintain an environment free from violence, threats of violence, harassment, intimidation, and other disruptive behavior.

Violence, threats, harassment, intimidation, and other disruptive behavior in our facilities will not be tolerated, and it is the responsibility of all members of the Maricopa Community Colleges to report any occurrence of such conduct. Every employee, student and visitor on Maricopa Community College District property is encouraged to report threats or acts of physical violence of which he/she is aware. All reports will be taken seriously and will be dealt with appropriately. Such behavior can include oral or written statements, gestures, or expressions that communicate a direct or indirect threat of physical harm.

This policy applies to employees and students, as well as independent contractors and other non-employees doing business with the Maricopa Community Colleges. Individuals who commit such acts may be removed from the premises and may be subject to disciplinary action, criminal penalties, or both. The Chancellor is hereby instructed to enact all administrative regulations necessary to implement this policy.

STUDENT RIGHT TO KNOW (AR 2.4.13)

Under the terms of the Student Right To Know Act, the college must maintain and report statistics on the number of students receiving athletically related student aid reported by race and sex, the graduation rate for athletes participating in specific sports reported by race and sex, the graduation rate for students in general, reported by race and sex and other similar statistics. To obtain copies of these reports, contact the Office of Admissions and Records.

Student Rights And Responsibilities

COPYRIGHT ACT COMPLIANCE (AR 2.4.5)

Students are expected to comply with the provisions of the Copyright Act of 1976 pertaining to photocopying of printed materials, copying of computer software and videotaping. In order to assist students in complying with the Copyright Law, appropriate notices shall be placed on or near all equipment capable of duplicating copyrighted materials.

COPYRIGHT REGULATION (AR 3.2)

1.
It is the intent of the Governing Board of the Maricopa County Community College District to adhere to the provisions of the U.S. Copyright Law (Title 17, United States Code Section 101 et seq.). Though there continues to be controversy regarding interpretation of the Copyright Law, this policy represents a sincere effort by the Board to operate legally within the District.
2.
The Governing Board directs the Chancellor or his designee(s) to develop and distribute to employees guidelines that (1) clearly discourage violation of the Copyright Law and (2) inform employees of their rights and responsibilities under the Copyright Law.
3.
Each college president or provost and the Chancellor shall name an individual(s) at each district location who will assume the responsibilities of distributing copyright guidelines, act as a resource person regarding copyright matter and provide training programs on current copyright laws.
4.
Employees are prohibited from copying materials not specifically allowed by the (1) Copyright Law, (2) fair use guidelines, (3) Licenses or contractual agreements, or (4) other permission.

5.
The Governing Board disapproves of unauthorized duplication in any form. Employees who willfully disregard this Board policy and/or the aforementioned copyright guidelines do so at their own risk and assume all liability for their actions.
6.
In order to assist employees and students in complying with the Copyright Law, appropriate notices shall be placed on or near all equipment capable of duplicating copyrighted materials.

WHAT STUDENTS SHOULD KNOW ABOUT COPYRIGHT

What is copyright?

Copyright is a protection afforded under federal law for various types of creative works. A work is

copyrightable if it is an original work of authorship fixed in a tangible medium of expression. Copyrightable works include literary, musical or dramatic works; motion pictures and other audiovisual works; choreographic works and pantomimes; sound recordings; and architectural works.

The owner of a copyright in a particular work has the exclusive right to copy, display, perform, distribute, and create a derivative version of the work. Generally, then, this means that you may not do things like duplicate, show or perform a copyrighted work unless it is expressly allowed under the Copyright Act or you have the prior permission of the copyright holder.

A copyright exists in a work at the time it becomes fixed in some tangible medium of expression. Neither registration of the copyright with the federal government nor a copyright notice on the work itself is required for copyright protection.

What is copyright infringement?

Generally, copyright infringement occurs when you copy, display, perform, distribute or create a derivative version of a copyrightable work either without the permission of the copyright holder or when such activity is not otherwise allowed under an exception provided by federal copyright law. The penalties for infringement include significant damages—potentially in excess of $100,000 for each work infringed.

How does copyright law affect information I obtain off the Internet?

Copyright law covers works in both traditional and new media, including digital media. Copyrightable materials are often available on the Internet without any indication of their copyrighted status. As a rule of thumb, you should assume that everything you find on the Internet is copyrighted, unless otherwise labeled. Even popular activities, such as file swapping or copying software or pictures from the Internet, may be copyright infringement and should be avoided.

The Digital Millennium Copyright Act, which Congress enacted in 2000, affords greater protection for copyright holders of digital works. Generally, then, even if a work appears solely in a digital form, it is likely subject to copyright law protections.

New technology has made many creative works widely available through the Internet. For example, the technology known as Peer to Peer (P2P) allows for the transmission of music, videos, movies, software, video games and other materials—most of which is subject to copyright protection.

Remember that a copyright exists in a work at the time it becomes fixed in some tangible medium of expression. That means that an image you have downloaded from the Internet, as well as a video or musical performance is almost certainly subject to copyright protection. When you download these works, transfer them to a disk or other medium, or send them to a friend, you are infringing on the rights of the copyright holder. Trafficking in such material without the permission of the copyright holder, then, violates copyright law. This includes unauthorized music file sharing over the Internet.

According to a statement recently issued by representatives of the motion picture, recording and songwriting industries, uploading and downloading copyrighted works over the Internet is theft: "It is no different from walking into the campus bookstore and in a clandestine manner walking out with a textbook without paying for it."

Why is it important for a student to be aware of copyright law?

Copyright infringement is expressly prohibited by the US Copyright Act. Anyone who infringes another's copyright in a creative work is subject to liability, and could be required to pay large sums in damages.

In addition, as the law clearly prohibits copyright infringement, using any college resources—such as photocopiers, desktop and laptop computers, printers, central computing facilities, local-area or college-wide networks, Internet access, or electronic mail—for the purpose of infringing a copyright in any work may be grounds for student discipline. According to Maricopa Community College District administrative regulation, "students are expected to comply with the provisions of the Copyright Act of 1976 pertaining to photocopying of printed materials, copying of computer software and videotaping."

Moreover, under the Maricopa Community Colleges Computing Resource Standards, a student is prohibited from the "use of software, graphics, photographs, or any other tangible form of expression that would violate

or infringe any copyright or similar legally-recognized protection of intellectual property rights." The Standards also prohibit "transmitting, storing, or receiving data, or otherwise using computing resources in a manner that would constitute a violation of state or federal law."

A student who violates these policies, then, can be disciplined at any of the Maricopa Community Colleges. This discipline could include suspension or even expulsion.

Does copyright law allow me to download files from a college web site?

Thanks to recent changes to copyright law, colleges and universities are allowed to transmit copyrighted images, recordings, and other materials over the Internet in connection with distance learning offerings. These changes allow for the performance of non-dramatic literary works or musical works, as well as the display of "reasonable and limited portions" of any work in an amount comparable to that typically displayed in a live classroom setting. Use of the works must, however, be "an integral part" of the distance-learning class session, and available solely to students enrolled in the class. In addition, the transmission of the copyrighted works must be under the direction or actual supervision of an instructor.

Even though the college does not hold the copyright to these works, or even have the express permission of the copyright holder, they may be delivered over the Internet to students in distance learning classes.

The fact that the law authorizes such use of copyrighted materials, though, does not allow a student in these classes to freely download, copy, or re-transmit the works. They are intended solely for use by the institution in connection with distance instruction; any other use would likely constitute a violation of copyright law.

To learn more about copyright, click "Intellectual Property." While you're there, you should read the Maricopa Community Colleges' Copyright Guidelines. You should also review the complete text of the Computing Resource Standards that can be found under the "Information Technology" link. The Standards also appear in college catalogs and student handbooks.

TAPING OF FACULTY LECTURES (AR 3.4)

MCCCD acknowledges that faculty members are, by law, afforded copyright protection in their classroom lectures and, therefore, may limit the circumstances under which students may tape (audio/visual) their classes.

Each faculty member shall inform his/her students within the first week of classes to his/her policy with regard to taping. Failure to do so will accord students the right to tape lectures.

Students with disabilities that render them unable to take adequate lecture notes are entitled to reasonable accommodation to remedy this inability. Accommodation may require a faculty member to exempt a student from his/her taping policy.

TECHNOLOGY RESOURCE STANDARDS
(AR 4.4)

Introduction

The Maricopa County Community College District (MCCCD) provides its students and employees access to information resources and technologies. Maricopa recognizes that the free exchange of opinions and ideas is essential to academic freedom, and the advancement of educational, research, service, operational and management purposes, is furthered by making these resources accessible to its employees and students.

At Maricopa, technological resources are shared by its users; misuse of these resources by some users infringes upon the opportunities of all the rest. As Maricopa is a public institution of higher education, however, the proper use of those resources is all the more important., Maricopa requires users to observe Constitutional and other legal mandates whose aims is are to safeguard and appropriately utilize technology resources that are acquired and maintained with public funds.

General Responsibilities

Technology resources (including, but not limited to, desktop and laptop systems, printers, central computing facilities, District-wide or college-wide networks, local-area networks, access to the Internet, electronic mail

and similar electronic information) of the Maricopa County Community Colleges District are available only to authorized users, and any use of those resources is subject to these Standards. All users of Maricopa's technology resources are presumed to have read and understood the Standards. While the Standards govern use of technology resources District-wide, an individual community college or center may establish guidelines for technology resource usage that supplement, but do not replace or waive these Standards.

Acceptable Use

Use of Maricopa's technology resources, including websites created by employees and students, is limited to educational, research, service, operational, and management purposes of the Maricopa County Community Colleges District and its member institutions. Likewise, images and links to external sites posted on or transmitted via Maricopa's technology resources are limited to the same purposes.

It is not Maricopa's practice to monitor the content of electronic mail transmissions, files, images, links or other data stored on or transmitted through Maricopa's technology resources. The maintenance, operation and security of Maricopa's technology resources, however, require that network administrators and other authorized personnel have access to those resources and, on occasion, review the content of data and communications stored on or transmitted through those resources. A review may be performed exclusively by persons expressly authorized for such purpose and only for cause. To the extent possible in the electronic environment and in a public setting, a user's privacy will be honored. Nevertheless, that privacy is subject to Arizona's public records laws and other applicable state and federal laws, as well as policies of Maricopa's Governing Board all of which may supersede a user's interests in maintaining privacy in information contained in Maricopa's technology resources.

Frequently, access to Maricopa's technology resources can be obtained only through use of a password known exclusively to the user. It is the user's responsibility to keep a password confidential. While Maricopa takes reasonable measures to ensure network security, it cannot be held accountable for unauthorized access to its technology resources by other users, both within and outside the Maricopa community. Moreover, it cannot guarantee users protection against loss due to system failure, fire, etc.

Much of the data contained in Maricopa records that are accessible through use of technology resources is confidential under state and federal law. That a user may have the technical capability to access confidential records does not necessarily mean that such access is authorized. A user of Maricopa's technology resources is prohibited from the unauthorized access to, or dissemination of, confidential records.

Violation of any provision of the Standards could result in immediate termination of a user's access to Maricopa's technology resources, as well as appropriate disciplinary action. A violation of the Standards should be reported immediately to the appropriate administrator.

Prohibited Conduct

The following is prohibited conduct in the use of Maricopa's technology resources:
1.
Posting to the network, downloading or transporting any material that would constitute a violation of Maricopa County Community College District contracts.
2.
Unauthorized attempts to monitor another user's password protected data or electronic communication, or delete another user's password protected data, electronic communications or software, without that person's permission.
3.
Installing or running on any system a program that is intended to or is likely to result in eventual damage to a file or computer system.
4.
Performing acts that would unfairly monopolize technology resources to the exclusion of other users, including (but not limited to) unauthorized installation of server system software.
5.
Hosting a website that violates the .EDU domain request.
6.
Use of technology resources for non-Maricopa commercial purposes, including to advertise personal services, whether or not for financial gain.
7.

Use of software, graphics, photographs, or any other tangible form of expression that would violate or infringe any copyright or similar legally-recognized protection of intellectual property rights.

8.
Activities that would constitute a violation of any policy of Maricopa's Governing Board, including, but not limited to, Maricopa's non-discrimination policy and its policy against sexual harassment.
9.
Transmitting, storing, or receiving data, or otherwise using technology resources in a manner that would constitute a violation of state or federal law, or MCCCD policy or administrative regulation including, but not limited to, obscenity, defamation, threats, harassment, and theft.
10.
Attempting to gain unauthorized access to a remote network or remote computer system.
11.

Exploiting any technology resources system by attempting to prevent or circumvent access, or using unauthorized data protection schemes.
12.
Performing any act that would disrupt normal operations of computers, workstations, terminals, peripherals, or networks.
13.
Using technology resources in such a way as to wrongfully hide the identity of the user or pose as another person.
14.

Allowing any unauthorized access to Maricopa's technology resources.

Disclaimer
The home page of a website must display, or link to, the following disclaimer in a conspicuous manner:

All information published online by MCCCD is subject to change without notice. MCCCD is not responsible for errors or damages of any kind resulting from access to its Internet resources or use of the information contained therein. Every effort has been made to ensure the accuracy of information presented as factual; however errors may exist. Users are directed to countercheck facts when considering their use in other applications. MCCCD is not responsible for the content or functionality of any technology resource not owned by the institution.

The statements, comments, or opinions expressed by users through use of Maricopa's technology resources are those of their respective authors, who are solely responsible for them, and do not necessarily represent the views of the Maricopa County Community College District.

Complaints and Violations
Complaints or allegations of a violation of these standards will be processed through Maricopa's articulated grievance procedures or resolution of controversy.

Upon determination of a violation of these standards, Maricopa may unilaterally delete any violative content and terminate the user's access to Maricopa's technology resources. It is the user's responsibility to demonstrate and/or establish the relevance of content in the event that a content complaint is made official. Users retain the right to appeal through Maricopa's grievance procedures or resolution of controversy.

HAZING PREVENTION REGULATION (AR 2.6)
The Maricopa County Community College District (MCCCD) strives to exceed the changing expectations of our many communities for effective, innovative, student-centered, flexible and lifelong educational opportunities. Our employees are committed to respecting diversity, continuous quality improvement and the efficient use of resources. We are a learning organization guided by our shared values of: education, students, employees, excellence, diversity, honesty and integrity, freedom, fairness, responsibility and public trust.

Central to the vitality and dignity of our community of learners is an environment that produces broadly

educated responsible citizens, who are prepared to serve and lead in a free society. Academic instruction, co-curricular activities and community involvement come together to meet this goal. All members of the Maricopa Community Colleges' community, through the best of their abilities, must be provided the opportunity to contribute in a safe, orderly, civil and positive learning environment. One factor that inhibits the achievement of the above stated purpose is the practice of hazing.

1.
Hazing by any student, employee or other person affiliated with the Maricopa Community Colleges is prohibited.

2.
"Hazing" is defined as any intentional, knowing or reckless act committed by a student or other person in any MCCCD college or affiliated educational setting, whether individually or in concert with other persons, against another student, and in which both of the following apply:

A.
The act was committed in connection with an initiation into, an affiliation with or the maintenance of membership in any club/organization that is affiliated with Maricopa Community Colleges; and,

B.
The act contributes to a substantial risk of potential physical injury, mental harm or personal degradation, or causes physical injury, mental harm or personal degradation.

3.
Any solicitation to engage in hazing is prohibited.

4.
Aiding and abetting another person who is engaged in hazing is prohibited.

5.
Victim consent is not a defense for violation of the Maricopa Community Colleges Hazing Prevention Regulation.

6.
All students, faculty, and staff must take reasonable measures within the scope of their individual authority to prevent violations of the Maricopa Community Colleges Hazing Prevention Regulation.

7.
Hazing activities and situations include, but are not limited to, the following:

A.
Pre-pledging, illegal pledging or underground activities.

B.
Acts of mental and physical abuse, including, but not limited to: paddling, slapping, kicking, pushing, yelling, biting, duck-walking, line-ups, tuck-ins, belittling, excessive exercise, beating or physical abuse of any kind, and the potentially forced consumption of any food or beverage that contributes to or causes physical injury, mental harm or personal degradation.

C.
Sleep deprivation (activities that deprive prospective and/or current students and/or members of the opportunity of a minimum of six hours sufficient sleep each day).

D.
Encouraging or forcing use of alcohol or drugs.

E.
Any type of student club/organization scavenger hunt, quest, road trip or activity that would physically or psychologically endanger prospective and/or current students and/or members or others.

F.

Stroking or physically touching in an indecent or inappropriate manner. See Sexual Harassment policy 5.1.8

G.
Student club/organization activities that subject prospective and/or current students and/or members or others to public nuisance or spectacle.

H.
Aiding or abetting theft, fraud, embezzlement of funds, destruction of public, personal or private property, or academic misconduct.

I.
Being required to wear odd or look-alike apparel that contributes to or causes physical injury, mental harm or personal degradation.

J.
Personal services that contribute to or cause physical injury, mental harm or personal degradation.
8.
Alleged violations of this regulation by students or student organizations can be reported to the vice president of student affairs' office for investigation by any member of the college community. The vice president of student affairs' office will investigate the complaint in accordance with the student disciplinary code, all other college and Maricopa Community Colleges policies, and local and state laws. Alleged violations of the Maricopa Community Colleges hazing prevention regulation or interference with an investigation under this regulation by students or student organizations are subject to sanctions under the student disciplinary code. The student disciplinary code shall govern all proceedings involving such a complaint. Decisions arrived at as outcomes of the proceedings shall be final, pending the normal appeal process.
9.
Alleged violations of the Maricopa Community Colleges hazing prevention regulation by any faculty or staff member can be reported to the vice president of student affairs' office for investigation by any member of the college community. The vice president of student affairs' office will investigate the complaint in accordance with college and Maricopa Community Colleges policies, and local and state laws. Any Maricopa Community Colleges faculty or staff member who knowingly permitted, authorized or condoned the alleged hazing activity is subject to disciplinary action in accordance with college and Maricopa Community Colleges policies, and local and state laws.
10.
If the vice president of student affairs' office receives a report or complaint of an alleged hazing activity involving physical injury, threats of physical injury, intimidation, harassment or property damage, or any other conduct that appears to violate Arizona state law, the college will report such conduct to the appropriate college safety office. The said college safety office will investigate, respond to and report on the alleged hazing activity in accordance with all college, District, local, state and federal guidelines, policies and laws.
11.
Should the proceedings outlined above substantiate an occurrence of hazing activity—where students or student organizations knowingly permitted, authorized or condoned the hazing activity—the college can recommend the following sanctions against student clubs/organizations:

A.
Censure: Censure can include the required completion of a program designed with the intent of eliminating the hazing activity. The programs will be devised with the cooperation of all involved parties and monitored by the vice president of student affairs' office.

B.
Probation: The student club(s)/organization(s) will be placed on probation for a specified period of time. Conditions of probation will be determined by the vice president of student affairs' office and outlined in writing to the student club(s)/organization(s). The probationary term will be monitored by the vice president of student affairs' office.

C.

Suspension: The student club(s)/organization(s) will be suspended. The terms of the suspension can be defined in the sanction, including criteria the student club(s)/organization(s) must meet within a specified time to be considered for admission or renewal of college recognition status.

D.

Revocation: The student club(s)/organization(s) will have its status revoked, with the loss of all college associations, recognitions and privileges. The national or international office of an organization, if so affiliated, will be requested to revoke the charter of an organization.

12.

The Maricopa Community Colleges hazing prevention regulation is not intended to prohibit or sanction the following conduct:

A.

Customary athletic events, contests or competitions that are sponsored by any of the Maricopa Community Colleges.

B.

Any activity or conduct that furthers the goals of a legitimate educational curriculum, a legitimate co-curricular experience or a legitimate military training program.

13.

For the purposes of the Maricopa Community Colleges hazing prevention regulation: "Organization" is defined as an athletic team, association, order, society, corps, cooperative, club or other similar group that is affiliated with Maricopa Community Colleges, whose membership consists primarily of students enrolled at Maricopa Community Colleges and that may also be classroom-related or co-curricular in nature.

ABUSE-FREE ENVIRONMENT (AR 2.4.7)

See the **AUXILIARY SERVICES Section** of the Administrative Regulations for Tobacco-Free Environment.

1.
Substance Abuse/Misuse Statement

Drug abuse and misuse has become a national issue and is receiving national attention, particularly in the academic community. The insidious effects of the abuse of these agents are also felt by all walks of life and economic levels. Therefore, as an education providing institution, we are responsible to provide knowledge and guidelines about prevention, control, and treatment of the abuse/misuse of alcohol, illegal and legal drug uses and misuses.

This policy statement has been constructed on the belief that higher education has a responsibility to face safety and health factors of substance abuse/misuse issues forthrightly and innovatively. We believe that the community college needs to adapt programs applicable to their community as well as to our individual student's needs. The policy statements should be comprehensive, understood by those expected to comply, realistic and enforceable, consistently applied, and cover foreseeable dangers.

Construction of this statement has been founded on concerns of individual safety, educational quality, and legal liability. It is recognized that each individual is responsible for his/her actions and must be afforded an opportunity to develop knowledge, skills and talent, and be willing to share community responsibilities. The Maricopa Community College District has an equal "duty to care" responsibility and a commitment to substance abuse/misuse education for all students and employees.

The Maricopa Community College District shall:
    A.
Visibly demonstrate a performance of the Maricopa Community College District "duty to care".
    B.
Comply with requirements for federal funds.
    C.
Describe what the college does about substance abuse/misuse (alcohol, drugs, anabolic steroids).

D.

Inform/educate members of the academic community of adverse effects of these substances.

E.

Inform/educate the academic community about the policies concerning substance misuse and abuse.

F.

Discourage illegal drug abuse and legal substance misuse.

G.

Provide individual and group counseling.

H.

Provide assistance and guidance to obtain treatment and rehabilitation of any identified problem.

To achieve these objectives, the program must provide an environment capable of:

A.

Developing and implementing substance misuse/abuse prevention programs.

B.

Providing educational training and prevention programs for the college and community it serves.

C.

Providing timely and accurate information dissemination.

D.

Establishing supportive counseling programs as needed.

E.

Establishing a strong on-going evaluation of services.

F.

Providing assistance to obtain treatment and rehabilitation of substance abuse/misuse.

G.

Clarifying the college regulations for control of alcohol and drug use.

H.

Providing procedures that the college will follow to correct and stabilize emergency situations.

Each college will identify key people to provide emergency services and to contact and work with outside agencies.

The Maricopa Community College District is committed to establishing a preventative substance abuse program at each college designed to affect positively the problems of irresponsible use of alcohol and the use and abuse of illegal substances. A main focus of the program will be on education of the campus community and assistance to individuals.

The Maricopa Community College District fully supports disciplinary action for misconduct and the enforcement of state laws governing the use of alcohol and the use, abuse, possession or distribution of controlled substances or illegal drugs.

2.
Student Program to Prevent Illicit Use of Drugs and Abuse of Alcohol
A.
Introduction and Purpose

The Federal Drug-Free Schools and Communities
Act of 1989 (Public Law 101-226) requires federal contractors and grantees to certify that they will provide a drug-free school. As a recipient of federal grants, the District must adopt a program toward accomplishing this goal. While federal legislation has been the impetus for creation of the program, the administration and Governing Board recognize that substance abuse is a problem of national proportions that also affect students at the Maricopa Community Colleges. Based upon that concern, it is intended that this program on prevention of alcohol and drug abuse on college campuses will go beyond the strict dictates of the law and will serve as a comprehensive educational and resource tool.

The Maricopa Community Colleges are committed
to maintaining learning environments that enhance the full benefits of a student's educational experience. The Maricopa County Community College District will make every effort to provide students with optimal conditions for learning that are free of the problems associated with the unauthorized use and abuse of alcohol and drugs. Part of the educational mission of the Maricopa Community Colleges, in conjunction with this program, is to educate students about positive self-development, the benefits of
a healthy lifestyle and the health risks associated
with substance abuse.

The purpose of this program is to:
1)
Ensure that the Maricopa Community Colleges working and learning environment for students and the public is safe, orderly and free of illegal activity.
2)
Comply with the Drug-Free School and Communities Act of 1989, and other relevant substance abuse laws.
3)
Provide students with access to appropriate treatment and rehabilitation assistance for problems associated with substance use or abuse.

B.
Standards of Conduct

In the student handbooks of the Maricopa Community Colleges under codes of conduct, the following are examples of behavior that is prohibited by law and/or college rules and policies:
1)
Drinking or possession of alcoholic beverages on the college campus.
2)
Misuse of narcotics or drugs.

C.
Sanctions for Violation of Standards of Conduct
Disciplinary actions include, but are not limited to:
1)
Warning,
2)
Loss of privileges,
3)
Suspension, or
4)
Expulsion.

D.
Legal Consequences of Alcohol and Other Drugs
1)
Laws Governing Alcohol

The State of Arizona sets twenty-one as the "legal drinking age". An underage person who buys, receives, possesses or consumes alcoholic beverages is guilty of a misdemeanor and may be subject to a fine and imprisonment for up to six months.

Arizona Revised Statutes, Title 28, Chapter 4, Article 3 prohibit driving while under the influence of intoxicating liquor or drugs (DWI). Drivers arrested for a DWI who refuse to be tested face suspension of their licenses or permits to drive for twelve months. A driver whose test results show a blood or breath alcohol concentration of 0.08 or more will, on conviction for a first offense, be sentenced to no less than ten days in jail, pay a fine of not less than $250, pay an additional assessment of $1,000, and may be required to perform community restitution and equip his or her vehicle with a certified ignition interlock device. On

conviction of a second offense within 84 months, the person shall have his/her driving privilege revoked for one year. Additionally, this person shall be sentenced to not less than 90 days in jail, pay a fine of not less than $500, pay an assessment of $2,500, and shall be ordered to perform at least 30 hours of community restitution. Additionally, the person may be required to equip his or her vehicle with a certified ignition interlock device for up to twelve months starting on the date that his or her driving privileges are restored.

2)
Federal Penalties and Sanctions for Illegal Possession of a Controlled Substance

First conviction: Up to one year imprisonment and fined at least $1,000 but not more than $100,000, or both. (21 United States Code §844)

After one prior drug conviction: At least fifteen days in prison, not to exceed two years and fined at least $2,500 but not more than $250,000, or both. (21 United States Code §844)

After two or more prior drug convictions: At least ninety days in prison, not to exceed three years and fined at least $5,000 but not more than $250,000, or both. (21 United States Code §844)

Special sentencing provisions for possession of crack cocaine (21 United States Code §844):

Mandatory at least five years in prison, not to exceed twenty years and fined up to $250,000, or both, if:
1.
First conviction and the amount of crack possessed exceeds five grams.
2.
Second conviction and the amount of crack possessed exceeds three grams.
3.
Third or subsequent crack conviction and the amount of crack possessed exceeds one gram.

Forfeiture of personal and real property used to possess or to facilitate possession of a controlled substance if that offense is punishable by more than one year imprisonment. (See special sentencing provisions re: crack) (21 United States Code §853)

Forfeiture of vehicles, boats, aircraft or any other conveyance used to transport or conceal a controlled substance. (21 United States Code §§853 and 881(a)(4))

Civil fine of up to $10,000 (pending adoption of final regulations). (21 United States Code §884(a))

Denial of Federal benefits, such as student loans, grants, contracts, and professional and commercial licenses, up to one year for first offense, up to five years for second and subsequent offenses. (21 United States Code §862)

Ineligible to receive or purchase a firearm. (21 United States Code §922(g))

Miscellaneous: Revocation of certain Federal licenses and benefits, e.g. pilot licenses, public housing tenancy, etc., are vested within the authorities of individual Federal agencies.

Note: These are only some of the Federal penalties and sanctions.

3)
State Penalties and Sanctions

Title Thirteen, Chapter 34 of the Arizona Revised Statutes lists drug offenses and their penalties. Following is list of drugs that are frequently misused with a description of the potential penalties attached to a conviction.

1.

Marijuana: A first offense for possession or use of marijuana in an amount of less than two pounds constitutes a class 6 felony and carries a possible prison term of one year and a fine of not less than $750. The sale of marijuana in an amount of less than two pounds constitutes a class 3 felony and carries a prison sentence of three and one-half years and a fine of not less than $750. There are other possible penalties as well. (A.R.S. §13-3405)

2.

LSD and Methamphetamine: Possession, use and sale are felonies carrying sentences from four to five years and fines of not less than $1,000. There are other possible penalties as well, including a presumptive sentence of ten years for the sale of methamphetamine.
(A.R.S. §13-3407)

3.

Heroin and Cocaine: Possession, use and sale are felonies carrying sentences up to five years and a fine of not less than $2,000. There are other possible penalties as well. (A.R.S. §13-3408)

3.
Use of Alcoholic Beverages (AR 4.13)

This Administrative Regulation prohibits the use of District funds to purchase alcoholic beverages or services related to them except in small amounts to be used in cooking for the District's culinary programs. Additionally, it generally prohibits the presence of alcoholic beverages on premises owned by the District, or those leased or rented by the institution. It permits a few, narrow exceptions to that latter prohibition. The exceptions are not available to the general population of District employees or officials. More importantly, they are established to ensure that the District's actions stay within the boundaries of state law and the District's insurance coverage. Therefore, strict compliance with this regulation is essential.

1.
No Funds.
No funds under the jurisdiction of the governing board of the District may be used to purchase alcoholic beverages, except for the limited purposes of purchasing small amounts of them for use solely as ingredients in food preparation for classes and at the District's culinary institutes. Alcoholic beverages may not be stored on premises owned, leased, or rented by MCCCD except as provided in Paragraph 8.

2.
No Service or Sale of Alcoholic Beverages.
The law of the state of Arizona strictly regulates the service, sale, distribution and consumption of alcoholic beverages. In light of that law, the District does not permit alcoholic beverages to be served, sold or distributed on or in the premises owned by the District or leased or rented by the Maricopa Community Colleges for District-approved educational, fund-raising or other community purposes, except as provided in Paragraphs 3 and 7.

3.
Service at District Events on District-owned Property.
The Chancellor has the sole authority to approve the service, but not the sale or other distribution, of wine or beer at District events on district-owned property that the Chancellor either sponsors or approves. The only District employees authorized to request the Chancellor's approval are the College Presidents and the Vice Chancellors. Additionally, the law strictly limits the service of wine or beer by the District on District-owned property, and those restrictions are specified in Paragraph 5. Unless approved by the Chancellor in compliance with the law and this regulation, alcoholic beverages may not be served on District-owned property.

4.
Event Form Required.
A College President or Vice Chancellor who wishes
to obtain the Chancellor's approval for the service of wine or beer at a District-sponsored event on District-owned property shall forward a completed written request to the Chancellor no later than 30 days before the event. The request form is available at: **AS-6 - Notice of Intent to Serve Beer and Wine**. On signing the form, the Chancellor will provide a copy of it to the requestor and to the MCCCD Risk Manager. For events

that the Chancellor sponsors, he or she will complete the form, sign it and provide it to the MCCCD Risk Manager no later than 10 business days before the event. The MCCCD Risk Manager will forward copies of the forms to the Arizona Department of Liquor Licenses and Control.

5.

Service restrictions required by law.

An event approved under Paragraph 4 must, by law, comply with the all of the following restrictions:

A.

The only alcoholic beverages that may be served and consumed are wine and beer. Wine consumption is limited to 6 oz. per person, and beer consumption is limited to 24 oz;

B.

The gathering must be by invitation only, and not open to the public;

C.

The gathering may not exceed 300;

D.

Invitees may not be charged any fee for either the event or the beer or wine; and

E.

The consumption may only take place between noon and 10:00 p.m.

Additionally, beer and wine may only be served by a beverage service contractor whose liquor license with the state of Arizona is in good standing, except as provided in Paragraph 6. The contractor must provide all of the beverages served and well as the servers or bartender. Before the event, the contractor must provide a certificate of insurance that meets the requirements of the District's Risk Manager and that adds the District as an additional insured. The contractor must also agree in writing to indemnify the District regarding the service of the beverages.

6.

Culinary Institutes.

The Chancellor may sponsor or approve an event at one of the District's culinary institutes. Students may serve wine and beer at the event as part of their class requirements, subject to the limitations of Paragraph 5. Any student serving those beverages must, by law, be 19 years or older.

7.

Third-Party Event.

The Maricopa County Community College District foundation and the Friends of Public Radio Arizona may, with the approval of the Chancellor, sponsor an event on District-owned property under this regulation. The City of Phoenix and the Friends of
the Phoenix Public Library may also do so, with the approval of the Chancellor, at the joint library on the campus of South Mountain Community College. These third-party, non-district entities are solely responsible for determining the steps that they are required to take to comply with Arizona's alcoholic beverages laws. Additionally, they must comply with the following steps:

A.

The entity obtains a liquor license from the Arizona Department of Liquor Licenses and control for each event and fully complies with the laws, rules and other requirements applicable to that license;

B.

The entity completes the form available at **AS-7 - Request to Serve Beer and Wine** - Third Party. And provides it to the Chancellor for approval along with a copy of the liquor license no later than 60 days before the event;

C.

The entity provides a certificate of insurance demonstrating that it has liquor liability coverage and that it adds the District as an additional insured;

D.

The entity agrees in writing to indemnify the District from any claims of any kind arising out of the event;

E.

Beer and wine are the only alcoholic beverages served and only served through a beverage service contractor whose liquor license with the state of Arizona is in good standing;

F.

The contractor provides all of the beverages served and well as the servers or bartenders;

G.

Before the event, the contractor provides a certificate of insurance that meets the requirements of the District's Risk Manager and that adds the District as an additional insured; and

H.

The contractor agrees in writing to indemnify the District regarding the service of the beverages.

8.

Receipt of beverages; storage.

It is not permissible to store wine or beer on premises owned, leased or rented by MCCCD, except as provided in this paragraph. Alcoholic beverages purchased for use in cooking in District culinary courses must be stored in such a way that it is inaccessible to anyone except the Director or designee of the culinary program. For wine and beer to be used for receptions at the district's culinary institutes, as authorized by this administrative regulation, the following storage requirements apply:

A.

Wine and beer to be served may only be brought to MCCCD property no sooner than four hours prior to the event, and remain there no longer than four hours after the event; and

B.

Once the wine and beer arrives on MCCCD property, the Director the culinary program shall assign an MCCCD employee to ensure that it is not stolen or that it is not opened until ready to be served.

9.

Compliance with law.

In compliance with applicable law, any persons planning an event under this administrative regulation are required to familiarize themselves with the pertinent laws and other requirements established by the state of Arizona for the service of alcoholic beverages, particularly those in Arizona Revised Statutes Title 4 (Alcoholic Beverages) Chapters 1 (General Provisions), 2 (Regulations and Prohibitions) and 3 (Civil Liability of Licensees and Other Persons) as well as Arizona Administrative Code Title 19, Articles 1 (State Liquor Board) and 3 (Unlicensed Premises Definitions and Licensing Time-Frames).

10.

Residential Housing.

Lawful occupants of residential housing under the jurisdiction of the Governing Board, if over the age of 21 years and not otherwise lawfully barred from such practice, may possess and consume alcoholic beverages in the privacy of their respective leased housing facility. Guests of such occupants over the age of 21 years shall have the same privilege. No alcohol is permitted in public areas (nor common areas of a dormitory) at any time.

11.

Personal Responsibility.

The personal or individual purchase of alcoholic beverages by individuals attending District-approved functions held in places serving alcoholic beverages is a personal and individual responsibility. Administrative discretion shall be exercised in the approval of the location of such activities, as such decision pertains to the nature of the group involved.

Other Health Concerns
General Guidelines Concerning AIDS

Neither a diagnosis of AIDS nor a positive HIV antibody test will be part of the initial admission decision for those applying to attend any of the Maricopa Community Colleges. The Maricopa Community Colleges will not require screening of students for antibody to HIV.

Students with AIDS or a positive HIV antibody test will not be restricted from access to student unions, theaters, cafeterias, snack bars, gymnasiums, swimming pools, recreational facilities, restrooms, or other common areas, as there is not current medical justification for doing so.

Where academically and logistically feasible, students who have medical conditions, including AIDS, may seek accommodation in order to remain enrolled. Medical documentation will be needed to support requests for accommodation through the Office of Disabled Resources and Services or the Office of Vice President of Student Affairs.

The Maricopa Community Colleges acknowledge the importance of privacy considerations with regard to

persons with AIDS. The number of people who are aware of the existence and/or identity of students who have AIDS or a positive HIV antibody test should be kept to a minimum. When a student confides in an faculty member, knowledge of the condition should be transmitted to the appropriate vice president or designee who will make the determination if the information should be further disseminated. It should be remembered that mere exposure to the person in a classroom does not constitute a need to know the diagnosis. It is, therefore, unnecessary to document in a student's file the fact that he or she has AIDS unless the information is to be used for accommodation reasons. Sharing confidential information without consent may create legal liability.

Students are encouraged to contact the Office of Disabled Resources and Services and/or the vice president of student affairs or designee for the types of services available in the district or community on matters regarding AIDS or the HIV virus.

DISABILITY RESOURCES & SERVICES – ELIGIBILITY FOR ACCOMMODATIONS & REQUIRED DISABILITY DOCUMENTATION (AR 2.8.1)

PURPOSE

To specify the disability documentation requirements that will qualify (i.e., support current and essential needs) Maricopa County Community College District students for reasonable and appropriate accommodations through each college's disability services office or designated professional. This regulation is implemented in accordance with the Americans with Disabilities Act (42 U.S.C. Chapter 126).

GENERAL ELIGIBILITY REQUIREMENTS

Each applicant with a disability must meet MCCCD-admissions requirements, or be enrolled as an MCCCD student, and must provide Disability Resource Services (DRS) with required documentation verifying the nature and extent of the disability prior to receiving any accommodation. The DRS office coordinator/program advisor is responsible for evaluating documentation and determining accommodation eligibility.

SPECIFIC ELIGIBILITY REQUIREMENTS

Physical Learning Disabilities —
Required Documentation

The student must submit a written, current diagnostic report of any physical disabilities that are based on appropriate diagnostic evaluations administered by trained and qualified (i.e., certified and/or licensed) professionals (e.g., medical doctors, ophthalmologists, neuropsychologists, audiologists). Disability diagnosis categories include:

1.
Orthopedic Disability
2.
Blind or Visual Impairment
3.
Deaf or Hard-of-hearing
4.
Traumatic Brain Injury
5.
Other Health-related/systemic Disabilities

The Written Diagnostic Report Must Include:
1.
A clear disability diagnosis, including a clinical history that establishes the date of diagnosis, last contact with the student, and any secondary conditions that might be present.
2.
The procedures used to diagnose the disability.
3.

A description of any medical and/or behavioral symptoms associated with the disability.
4.
A discussion of medications, dosage, frequency, and any adverse side effects attributable to their use that the, student has experienced.
5.
A clear statement specifying functional manifestations (i.e., substantial limitations to one or more major life activities and degree of severity) due to the disability and/or medications for which the student may require accommodations.
6.
A recommendation for accommodation, including rationale. If the accommodation recommendations are specific to limitations in learning (e.g., reading, mathematics, written expression), an appropriate psycho-educational or neuropsychological evaluation must be administered to document ability/achievement discrepancies.

Specific Learning Disabilities —
Required Documentation
The student shall submit a written diagnostic report
of specific learning disabilities that is based on current appropriate, comprehensive, psycho-educational evaluations using adult normed instruments.

The assessment or evaluation which leads to the diagnosis must be administered by a trained and qualified (i.e., certified and/or licensed) professional (e.g., psychologist, school psychologist, neuropsychologist, or educational diagnostician) who has had direct experience with adolescents and adults with learning disabilities.

An Appropriate Psycho-Educational Evaluation Must Include Comprehensive Measures In Each Of The Following Areas:
1.
Aptitude (the evaluation must contain a complete intellectual assessment, with all sub-tests and standard scores reported).
2.
Academic achievement (the evaluation must contain a comprehensive achievement battery with all sub-tests and standard scores reported) the test battery should include current levels of functioning in the relevant areas, such as reading (decoding and comprehension), mathematics, and oral and written expression.
3.
Information processing (the evaluation should assess specific information processing areas such as short- and long-term memory, sequential memory, auditory and visual perception/processing, processing speed, executive function, and motor ability).

Examples Of Measures
a.
Wechsler Adult Intelligence Scale-Revised (WAIS-R)
b.
Wechsler Adult Intelligence Scale-Third Edition
c.
Stanford Binet Intelligence Scale-Fourth Edition
d.
Woodcock-Johnson Psycho-Educational Battery-Revised: Tests Of Cognitive Ability
e.
Kaufman Adolescent And Adult Intelligence Test

Achievement
a.
Wechsler Individual Achievement Tests (WIAT)
b.
Woodcock-Johnson Psycho-Educational Battery-Revised: Tests Of Achievement (W-Jr)

c.
Stanford Test of Academic Skills (TASK)
d.
Scholastic Abilities Test for Adults (SATA)

Information Processing
a.
Subtests of The WAIS-R Or WAIS-Third Edition
b.
Subtests on The Woodcock-Johnson Psycho-Educational Battery-Revised: Tests Of Cognitive Ability

Diagnostic Report
The Diagnostic Report Must Include The Following Information:
1.
A diagnostic interview that addresses relevant historical information, past and current academic achievement, instructional foundation, past performance in areas of difficulty, age at initial diagnosis, and history of accommodations used in past educational settings and their effectiveness.
2.
A list of all instruments used in the test battery.
3.
Discussion of test behavior and specific test results.

4.
A diagnostic summary statement with the following information:
   A.
A clear and direct statement that a learning disability does or does not exist, including a rule-out of alternative explanations for the learning problems. Terms such as "appears," "suggests," or "probable" used in the diagnostic summary statement do not support a conclusive diagnosis.
   B.
A clear statement specifying the substantial limitations to one or more major life activities.
   C.
A psychometric summary of scores.
   D.
A recommendation for accommodations,
including rationale.

Diagnosis of specific learning disabilities that do not contain psycho-educational measures may not be used for determining eligibility for academic accommodations. For example, school plans such as individualized education plans (IEPS) or 504 plans are not adequate documentation; however, they can be included with the required evaluation. Drs reserves the right to request reassessment when questions regarding previous assessment or previous service provision arise.

Attention Deficit Hyperactivity Disorder (ADHD) / Attention Deficit Disorder (ADD) — Required Documentation
The student shall submit a current diagnosis of attention deficit hyperactivity disorder (ADHD)/attention deficit disorder (ADD) that is based on appropriate diagnostic evaluations administered by trained and qualified (i.e., certified or licensed) professionals (e.g., psychiatrists, psychologists, or neuropsychologists).

The Diagnostic Report Must Include:
1.
A diagnostic interview addressing relevant historical information, past and current academic achievement, age at initial diagnosis, discussion of medication, and history and effectiveness of accommodations in past educational settings.
2.
The procedures used to diagnose the disability (including a list of all instruments used in the assessment).
3.
Discussion of the testing results and behavior, including the symptoms that meet the criteria diagnosis. If the student was evaluated while on medication, the effect this may have had on performance must be noted.

4.

DSM-IV diagnosis (including all five axes)

5.

A diagnostic summary statement that includes the following information:

A.

A clear statement that ADHD/ADD does or does not exist, including a rule-out of alternative explanations for behaviors. Terms such as "appears," "suggests," or "has problems with" used in the diagnostic summary statement do not support a conclusive diagnosis.

B.

A clear statement specifying the substantial limitations to one or more major life activities and the degree of severity. If the limitations are in learning
(e.g., reading, mathematics, and written expression), an appropriate psycho-educational evaluation must be administered to document ability/achievement discrepancies.

C.

A recommendation regarding medications or medical evaluation(s).

D.

A recommendation for accommodations, including rationale.

Psychological Disabilities —
Required Documentation

If the diagnostic report is more than one year old, a letter from a qualified professional that provides an update of the diagnosis with a description of the individual's current level of functioning during the past year, and a rationale for the requested accommodations must be submitted.

The Diagnostic Report Must Include The Following:

1.

A clinical interview, relevant historical information, age at initial diagnosis, duration and severity of the disorder.

2.

Discussion of medications review of past and current academic achievement, and history of disability accommodations and their effectiveness.

3.

The procedures used to diagnose the disability (include a list of all instruments used in the assessment and test scores as applicable).

4.

Discussion of the assessment results.

5.

DSM-IV diagnosis (include all five axes).

6.

A diagnostic summary statement that includes the following:

A.

A clear statement that a disability does or does not exist. Terms such as "appears," "probable," and "suggests" used in the diagnostic summary statement do not support a conclusive diagnosis.

B.

A clear statement specifying the substantial limitations to one or more major life activities. If the limitations are in learning (e.g., reading, mathematics, and written expression), an appropriate psycho-educational evaluation must be administered to document ability/achievement discrepancies.

C.

A discussion of medications and their possible impact on academic functioning (e.g., concentration, attention, sedation)

D.

A recommendation for essential accommodations relative to the diagnosed disability, including rationale.

E.

The duration for which these accommodations should be provided based on the current assessment.

F.

A recommendation regarding reevaluation to determine ongoing need for disability accommodations (e.g., one

semester, one year, two years).

Temporary Impairments

Some disabilities are temporary and may require accommodations for a limited time. Each case is considered individually. The following documentation is required:

1.

Written correspondence on letterhead from a qualified professional stating diagnosis, functional limitations necessitating the accommodation, and the estimated length of time services will be needed.

2.

Services may be provided for ten (10) working days pending receipt of documentation. If documentation is not received by that time, services will be cancelled.

Special Considerations

A requirement for documentation prescribed in this regulation may be considered at the discretion of each college's disability services office or designated professional if, in the professional opinion of the responsible college's disability services office or designated professional, such consideration is in the best interest of the student and will neither undermine the integrity of any college offering nor violate any mandate under state or federal law. All situations shall be considered on an individual, case-by-case basis.

Reasonable accommodation is required for students with known disabilities. MCCCD will make every attempt to provide "preferred" accommodations, however, "the most effective and reasonable" accommodation may be determined to meet sufficient accessibility needs.

ELIGIBILITY OF STUDENTS TAKING REDUCED COURSE LOADS (AR 2.8.2)

Although any student may register for fewer than twelve credit hours, a student with a disability may request a reduced academic load as a reasonable and appropriate accommodation. A college Disability Resource Services (DRS) professional may certify that a student who is afforded a reduced academic load as an accommodation for a disability shall nevertheless be deemed a full-time student. Such certification shall be solely to enable the student to seek eligibility for health insurance benefits and to seek eligibility to comply with mandates of the National Junior College Athletic Association. The college DRS professional will certify that a student may be deemed a full-time student as provided under this regulation only on a semester-by-semester basis.

The appropriate college offices will receive documentation of the DRS professional's certification from the professional or the student. An incoming student may apply for such certification upon acceptance to the college. Requests for certification must be made prior to the beginning of each semester. Every attempt will be made to accommodate these requests.

The following criteria also apply:

1.

Students taking a reduced course load must register for at least 6 credit hours (based on DRS approval) during the regular fall and spring semesters. It is recommended that students register for at least three (3) credit hours during the summer to offset the impact of academic eligibility.

2.

Students taking a reduced course load must maintain satisfactory academic progress standards as defined by the College catalog.

3.

The reduced credit load may result in an adjusted financial aid package. **There may be additional ramifications including, but not limited to, extra time to complete college, insurance coverage, Vocational Rehabilitation funding, etc.**

4.

Eligibility for Federal Stafford Loans may be reduced according to the total number of credit hours taken in the full academic year. A student, taking a reduced course load, must be at least half time in a semester (6 credits) in order to receive a Stafford Loan.

5.

The amount of Federal Financial Aid (Title IV) awarded is based on the actual number of cerdit hours taken.

6.

Requirements for continuation of funding through Vocational Rehabilitation may differ. The student must contact his/her VR counselor to determine how a reduced course load will impact their funding.

7.

The National Junior College Athletic Association (NJCAA) has published standards in regard to the designation of Certified Disabled Student-Athlete in Article V Section J of the NJCAA bylaws. This procedure addresses the NJCAA criteria for reduced course loads.

Application Process:

1.

Applications for reduced course loads must be submitted to the Disability & Services professional with supporting documentation. **Requests must be made prior to the beginning of each semester.**

2.

Supporting documentation must include a diagnostic evaluation from an appropriate professional. The documentation must meet the guidelines set forth by the Maricopa Community College District's Documentation Policy in order to evaluate the current impact of the disability in regards to the request. Students are required to complete an application form for this status every semester, but do not need to re-submit their documentation. Continuation of this status is not automatic. Each case will be re-evaluated at the end of the semester to determine if this accommodation is still appropriate.

3.

Students requesting a reduced course load should consult with their academic advisor regarding the consequences of this status for making progress toward graduation requirements and eligibility for various academic distinctions and designations.

4.

Students registered in occupational and/or academic programs that have specific block formats will not be considered for reduced course loads.

5.

Students who are approved for a reduced course load will be required to sign the Reduced Course Load Approval Form (see Appendix S-10), which includes a statement acknowledging that he or she has reviewed the consequences that go with reduced load status and accepts them.

6.

When a reduced course load status is granted by the Disability Resources & Services professional, a copy of the Reduced Course Load Approval Form will be sent to the appropriate individuals.

ACADEMIC MISCONDUCT (AR 2.3.11)

1.
Definitions

A.

Academic Misconduct - includes misconduct associated with the classroom, laboratory or clinical learning process. Examples of academic misconduct include, but are not limited to, cheating, plagiarism, excessive absences, use of abusive or profane language, and disruptive and/or threatening behavior.

B.

Cheating - includes, but is not limited to, (a) use of any unauthorized assistance in taking quizzes, tests, assessment tests or examinations; (b) dependence upon the aid of sources beyond those authorized by the faculty member in writing papers, preparing reports, solving problems, or carrying out other assignments; or (c) the acquisition, without permission, of tests or other academic material belonging to a member of the college faculty or staff.

C.

Plagiarism - includes, but is not limited to, the use of paraphrase or direct quotation of the published or unpublished work of another person without full and clear acknowledgment. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials. Information gathered from the internet and not properly identified is also considered plagiarism.

2.
Sanctions

Any student found by a faculty member to have committed academic misconduct may be subject to the following sanctions (Note: sanctions A, B, C, and D) may be imposed by a faculty member. The faculty member may recommend to the department chairperson and the appropriate vice president of academic affairs or designee that sanctions E, F, or G be imposed. College suspension or expulsion will be imposed only by the appropriate vice president of academic affairs or designee.

A.
Warning - A notice in writing to the student that the student has violated the academic code.
B.
Grade Adjustment - Lowering of a score on a test or assignment.
C.
Discretionary Sanctions - Additional academic assignments determined by the faculty member.
D.
Course Failure - Failure of a student from a course where academic misconduct occurs.

E.
Disciplinary Probation - Disciplinary probation is for a designated period of time and includes the probability of more severe sanctions if the student commits additional acts of academic misconduct.
F.
College Suspension - Separation of the student from the college for a definite period of time, after which the student is eligible to return. Conditions for readmission may be specified. (A suspension from one Maricopa Community College will apply to all other colleges/centers in the District.)
G.
College Expulsion - Permanent separation of the student from the college. (Expulsion from one Maricopa Community College will apply to all colleges/centers in the District.)

3.
Appeal of Sanctions for Academic Misconduct

Students can appeal sanctions imposed for academic misconduct by following the instructional grievance process. (AR 2.3.5; Appendix S-6)

DISCIPLINARY STANDARDS (AR 2.5.1)
1.
Disciplinary Probation and Suspension

According to the laws of the State of Arizona, jurisdiction and control over the Maricopa Community Colleges are vested in the District Governing Board.
The Governing Board and its agents—the chancellor, administration and faculty—are granted broad legal authority to regulate student life subject to basic standards of reasonableness.

In developing responsible student conduct, the Maricopa Community Colleges prefer mediation, guidance, admonition and example. However, when these means fail to resolve problems of student conduct and responsibility, appropriate disciplinary procedures will be followed.

Misconduct for which students are subject to disciplinary action falls into the general areas of:
A.
Cheating on an examination, assessment tests, laboratory work, written work (plagiarism), falsifying, forging or altering college records

B.
Actions or verbal statements which threaten the personal safety of any faculty, staff, students, or others lawfully assembled on the campus, or any conduct which is harmful, obstructive, disruptive to, or interferes with the educational process or institutional functions

C.

Violation of Arizona statutes, and/or college regulations and policies

   D.

Use of college computer resources such as the Internet in violation of **Technology Resource Standards (AR 4.4)** which may result in notification of law enforcement authorities

2.
Disciplinary Removal from Class

A faculty member may remove a student from class meetings for disciplinary reasons. If an instructor removes a student for more than one class period, the faculty member shall notify the department/division chair and the appropriate vice president or designee in writing of the problem, action taken by the faculty member, and the faculty member's recommendation. If a resolution of the problem is not reached between the faculty member and the student, the student may be removed permanently pursuant to due process procedures.

STUDENT CONDUCT CODE (AR 2.5.2)
The purpose of this Code is to help ensure a healthy, comfortable and educationally productive environment for students, employees and visitors.

Article I: Definitions
The following are definitions of terms or phrases contained within this Code:
1.
"**Accused studen**t" means any student accused of violating this Student Conduct Code.
2.
"**Appellate boards**" means any person or persons authorized by the college president to consider an appeal from a Student Conduct Board's determination that a student has violated this Student Conduct Code or from the sanctions imposed by the Student Conduct Administrator. The college president may act as the appellate board.
3.
"**College**" means a Maricopa Community College or center.
4.
"**College premises**" means all land, buildings, facilities and other property in the possession of or owned, used or controlled by the college or District.
5.
"**College official**" means any person employed by the college or District, performing assigned administrative or professional responsibilities pursuant to this Student Conduct Code. The college president shall designate the college or center official to be responsible for the administration of the Student Conduct Code.
6.
"**Complainant**" means any person who submits a charge alleging that a student violated this Student Conduct Code. When a student believes that s/he has been a victim of another student's misconduct, the student who believes s/he has been a victim will have the same rights under this Student Conduct Code as are provided to the complainant, even if another member of the college community submitted the charge itself.
7.
"**Day**" means calendar day at a time when college is in session, and shall exclude weekends and holidays.
8.
"**Disruptive behavior**" means conduct that materially and substantially interferes with or obstructs the teaching or learning process in the context of a classroom or educational setting.
9.
"**District**" means the Maricopa County Community College District.

10.
"**Faculty member**" means any person hired by the college or District to conduct classroom or teaching activities or who is otherwise considered by the college to be a member of faculty.
11.
"**May**" is used in the permissive sense.
12.

"**Member of the college community**" means any person who is a student, faculty member, college official or any other person employed by the college or center. A person's status in a particular situation shall be determined by the college president.
13.

"**Organization**" means any number of persons who have complied with the formal requirements for college recognition.
14.

"**Policy**" is defined as the written regulations of the college and/or District as found in, but not limited to, this Student Conduct Code and Governing Board policy.
15.

"**Shall**" is used in the imperative sense.
16.

"**Student**" means any person taking courses at the college whether full-time or part-time. Persons who are not officially enrolled for a particular term but who have a continuing relationship with the college are considered "students".
17.

"**Student Conduct Administrator**" means a college official authorized on a case by case basis by the college official responsible for administration of the Student Conduct Code to impose sanctions upon students found to have violated this Student Conduct Code. A Student Conduct Administrator may serve simultaneously as a Student Conduct Administrator and the sole member or one of the members of a Student Conduct Board. The college official responsible for administration of the Student Conduct Code may authorize the same Student Conduct Administrator to impose sanctions in all cases.
18.

"**Student Conduct Board**" means any person or persons authorized by the college president to determine whether a student has violated this Student Conduct Code and to recommend sanctions that may be imposed when a violation has been committed.
19.

"**Threatening behavior**" means any written or oral statement, communication, conduct or gesture directed toward any member of the college community, which causes a reasonable apprehension of physical harm to self, others or property. It does not matter whether the person communicating the threat has the ability to carry it out, or whether the threat is made on a present, conditional or future basis.

Article II: Judicial Authority
1.
The college official responsible for administration of the Student Conduct Code shall determine the composition of Student Conduct Board and determine which Student Conduct Administrator, Student Conduct Board, and appellate board shall be authorized to hear each case.
2.
The college official responsible for administration of the Student Conduct Code shall develop procedures for the administration of the judicial program and rules for the conduct of hearings that are consistent with provisions of this Student Conduct Code.
3.
Decisions made by a Student Conduct Board and/or Student Conduct Administrator shall be final, pending the normal appeal process.

Article III: Prohibited Conduct
1.
Jurisdiction of the College

The Student Conduct Code shall apply to conduct that occurs on college or District premises, or at college- or District-sponsored activities that adversely affects the college community and/or the pursuit of its objectives. Each student shall be responsible for his/her conduct from the time of admission through the actual awarding of a degree, certificate, or similar indicator of completion of a course of study, even though conduct may occur before classes begin or after classes end, as well as during the academic year and during periods between terms of actual enrollment (and even if their conduct is not discovered until after a degree is awarded). The Student Conduct Code shall apply to a student's conduct even if the student withdraws from school while a disciplinary matter is pending.

2.
Temporary Removal of Student

Disruptive behavior includes conduct that distracts or intimidates others in a manner that interferes with instructional activities, fails to adhere to a faculty member's appropriate classroom rules or instructions, or interferes with the normal operations of the college. Students who engage in disruptive behavior or threatening behavior may be directed by the faculty member to leave the classroom or by the college official responsible for administration of the Student Conduct Code to leave the college premises. If the student refuses to leave after being requested to do so, college safety may be summoned. For involuntary removal from more than one class period, the faculty member should invoke the procedures prescribed in the Student Conduct Code.

3.
Conduct - Rules and Regulations

Any student found to have committed the following misconduct is subject to the disciplinary sanctions outlined in Article IV:
   A.
Acts of dishonesty, including but not limited to the following:
     1)
Furnishing false information to any college official or office.
     2)
Forgery, alteration or misuse of any college document, record or instrument of identification.
     3)
Tampering with the election of any college- recognized student organization.
   B.
Obstruction of teaching, research, administration, disciplinary proceedings or other college activities, including its public service functions on campus, in clinical settings or other authorized non-college activities, when the conduct occurs on college premises a faculty member may remove a student from a class meeting for disciplinary reasons. If a faculty member removes a student for more than one class period, the faculty member shall notify the college official responsible for administration of the Student Conduct Code in writing of the problem, action taken by the faculty member, and the faculty member's recommendation. If a resolution of the problem is not reached, the student may be removed permanently pursuant to appropriate due process procedures.
   C.
Physical abuse, verbal abuse, threats, intimidation, harassment, coercion, conduct which threatens or endangers the health or safety of any person, and/or disruptive behavior as defined in Article II.2. above.
   D.
Attempted or actual theft of and/or damage to property of the college or property of a member of the college community or other personal or public property.
   E.
Failure to comply with direction of college officials or law enforcement officers in the performance of their duties and/or failure to identify oneself to these persons when requested to do so.
   F.
Unauthorized possession, duplication or use of keys to any college premises, or unauthorized entry to or use of college premises.
   G.
Violation of any college or District policy, rule or regulation published in hard copy such as a college catalog,

handbook, etc. or available electronically on the college's or District's website.

H.

Violation of federal, state or local law.

I.

Use, possession, manufacturing or distribution of illegal or other controlled substances except as expressly permitted by law.

J.

Illegal use, possession, manufacturing or distribution of alcoholic beverages or public intoxication.

K.

Illegal or unauthorized possession of firearms, explosives, other weapons, or dangerous chemicals on college premises, or use of any such item, even if legally possessed, in a manner that harms, threatens, or causes fear to others, or property damage.

L.

Participation in a demonstration, riot or activity that disrupts the normal operations of the college and infringes on the rights of other members of the college community; leading or inciting others to disrupt scheduled and/or normal activities within any college building or area.

M.

Obstruction of the free flow of pedestrian or vehicular traffic on college premises or at college-sponsored or supervised functions.

N.

Conduct that is disorderly, lewd or indecent; breach of the peace; or aiding, abetting or procuring another person to breach the peace on college premises or at functions sponsored by or participated in by the college or members of the academic community. Disorderly conduct includes but is not limited to: any unauthorized use of electronic or other devices or to make an audio or video record of any person while on college or District premises without his/her prior knowledge, or without his/her effective consent or when such a recording is likely to cause injury or distress. This includes, but is not limited to, secretly taking pictures of another person in a gym, locker room, or restroom.

O.

Attempted or actual theft or other abuse of technology facilities or resources, including but not limited to:

1)

Unauthorized entry into a file, to use, read or change the contents or for any other purpose

2)

Unauthorized transfer of a file

3)

Unauthorized use of another individual's identification and/or password

4)

Use of technology facilities or resources to interfere with the work of another student, faculty member or college official

5)

Use of technology facilities or resources to send obscene or abusive messages

6)

Use of technology facilities or resources to interfere with normal operation of the college technology system or network

7)

Use of technology facilities or resources in violation of copyright laws

8)

Any violation of the District's technology resource standards

9)

Use of technology facilities or resources to illegally download files

P.

Abuse of the Student Conduct system, including but not limited to:

1)

Falsification, distortion or misrepresentation of information before a Student Conduct Board.

2)

Disruption or interference with the orderly conduct of a Student Conduct Board proceeding.

3)

Invoking a Student Conduct Code proceeding with malicious intent or under false pretenses
    4)
Attempting to discourage an individual's proper participation in, or use of, the Student Conduct system
    5)
Attempting to influence the impartiality of the member of a judicial body prior to, and/or during the course of, the Student Conduct Board proceeding
    6)
Harassment, either verbal or physical, and/or intimidation of a member of a Student Conduct Board prior to, during and/or after a Student Conduct Board proceeding
    7)
Failure to comply with the sanctions imposed under this Student Conduct Code
    8)
Influence or attempting to influence another person to commit an abuse of the Student Conduct Code system
    9)
Failure to obey the notice from a Student Conduct Board or college official to appear for a meeting or hearing as part of the Student Conduct system.
    Q.
Engaging in irresponsible social conduct.
    R.
Attempt to bribe a college or District employee.

    S.
Stalking behavior, which occurs if a student intentionally or knowingly maintains visual or physical proximity toward another person on two or more occasions over a period of time and such conduct would cause a reasonable person to fear for his or her safety.

4.
Violation of Law and College Discipline
    A.
Disciplinary proceedings may be instituted against a student charged with conduct that potentially violates both the criminal law and this Student Conduct Code (that is, if both possible violations result from the same factual situation) without regard to pending of civil or criminal litigation. Proceedings under this Student Conduct Code may be carried out prior to, simultaneously with, or following civil or criminal proceedings off campus at the discretion of the college official responsible for administration of the Student Conduct Code. Determinations made or sanctions imposed under this Student Conduct Code shall not be subject to change because criminal charges arising out of the same facts giving rise to violation of college rules were dismissed, reduced, or resolved in favor of or against the criminal law defendant.
    B.
When a student is charged by federal, state or local authorities with a violation of law, the college will not request or agree to special consideration for that individual because of his or her status as a student. If the alleged offense is also being processed under this Student Conduct Code, however, the college may advise off campus authorities of the existence of this Student Conduct Code and of how such matters will be handled internally within the college community. The college will cooperate fully with the law enforcement and other agencies in the enforcement of criminal law on campus and in the conditions imposed by criminal courts for the rehabilitation of student violators. Individual students and faculty members, acting within their personal capacities, remain free to interact with governmental representatives as they deem appropriate.

Article IV: Student Conduct Code Procedures
1.
Charges and Student Conduct Board Hearings
    A.
Any member of the college community may file charges against a student for violations of this Student Conduct Code. A charge shall be prepared in writing and directed to the Student Conduct Administrator. Any charge should be submitted as soon as possible after the event takes place, preferably within thirty (30) days following the incident.
    B.
The Student Conduct Administrator may conduct an investigation to determine if the charges have merit

and/or if they can be disposed of administratively by mutual consent of the parties involved on a basis acceptable to the Student Conduct Administrator. Such disposition shall be final and there shall be no subsequent proceedings. If the charges are not admitted and/or cannot be disposed of by mutual consent, the Student Conduct Administrator may later serve in the same matter as the Student Conduct Board or a member thereof. If the student admits violating institutional rules, but sanctions are not agreed to, subsequent process, including a hearing if necessary, shall be limited to determining the appropriate sanction(s).

C.

All charges shall be presented to the accused student in written form. A time shall be set for a Student Conduct Board hearing, not less than five (5) nor more than fifteen (15) days after the student has been notified. Maximum time limits for scheduling of Student Conduct Board hearings may be extended at the discretion of the Student Conduct Administrator.

D.

Hearings shall be conducted by a Student Conduct Board according to the following guidelines, except as provided by Article IV 1.G below:

1)

Student Conduct Board hearings normally shall be conducted in private.

2)

The complainant, accused student and their advisors, if any, shall be allowed to attend the entire portion of the Student Conduct Board hearing at which information is received (excluding deliberations). Admission of any person to the hearing shall be at the discretion of the Student Conduct Board and/or its Student Conduct Administrator.

3)

In Student Conduct Board hearings involving more than one accused student, the Student Conduct Administrator, in his or her discretion, may permit the Student Conduct Board hearing concerning each student to be conducted either separately
or jointly.

4)

The complainant and the accused shall have the right to be assisted by any advisor they choose, at their own expense. The advisor must be a member of the college community and may not be an attorney. Both the complainant and the accused are responsible for presenting their own information and, therefore, advisors are not permitted to speak or participate directly in any Student Conduct Board hearing before a Student Conduct Board.

5)

The complainant, the accused student, and the Student Conduct Board may arrange for witnesses to present pertinent information to the Student Conduct Board. The college will try to arrange the attendance of possible witnesses who are members of the college community, if reasonably possible, and who are identified by the complainant and/or accused student at least two days prior to the Student Conduct Board hearing. Witnesses will provide information to and answer questions from the Student Conduct Board. Questions may be suggested by the accused student and/or complainant to be answered by each other or by other witnesses. This will be conducted by the Student Conduct Board with such questions directed to the chairperson, rather than to the witness directly. This method is used to preserve the educational tone of the hearing and to avoid creation of an adversarial environment. Questions of whether potential information will be received shall be resolved in the discretion of the chairperson of the Student Conduct Board.

6)

Pertinent records, exhibits, and written statements may be accepted as information for consideration by a Student Conduct Board at the discretion of the chairperson.

7)

All procedural questions are subject to the final decision of the chairperson of the Student Conduct Board.

8)

After the portion of the Student Conduct Board hearing concludes in which all pertinent information has been received, the Student Conduct Board shall determine (by majority vote if the Student Conduct Board consists of more than one person) whether the accused student violated the section of this Student Conduct Code which the student is charged with violating.

9)

The Student Conduct Board's determination shall be made on the basis of whether it is more likely than not that the accused student violated this Student Conduct Code.

E.

There shall be a single verbatim record, such as a tape recording, of all Student Conduct Board hearings before a Student Conduct Board (not including deliberations). The record shall be the property of the District.

F.

No student may be found to have violated this Student Conduct Code because the student failed to appear before a Student Conduct Board. In all cases, the evidence and support of the charges shall be presented and considered.

G.

The Student Conduct Board may accommodate concerns for the personal safety, well-being, and/or fears of confrontation of the complainant, accused student, and/or other witness during the hearing by providing separate facilities, by using a visual screen, and/or by permitting participation by telephone, videophone, closed circuit television, video conferencing, videotape, audio tape, written statement, or other means, where and as determined in the sole judgment of the college official responsible for administration of the Student Conduct Code.

2.
Sanctions

A.

The following sanctions may be imposed upon any student found to have violated the Student Conduct Code:

1)

Warning - a written notice to the student that the student is violating or has violated institutional rules or regulations.

2)

Probation - a written reprimand for violation of specified rules or regulations. Probation is for a designated period of time and includes the probability of more severe disciplinary sanctions if the student is found to violate any institutional rules or regulation(s) during the probationary period.

3)

Loss of Privileges - denial of specified privileges for a designated period of time.

4)

Restitution - compensation for loss, damage or injury. This may take the form of appropriate service and/or monetary or material replacement.

5)

Discretionary Sanctions - work assignments, essays, service to the college, or other related discretionary assignments. (Such assignments must have the prior approval of the Student Conduct Administrator.)

6)

College Suspension - separation of the student from all the colleges in the District for a definite period of time, after which the student is eligible to return. Conditions for readmission may be specified.

7)

College Expulsion - permanent separation of the   student from all the colleges in the District.

B.

More than one of the sanctions listed above may be imposed for any single violation.

C.

Other than college expulsion, disciplinary sanction shall not be made part of the student's academic record, but shall become part of the student's disciplinary record. Upon graduation, the student's disciplinary record may be expunged of disciplinary actions upon the student's application to the Student Conduct Administrator. Cases involving the imposition of sanctions other than suspension or expulsion shall be expunged from the student's confidential record five (5) years after final disposition of the case.

In situations involving both an accused student(s) (or group or organization) and a student(s) claiming to be the victim of another student's conduct, the records of the process and of the sanctions imposed, if any, shall be considered to be the education records of both the accused student(s) and the student(s) claiming to be the victim because the educational career and chances of success in the college community of each may be impacted.

D.

The following sanctions may be imposed upon groups or organizations:

1)

Those sanctions listed above in Article IV 2. A. 1 through 4.

2)

Loss of selected rights and privileges for a specified period of time.

3)

Deactivation - loss of all privileges, including college recognition for a designated period of time.

E.

In each case in which a Student Conduct Board determines that a student and/or group or organization has violated the Student Conduct Code, the sanction(s) shall be determined and imposed by the Student Conduct Administrator. In cases in which persons other than, or in addition to, the Student Conduct Administrator have been authorized to serve as the Student Conduct Board, the recommendation of the Student Conduct Board shall be considered by the Student Conduct Administrator in determining and imposing sanctions. The Student Conduct Administrator is not limited to sanctions recommended by members of the Student Conduct Board. Following the Student Conduct Board hearing, the Student Conduct Board and the Student Conduct Administrator shall advise the accused student, group and/or organization (and a complaining student who believes s/he was the victim of another student's conduct) in writing of its determination and of the sanction(s) imposed, if any.

3.
Emergency Suspension

If a student's actions pose an immediate threat or danger to any member of the college community or the educational processes, a college official responsible for administering the Student Conduct Code may immediately suspend or alter the rights of a student pending a Student Conduct Board hearing. Scheduling the hearing shall not preclude resolution of the matter through mediation or any other dispute resolution process. The decision will be based on whether the continued presence of the student on the college campus reasonably poses a threat to the physical or emotional condition and well-being of any individual, including the student, or for reasons relating to the safety and welfare of any college property, or any college function.

In imposing an emergency suspension, the college official responsible for administration of the Student Conduct Code may direct that the student immediately leave the college premises and may further direct the student not to return until contacted by that official. An accused student shall be in violation of this policy regardless of whether the person who is the object of the threat observes or receives it, as long as a reasonable person would interpret the communication, conduct or gesture as a serious expression of intent to harm.

4.
Appeals
A.

A decision reached by the Student Conduct Board judicial body or a sanction imposed by the Student Conduct Administrator may be appealed by accused students or complainants to an Appellate Board within five (5) days of receipt of the decision. Such appeals shall be in writing and shall be delivered to the Student Conduct Administrator.

B.

Except as required to explain on the basis of new information, an appeal shall be limited to the review of the verbatim record of the Student Conduct Board hearing and supporting documents for one or more of the following purposes:

1)

To determine whether the Student Conduct Board hearing was conducted fairly in light of the charges and information presented, and in conformity with prescribed procedures giving the complainant a reasonable opportunity to prepare and present information that the Student Conduct Code was violated, and giving the accused student a reasonable opportunity to prepare and to present a response to those allegations. Deviations from designated procedures will not be a basis for sustaining an appeal unless significant prejudice results.

2)

To determine whether the decision reached regarding the accused student was based on substantial information, that is, whether there were facts in the case that, if believed by the fact finder, were sufficient to

establish that a violation of the Student Conduct Code occurred.

    3)

To determine whether the sanction(s) imposed was appropriate to the violation of the Student Conduct Code which the student was found to have committed.

    4)

To consider new information, sufficient to alter a decision or other relevant facts not brought out in the original hearing, because such information and/or facts were not known to the person appealing at the time of the original Student Conduct Board hearing.

    C.

If an appeal is upheld by the appellate board, the matter shall be returned to the original Student Conduct Board and Student Conduct Administrator for reopening of the Student Conduct Board hearing to allow reconsideration of the original determination and/or sanction(s). If an appeal is not upheld, the matter shall be considered final and binding upon all concerned.

Article V: Interpretation and Revision

Any question of interpretation regarding the Student Conduct Code shall be referred to the college official responsible for administration of the Student Conduct Code for final determination.

STUDENT RECORDS (AR 2.5.3)

1.
Definitions

For the purposes of this policy, the Maricopa County Community College District has used the following definition of terms.

    A.

"College" includes all colleges, educational centers, skill centers and District office.

    B.

"Educational Records" are any record (in handwriting, print, tapes, film, or other media) maintained by the college or an agent of the college which is directly related to a student, except:

    1)

A personal record kept by a staff member, if it is kept in the personal possession of the individual who made the record, and information contained in the record has never been revealed or made available to any other person except the maker's temporary substitute

    2)

An employment record of an individual whose employment is not contingent on the fact that he or she is a student, provided the record is used only in relation to the individual's employment

    3)

Records maintained by the colleges security unit, if the record is maintained solely for law enforcement purposes, is revealed only to law enforcement agencies of the same jurisdiction and the security unit does not have access to education records maintained by the community college.

    4.

Alumni records which contain information about a student after he or she is no longer an attendant of the community college and the records do not relate to the person as a student

2.
Fees

If a copy(ies) of a portion or all of the records in a student's file is requested, the custodian of the records may charge a fee for copies made. However, the willingness or ability to pay the fee will not effectively prevent students from exercising their right to inspect and review (under supervision of a college employee) their records. A fee will not be charged to search for or to retrieve records. Standard fees for printing and duplication services will apply.

3.
Annual Notification

Students will be notified of their further rights annually by publication in the college catalog and/or the

student handbook:

Rights of Access to Educational Records

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. These rights are:

A.

The right to inspect and review the student's education records within 45 days of the day the college receives a request for access.

Students should submit to the college admissions and records department written requests that identify the record(s) they wish to inspect. The college official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the college official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

B.

The right to request the amendment of the student's education records that the student believes to be inaccurate or misleading.

Students may ask the college to amend a record that they believe is inaccurate or misleading. They should write the college official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading.

If the college decides not to amend the record as requested by the student, the college will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

C.

The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent.

One exception, which permits disclosure without consent, is disclosure to school officials with legitimate educational interest. A school official is defined as a person employed by the college or District in an administrative, supervisory, academic, or support staff position (including law enforcement unit and health staff); a person or company with whom the college or District has contracted (such as an attorney, auditor, or collection agent); a person serving on the Governing Board; or a person assisting another school official in performing his or her tasks.

A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

Upon request, the college discloses education records without consent to officials of another school in which a student seeks or intends to enroll.

D.

The right to file a complaint with the US Department to Education concerning alleged failures by the college to comply with the requirements of FERPA.
The name and address of the Office that administers FERPA is:
Family Policy Compliance Office
US Department of Education
400 Maryland Ave., S.W.
Washington, DC 20202-4605

4.

Student Directory

A Maricopa community college may release directory information about any student who has not specifically requested the withholding of such information. Students who do not want directory information released may so indicate during the admissions process or notify the Office of Admissions and Records.

At any Maricopa community college, directory information is defined as a student's name, address, telephone number, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, degrees and awards received, dates of attendance, part-time or full-time status, most recent previous educational agency or institution attended by the student, college within the Maricopa Community Colleges where the student has been enrolled, photograph of student, and electronic mail address.

5.
Use of Education Records for Advisement Purposes

All colleges within the Maricopa Community Colleges have access to the computerized degree audit program. During the advisement process, each student may have his or her academic record reviewed for coursework taken at any of the District's colleges or centers.
The institution retains the right to exercise discretion in determining the release of directory information.

6.
Disclosure to Parents

In accordance with federal law, college officials may disclose educational records to parents of minors or to parents of a student who have established the student's status as a dependent according to the Internal Revenue Code of 1986, section 152, without the written consent
of the student.

Residential Faculty and Administrators

ACHS, Carol J. (1975)
Dean of Instruction
B.S., M.A., Central Michigan University

ADAMS, Heidi-Christa (1992)
Counseling
B.S., University of Wisconsin, Whitewater;
M.S., University of Wisconsin, Milwaukee;
Ed.D., Arizona State University;
Graduate Study: University of Hawaii, Manoa;
Northern Arizona University

AHN, Emi Ochiai (2000)
World Language
B.A., Japan Women's University;
M.A., Michigan State University

AL-HASHIMI, Basil (2000)
Social Science/Economics
M.A., University of Wisconsin

AL-SALAH, Mary (2004)
Nursing
B.S.N., Arizona State University;
M.S.N., University of Portland;
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ALDRIDGE, Mary E. (2002)
English
B.A., B.A., M.A., University of New Orleans;
Ph.D., University of Tulsa

ALSEN, Elizabeth A. (2006)
Education
B.A., University of California, Irvine;
M.A., Northern Arizona University

ALVRUS, Annalisa B. (2006)
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M.A., Ph.D., Arizona State University

ANDELORA, Jeffrey (1996)
Chairperson, English
B.A., M.Ed., Ph.D., Arizona State University

ANDERSON, Keith D. (2005)
English
B.A., Government at Oberline College;
M.F.A., University of Alabama;
Ph.D., University of Arizona
(MCCCD 2000)

ANDERSON, Linda K. (2008)
Nursing
B.S.N., University of Virginia;
M.S.N., Arizona State University
(MCCCD 2003)

ANDERSON, Mark R. (2000)
Business & Information Systems
B.A., Pacific Lutheran University;
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APPEL, Karen L. (2005)
Mathematics
B.A., Arizona State University;
M.A., Nova Southeastern University

ARBOGAST, Susan D. (2004)
Nursing
B.S.N., M.S.N., Arizona State University

(MCCCD 1933)

ARENSON, Barron R. (1970)
Physical Science/Physics
B.A., St. Olaf College, Minnesota;
M.S., Rensselaer Polytechnic Institute
Graduate Study: University of Oklahoma,
Texas A&M University, Arizona State University

ARGERSINGER, Gwen (1990)
English
B.A., M.Phil., University of Kansas
Graduate Study: University of Kansas,
University of New Mexico

ASHCRAFT, Matthew P. (2008)
Dean of Institutional Planning and Analysis
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(MCCCD 2003)

ATENCIA-OLIDEN, Elizabeth (2005)
World Language
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AVILA, Alex L. (1990)
Social Science/Political Science
A.B., Occidental College;
M.A., Claremont Graduate University;
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AVILEZ, Adam C. (2002)
Mathematics
B.S., University of Southern California;
M.S., Ohio State University

BALDWIN, Andrew S. (2003)
Life Science
B.S., University of North Carolina at Charlotte;
M.S., Appalachian State University;
Ph.D., University of Texas at Arlington

BARON, Robert (1986)
English
B.A., M.L.S., M.A.H., Ph.D., State University of
New York at Buffalo

BARTO, Michelle (2005)
World Language
B.A., M.Ed., Arizona State University

BASS, Steve (1994)
Cultural Science/Geography
B.S., Arizona State University;
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Nursing
A.S.N., Harper College;
B.S.N., California State University, Hayward;
M.P.A., University of San Francisco

BECKMAN, Christine M. (2000)
Communication
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BENNETT, Glenn M. (1991)
Music
B.M., Stetson University;
M.M., D.M.A., Southwestern Baptist Theological Seminary

BENSON, Donna (1996)
Physical Science/Geology
B.S.E., M.S., Arizona State University

BENSON, Philip (1990)
Social Science/Economics

B.A., M.A., Mankato State University
Graduate Study: Arizona State University

BENTLEY, John (1990)
Technology/Electronics
A.A.S., Mesa Community College;
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BERNING, Gretchen Mary (2003)
English/Journalism
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M.B.A., University of Phoenix

BITTER, Debra (1994)
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BLEVINS, Karen Evonne (2004)
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BLITZ, Phebe (2005)
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BONURA, Robert (2008)
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BREED-WILLIAMS, Diana E. (2003)
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BRENNEMAN, Mark S. (2002)
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BROWN, Marie C. (2005)
Library
B.A., Richmond College, England;
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B.S., University of Maine;
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BUDGE, Steven T. (1999)
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BULLEN, Diana (2009)
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Psychological Science
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CALLAWAY, Micheal A. (2008)
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CAMPBELL, Debra (1992)
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CARDENAS, Antonio (1994)
World Language
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CARDENAS-ADAME, Patricia (2000)
Vice President of Student Affairs
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CARLTON, Bruce F. (2009)
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Graduate Study: The School of Criticism and Theory, Cambridge University, American Film Institute, UCLA

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CERVENY, Nicole Villa (2001)
Cultural Science/Geography
B.S., M.A., Ph.D., Arizona State University

CHAVIRA, Maria Romo (1997)
Psychology

B.S., M.A., Ph.D., University of Arizona

CHEROSKE, Alexander G. (2006)
Biology
B.A., University of California, Santa Barbara;
M.S., San Diego State University;
Ph.D., University of Maryland

CHILLOCK, Cynthia (2009)
Dental
CCL, University of Pittsburgh

CHOWDHURY, Madeleine P. (1997)
Mathematics
B.S., M.S., Texas A&M University
(MCCCD 1995)

CHRISTENSEN, Judy (1995)
Philosophy/Religious Studies
B.S., Utah State University;
M.Ed., University of Utah;
M.A., Arizona State University

CLARK, Denise (2000)
Life Science
B.S., Ph.D., Virginia Polytechnic Institute and State University
Graduate Study: Massachusetts Institute of Technology,
Sun Health Research Institute

COLE, George R. (1991)
Mathematics
B.S., Towson State University;
M.S., Michigan State University;
Ph.D., Arizona State University

COLLINS, Alicia (2005)
Mathematics
B.A., Arizona State University;
M.A., Northern Arizona University
Graduate Study: Northern Arizona University

COLLINS, Linda D. (2000)
Chairperson, Business & Information Systems
A.A., Rio Salado;
B.A., Thomas Edison;
M.S., Walden University;
Ed.D., Northcentral University
(MCCCD 1997)

CONOVER, Kurt W. (1997)
Vice President, Administrative Services (Acting)
B.S., University of South Dakota;
M.Ed., Arizona State University
(MCCCD 1989)

CRANSWICK, Harold (1989)
Social Science
B.S., M.S., Arizona State University

CRUDUP, Keith (1998)
Philosophy/Religious Studies
B.A., M.A., Ph.D., Arizona State University

D'AMBROSIO, Jon M. (2001)
Chairperson, Technology/Automotive
A.A., Glendale Community College;
B.A., M.Ed., Northern Arizona University

DANIELSON, Robert J. (2004)
Business & Information Systems
B.A., Eastern Washington State College;
M.A., Fort Hays State University

DELMOE, Patricia (2003)
Nursing
A.A.S., Glendale Community College;
B.S.N., M.N., University of Phoenix

DIETZ, Diane P. (2005)

Nursing
B.S.N., Arizona State University;
M.S.N., University of Phoenix
(MCCCD 1999)

DILLE, Brian (2000)
Social Science/Political Science
B.A., Brigham Young University;
M.A., Ph.D., Arizona State University

DINCHAK, Ronald K. (1975)
Life Science
B.S., M.S., Arizona State University
Graduate Study: Arizona State University, Brigham Young University, University of Arizona, Colorado State University, University of Bridgeport, Western Washington University, University of Vermont, Southern Utah University, Alaska Pacific University

DRAZENOVIC, Anna M. (2005)
Nursing
A.A., George Brown College;
B.A., York University;
M.S.N., University of Phoenix

DRESSLER, Kevin L. (2005)
Communication
B.A., University of Puget Sound;
M.A., Ottawa University;
M.Ed., Northern Arizona University;
M.F.A., Utah State University

DUGAN, Jeanne M. (2008)
English
B.A., University of Michigan, Ann Arbor;
M.A., Ph.D., Arizona State University

EFFLAND, Richard W. (1989)
Cultural Science/Anthropology
B.A., M.A., University of Arizona;
Ph.D., Arizona State University

ELLSWORTH, Barbara Grace (1966)
Business & Information Systems
B.A., M.S., Arizona State University

ESPOSITO, Sonia A. (2004)
Counseling
B.S., Arizona State University;
M.Ed., Northern Arizona University

EVANS, Linda (1991)
English
A.A., Glendale Community College;
B.A., M.A., Arizona State University
Graduate Study: Arizona State University

EWING, Ann T. (1987)
Psychology
B.A., M.A., Occidental College;
Ph.D., Arizona State University

FAY, Carolyn (1992)
Communication
B.A., M.A., Western Michigan University;
Ph.D., Kent State University

FELLS, Debra K. (2001)
Business & Information Systems
A.A.S., Mesa Community College;
B.A., M.A., University of Phoenix

FELNAGLE, Richard H. (1990)
English
B.A., Pomona College;
M.F.A., Carnegie-Mellon University

FIERRO, Marcella (1994)
World Language
B.A., M.A., New Mexico State University
(MCCCD 1992)

FLORSCHUETZ, Timothy J. (1994)
English
B.A., M.A., Arizona State University

FOGEL, Dan (2008)
Art
B.F.A., University of Utah;
M.F.A., Arizona State University

FORNEY, Frederick W. (1994)
Music
B.M., University of Arizona;
M.M., Arizona State University

GAHN, Deana C. (1994)
Nursing
B.S., M.S., Ed.D., Arizona State University

GALLOWAY, Robert E. (1984)
Art
B.F.A., Ohio State University;
M.F.A., Arizona State University

GANESAN, Puvana (2004)
Communication
B.A., M.A., Old Dominion University;
Ph.D., Arizona State University

GANESH, Annapurna (2007)
Early Childhood Education
B.A., Bangalore University, India;
M.Ed., Ph.D., Arizona State University

GARZON-FORERO, Jorge (1999)
World Language
B.A., Universidad Jorge Tadeo Lozano, Bogota;
M.A., M.Ed., Arizona State University

GAWRONSKI, Donald (1989)
Social Science/History
B.S., M.A., Ph.D., St. Louis University

GAYE, Amadou A. (2003)
Mathematics
B.S., Interafrican Electrical Engineering School, Ivory Coast;
M.S., University of Arizona;
Ph.D., Arizona State University

GILCREASE, DeLaine (1989)
Life Science
B.S., The University of Texas-Pan American;
M.S., Arizona State University

GILES, James W. (1994)
Physical Science/Chemistry
B.S., Ph.D., University of California, Davis
(MCCCD 1990)

GILLETTI, Paul (1999)
Physical Science/Chemistry
B.A., Adams State College;
M.S., Wichita State University;
Ph.D., Arizona State University
(MCCCD 1991)

GLASCOE, Susan C. (1997)
Mathematics
B.A.E., Arizona State University;
M.A.T., Northern Arizona University

GONZALEZ, Eliza M. (1998)
World Language
B.A., Arizona State University;
B.A., M.Ed., Northern Arizona University;
M.A., University of Arizona

GOODING, Mark A. (1997)
English
B.A., Valparaiso University;
M.A., Arizona State University

GREEP, Laura A. (2008)
Nursing
B.S.N., University of Arizona

GRIFFITH, John W. (2006)
Physics
B.S., East Texas State University;
M.S., Ph.D., Oregon State University

GROVER, Joan K. (1977)
Dean of Student Affairs
B.A., M.Ed., Northern Arizona University

GROW, Arunee C. (1984)
Social Science/Economics
B.A., Chulalongkorn University;
M.A., Ph.D., University of Cincinnati

GUERIN, Aimee L. (2004)
World Language
B.A., Northern Arizona University;
M.A., Colorado State University

HAMMIL, Rodney (1987)
Technology/Welding
A.A., Arizona Western College
(MCCCD 1981)

HANNEKEN, Kathleen A. (2006)
Nursing
B.S.N., Marquette University;
M.B.A., University of Phoenix

HARASHA, Paul (2001)
Cultural Science/Sociology
B.S.E.E., M.A., Arizona State University

HARDIN, Karen (1990)
Chairperson, Counseling
B.S., Southwest Missouri State University;
M.A., Ed.D., Northern Arizona University
Graduate Study: Arizona State University, Indiana University
(MCCCD 1984)

HARRIS, David G. (2003)
Business & Information Systems
B.A., Ohio Wesleyan University;
M.B.A., Arizona State University

HARRISON, Pamela K. (2008)
Biology
B.A., North Dakota State University;
Ph.D., Arizona State University

HAUAN, Catherine G. (2005)
Music
B.A., Florida State;
M.A., Ph.D., Arizona State University

HAUPTLI, Tawn (2001)
Education
B.A., Sonoma State University;
M.Ed., Arizona State University;
Ed.D., Argosy University

HEALY, Kevin (2008)
Astronomy
B.S., New Mexico Institute of Mining & Technology;
M.S., Ph.D., Arizona State University

HEFFNER, Keith R. (2005)
Music
B.S., M.A., California State University, Dominguez Hills
(MCCCD 2004)

HEFTER, Mary (2001)
Nursing
B.S.N., Azusa Pacific University;
M.S.N., California State University
(MCCCD 1997)

HELD, Christine (2001)
Business & Information Systems
B.S., University of Phoenix;
M.S.Ed., Capella University; Ed.D., Northcentral University

HENDERSON, Sarah (2001)
Learning Enhancement Center
B.A., University of Portland;
M.A.T., Lewis and Clark College

HERRERA, Jaime H. (1992)
English
B.S., University of Texas, El Paso;
M.A., University of Texas, Austin
(MCCCD 1991)

HERTZLER, Betsy (1984)
Social Science/History
B.A., Washington University;
M.A., University of New Mexico;
M.C., Arizona State University;
Ed.D., Northern Arizona University

HEWETT, Michael (1988)
Chairperson (Acting), Reading
B.A., M.A., Arizona State University;
Graduate Study: Arizona State University

HIETTER, Paul T. (2005)
Chairperson, Social Science/History
B.S., Northwestern University;
M.A., University of Minnesota;
Ph.D., Arizona State University

HOCUTT, Gregory D. (2001)
Life Science
A.B., Harvard University;
Ph.D., Arizona State University

HOLEXA, Deborah M. (2006)
Dental Hygiene
A.A.S., William Rainey Harper College;
B.S., Northern Arizona University

HOLM, Melissa J. (2006)
Mathematics
B.A., University of California, San Diego;
M.A., Northern Arizona University

HOLMES, Rodney (1995)
Dean of Instruction
B.A., Marshall University;
M.C., Arizona State University;
Ed.D., Northern Arizona University
(MCCCD 1986)

HOLYCROSS, Andrew T. (2005)
Life Science
B.A., M.S., University of Nebraska;
Ph.D., Arizona State University

HORTON, Mary Susan (1997)
Psychology
B.S., College of St. Teresa;
M.A., Rockford College;
Ph.D., Arizona State University

HUNTER, Robert (2003)
Music
B.M.Ed., B.Ed., University of Western Ontario, Canada;
M.M., Arizona State University

HUSSEIN, Lutfi M. (2006)
English
B.A., Yarmouk University, Irbid Jordan;
M.A., Ph.D., Arizona State University

JACOBSEN, Craig B. (2001)
English
B.A., M.A., Ohio State University;

Ph.D., Arizona State University

JAMES, Aaron (1997)
Life Science
B.S., Grambling State University;
M.S., Ph.D., Arizona State University
(MCCCD 1986)

JOHN, David (2001)
Mathematics
B.S., Fort Lewis College;
M.A., Northern Arizona University

JOHNSON, Kimberly S. (2003)
Mathematics
B.S., Iowa State University;
M.Ed., Northern Arizona University

JONES, Tara C. (2007)
Mathematics
B.S., University of Arizona;
M.Ed., Northern Arizona University

JORANSEN, Janet E. (2003)
Nursing
B.S.N., University of Northern Colorado;
M.S.N., University of Colorado Health Sciences Center (MCCCD 1984)

JORDAN, Barbara (2000)
English/ESL
A.B., University of California, Berkeley;
M.Ed., Arizona State University
(MCCCD 1998)

JOSHUA, Mangala (1994)
Physical Science/Physics
B.S., University of Sri Lanka;
M.S., Ph.D., University of Pittsburgh

KALISON, Bonnie (1986)
Life Science
B.S., M.S., University of Illinois, Urbana
Graduate Study: Cornell University, University of Illinois Medical Center, Chicago
Doctoral Studies: Arizona State University

KASAPIS, Rita A. (1992)
Counseling
B.S., M.S.Ed., University of Akron
Graduate Study: Arizona State University
Doctoral Studies: Nova Southeastern University

KEITHLEY, Walter H. (2003)
English
B.S., B.A., Northern Arizona University;
M.A., Ph.D., Arizona State University

KHORSANDI, Mehrzad (2002)
Technology/Drafting
B.A., University of Southwestern Louisiana, Lafayette;
M.S., University of New Orleans;
Ph.D., Texas A&M University
(MCCCD 1998)

KIKKERT, Stanley J. (2003)
Life Science
B.S., University of California, Riverside;
Ph.D., University of California, Davis

KILLEBREW, Theresa M. (2007)
Mathematics
B.S., Northern Arizona University;
M.A., Arizona State University

KIM, Kai Y. (2003)
Art
B.F.A., San Francisco Art Institute;
M.F.A., University of Michigan

KISSELL, Loretta L. (1997)

Communication
B.A.E., M.A., Arizona State University;
Ph.D., University of Arizona
Graduate Study: University of California, Berkeley

KLARE, Tom R. (2006)
Computer Graphics
B.A., Virginia Polytechnic Institute

KRAFT, Katrien (2000)
Physical Science/Geology
B.A., Colby College;
M.S., Arizona State University

KROELINGER, Sally C. (1981)
Interior Design
B.S., M.S., University of Tennessee;
M.F.A., University of Georgia

LATIMORE, Denver L. (1989)
Exercise Science
B.S., Arkansas State University;
M.Ed., Wichita State University

LEE, Carol Suzanne (2003)
Nursing
B.S.N., M.S.N., Arizona State University
(MCCCD 1998)

LEIGHTY, Robert S. (2000)
Physical Science/Geology
B.S., College of William and Mary;
M.S., Northern Arizona University;
Ph.D., Arizona State University

LERMAN, Amy (2005)
English
B.A., University of Illinois;
M.A., Ph.D., University of Kansas

LERNER, Shereen A. (1992)
Chairperson, Cultural Science
B.A., Binghamton University;
M.A., Ph.D., Arizona State University

LEVINE, Charles W. (2001)
Social Science/History
A.A., Mesa Community College;
B.A., M.A., Arizona State University

LEWIS, Charles E. (1990)
Business & Information Systems
B.S., M.B.A., Arizona State University

LEYENDECKER, Gingher Leah (2004)
Art
B.F.A., New Mexico State University;
M.F.A., Arizona State University

LIANG, Lori C. (2008)
Fashion Merchandising
B.S., Arizona State University;
M.Ed., Northern Arizona University
(MCCCD 1991)

LIPINSKI, Edmund R. (2000)
Psychological Science
A.A., B.A., M.A., Oakland University, Rochester;
Ph.D., Capella University

LLOYD, Lillis M. (2001)
Counseling
B.A., University of Akron;
M.A., M.A., Ed.S., Ph.D., University of Michigan

LOPEZLIRA, Enrique A. (2005)
Social Science/Economics
B.S., M.S., Arizona State University;
M.I.M., Thunderbird, The Garvin School of

International Management

LOVELADY, Hugh (2001)
Music
B.M., West Virginia University;
M.M., Arizona State University

LUCIUS, Sue Anne (1984)
Chairperson, Music
B.M., M.M., Arizona State University

LUTER, Zoë (2004)
Library
B.S., Northern Arizona University;
M.A., University of Arizona

LYSCAS, Margie L. (2002)
Mathematics
B.S., Stockton State College;
M.S., Arizona State University

MABRY, James C. (2008)
Vice President of Academic Affairs
B.A., M.A., Ph.D., Columbia University;
M.S., London School of Economics and Political Science, London, England

MAINES, Nicki L. (2004)
Business & Information Systems
B.S., Towson University;
M.B.A., University of Baltimore

MAKELELE, Ben-And B. (2002)
English
B.A., Universite Nationale du Zaire, Kinshasa;
M.A., Ph.D., Arizona State University

MARINO, Allie (2002)
World Language
B.A., M.Ed., Arizona State University

MARQUEZ, Juan J. (1999)
Business & Information Systems
A.A.S., Scottsdale Community College;
B.A., Ottawa University;
M.Ed., Northern Arizona University;
Ed.D., Arizona State University
(MCCCD 1983)

MARTELL, Maria Y. (2005)
World Language
B.A., M.A., Montclair State University;
Ph.D., Arizona State University

MARTINEZ, Sam B. (1997)
English
B.A., M.A., Humboldt State University;
Ph.D., Arizona State University

MARTINEZ, Terri D. (1990)
Reading
B.A., M.A., Arizona State University

MASON, Anne (2005)
Life Science
B.S., M.S., Indiana University

MAZZUCCO, Palmerino (1999)
Technology/Electronics
B.S.E.E., M.S.E., California State Polytechnic University;
M.A.Ed., Ottawa University
(MCCCD 1997)

McALEAVEY, Sue (1996)
Cultural Science/Social Work
B.A., University of Sheffield;
M.Sc., University of Surrey

McGAUGHEY, Barbara O. (1996)
Life Science

B.S., Arizona State University;
M.H.S., Texas Wesleyan University
(MCCCD 1994)

McLAUGHLIN, Sharon A. (2008)
Health, P.E., Recreation
B.S., Indiana University;
M.S., A.T. Still University

MENTE, Jane (2000)
Library
A.A., Mesa Community College;
B.A., Arizona State University;
M.L.S., University of Arizona
(MCCCD 1998)

MERRITT, Sheila (1993)
Communication
A.A., Lubbock Christian College;
B.A., Harding College;
M.A., Arizona State University

MESSER, Jeff (2005)
Exercise Science
B.A., Wesleyan University;
M.B.A., Duke University;
M.S., Ph.D., Arizona State University

MINCKLEY, Saundra (1976)
Chairperson/Life Science
B.S., Southern Illinois University;
M.S., University of Nevada
Graduate Studies: Northern Arizona University, Arizona State University, University of Northern Colorado, Northeastern University

MINGER, Timothy L. (2005)
Physical Science/Chemistry
B.S., University of California, Los Angeles;
B.A., Ph.D., University of Colorado, Boulder

MOHLER, Kathryn (2001)
English
B.A., Bemidji State University;
M.F.A., Arizona State University
(MCCCD 2000)

MONTEMAYOR, Joaquin J. (1985)
Counseling
A.A., Mesa Community College;
B.A., M.Ed., Oregon State University;
Ph.D., University of Arizona
(MCCCD 1982)

MOORE, Charles T. (1991)
Library
B.A., University of Wisconsin;
M.Ed., Arizona State University;
M.A., University of Arizona
Graduate Study: University of Wisconsin,
Arizona State University
(MCCCD 1989)

MOORE, Jonelle D. (1999)
English
B.A., Adams State College;
M.A., University of Wyoming;
M.A., University of New Mexico

MORALES-JONES, Sonia M. (2007)
Chairperson, Fire Science
A.A.S., Mesa Community College;
B.S., Grand Canyon University;
M.Ed., Northern Arizona University

MORGAN, Janet (2001)
Mathematics
B.A., M.A.Ed., Arizona State University

MUEHLENBECK, Kerry L. (2006)
Administration of Justice
B.S., Northwestern University;

LL.M., University of San Diego School of Law;
J.D., Indiana University School of Law

MULLINS, Jack (1998)
Journalism
B.S., Southern Illinois University;
M.Ed., Northern Arizona University

NACHMAN, David F. (2002)
Physical Science/Chemistry
A.S., Mercer County Community College;
B.A., Rutgers College;
Ph.D., Arizona State University
(MCCCD 1990)

NANGO, Patrice (2005)
Philosophy/Religious Studies
B.A., M.A., Arizona State University

NEDELKOVA, Valentina (2007)
Chemistry
B.S., University of St. Cyril & Methodius, Macedonia;
M.S., Arizona State University

NEELEY, Mark F. (2002)
Mathematics
B.S., University of Nebraska;
M.A., Arizona State University

NEGLIA, Joseph D. (1996)
Technology
B.S.E.E., University of Pennsylvania;
M.B.A., Arizona State University
Graduate Study: Arizona State University

NESS, Ellyn K. (2000)
Chairperson, Administration of Justice
B.S., Northern Illinois University;
M.S., Fort Hays State University

NIELSEN, Brenda (1992)
Business & Information Systems
A.A., Triton College;
B.S., Florida Southern College;
M.Ed., Florida Atlantic University
(MCCCD 1989)

NUNEZ, Paul A. (1997)
Mathematics
B.S., Arizona State University;
M.S., Stanford University

OAKES, Duane (2000)
Educational Support
A.A., Mesa Community College;
B.A., M.A., Brigham Young University
(MCCCD 1991)

OBERMILLER, Lewis E. (2002)
Life Science
B.S., M.S., East Carolina University, Greenville;
Ph.D., Arizona State University

O'BRIEN, Patrick (1995)
Mathematics
B.S., B.S.Ed., University of Wisconsin;
M.A.T., Aurora University

OLSON, Susan K. (2003)
Chairperson, Communication, Theatre Arts & Film
B.A., Ph.D., University of Arizona;
M.A., University of Northern Colorado

ORMISTON, Aileen (1989)
Business & Information Systems
B.A., Michigan State University;
M.S., Texas A&M University;
Certified Public Accountant, Maryland

ORMISTON, Jacquelyn M (2007)
Mathematics
B.S., Michigan State University;
M.Ed., Arizona State University

OSGOOD, Christine M. (2000)
Early Childhood Education
B.S., M.Ed., Pennsylvania State University;
Ph.D., Iowa State University

OUDERKIRK, Bert (2004)
Administration of Justice
B.S., Park University

PAN, Shouan (2008)
President
B.A., Hefei Polytechnic University,
People's Republic of China;
M.Ed., Colorado State University;
Ph.D., Iowa State University

PARISEK, Betty M. (2007)
Nursing
A.A., Phoenix College;
A.A., Mesa Community College;
B.S.N., Grand Canyon University;
M.S.N., University of Phoenix

PARRISH, Gene L. (1971)
Counseling
B.A., M.A., Ph.D., Arizona State University

PAYNE, John T. (1990)
Mathematics
A.S., Kansas City Junior College;
B.S., M.S.T., University of Missouri, Columbia;
Ed.D., Arizona State University

PEARSON, Sonya D. (2007)
Dean of Student Affairs
B.A., M.S., Northeastern State University;
Ph.D., Walden University

PEDERSEN, Lindsey (2009)
Art
B.A., Stanford University
M.A., Arizona State University

PERALES, Kathleen M. (2001)
Dean of Student Affairs
B.A., University of Arizona;
M.Ed., Northern Arizona University

PERALTA, Jesus (1996)
Social Science/History
B.A., M.Ed., Arizona State University

PERALTA, Lorna M. (2003)
Chairperson, Library
B.Ed., University of Liverpool, England;
M.L.S., University of Arizona

PERDUE, Alexandra (2007)
Music
B.A., University of Michigan, Ann Arbor;
M.F.A., School of the Art Institute of Chicago

PERKINS, Vanessa (1991)
Cultural Science/Sociology
B.S., Winston Salem State University;
M.S.W., Ph.D., Ohio State University

PETERSON, Bruce A. (2000)
Communication
B.A., M.A., Speech;
M.A., University of Texas, Pan American

PETERSON, Craig C. (2007)
Music

B.M., Concordia College;
M.M., D.M.A., Arizona State University

PETERSON, Jack H. (1969)
Cultural Science/Sociology
B.S., M.S., Brigham Young University
Graduate Study: University of Utah, Arizona State University

PETERSON, Jacqueline (1987)
Mathematics
B.S., M.N.S., Arizona State University

PIERCE, Janell D. (2006)
Library
A.A., Long Beach City College;
B.A., University of California, Riverside;
M.L.S., University of Arizona

PIERSON, Janice S. (2002)
Design
B.S., Miami University;
M.S.D., Arizona State University

PIKE, Scott (2005)
Mathematics
B.S., Cal Poly San Luis Obispo;
M.Ed., Northern Arizona University
(MCCCD 2000)

POLLARD, Kathleen A. (2004)
Nursing
B.S.N., Michigan State University;
M.S.N., University of Phoenix

POLLOCK, Susan K. (1997)
Psychological Science
B.Ed., M.A., Ph.D., University of Miami

PONDER, Terry L. (1994)
Life Science
B.S., University of Montevallo;
M.S., Arizona State University
(MCCCD 1979)

PRATT, Gregory B. (2000)
Social Science/Economics
B.A., M.B.A., Arizona State University

PREISSER, Gayla M. (1994)
Psychological Science
B.S., Colorado State University;
M.A., University Northern Colorado;
Ph.D., University of Arizona

PULLENZA, Patricia (1992)
English/ESL
B.A., M.A., Arizona State University
Graduate Study: California State University, Dominguez Hills

QUINTRALL, Denise (2004)
Fire Science/Emergency Medical Technology
A.A., Mesa Community College;
B.S., Arizona State University;
M.Ed., Northern Arizona University
(MCCCD 1989)

RANGEL, Tina (2001)
Exercise Science
B.S., Arizona State University;
M.Ed., Northern Arizona University
(MCCCD 1992)

RATHKAMP, Joshua R. (2007)
English
B.A., Western Michigan University;
M.F.A., Arizona State University

RAUSCHER, Joseph (1999)
Technology/Automotive
A.A., Indiana Vocational Technical College

(MCCCD 1989)

RAWSON, Erin K. (1997)
Communication
B.A., M.A., University of Northern Colorado
(MCCCD 1995)

RAYMOND, Jill M. (2009)
Life Science
B.S., Northern Illinois University;
Ph.D., University of California, Davis

REILLY, Janice (1990)
Counseling
B.A.E., Arizona State University;
M.A., Northern Arizona University
Graduate Study: Arizona State University, Chapman College, Northern Arizona University
(MCCCD 1974)

REYES, Nora Amavisca (1997)
Chairperson, Education Studies
B.A., M.Ed., Ed.D., Arizona State University

RICE, Linda Lou (2001)
Nursing
B.S.N., University of Nebraska;
M.A., Northern Illinois University
(MCCCD 1993)

RICHARDSON, Danene K. (1996)
Music
A.A., Mesa Community College;
B.A., M.M., Arizona State University

ROBB, Cherise J. (2004)
Design
B.A., University of Arizona;
M.S.D., Arizona State University

ROBERTS, Patricia T. (2007)
Business & Information Systems
B.A., Arizona State University;
M.B.A., University of Phoenix

RODRIGO, Rochelle L. (2002)
English
B.A., University of California, Riverside;
M.A., M.A., Arizona State University;
Ph.D., Arizona State University

ROGERS, DIANE M. (2009)
Reading
B.S., M.E.P.D., University of Wisconsin-LaCrosse

ROSS, Hubert A. (2001)
Counseling
A.A., Phoenix College;
B.A., Arizona State University;
M.A., Northern Arizona University

ROSSITER, Daphne (2000)
Mathematics
B.A., Arizona State University;
M.A., Northern Arizona University

ROZSA, Katalin (1994)
Mathematics
M.S., Eotros Lorand University,
M.N.S., Arizona State University

RUSH, Raye (2000)
Mathematics
B.A., CUNY Hunter;
M.S., CUNY Stony Brook

RUSHING, Derek N. (1997)
Business & Information Systems
B.S., San Jose State University;
M.A., Northern Arizona University

Graduate Study: California State Polytechnic
University, Pomona; North Central University

RUSSELL, Scott C. (2003)
Cultural Science/Anthropology
B.A., University of New Mexico;
M.A., M.S., Ph.D., Arizona State University

RUTLAND, Yvonne E. (1990)
English
A.A., Miami-Dade Community College;
B.A., M.A., Arizona State University

SAFFELL, Erinanne M. (2007)
Geography
B.S., M.A., Ph.D., Arizona State University

SAMSON, Robert D. (2003)
Business & Information Systems
A.A., Scottsdale Community College
B.S., Capella University

SCHAEFFER, Robin (2008)
Nursing
B.S., Russell Sage College;
M.S.N., University of Phoenix

SCHINELLER, Fred (2000)
Mathematics
B.S., University of California, Santa Barbara;
M.S., Arizona State University

SCHMUCK, Roger (1987)
Exercise Science
B.A., M.A., Arizona State University

SCHULTZ, David (2002)
Mathematics
B.A., Westmont College;
M.Ed., Arizona State University

SCOTT, Michael (2005)
Physical Science
B.S., Northern Arizona University;
M.A., University of California, Santa Barbara

SCOTT, Mona C. (2000)
Cultural Science/Sociology
B.A., University of Southern California;
M.A., Arizona State University

SEAGLE, Andy R. (2003)
Music
A.A., Golden West College;
A.A., Pima Community College

SEIMS, John P. (1996)
Mathematics
A.A., St. Petersburg;
B.S., University of Florida;
M.A., University of South Florida

SERPONE, Enrico J. (1990)
Mathematics
B.A., Southern Illinois University;
M.A., Arizona State University
(MCCCD 1984)

SHAW, Scott D. (1997)
Technology

SHEFFIELD, Alan (1982)
Mathematics
B.S., Columbia University;
M.S., Stanford University;
M.S., S.U.N.Y.;
M.S., Hofstra University

SHEFFIELD, Kathryn (2001)
English/ESL
B.A., M.A., SUNY Stony Brook

(MCCCD 1984)

SHEPORT, Jill L. (2003)
Technology/Vet Tech
B.S., Stanford University;
D.V.M., Colorado State University

SHERRILL, Karin (2005)
Nursing
B.S.N., M.S.N., University of Phoenix
(MCCCD 1992)

SHOEMAKER, Thomas P. (1997)
Philosophy/Religious Studies
B.A., McPherson College;
M.Div., Luther Theological Seminary

SILBERSCHLAG, Hans (2005)
Fire Science/Emergency Medical Technology
A.A.S., Mesa Community College;
M.A., Northern Arizona University

SIMMS, Robert D. (1994)
Mathematics/Computer Science
B.S., Indiana University of Pennsylvania;
M.S., University of Arizona

SIMS, Michael J. (1989)
Chairperson, Physical Science/Engineering
B.S.E., M.S.E., Ph.D., Arizona State University

SOMERS, Mark D. (2005)
Physical Science/Chemistry
B.S., New Mexico Institute of Mining and Technology;
M.S., Ph.D., University of Maryland

SOZA, Robert A. (2008)
English
B.S., Arizona State University;
M.A., University of California, Berkeley

SPENCE, Ann-Marie D. (1996)
English
B.A., Knox College;
M.A., Arizona State University

SPERANZA, Linda M. (1996)
Art
B.F.A., New York State College of Ceramics at Alfred University;
M.F.A., Arizona State University

ST. AMAND, Litsa P. (1992)
Mathematics
B.S., M.A.T., Northern Arizona University

ST. PETER, Carolyn J. (2003)
Psychological Science
B.A., University of Kansas;
M.A., Wichita State University;
Ph.D., Arizona State University

STEIG, Jo M. (1982)
Mathematics
B.A., East Carolina University;
M.S., Brigham Young University;
Ed.D., Arizona State University
(MCCCD 1977)

STEWART, Mary A. (2000)
Education
B.A., M.Ed., Arizona State University
(MCCCD 1992)

STINE, Katherine Ann (1985)
Chairperson, Exercise Science
B.S., Brigham Young University;
M.S., Arizona State University
Graduate Study: Arizona State University

STORY, Naomi O. (1999)
Center for Teaching and Learning

B.A., Coe College;
M.A., Ph.D., Arizona State University
(MCCCD 1984)

STRICKLAND, Jennifer S. (2008)
Educational Support
A.A., Mohawk Valley Community College;
B.A., Arizona State University;
M.Ed., Lesley University;
Ph.D., Ohio State University
(MCCCD 2004)

SURBER, Angeline Margaret (2003)
Business & Information Systems
A.A.S., Mesa Community College;
B.S., University of Maryland;
M.A., University of Phoenix

SVOBODA, Diane B. (1989)
English
B.A., Queens College;
M.A., State University of New York, Albany

TABAR-GAUL, Lo-An N. (1989)
Business & Information Systems
A.A.S., Cochise College;
B.A.M., University of Phoenix;
Ph.D., Northcentral University;
Graduate Study: Arizona State University

TAGGART, Thomas R. (1996)
Mortuary Science
B.S., Aurora University;
M.S., Northern Illinois University;
Ed.D., Ed.S., Mississippi State University

THACKER, Larry (1985)
Dean of Instruction
A.A.S., Phoenix College;
M.Ed., Northern Arizona University

THOMSON, Kara E. (2003)
Communication/Theatre Arts
A.A., Arizona Western College;
B.F.A., Arizona State University;
M.F.A., University of Nebraska-Lincoln

TIWALD, Catherine G. (2006)
Nursing
B.S.N., Azusa Pacific University;
M.S.N., University of Phoenix

TODD, Christopher G. (2008)
Computer Graphics
B.F.A., Central Washington University;
M.F.A., Arizona State University

TOLER, JR., Richard L. (2006)
Business & Information Systems
B.S., University of Cincinnati;
M.B.A., Harvard University

TOLZMAN, Ann (2000)
Library
B.A., Marquette University;
M.L.I.S., University of Wisconsin, Milwaukee

TOWNSLEY, Jennifer M. (2008)
Communication
B.A., Wilkes University;
M.A., Ed.D., Arizona State University

TRAN-NGUYEN, Ly T.L. (2000)
Chairperson, Psychological Science
B.S., University of Arizona;
M.A., Ph.D., Arizona State University;
Graduate Study: Arizona State University

URSIC, Elizabeth M. (2003)
Philosophy/Religious Studies

B.S., M.A., M.B.A., University of Pennsylvania;
M.Div., Yale University

VanTASSELL, Heidi (2001)
Physical Science/Astronomy/Physics
B.A., B.S., University of Rochester;
M.S., Arizona State University

VAUGHAN, Barry F. (1996)
Philosophy/Religious Studies
B.A., Oklahoma Baptist University;
M.A., Baylor University;
Ph.D., University of Oklahoma

VENEMA, Jeremy (2002)
English
B.A., M.A., Ph.D., Arizona State University

VERCH, Todd A. (2000)
Technology/Drafting
B.S.D., M.S.D., Arizona State University

VIGO-ACOSTA, Carmen (1991)
World Language
B.S., M.A., Brigham Young University
(MCCCD 1987)

WACLAWSKI, Phillip P. (2000)
Business & Information Systems
B.S., Michigan State University;
M.S., Rutgers University

WEBB, Eddie D. (2000)
English
B.A., California State University, Chico;
M.F.A., Arizona State University

WEIDE, John O. (1990)
Physical Science/Chemistry
B.S., M.S., Pittsburgh State University;
Ph.D., Arizona State University
(MCCCD 1973)

WELSH, Edward L. (1993)
Business & Information Systems
B.S., B.S., M.B.A., J.D., Arizona State University;
Attorney at Law, Arizona
(MCCCD 1982)

WILSON, Amelia (2002)
Reading
B.A., California State University-Northridge;
M.S., National University

WILSON, Dennis (2001)
Life Science
B.S., University of Durham;
Ph.D., University of Oregon

WILSON, Jo Anne (1970)
Dean of Instruction, Red Mountain
B.S., University of Arizona;
M.A., Arizona State University

WINTZ, Michael D. (2000)
Philosophy/Religious Studies
B.A., University of Dubuque;
M.Div., University of Dubuque Theological Seminary

WOOD, Shawn E. (2000)
Mathematics
B.S., M.Ed., University of Oklahoma

YANDELL, Ruth B. (1976)
Music
B.A., Silliman University;
B.M., Philippine Women's University;
M.M., Western Michigan University

YEE, Donald H. (1989)
Physical Science/Engineering

B.S., M.A., Northern Arizona University;
Graduate Study: Arizona State University

YOUNT, David J. (2000)
Philosophy/Religious Studies
B.A., University of Michigan, Ann Arbor;
M.A., Ph.D., University of Wisconsin, Madison

ZERANGUE, Karl (2002)
Mathematics/Computer Science
B.A., St. Joseph College;
M.S., University of Southwestern Louisiana;
Ph.D., Arizona State University

ZIENKEWICZ, Lori Hamilton (2004)
Nutrition
B.S., M.S., Kansas State University;
Ed.D., Northern Arizona University

ZIKOPOULOS, John N. (1995)
Physical Science/Chemistry
B.S., Worcester Polytechnic Institute;
Ph.D., Iowa State University

ZIMMERMAN, Maureen (1991)
Nutrition
B.S., Arizona State University;
M.P.H., University of Hawaii;
Ed.D., Northern Arizona University

ZULU, Itibari M. (2006)
Library
A.A., Merritt College;
B.A., California State University, East Bay;
M.L.S., San Jose State University;
Doctoral Studies: Union Institute & University

Emeritus Faculty and Administrators

ALF, Stanley Nels (1966-1992)
Technology
B.A., M.A., Arizona State University
Graduate Study: Arizona State University, Linkoping University

ALLISON, Margaret L. (1963-1988)
English
A.A., Mesa College;
A.B., University of Colorado;
M.A., Colorado State College
Graduate Study: Northern Colorado University, Stanford University, University of Colorado, University of Utah, Arizona State University, Standford University

ARNOLD, Ronald P. (1982-2001)
Technology
A.A.S., Canton College;
B.S., Oswego State University of New York
Graduate Study: Potsdam State University of New York,
St. Lawrence University

BENEDICT, Allen R. (1972-2003)
Exercise Science
B.A., M.A., Arizona State University
Graduate Study: Arizona State University, Azusa Pacific College

BENNETT, Silvia L. (1983-2007)
English
B.A., Trinity College, Washington D.C.;
M.A., Catholic University of America
Graduate Study: Arizona State University

BENNETT, Thomas G. (1971-1992)
English, Physical Education, Athletic Director
A.B., Wabash College;
M.A., Indiana University

BOWMAN, Margaret (1973-1994)
Nursing
Evanston Hospital School of Nursing Education;
Kendall College; Northwestern University
B.S.N., M.A.E., Arizona State University
Graduate Study: Arizona State University

BROWN, Donald R. (1971-1992)
Administration of Justice
A.A., Oakland City College;
B.S., M.P.A., Brigham Young University
Graduate Study: Arizona State University

BRUNS, Ramon O.* (1965-1989)
Life Science
B.A., M.A., Arizona State University
Graduate Study: Arizona State University,
George Peabody College for Teachers, University of Arizona, University of Oklahoma, University of Hawaii

BURKE, Doyle (1969-2002)
Chairperson, English, Humanities, Journalism
B.A., Arkansas State University;
M.A., Arizona State University;
M. Div., Golden Gate Baptist Theological Seminary
Graduate Study: Arizona State University

BYDALEK, David (1990-2000)
Business
B.S., Eastern Illinois University;
M.S., Northern Illinois University;
Ed.D., Arizona State University
(MCCCD 1969)

CALBECK, Kenneth B. (1969-1989)
Cultural Science
B.A., M.A., Arizona State University
Graduate Study: Arizona State University,
Northern Colorado University, University of Delaware

CAMPBELL, Marilyn* (1972-1994)
Chairperson, Nursing
St. Mary's Hospital School of Nursing
B.S.N., M.S., Arizona State University
Graduate Study: Arizona State University

CAMPBELL, Overton C. (1965-1987)
Technology
B.S., Oklahoma State University;
M.S., University of Utah;
Graduate Study: Wichita University,
Oklahoma State University, University of Utah,
University of Illinois, Arizona State University

CASEY, Bernard L. (1966-1994)
Social Science
B.A., M.A., Ed.D., Arizona State University

CHAMBERLAIN, Joanna D. (1985-2009)
Cultural Science/Sociology
B.S., M.A., Arizona State University

CHAVEZ, Antonio E.* (1972-2001)
Counseling
B.S., University of Arizona;
M.C., Arizona State University
Graduate Study: Arizona State University

CHOICE, Donald (1971-1997)
English
B.A., M.A., University of Oklahoma
Graduate Study: University College, Dublin, Ireland

CHRISTENSEN, Lot B. (1963-1986)
Physical Education
A.A., Eastern Arizona Jr. College;
B.S., Ricks College;
M.S., Utah State University

CLARIDGE, James D. (1967-1996)
Agriculture
A.A., Eastern Arizona Jr. College;
B.S., M.Ag.Ed., University of Arizona
Graduate Study: University of Arizona

CLEMENT, Richard P. (1970-2001)
Foreign Language
B.A., M.A., Brigham Young University
Fulbright, Graduate Study: Goethe-Institut, Goettingen
and Berlin

COHEN, Roy (1988-2007)
Psychology
B.A., Hofstra University;
M.S., University of Pittsburgh;
Ph.D., Arizona State University
(MCCCD 1972)

CONWAY, Douglas (1990-2010)
Social Science/Economics
A.A., Mesa Community College;
B.A., M.A., Arizona State University;
M.A., University of Delaware

CRONQUIST, Linda M. (1983-2003)
Business
B.A., Pennsylvania State University;
M.B.A., Arizona State University

DELLA PENTA, Catherine R. (1988-2009)
English
B.A., State University of New York at Binghamton
(Harpur College);
M.A., Tennessee State University
Graduate Study: University of New Mexico;
Fulbright Lecturer at the University of Abidjan,
Ivory Coast, West Africa

DENEUI, Sandy (1971-1996)
Physical Education
B.A., M.A., Arizona State University
Graduate Study: Arizona State University

DRACHLER, Carole (1983-2009)
Art
B.A., University of Michigan;
M.A., Northwestern University;
Ph.D., University of Michigan

DUCE, Durrell R. (1975-2005)
Physical Science/Chemistry
B.S., Utah State University;
M.S., Ph.D., Arizona State University

DURRANT, Martin H. (1983-1998)
Chairperson, Foreign Language
B.A., Brigham Young University;
M.A., Ph.D., Arizona State University
Graduate Study: University of Valladolid
(MCCCD 1966)

DUTSON, Lyn (1969-2009)
Communication/Theatre Arts
B.A., M.A., Arizona State University
Graduate Study: University of Boston,
Arizona State University, Western Illinois University,
Southern Oregon State College

EAGAR, Jorge (1998-2004)
Foreign Language
B.A., M.A., University of California, Los Angeles;
Ph.D., Arizona State University
(MCCCD 1984)

EBERLE, Donella (1976-2007)
Chairperson, English, Humanities, Journalism
B.A., M.A., Arizona State University
Graduate Study: Arizona State University

ELIAS, Sanford (1990-2005)
Speech/Theatre
B.S., M.A., Northwestern University;
M.F.A., Mankato State University
(MCCCD 1984)

ESHELMAN, Myrna (1980-2006)
Chairperson, Nursing
B.S., M.S.N., Arizona State University

ESQUER, Elias, Y. (1969-1994)
Chairperson, Foreign Language
B.A., M.A., Arizona State University
Graduate Study: Guadalajara, Mexico;
University of Sevilla, Spain

ETTER, Ronald A. (1996-2005)
Dean, Administrative Services
B.S., M.Ed., Arizona State University
(MCCCD 1972)

EVANS, Charles K. (1964-1992)
Chairperson, Speech Communication/Theatre Arts/ Telecommunication
B.A., Fort Hays State University;
M.A., Kansas State University
Graduate Study: University of Colorado,
Arizona State University

FALK, Edwin (1967-1987)
English
B.A., Roosevelt University;
M.A.Ed., Arizona State University

FANNING, Ron (1973-2000)
English
A.A., Mesa Community College;
B.S., M.A., Northern Arizona University;
M.F.A., Arizona State University
Graduate Study: Arizona State University,
University of Wyoming, University of New Hampshire;
Doctoral Studies: Ohio University

FAZIO, Gene S. (1981-2007)
English
A.A., Phoenix College;
B.A., M.A., M.Ed., Arizona State University
Graduate Study: University of Delaware; University of California, Santa Barbara; Arizona State University;
Northern Arizona University
(MCCCD 1970)

FERGUSON, Jerrell J. (1967-1994)
Chairperson, Psychology
B.S., M.A., Arizona State University

FERREIRA, Mary Grace (1976-1996)
Physical Science
B.S., M.A.T., University of Massachusetts;
M.N.S., Arizona State University

FRIDELL, Margaret (1984-2009)
Nursing
B.S.N., Avila College;
M.S., F.N.P., Arizona State University

FRYE, James (1969-1994)
Physical Education
B.A., University of Redlands;
M.S., Arizona State University

GALLIART, Allen G. (1972-2001)
Physical Science/Chemistry
B.S., Wichita State University;
Ph.D., Arizona State University

GARCIA, Robert J. (1979-2002)
English
B.A., M.A., New Mexico Highlands University;
Ed.S., University of Illinois;

Ph.D., Arizona State University
Graduate Study: University of California, Berkeley

GARRISON, James S. (1971-2004)
Art
B.S., Indiana State University;
M.A., Purdue University

GILPIN, Barbara R.D. (1971-1991)
Home Economics
B.S., Arizona State University;
M.S., Arizona State University
Registered Dietitian, American Dietetic Association

GORDON, Deborah A. (1967-1992)
Physical Education
B.S., M.S., West Virginia University
Graduate Study: Arizona State University,
Western International University

GRANT, Raymond W. (1975-2000)
Chairperson, Physical Science
A.B., Lafayette College;
A.M., Ph.D., Harvard University

HAGGARD, Bill (1967-1993)
Business
B.A., M.A., Arizona State University

HALTERMAN, Jayne (1982-2004)
Business
B.S., California State University, Long Beach;
M.A., Arizona State University
(MCCCD 1971)

HANNON, John J. (1975-1997)
Cultural Science
B.A., St. Patrick College;
M.A., Ph.D., University of Arizona

HARLOW, Roger (1991-2005)
Technology
B.S., Bowling Green State University;
M.A., Northern Arizona University
(MCCCD 1984)

HARRIS, Roger W. (1967-1994)
Chairperson, Music
B.M., Arizona State University;
M.M., University of Southern California

HARTSHORN, Robert (1968-1989)
Library
B.S., Brigham Young University;
M.S., University of Southern California
Graduate Study: Utah State University, University of Utah, Western Reserve University

HENDRICKS, James* (1965-1990)
Chairperson, Music
B.S., Columbia University;
M.A., Arizona State University
Graduate Study: Arizona State University,
Oberlin Conservatory of Music, Vienna Musik Akadamie

HERNANDEZ-RODARTE, Rebecca (1978-2001)
Counseling
B.A., Arizona State University;
M.A., University of New Mexico
Graduate Study: Arizona State University
(MCCCD 1972)

HERRICK, Ron (1975-2003)
Business
A.A., Phoenix College;
B.S., M.A., Ph.D., Arizona State University

HILL, Ronald D. (1971-2001)
Life Science
B.A., LaSierra University;
Ph.D., Arizona State University

Graduate Study: University of Arizona

HINZE, Jack (1982-2003)
Technology
B.S., Chadron State College;
M.S., Pittsburgh State College
Graduate Study: Arizona State University

HODGES, Walter G. (1966-1989)
**Chairperson, English, Humanities, Journalism
and Philosophy**
B.S., M.A., Northern Arizona University;
B.F.T., Thunderbird Graduate School of
International Management;
Graduate Study: Stanford, Arizona State University, Northern Arizona University

HOLT, William A. (1967-1996)
Dean of Instruction
B.A., M.S., Arizona State University
Graduate Study: Arizona State University

HORN, Charles J. (1971-1997)
Physical Science
B.S., M.S., Northern Illinois University;
Ph.D., Arizona State University

HOSTETLER, Donald K. (1968-1991)
Mathematics
B.S., Bethel College, North Newton;
M.S., Kansas State Teachers College
Graduate Study: Oklahoma State University,
Arizona State University, University of Nevada

HUFFAKER, Jerry (1968-1992)
English, Humanities
B.A., M.A., Arizona State University
Graduate Study: Northern Arizona University,
Arizona State University, University of California

IKEDA, Susan (1976-2000)
Business
B.A., M.A., Arizona State University

INGRAM, Nels W. (1966-1991)
Mathematics
B.S., Oregon State University;
M.A., Reed College;
M.N.S., Arizona State University
Graduate Study: University of Alaska, Oregon State University, Reed College, Stanford, Arizona State University, University of Oregon

JACKSON, Joan E.* (1970-1992)
English
B.S., Bowling Green State University;
M.S., Arizona State University

JOHNSON, Margaret A. (1984-2004)
Life Science
B.S., University of Texas, Austin;
M.S., Ed.D., Arizona State University
Graduate Study: University of Arizona

JOHNSON, Zeno M. (1967-1989)
Cultural Science
B.A., M.A., Arizona State University;
B.D., Episcopal Theological School and Harvard
Divinity School;
Ph.D., Arizona State University

KALIA, Rajinder K. (1967-2008)
English
B.A., University of Travancore;
M.A., Panjab University;
M.A., University of California, Los Angeles
Graduate Study: Arizona State University

KEYWORTH, Claire W. (1973-1998)
Chairperson, Nursing
New England Deaconess Hospital School of Nursing

B.S.N., University of New Hampshire;
M.S., Arizona State University

KEYWORTH, Fred J. (1964-1989)
Chairperson, Social Science
A.B., M.S., Fort Hays Kansas State University
Graduate Study: Arizona State University

KILPATRICK, Barbara L. (1969-1996)
Business
B.A., M.B.A., Arizona State University
Graduate Study: Arizona State University,
Northern Arizona University

KIRK, Jinnett B. (1965-1979)
Dean of Students
B.S., Oklahoma State University;
M.A., Arizona State University
Graduate Study: Arizona State University;
University of California, Los Angeles;
University of California, Berkeley
(MCCCD 1955)

KIRKPATRICK, Richard (1968-1992)
English
B.A., M.A., Arizona State University
Graduate Study: Arizona State University

KNOLL, Lester J. (1966-1992)
Counseling
B.A., M.S., Fort Hays Kansas State University
Graduate Study: Emporia State Teachers College,
Pittsburgh State College, Arizona State University

LaBELL, Gerald M. (1981-2008)
Technology/Electronics
B.S.E.E., Wayne State University;
M.S.E., Arizona State University
Graduate Study: Arizona State University

LARSON, Linda S. (1975-2007)
Speech Communication/Theatre Arts
B.S., M.S., Indiana State University
Graduate Study: Arizona State University,
Northern Arizona University, University of Arizona

LEYVA, Raquel A. (1984-2004)
Chairperson, Reading
B.A., M.A., Arizona State University
Graduate Study: Arizona State University,
University of Valencia

LUHTALA, Shirley (1965-1992)
Physical Education
B.S., M.S., Northern Illinois University
Graduate Study: Arizona State University

LYON, Gary F. (1967-1996)
Chairperson, Agriculture/Technology
B.S.E.E.E., M.S.E.E.E., Arizona State University
Graduate Study: Arizona State University

MAHONEY, Ann M. (1979-2004)
Philosophy/Religious Studies
B.A., English, M.A., Humanities, M.A., Philosophy,
Ph.D., Arizona State University

MAHONEY, Kurt (1969-1994)
Psychology
B.S., M.A., Ph.D., Arizona State University

MAINIERI, John V. (1982-2007)
Business
B.S., Rutgers University
M.B.A., Columbia University;
Certified Public Accountant, Arizona

MALENA, Richard F. (1999-2009)
Chairperson, Education
B.A., Gannon University;

M.Ed., Edinboro University of Pennsylvania;
Ed.D., Arizona State University
(MCCCD 1984)

MANCUSO, James B. (1974-2008)
Vice President, Academic Affairs (Acting)
B.A., M.A., Arizona State University
Graduate Study: Arizona State University
(MCCCD 1967)

MARTIN, Martha C. (1975-1979) (1984-2000)
Design, Family and Consumer Sciences
B.S., California Polytechnical State University;
M.S., Arizona State University;
Ed.D., University of California, Los Angeles

MARTIN, Maunelle W. (1969-1999)
Cultural Science
B.S.E., University of Central Arkansas;
M.S., University of Arkansas;
Ed.D., Arizona State University
Graduate Study: University of Southern Mississippi,
Western Michigan University, Southern Utah State,
American University

MAST, Nancy (1975-1996)
Chairperson, Home Economics
B.S., University of Arizona;
M.S., Arizona State University

McDONALD, Kaye (1966-1992)
Dean of Student Services
B.S., University of Utah;
M.S., University of Colorado;
Ed.D., Arizona State University
Graduate Study: University of Illinois,
Northern Illinois University

McEOWEN, Bill (1968-1992)
Chairperson, Life Science
B.S., M.A., University of Arizona;
M.N.S., University of Idaho
Graduate Study: Arizona State University,
Colorado State University, University of Hawaii

McMULLIN, Gene A. (1966-1992)
Chairperson, Social Science
B.S., Southern Illinois University;
M.A., Arizona State University
Graduate Study: Arizona State University,
University of Arizona, American University

MELTON, Marcia (1975-2004)
Library
B.A., University of Montana;
M.L.S., University of Arizona;
M.A., University College of Wales

MESSALI, Andree J. (1964-1987)
Foreign Language
B.S., M.A., Western Michigan University;
B.E.P.S., France
Graduate Study: University of Michigan, Arizona State University, University' de Vincennes,
Institut Saint-Louis

MEYER, Eva (1967-1990)
Nursing
B.S.N., Wheaton College, West Suburban Hospital
School of Nursing;
M.S., Arizona State University
Graduate Study: Northern Arizona University

MEYER, Rick (1987-2007)
Mathematics
B.S., M.A., Arizona State University
Graduate Study: Arizona State University
(MCCCD 1979)

MILLER, Marlan J. (1963-1983)

Art
B.A., M.A., Arizona State University
Graduate Study: New York University

MILLER, Rex (1980-1996)
Technology
B.A., Arizona State University;
M.E., Bowling Green State University
Graduate Study: Arizona State University
(MCCCD 1972)

MILNER, Jeannette Lynn (1979-2000)
Journalism
B.A., University of Wyoming;
M.A., Arizona State University
Graduate Study: Syracuse University, American Institute for Foreign Study, Greece and Rome, International Seminar in Mass Communications, Dugi Otok, Yugoslavia
(MCCCD 1975)

MINITTI, Robert (1972-1998)
Physical Education
B.A., M.A., Arizona State University

MORRIS, Carl L. (1969-1992)
Physical Science
B.S., Chadron State College;
M.N.S., Arizona State University
Graduate Study: University of Idaho, College of Idaho, Arizona State University
(MCCCD 1965)

MORRIS, Carlene K. (1971-1996)
Business
B.S., M.A., Arizona State University

MORRISON, Walter R. (1968-1989)
Social Science
B.S.Ed., M.A., Northeast Missouri State Teachers College Graduate Study: Arizona State University, Northeast Missouri State College, The Colorado College

NEAL, David N. (1966-1989)
Physical Science
B.A., M.A., Ed.D., Arizona State University
Graduate Study: Oak Ridge, Tennessee;
University of California, Berkeley, University of Oklahoma; Arizona State University

NIELSEN, Leroy (1969-1985)
Technology
B.S., University of Minnesota;
M.A., Arizona State University

OHL, John (1976-2007)
Social Science/History
B.S.Ed., Slippery Rock State College;
M.A., Duquesne University;
M.S.L.S., University of Kentucky;
Ph.D., University of Cincinnati

OKEZIE, Richard C. (1988-2007)
Business
B.S., Southwest Missouri State University;
M.B.A., Drury College
(MCCCD 1985)

OLSON, Selmer (1972-2007)
Exercise Science
B.S., California State Polytechnic University;
M.S., Arizona State University

OLSSON, Fred J. (1965-1987)
Life Science
B.S., Arizona State University;
M.S., University of Illinois;
M.S.T., University of Missouri
Graduate Study: Arizona State University

OWENS, Joan M.* (1969-1992)
Nursing
Emanuel Hospital School of Nursing;

B.S.N., University of Oregon;
M.A., Arizona State University
Graduate Study: Portland State College,
Arizona State University, University of Arizona

PATTERSON, Fred (1967-1996)
Reading
B.S., Clarion State College;
M.A., Arizona State University

PEARSON, Joseph A. (1997-2007)
Dean of Instruction
Director of Extended Campus (MCCCD 1982)
B.S., M.S., Loyola University;
Ph.D., Arizona State University

PERLINE, Irvin H. (1971-1996)
Psychology
B.S., Arizona State University;
M.A., University of Arizona;
Ph.D., Colorado State University

PHILLIPS, Hugh J. (1963-1983)
Life Science
A.B., University of California, Los Angeles;
M.A., Brigham Young University
Graduate Study: Arizona State University
(MCCCD 1962)

POULSON, Donald G. (1967-1992)
Mathematics
B.A., M.A., Adams State College;
M.A., Northwestern University
Graduate Study: Arizona State University,
Northwestern University

PRICE, Joan (1969-1991)
Philosophy
B.S., University of Arizona;
M.S., Springfield College;
M.A., Ph.D., Arizona State University

REID, Robert F. (1963-1983)
Mathematics
B.S., M.A., Southern Methodist University
Graduate Study: Colorado State College,
Arizona State University
(MCCCD 1961)

RICE, Lorraine (1968-1992)
Music
A.A., Stephens College;
B.M., M.M., University of Michigan

RIGGS, John D. (1963-1974)
Executive Dean
B.S., University of Arizona;
M.A., Colorado State College of Education;
Ed.D., Arizona State University
(MCCCD 1947)

ROECKELEIN, Jon E. (1968-1997)
Psychology
B.S., Wagner College;
M.A., State University of New York, Buffalo;
Ph.D., Arizona State University

RUTH, Scott* (1968-1992)
Physical Science
B.A., M.S., Arizona State University
(MCCCD 1967)

SCHLOSSER, Paulette* (1972-2001)
English
B.A., M.A., Arizona State University

SCORESBY, James E.* (1966-1992)
Psychology

B.S., M.S., Brigham Young University;
Ph.D., Arizona State University

SEACAT, Dale N. (1964-1989)
Business
B.S., M.S., Emporia State University
Graduate Study: Arizona State University

SETLOW, Mark C.* (1969-1996)
Chairperson, Speech Communication/Telecommunication/Theatre Arts
B.S., M.S., University of Utah
Graduate Study: University of Hawaii,
Arizona State University

SKOUSEN, Donald L. (1969-1991)
Social Science
B.A., M.A., Arizona State University
Graduate Study: Brigham Young University,
University of Southern California

SLEDGE, Margaret J. (1971-1992)
Nursing
B.S.N., Madison College;
M.A., Arizona State University
Graduate Study: University of Arizona

SMITH, Robert W. (1965-1993)
Philosophy
A.B., Ohio University;
M.A., Arizona State University
Graduate Study: University of San Diego

SNIDER, Ed H.* (1981-2006)
Business
A.A., Phoenix College;
B.A., M.A., Arizona State University
Graduate Study: Arizona State University

STITES, Ken (1987-2000)
Exercise Science
A.A., Phoenix College;
B.A., M.A., Arizona State University
(MCCCD 1971)

SWAIM, Darlene L. (1979-2006)
Art
B.F.A., John Herron Art Institute, Yale University,
Indiana University;
M.F.A., Arizona State University

SWAN, Leslie C. (1967-1989)
Business
B.S., Western Illinois University;
M.A., Ed.D., Arizona State University

TALAMANTE, Jerry (1979-1996)
Mathematics
B.S., Arizona State University;
M.A., Claremont Graduate School
(MCCCD 1971)

TAUSSIG, Judith F.* (1982-2007)
Dean of Student Affairs
B.S., Florida State University;
M.A., Columbia University

TEMPLETON, Thomas P. (1966-1990)
Cultural Science
B.S., M.A., Arizona State University
Graduate Study: University of Florida,
Claremont Graduate School, University of Colorado

THEILMANN, James W. (1970-2007)
Library
A.B., College of Emporia;
M.L., Emporia State University

TIPTON, James N.* (1968-1992)

Mathematics
B.S., M.N.S., Arizona State University
Graduate Study: Montclair State College,
Arizona State University, University of Oregon

TORRES, Jose I. (1971-1996)
Social Science
B.A., M.A., Arizona State University
Graduate Study: Arizona State University

TUHEY, John E. (1967-1994)
Art
B.S., DePauw University;
M.A., Ball State University
Graduate Study: Arizona State University

TWITCHELL, Jack B. (1965-1996)
Dean of Administrative Services
B.S., Kirksville State Teachers College;
M.A., Central Michigan University
Graduate Study: Central Michigan University, Texas A&M, Arizona State University

VAN WINKLE, Edwin G. (1967-1987)
Chairperson, Physical Education
B.A., M.S., Northern Arizona University

VESELY, Harry (1989-2000)
Technology
A.A.S., B.S., M.S., Bradley University
Graduate Study: Arizona State University
(MCCCD 1977)

VINSON, George (1969-1992)
Cultural Science
A.B., Central State University;
M.A., United States International University, San Diego Graduate Study: Arizona State University,
Wayne State University, Michigan State University

VOSS, Bill* (1964-1986)
Art
B.A., M.A., Arizona State University

WIDMER, Paul (1967-2000)
Exercise Science
B.A., M.A., Arizona State University

WITHGOTT, Sara (1972-1999)
Nursing
St. Anthony's School of Nursing
B.S.N., M.S., Arizona State University
Graduate Study: Northern Arizona University,
University of Arizona

WOLF, Grant L.* (1970-2003)
Music
B.S., M.A., Northern Arizona University

WOZNIAK, Matthew J. (1984-1996)
Physics
A.B., Dartmouth College;
M.S., Ph.D., University of Arizona
(MCCCD 1972)

YATES, Ronald D. (1964-1991)
Chairperson, English/Humanities/Journalism/Philosophy
B.A., M.A., Arizona State University
Graduate Study: University of Arizona, Claremont College, Arizona State University

YOUNG, William* (1966-1991)
Counseling
B.S., Lock Haven State College;
M.Ed., Ed.D., Pennsylvania State University
Graduate Study: Arizona State University

ZACHER, Olene C. (1969-1979)
Mathematics
A.B., M.A., University of Alabama;

Graduate Study: Arizona State University,
University of Southern California
(MCCCD 1959)

Retired Faculty and Administrators

ALCON, Mary (1975-1994)
Business
C.P.S., B.A., M.A., Arizona State University
Graduate Study: Arizona State University

AUTREY, Robert (1984-1992)
Chairperson, Business
B.B.A., Oklahoma University
(MCCCD 1977)

BACON, Uvonna* (1967-1983)
English
B.A., College of Idaho; M.A., University of Oregon
Graduate Study: Stanford University, Sorbonne,
University of Hawaii, San Jose State, University of California, University of Utah, Arizona State University, Northern Arizona University

BEALS, Arthur R.* (1965-1981)
Business
B.A., M.A., Arizona State University;
M.S., Brigham Young University
Graduate Study: Arizona State University,
Brigham Young University, University of Southern California
(MCCCD 1964)

BENSON, Gordon (1988-1998)
Senior Associate Dean of Student Services
B.A., B.S., Northwest State University;
M.S., Southern Illinois University

BORN, Jean S.* (1973-1992)
Chairperson, Library
B.S., University of Arizona;
M.A.L., University of Denver
Graduate Study: Arizona State University,
University of Arizona

BOTHWEL, Donald (1968-1987)
Music
B.M.E., Western Michigan University;
M.A., Arizona State University
Graduate Study: Arizona State University

BRADSHAW, Donald R. (1979-1992)
Dean of Administrative Services
B.A., Northern Arizona University;
M.A., Western State College
(MCCCD 1975)

BRAMOWETH, Ellen (1990-2005)
Nursing
B.S., University of Arizona;
M.S., Texas Woman's University
Graduate Study: Arizona State University

BRISTOL, Robert Frederick* (1967-1989)
Life Science
B.S., M.A., Ph.D., Arizona State University
Graduate Study: Arizona State University,
Mankato State College, University of Minnesota,
University of Texas, University of Massachusetts

CARRILLO, Philip J.* (1986-2008)
Chairperson, Reading
B.S., M.A., Northern Arizona University;
Ed.D., Arizona State University

CERVANTES, James (1992-2006)
English
B.A., University of Washington;
M.F.A., University of Iowa

CHRISTIAN, Rodney D. (1997-2007)
Business
B.S., M.S., Illinois State University
(MCCCD 1989)

CORNELL, Victor M. (1994-2005)
Mathematics
B.A., M.A., Arizona State University

CORNO, Gene (1966-1984)
Art
B.A., M.A., Arizona State University

CREWS, Terri (1987-2006)
Nursing
B.S.N., University of Texas;
M.S.N., Texas Women's University
Graduate Study: Texas Women's University

CROCKETT, Lynette (1996-2002)
English
B.A., Brigham Young University;
M.A., Northern Arizona University

DAANE, Jeanette (1973-1989)
Library
B.A., Rockford College;
M.S., Indiana University;
M.L.S., University of Hawaii;
M.A., Arizona State University

DEARTH, Sherman H. (1971-1983)
Business
A.A., Mesa College;
B.S., M.B.A., Arizona State University;
C.L.U., American College
Graduate Study: Arizona State University

DECKER, Clair R. (1981-1983)
Agriculture
B.S., M.Ag.Ed., University of Arizona
Graduate Study: Arizona State University,
University of Arizona
(MCCCD 1967)

DePRIEST, Jeanette* (1963-1979)
Cultural Science, English
B.A., Los Angeles State College, Riverside Library School;
M.A., Ed.D., Arizona State University
Visiting Scholar, Northwestern University

DUNN, Daniel A. (1985-2000)
Mathematics
B.A., M.N.S., Arizona State University

ELLIS, Don (1964-1983)
Social Science
B.A., M.A., Arizona State University
Graduate Study: Northern Arizona University;
University of California, Los Angeles;
Arizona State University

GARDETA-HEALEY, Maria (1987-2009)
World Language
B.A., M.A., Universidad Complutense, Madrid;
M.A., Universite de Sciences Humaines, Strasbourg;
M.A., Ph.D., Arizona State University

GARNESKI, Thomas M. (1976-1986)
Psychology
B.S., M.A., Ed.D., Arizona State University

GORDON, Barbara (1992-2003)
Counseling
B.A., Augsburg College;
M.C., Arizona State University

GRANT, Robert C. (1994-2004)

Mathematics
B.S., M.A., Central Michigan University

GROENKE, Lucille (1974-1987)
Mathematics
B.S., University of Wisconsin;
M.A., Arizona State University
Graduate Study: University of Southern California
(MCCCD 1968)

HARDAWAY, Gail (1998-2007)
English
B.A., Fairmont State College;
M.A., West Virginia University
(MCCCD 1990)

HARRIS, Patricia M.* (1990-2002)
Business
B.S., B.A., University of Phoenix
Graduate Study: Northern Arizona University,
Arizona State University

HARRISON, Geraldine B. (1986-2007)
Mathematics
B.S., Bennett College;
M.A.T.M., University of Detroit

HARTER, James H. (1986-2000)
Technology
A.A., El Camino Community College;
B.A., M.A., California State University at Long Beach

HEAP, Theo J. (1965-1983)
President
B.A., M.A., Arizona State University
Graduate Study: Arizona State University;
University of California, Los Angeles

HELLNER, Nancy (1992-2010)
English
B.A., M.S., Kearney State College;
Ph.D., Arizona State University

HERNANDEZ, Luis (1986-2007)
Business
A.S., Chaffey College;
B.S., California State Polytechnic University;
M.B.A., University of Southern California;
Graduate Study: Arizona State University, Universidad de Guadalajara, Mexico

HIGBEE, Mary Jeanne* (1968-1983)
English, Humanities
B.A., State University of Iowa;
M.A., University of Arizona
Graduate Study: University of Arizona, Arizona State University

HIGGINBOTHAM, Vernon L. (1967-1983)
Reading
B.A., Central Michigan University;
M.A., Arizona State University
Graduate Study: Northern Colorado University,
Arizona State University, University of Arizona,
Central Michigan University

HOAGLAND, Edith M. (1965-1977)
Nursing
Passavant Hospital School of Nursing, Jacksonville, Illinois; B.A., MacMurray College
Graduate Study: Arizona State University

HOOPER, Jeff* (1967-1983)
Business
B.S., McMurray College, Texas;
M.A., Sul Ross State College
Graduate Study: University of Texas, Texas Tech, University of Iowa, University of Arizona, Arizona State University

HURLEBAUS, William H. (1978-1983)
Counseling
B.S., Stanford University;

M.A., Arizona State University;
Ed.D., Arizona State University
Graduate Study: University of Southern California, University of California at Los Angeles, New York University, University of Arizona
(MCCCD 1966)

IKEDA, Masumi (1976-1989)
Business
B.S., University of Arizona;
M.S., California State University at Long Beach

INGLISH, Joyce* (1967-1983)
English
B.A., University of Colorado;
M.A., Ph.D., Arizona State University

JACKSON, Carvel (1968-1987)
Physical Education Athletic Director
B.S., M.S., Utah State University
Graduate Study: Arizona State University

JOHANSEN, Norman B.* (1978-1989)
Dean of Continuing Education
B.A., University of Northern Iowa;
M.A., University of Iowa;
Ed.D., University of Missouri
Management Certificate, Harvard University
(MCCCD 1976)

JOHNSON, Kenneth O.* (1966-1984)
Cultural Science
B.A., M.A., Bowling Green State University
Graduate Study: Our Lady of the Lake College,
University of Maryland, University of Denver,
University of Colorado, Jamestown State Teachers College, Arizona State University

KELLY, Doreen (2000-2010)
Mathematics
B.A., M.Ed., Arizona State University

KENNEDY, Glen (1997-2007)
Mathematics
B.S., M.S., Northern Arizona University

KINCAID, William Bradley (1990-2008)
Life Science
A.A., Big Bend Community College;
B.S., Western Washington University;
M.S., PhD., University of Houston
Graduate Study: Arizona State University

KYLE, Marjorie (1986-2007)
English
B.S., Oklahoma State University;
M.A., Ph.D., Arizona State University

LANDERS, Rosalie* (1967-1982)
Business
B.S., Northeastern Missouri Teachers College;
M.B.A., University of Denver
Graduate Study: Arizona State University

LANDON, Florence P. (1989-2005)
Library
B.A., Elmira College;
M.S., Bank Street College of Education;
M.L.S., State University of New York, Albany

LeROUX, Donna S. (1991-2004)
Nursing
B.Th., Northwestern Christian College;
M.Ed., Phillips University;
M.S.N., University of Texas

LOMBARD, A.J. (1992-2009)
Physical Science/Geology
B.S., M.A., Arizona State University

LUEDTKE, Donald V. (1983-1994)

Technology
B.S., Wayne State University;
M.S., Arizona State University

MAARSINGH, Wallace E. (1968-1986)
Life Science
B.S., Southern State College;
M.A., Arizona State University

MASSEY, Joan A. (1994-2009)
English
B.A., M.A., Arizona State University;
M.A., Northern Arizona University

MAY-UPDIKE, Katherine S. (1992-2008)
Communication
B.A., Arizona State University;
M.A., University of Phoenix
(MCCCD 1987)

McFALL, Sharon (1982-2000)
Business
B.A., Central Washington University

McINTOSH, Billie Jane (1979-1989)
Counseling
B.S., University of Tulsa, University of Arizona;
M.A., Northern Arizona University
Graduate Study: University of Colorado,
Arizona State University

McINTYRE, Ron L. (1979-1993)
Speech Communication/Telecommunication
A.A., Southern Utah State College;
B.A., M.A., Brigham Young University;
Ph.D., Ohio State University

MERRELL, Neil G. (1978-1996)
Social Science
B.A., M.A., Arizona State University
Graduate Study: Arizona State University,
Northern Arizona University, University of Arizona

MERTZ, Randall D. (1981-1999)
Business
B.S., St. John's University, New York;
M.A., State University of New York, Stony Brook
Graduate Study: Arizona State University

MILLER, Harold L. (1971-1989)
Physical Science
B.S., M.E., Oklahoma State University;
M.B.A., University of Southern California
Graduate Study: Arizona State University

MORRIS, Evelyn (1979-1996)
Business
B.A., M.A., Arizona State University

NAVARETTE, Efren (1971-1989)
Counseling
B.A., M.A., Arizona State University
Graduate Study: Arizona State University

NIELSEN, Leroy (1969-1985)
Technology
B.S., University of Minnesota;
M.A., Arizona State University

OREN, Mary Ann (1987-1993)
Nursing
Harper Hospital School of Nursing
B.S.N., M.S., Arizona State University

ORRANTIA, Gilbert D. (1967-1983)
Foreign Language
B.A., M.A., Arizona State University
Graduate Study: Arizona State University,
University of Valladolid

OWENS, Ross A. (1966-1983)
Business
B.A., M.A., Arizona State University
Graduate Study: University of California at Los Angeles, Arizona State University

PAINTER, Nathan E. (1968-1983)
Reading
B.A., M.A., Ed.D., Arizona State University

PAYNE, Gerald L. (1988-2007)
Mathematics
B.S., M.S., Michigan State University;
Ph.D., Arizona State University

PERKINS, Robert Eugene (1963-1982)
Technology
B.S., Wayne University;
M.A., University of Michigan
Graduate Study: Wayne University, University of Michigan, Arizona State University

PHILLIPS, Maurice A.* (1968-1977)
Director of Placement/Counseling
B.S., Florida Southern College;
B.D., Emory University;
M.A., Scarritt College;
Ed.S., Ed.D., Nashville University Center
(Scarritt College, George Peabody College for Teachers,
and Vanderbilt University)
Graduate Study: Arizona State University

PIERSON, Eugene L. (1977-1989)
Technology
B.A., Arizona State University

PRICE, Donis (1971-1986)
Psychology
B.A., M.A., Wichita State University;
Ph.D., Arizona State University

ROLLINS, Carl W. (1979-1983)
Counseling
B.S., M.A., University of Wyoming
Graduate Study: Brigham Young University,
Arizona State University
(MCCCD 1967)

ROWLEY, Gwen (1982-1996)
English
A.A., Mesa Community College;
B.A., M.A., Arizona State University
Graduate Study: Arizona State University

SALAZAR, David (1989-2008)
English
B.A., M.A., Arizona State University;
Ph.D., Washington State University
Graduate Study: University of California, San Diego

SCHREIBER, Edwin D. (1986-1998)
Life Science
B.S., M.A., George Peabody College
Graduate Study: University of Texas, Austin,
Arizona State University, New Mexico Highlands University

SEEK, Steven A. (1990-2009)
Reading
B.A., M.Ed., Arizona State University

SHELDON, Harriett E. (1965-1979)
English, Humanities
B.A., Grinnell College;
M.A., Arizona State University
Graduate Study: State University of Iowa,
Iowa State Teachers College, Arizona State University

SHIRLEY, Joseph C.* (1963-1973)
Social Science
A.B., Stanford University;

M.A., Arizona State University
Graduate Study: Arizona State University, Stanford University

SHOEMAKER, Donald V. (1976-1992)
Social Science
A.A., Pasadena City College;
B.A., New School for Social Research;
M.A., University of Texas at El Paso
Graduate Study: Pennsylvania State University

SILVA, Beverly (1991-2002)
English
B.A., M.A., San Jose State University

SISULAK, Dorothy L. (1984-2002)
English
B.S., M.A., Southern Illinois University
Graduate Study: Arizona State University

SLACK, Ben L.* (1964-1983)
Physical Science
B.S., Utah State University;
M.A., M.S., Arizona State University
Graduate Study: Arizona State University,
Bradley University, University of Colorado

SMITH, Van M. (1968-1980)
Technology
B.A., Arizona State University;
M.A., Northern Arizona University

STANLEY, Elna (1968-1985)
English
B.A., Grand Canyon College;
M.A., Arizona State University
Graduate Study: Arizona State University

STEARNS, Merwin M. (1970-1981)
Agriculture
B.S., M.S., Kansas State University
Graduate Study: Kansas State University,
Arizona State University, University of Arizona

SUGIYAMA, Kaoru Kaye, (1988-2002)
Chairperson, Library
B.A., M.A., San Francisco State College;
M.L.S., University of California, Berkeley
Graduate Study: Kyoto University; University of Colorado, Denver; University of Denver; Arizona State University

TEMPLETON, Charline (1989-1992)
Culture Science
B.A.Ed., M.A., Arizona State University
(MCCCD 1976)

TOMASI, Wayne F. (1985-1998)
Technology
B.S., Arizona State University
Graduate Study: Arizona State University

TURLEY, Inez* (1970-1983)
Social Science
B.A., Northern Arizona University;
M.A., Arizona State University

URDAHL, Olga T. (1965-1970)
Reading
B.A., Central Washington College of Education;
M.A., Arizona State University
Graduate Study: University of Washington,
Arizona State University

WAGONER, Ora M. (1994, 2001-2005)
Chairperson, Library
B.A., Spelman College;
M.L.S., University of Denver
(MCCCD 1988)

WARNE, Beverly M. (1990-2003)
Nursing
B.S.N., M.S.N., Arizona State University

WARREN, Evelyn* (1976-1984)
Home Economics
B.A., M.A., Arizona State University
Graduate Study: Arizona State University

WIGGS, Larry A. (1984-2007)
Business
B.S., M.B.A., Arizona State University
Graduate Study: Arizona State University

WILBURN, Zenobia (1971-1984)
Reading
B.S., Langston University;
M.A., Ed.S., Arizona State University
Graduate Study: Ohio State University

WOODS, Vance (1973-1983)
Business
B.S., M.A., Arizona State University
Graduate Study: Arizona State University
(MCCCD 1970)