It’s all at MCC.

Exceptional Value

Easy Transfers

Student Experience

Student Success

Career & Technical Education
Welcome to MCC

At MCC, we are dedicated to your success. Each year we initiate new projects designed to support and enhance your experience at MCC. I would like to share with you some of the resources that are being developed or are currently in place to support you in succeeding at MCC.

- One-stop Enrollment Center at the Southern and Dobson campus – Students at Southern and Dobson currently have to move from building-to-building to complete the enrollment process. We plan to change that in the next year with the creation of a new one-stop enrollment center on the east side of campus, by the Bookstore. Streamlining these services will add to your success from the moment you step onto campus, and provide the same experience our students at Red Mountain have enjoyed since it opened in 2001.

- Remodeled Spaces for Student Gathering – The Kirk Student Center at Southern and Dobson is undergoing a multi-phase renovation that will culminate with the placement of an atrium over the student services courtyard to join four separate buildings into one large space. At Red Mountain, the Student Life and Leadership office was expanded and remodeled to provide students with additional spaces to study or socialize.

- Online degrees – In fall 2012 MCC will host a team from the Higher Learning Commission, the agency that accredits our programs. Right now we offer a variety of classes online; after the visit we hope to be approved to offer online degrees and certificates to better serve our growing population of online students.

- Tutoring – In addition to face-to-face tutoring offered through the Learning Enhancement Center, MCC has extensive online tutoring available 24/7 through Smart Thinking. A link to Smart Thinking is available in our course management system, Canvas, or by visiting www.mesacc.edu/students/tutoring.

- MCC Website – Based on student and community feedback, MCC’s website was redesigned to provide easier access to programs, resources, and services. Try searching the following terms to learn about valuable resources for aiding in your success: Student Life, Service Learning, and Child Care.

Research has long shown that students who stay on campus between classes and become part of the campus life have higher success rates. MCC has much more to offer than I can include in a single letter. Find out what is happening at MCC by visiting our calendar, Facebook, and Twitter pages, take advantage of the many resources available to help you succeed, get to know your classmates and your professors, and, most of all, get involved! The ultimate measure of your success comes with the completion of your degree or certificate at MCC. Join community college students throughout the nation in making a commitment to complete your studies by signing the C4 wall (Community College Completion Corps), located in the AS building breezeway at the Southern and Dobson campus.

I wish you all the best in your academic endeavors.

Shouan Pan, Ph.D.
President, Mesa Community College
Getting Started at MCC

1. Set-up Online Student Account. Go to my.maricopa.edu
   • Click First Time Users Start Here
   • Follow instructions provided
   • Login
     • Click Login
     • Enter your Maricopa Enterprise ID (MEID)
     • Enter Password
     • Click Sign in
     • Click Student Center

2. Complete a Student Information Form (application)
   There are three ways you can do this:
   • Online – Visit my.maricopa.edu
   • In Person – Fill out the Student Information Form and take it to the Admissions Office at MCC Southern & Dobson Campus or to Enrollment Services at MCC Red Mountain Campus.
   • By Phone – Call 480.461.7700 or 1.866.532.4983.

3. Student Success Initiative: New-to-College Students
   The MCC Student Success Program includes Placement Testing, Academic Advising and Orientation. The Student Success Initiative is required if the following apply:
   • You are “new-to-college” with no prior college credits earned.
   • You are enrolling in 12 or more credit hours.
   • You are seeking a degree or intending to transfer to a university.
   Students who meet the conditions above also must complete the prescribed experiences in steps 4, 5 and 9.

4. Take Placement Tests
   You must take placement tests if you plan to enroll in English, math, reading or ESL classes.
   * New-to-college students must complete all three (3) assessment tests (Reading, English and Mathematics).
   Testing hours are:
   Monday – Thursday: 8:00 AM – 6:00 PM
   Friday: 8:00 AM – 4:00 PM
   Allow enough time to complete all testing.
   Testing hours may vary during semester breaks and summer. For additional information, call 480.461.7336 (Southern & Dobson) or 480.654.7600 (Red Mountain) or visit www.mc.maricopa.edu/testing/

5. Meet With an Academic Advisor
   Academic Advisors are available to assist you in educational goal-planning, selection of appropriate coursework and guidance in the use of campus resources. You are encouraged to meet with an Academic Advisor and use the resources found on the Advisement Center web pages. For more information, call 480.461.7222 at MCC Southern & Dobson Campus or 480.654.7600 at MCC Red Mountain Campus. Please visit www.mc.maricopa.edu/services/advisement/
   * New-to-college students must complete academic advising on campus, in person or by phone.

6. Register for Classes in Three Easy Ways
   • Online – Visit my.maricopa.edu
   • In Person – In the Records Office at MCC Southern & Dobson Campus, or Enrollment Services at MCC Red Mountain Campus.
   • By Phone – Call 480.461.7700 or 1.866.532.4983.

6a. To get started in an online class, go to www.mesacc.edu/mconline/current.htm

7. Pay Tuition and Fees
   You can pay your tuition and fees or enroll in the payment plan online by visiting your Student Center at www.my.maricopa.edu under Finances > Make a payment.
   Or pay by phone with your Visa, MasterCard, Discover Card or American Express by calling 480.461.7400, option 3.
   Payments can be brought to Cashier Services at the MCC Southern & Dobson Campus or MCC Red Mountain Campus, or dropped in the specially marked dropbox at either campus.

8. Obtain Parking Decal and Student Identification Card
   Please visit the Information Desk in the Kirk Student Center at MCC Southern & Dobson Campus or Enrollment Services at MCC Red Mountain Campus to get your Student ID. You will need your ID card to access library services, computer labs, fitness centers, tutoring and other services at MCC. If you plan to park on campus, a parking decal can be obtained at the same locations. Please visit www.mc.maricopa.edu/students/life/

9. Attend a New Student Orientation
   New Student Orientation is a program that introduces students to resources needed to navigate through college. Information about student and academic resources, campus involvement, university transfer, and career planning and preparation is included. New Student Orientations are held at the beginning of both the Fall and Spring semesters (August and January). Please visit our website at www.mc.maricopa.edu/orientation
   * New-to-college students must enroll in and complete the New Student Orientation session.

10. Tour Campus
    For tours at the MCC Southern & Dobson Campus or the MCC Red Mountain Campus, please call the Recruitment Office at 480.654.7751
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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: 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

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 of education in service learning and community engagement for the attainment of a vital citizenry.

The Community College National Center for Community Engagement is a national organization with a twenty-one year history of successfully developing and managing innovative partnerships and disseminating lessons learned throughout the higher education community. An outcome of the mission of the CCNCCE is to support and promote the pedagogy of service-learning, a teaching method which combines academic instruction with community service as it focuses on increasing college access and completion, academic achievement and engagement, critical and reflective thinking and civic responsibility.

CCNCCE offers a complete battery of services that provide human, financial, and academic resources to community colleges that are endeavoring to develop, expand and sustain service-learning and civic engagement programs on campuses throughout the US and U.S. Territories. www.mesacc.edu/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 fundraises and seeks contributions from public and private sources including individuals, corporations, organizations, and foundations. The Maricopa Community Colleges Foundation (MCCF) acts as a trustee to assure that donations are distributed in the manner specified by the donor. MCCF is a 501(c)(3) non-profit organization; gifts are tax-deductible to the fullest extent of the law.

Making a gift is as easy as visiting the website: www.mesacc.edu/development, where you will find helpful links for giving via cash, check, or credit card.

Installment gifts can be made over time, which is 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 specified time.

For more information, contact the MCC Office of Development at 480-461-7200 or visit www.mesacc.edu/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 (NFLLL) 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
• Studio Art Groups
• 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.
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STUDENT SUPPORT CONTACT NUMBERS

Admissions................................. 461-7600
Advisement/Transfer Registration 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
Children’s Center ......................... 461-7082
Community Education/Lifelong Learning .... 461-7493
Counseling .................................. 461-7588
Disability Resources and Services ....... 461-7447
Early Alert Referral System (EARS) ....... 461-7449
Enrollment Services at Red Mountain ... 654-7600
ESL Support Services ..................... 461-7898
Financial Aid ............................... 461-7441
Fitness Center .............................. 461-7555
Group Activity Center .................... 461-7578
Health Improvement Center ............. 461-7556
Information - MCC at Red Mountain ... 654-7200
Information - MCC at Southern and Dobson 461-7000
International Education .................. 461-7758
Learning Enhancement Center (Tutoring) 461-7678
Library Reference Desk ................... 461-7682
Lost and Found ............................. 461-7046
Multicultural Affairs & Student Success .... 461-7288
Multi-Use Computer Lab .................. 461-7098
Outreach & Recruitment .................. 461-7460
Public Safety .............................. 461-7046
Records .................................... 461-7659
Registration ............................... 461-7700
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 TRANSFER AND REGISTRATION SERVICES

Academic advisors assist students with educational goal planning, individual educational completion plans, 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 or through our online advisement services saonlineadvisors@mesacc.edu. Continuing students are encouraged to meet with an advisor each semester.

The registration team will assist students with self-enrollment, special registration functions and information regarding my.maricopa.edu.

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.

The Advisement and Registration Services office also implements the probation and continued probation provisions of the academic standards policies. Students who are on academic probation or continuing probation should meet with an academic advisor as soon as possible. Appointments are made by calling 480-461-7222 or in person at Building 38 at the Southern and Dobson campus and by calling 480-654-7600 for assistance 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 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

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’s degree, certificate 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.mesacc.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) www.accac.org/ 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 with a graduate date or G.E.D. on file in the Office of Student Records. 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.

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.

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 or visit our website at www.athletics.mesacc.edu

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 and new 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 Bookstore offers a textbook rental program as well as digital textbooks.

Visit www.rent-a-text.com for more details on our rental program.

Visit www.cafescribe.com for more details on our digital textbook program.

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 www.maricopa.edu/careers.
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 deadlines 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.mesacc.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.mesacc.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.mesacc.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 at several centers, including those especially designed for students taking developmental courses.

For more information about tutoring in specific areas, contact the department or the Learning Enhancement Center: 480-461-7678 Dobson & Southern or 480-654-7735 Red Mountain

Mathematics 480-461-7076
English 480-461-7643
Reading 480-461-7020

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.mesacc.edu/students/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 assistants, special testing arrangements, community referral, academic 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.mesacc.edu/students/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. Temporary 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.mesacc.edu/students/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.

EARLY ALERT REFERRAL SYSTEM (EARS)
Early Alert Referral System (EARS) at Mesa Community College is committed to the success of all our students. Numerous campus support services are available throughout your academic journey to assist you in achieving your education goals. MCC has adopted EARS as part of a student success program to aid students in their educational pursuits. Faculty and staff participate by alerting and referring students to campus services for added support. Students may receive a follow up contact from various campus services as a result of being referred to EARS. Connections to campus resources and services can be a great asset to students to having a successful semester. Students are encouraged to participate, but these services are optional.

Campus Resource information is available at EARS website: www.mesacc.edu/ears or on MCC’s homepage click on “Current Students” and then click “Services” EARS is listed and will additional information.

ENROLLMENT SERVICES AT RED MOUNTAIN
Enrollment Services at the Red Mountain campus 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 Student Support Services in the areas of: veterans, financial aid, career and disability resources. Call 480-654-7600 for more information or visit www.mesacc.edu/redmountain/

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.mesacc.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.

FITNESS CENTER (FC)
The Fitness Center at both Southern & Dobson and Red Mountain features both resistance and cardiovascular exercise equipment including: Cybex exercise equipment, dumbbells and core equipment, Precor cycles, Precor elliptical runners, recumbent bikes, stepmills, and treadmills. Use of this facility can provide students with a total body conditioning program based on their individual goals. For more information contact: Jim Haggerty, Southern and Dobson campus at 480.461.7556 or Devi Davis-Strong, Red Mountain campus at 480.654.7726.

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.

GROUP ACTIVITY CENTER (GAC)
The Group Activity Center (GAC) offers students flexible workout classes in a friendly personalized setting at both Southern & Dobson and Red Mountain. Both day and evening classes are available so student can create their own schedule. Pick up a GAC schedule of classes in any of the Lifetime Fitness facilities. Classes may include: Body sculpting, Boot camp, Cycling, Kick “n” Box circuit, Pilates matwork, Total Body Conditioning, Yoga, Zumba and other cardio and muscle conditioning classes. For more information contact Gail Herndon at 480-461-7578.

HEALTH IMPROVEMENT CENTER (HIC)
The Health Improvement Center (HIC) Southern & Dobson only. The HIC offers a workout experience in functional resistance training through the use of Freemotion exercise machines. Sorinex weight lifting platforms, free weights, and dumbbells. Cardio-respiratory fitness can be developed through the use of treadmills, stepmills, Precor elliptical runners and Precor cycles. For more information contact Jim Haggerty 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.

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
STUDENT SUPPORT

students. To view the Housing Guide, please visit www.collegeapartmentguides.com/mesa/

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 (IE)

Our Vision: To promote global awareness for our campus and community.

Our Mission: To develop a Global Center through study abroad programs, international student services, event programming, service excellence, and opportunities for internationalizing the campus with faculty partnerships to encourage global citizenship and student success.

The IE Office offers services for F-1 international students interested in studying at MCC, current international students, and American students interested in studying abroad. IE also serves as a resource for campus international and intercultural initiatives.

F-1 International Students

The International Education Office provides Admissions services to prospective F-1 students, and the following services to all continuing international students who need assistance with: academic and immigration advising, intercultural adjustment, health insurance, housing information, on and off campus employment opportunities, university transfer, changes of major, I-20 extensions etc. The office also provides support to the International Student Association club, and organizes cultural activities to enhance the cross-cultural understanding among the domestic and international students for the campus.

Study 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. The Coordinator of the program assists in selecting programs, the application process, scholarship and financial aid. 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.mesacc.edu/international/studyabroad/.

For additional information on the services provided by International Education, please call 201-461-7756, or email ie@mcmail.maricopa.edu if you are an international student, or studyabroad@mcmail.maricopa.edu if you are a student interested in studying abroad. We can also be found on the web at www.mesacc.edu/international.

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 a one-on-one and group tutoring with professional and peer tutors, online tutoring, 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/CSC Center (Building 7); the Physical Science Building Center (PS 100); and the PIRC Lab (Building 42). The Academic Skills Center (EF 1) provides tutoring and computer-assisted instruction for students taking Communication, English, English as a Second Language, and Reading courses below the 100-level. The Math Foundation Center (MS 113) provides tutoring and computer-assisted instruction for students taking mathematics courses up through MAT122.

On the Red Mountain Campus, the Learning Enhancement Center is located on the first floor of the Desert Willow Building. The Biology Center is located in building (S 154) at Red Mountain Campus.

Evening hours are available at many locations. Online tutoring through SMARTTHINKING is available for MCC students from the LEC website and the MyMCC portal. Tutoring in some subjects is available on a 24/7 basis. Other subjects have scheduled hours.

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. For more information about our services, call 480-461-7678 or 480-654-7735 (for the Red Mountain Campus) or visit www.mesacc.edu/library/LE
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 workstations are available on both the first and the second floors of the Paul A. Elsner Library on the Dobson and Southern campus. In these workstations, 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.

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.

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.mesacc.edu/students/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.mesacc.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.mesacc.edu/students/life or call 480-461-7285.
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.mesacc.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 or 480-461-6116 at the Downtown Center.

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 or areas designated for motorcycle parking. 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. Effective July 1, 2012, MCCCD becomes smoke-free. Smoking is not permitted anywhere on college property. 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 at the Public Safety 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.mesacc.edu/collegesafety/

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

RECORDS
The Office of Records maintains the official college
transcripts for all students, 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.mesacc.
.edu/students/admissions/

Transcripts are issued upon request only. See “There are Four
Ways to Request Transcripts” below.

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, student ID number, date of
birth, telephone number, dates of attendance at MCC,
oficial 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.mesacc.
edu/students/advisetransfer/transcripts
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
The primary goal of the Office of Student Outreach & Recruitment Services is to attract new students to Mesa Community College. This goal is accomplished through various activities including, but not limited to high school visits, school presentations, participation in college & career fairs, coordinated campus visits, college-wide open house and a written communication system (regular mailings). The student recruitment office is also responsible for providing support for departmental recruitment efforts. For more information, please call 480-461-7633.

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. A student may view their refund deadline 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.mesacc.edu/students/scholarships/

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.maricopa.edu/foundation/apply

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 480-461-7393 or visit www.mesacc.edu/academics/servicelearning/

SMOKE-FREE POLICY
Effective July 1, 2012, MCCCD becomes smoke-free. Smoking is not permitted anywhere on college property. Students failing to follow the smoking regulation after an appropriate warning will be reported to the Dean of Student Affairs.

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. The MCC Events Programming Council (EPC) assists in the creation of activities that 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.mesacc.edu/students/life

Bus Services Bus passes available at the MCC bookstore. Through the MCCD Travel Reduction Program, but subsidies are offered to students in the Office of Student Life and Leadership. To qualify for a student discount, at the time of purchase, the student must be enrolled in 12 or more credit hours. We offer 30-day passes. Semester passes are sold during the first few weeks prior to the start of the semester. For more information about the Maricopa Community College District reduced fair bus passes, please visit www.maricopa.edu/trip/busticket.php

The Valley Metro Bus is available for Dobson Road, north and southbound travel and Southern Avenue, east and westbound travel. Valley Metro bus service is also available to the Red Mountain campus. Bus route 184 (north and southbound power Road) stops at the circle between Mesquite and Desert Willow buildings.

For specific bus route information, obtain a Bus Book in the Student Life and Leadership information counter located in the Kirk Center or at the MCC Library. You can also refer to their website at www.valleymetro.org. ASU shuttle services are no longer offered.

Reduced Fares: Reduced local fares are also available for youth (ages 6-18), seniors (age 65 and older), persons with disabilities and Medicare cardholders.

Students should be ready to provide proof of eligibility upon boarding. Call the Valley Metro Customer Service at 602-253-5000 for information on how to apply for a Reduced Fare Certification Card.

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 weeklong 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.mesacc.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. The ASMCC Cabinet and Secretariat are appointed by the Executive Board. 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, Independent Senators and a voting representative from each recognized active MCC club or organization. The Senate meets weekly, 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.mesacc.edu/students/asmcc/

Dance In the MCC Dance Program, a student can choose from a variety of one-credit dance movement classes such as Ballet, Tap, Jazz, Modern, Hip Hop, Belly Dancing, Salsa, Swing, Ballroom, Flamenco and Improvisation. MCC also offers three-credit dance humanities lecture courses, such as Introduction to Dance, World Dance Studies and Dance in Popular Culture. Choreography and Rhythmic Theory for Dance classes are also available as lecture/movement classes. The MCC Dance Program gives beginning, intermediate and experienced dance students an opportunity to perform in an end of the year showcase. More experienced dancers can sign up to be in a formal dance production each semester. Non-audition classes are Dance Workshop and Tap Dance Ensemble. Membership in the MCC Dance Company is by audition only and requires Tuesday/Thursday 12:00-4:00 PM rehearsals in addition to technique class. For more information, please contact Tina Rangel at 480-461-7597, or email trangel@mesacc.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.athletics.mesacc.edu/

**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.mesacc.edu/its/ or by email at tss@mesacc.maricopa.edu or by phone at 480-461-7217.

**TESTING CENTER/PLACEMENT TESTING**

Students must submit a ‘Student Information 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 required 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.mesacc.edu/students/testing/

Placement testing is computer-based with no time limit. Allow enough time. The testing schedule hours may change during peak registration times and during the summer months. (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
  (closed on Fridays during Mid-May through end of July)
- 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.mesacc.edu/students/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
- Fridays: 8:00 AM – 4:00 PM
  (closed on Fridays during Mid-May through end of July)

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

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.mesacc.edu/programs/theatre-arts/

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.mesacc.edu/students/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 Fall/Spring 8:00 AM to 8:00 PM, Monday through Thursday, and from 8:00 AM to 4:00 PM on Friday; Summer Monday through Thursday 9:00 AM to 7:00 PM. 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.mesacc.edu/dept/d13/eng/writing_center
# Instructional Programs and Areas of Study

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Administration of Justice Studies

Burt Ouderkirk, Chairperson: 480-461-7142
Building SC 14
www.mesacc.edu/programs/departments/administration-of-justice

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
www.mesacc.edu/programs/departments/cultural-science

African-American Studies is one of the disciplines within the Cultural Science Department. The discipline provides students with the opportunity to learn about the histories, languages, cultures, arts, and contemporary situation of peoples of African-American descent. 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

Peter Conden, Program Director of Agribusiness and Urban Horticulture: 480-461-7125
Building TC 50
www.mesacc.edu/programs/urban-horticulture-agribusiness

The Agribusiness/Urban Horticulture 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
- 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 Applied Sciences 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, citrus orchard, deciduous fruit orchard, grape vineyard, experimental turf plots, AZMET weather station, and a community garden. Laboratory facilities include a soils lab, tissue culture lab, and computer lab for use by 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  
www.mesacc.edu/programs/departments/cultural-science

American Indian Studies is one of the disciplines within the Cultural Science Department. The discipline provides students with the opportunity to learn about the histories, languages, cultures, arts, and contemporary situations of American Indian nations and people. 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.mesacc.edu/programs/departments/cultural-science

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. There is an active student anthropology club that provides students the opportunity to participate in special field trips, activities, and guest speakers. 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  
- ASB114 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:

- ASB201 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  
- ASB235 Southwest Archaeology  
- ASB245 Indians of the Southwest
INSTRUCTIONAL PROGRAMS AND AREAS OF STUDY

Art

Sarah Capawana, Chairperson: 480-461-7524
Building AC 30
www.mesacc.edu/programs/departments/art-photography

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 I
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

Arabic

See World Languages

Architecture

Merzhad Khorsandi, Program Director: 480-461-7527
Building TC 50
www.mesacc.edu/programs/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.
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 Arts Photography
- Digital Arts Illustration
- Digital Arts Graphic Design
- Digital Arts 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/arts for the most recent information.

Astronomy
Mike Sims, Chairperson: 480-461-7015
Building PS
www.mesacc.edu/programs/departments/physical-science

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.mesacc.edu/programs/automotive-performance

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
Building BP 43A
www.mesacc.edu/programs/departments/business-information-systems

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)
- Food and Nutrition (FON)
- General Business (GBS)
- Hotel and Restaurant Management (HRM)
- International Business (IBS)
- Management (MGT)
INSTRUCTIONAL PROGRAMS AND AREAS OF STUDY

- 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 (BA3E)**
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

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**Chemistry**
Mike Sims, Chairperson: 480-461-7015
Building PS 8
www.mesaec.edu/programs/departments/physical-science

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
- CHM151LL General 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 II A and lab OR
- PHY121 University Physics I
- PHY131 University Physics II
Chicana/Chicano Studies
Shereen Lerner, Chairperson: 480-461-7793
Building SC 14
www.mesacc.edu/programs/departments/cultural-science

Chicana/Chicano Studies is one of the disciplines within the Cultural Science Department. The discipline provides students with the opportunity to learn about the histories, languages, cultures, arts, and contemporary situations of peoples of Mexican descent. Courses offered include:

- CCS101 Chicana and Chicano Studies
- CCS111 Introduction to Chicana and Chicano Culture
- CCS211 Chicano Culture and Health

Chinese
See World Languages

Communication
Susan Olson, Chairperson: 480-461-7793
Building AC 30
www.mesacc.edu/programs/departments/communication-theatre-arts-film

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 Sigma Chi Eta, is the undergraduate honor society for Communication majors.

Communication Activities and Events
The department sponsors student internships through Career Services. In addition, the Communication Activities program includes an intramural speech contest each semester entitled The Big Speak Out.

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.

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

If You Plan to Major in Speech Communication
All three Arizona public universities offer bachelor’s degree programs in this field:

<table>
<thead>
<tr>
<th>University</th>
<th>Degree Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASU</td>
<td>Communication</td>
</tr>
<tr>
<td>ASU West</td>
<td>Communication Studies</td>
</tr>
<tr>
<td>NAU</td>
<td>Speech Communication</td>
</tr>
<tr>
<td>UA</td>
<td>Communication</td>
</tr>
</tbody>
</table>

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


**INSTRUCTIONAL PROGRAMS AND AREAS OF STUDY**

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.

### Computer Information Systems

**Dr. Linda D. Collins**, Chairperson: 480-461-7077  
**David Harris**, BPC/OAS Program Director: 480-461-7304  
**Angeline Surber**, CIS Program Director: 480-461-7304  
**Derek Rushing**, CIS Program Director: 480-461-7304  
**Mark Anderson**, Network Academy Program Director: 480-461-6114  
**Network Academy, Downtown Center**  
**Building BP 43A**  
**www.mesacc.edu/programs/departments/business-information-systems**

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 Microsoft Office Specialist (MOS), IC3, and CIW Testing Facility.

Please see Network Academy for information on courses, certificates, and degrees in network administration and security.

The department has computer labs available for student use at the following campuses:

**MCC at Southern and Dobson Multi-use Lab (BA3E)**  
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

**Daphne Rossiter**, Chairperson: 480-461-7349  
**Building MC 5**  
**www.mesacc.edu/programs/departments/mathematics-computer-science**

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

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**Construction**

*Merzhad Khorsandi, Program Director: 480-461-7257*

**Building TC 50**

[www.mesacc.edu/programs/construction](http://www.mesacc.edu/programs/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**.

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**Counseling**

*Karen Hardin, Chairperson: 480-461-7588*

**Building 36**

[www.mesacc.edu/programs/departments/counseling](http://www.mesacc.edu/programs/departments/counseling)

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](http://az.transfer.org/cas/students)

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**Cultural Science**

*Shereen Lerner, Chairperson: 480-461-7306*

**Building SC 14**

[www.mesacc.edu/programs/departments/cultural-science](http://www.mesacc.edu/programs/departments/cultural-science)

The Cultural Science Department includes five disciplines:

- African American Studies
- American Indian Studies
- Anthropology
INSTRUCTIONAL PROGRAMS AND AREAS OF STUDY

- Chicano/a Studies
- Geography
- Geographic Information Systems
- Social Work
- Sociology
- Sustainability

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 other programs such as Ireland, Jordan, 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. 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.

The department is in the process of developing an Academic Certificate in Sustainability that would provide coursework that gives an interdisciplinary perspective to exploring and understanding the sustainability of human societies and the natural environment on which they depend.

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/programs/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 Arizona State University, Grand Canyon University, Ottawa University or University of Arizona.

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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAH100</td>
<td>Introduction to Dance</td>
</tr>
<tr>
<td>DAH201</td>
<td>World Dance Studies</td>
</tr>
<tr>
<td>DAH250</td>
<td>Dance in Popular Culture</td>
</tr>
<tr>
<td>DAN115AA</td>
<td>Contemporary Dance Trends: Hip Hop</td>
</tr>
<tr>
<td>DAN120AB</td>
<td>Flamenco</td>
</tr>
<tr>
<td>DAN120AK</td>
<td>Capoeira</td>
</tr>
<tr>
<td>DAN120AE</td>
<td>Middle Eastern (Belly) Dancing</td>
</tr>
<tr>
<td>DAN125</td>
<td>Social Dance</td>
</tr>
<tr>
<td>DAN125AC</td>
<td>Latin Ballroom</td>
</tr>
<tr>
<td>DAN129/130</td>
<td>Musical Theatre Dance I/II</td>
</tr>
<tr>
<td>DAN131/134/231/234</td>
<td>Ballet I/II/III/IV</td>
</tr>
<tr>
<td>DAN132/135/232/235</td>
<td>Modern Dance I/II/III/IV</td>
</tr>
<tr>
<td>DAN133/136/233/236</td>
<td>Modern Jazz Dance I/II/III/IV</td>
</tr>
<tr>
<td>DAN140/145</td>
<td>Tap Dance I/II</td>
</tr>
<tr>
<td>DAN141</td>
<td>Dance Workshop</td>
</tr>
<tr>
<td>DAN146</td>
<td>Tap Dance Ensemble</td>
</tr>
<tr>
<td>DAN150/155/250/255</td>
<td>Dance Performance I/II/III/IV</td>
</tr>
<tr>
<td>DAN164</td>
<td>Improvisation</td>
</tr>
</tbody>
</table>
DAN210 Dance Production  
DAN221/222 Rhythmic Theory for Dance I/II  
DAN264/265 Choreography I/II  
See Physical Education and Exercise Science

Dental
Debbie Holexa, Program Director: 480-654-7252
Red Mountain
www.mesacc.edu/programs/dental-hygiene

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.mesacc.edu/programs/drafting

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 Care & Education
Annapurna Ganesh, Program Director: 480-461-7305
Building ES 9, Office ES 107
www.mesacc.edu/programs/departments/education-studies
For additional information, See Education Studies

Economics
Paul Hietter, Chairperson: 480-461-7346
Building SC 14
www.mesacc.edu/programs/departments/social-science

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 (WP Carey-Business)
  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
  ECN211 Macroeconomics
  ECN212 Microeconomics

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 or Spanish Ed Emphasis) and NAU Teach (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

Course prefixes offered:
  CFS Child/Family Studies
  ECH Early Childhood
  EDU Education
  EED Early Education
  EPD Education Professional Development

For more information, contact the Education Studies Department at 480-461-7904.

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 Care & Education
Building ES 9, Office ES 107
www.mesacc.edu/programs/departments/education-studies

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.

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.mesacc.edu/programs/electronics-technology

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
- Communications
- Industrial
- Power
- Transportation
- Biotechnology
- Entertainment
- Medical
- Semiconductor

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.mesacc.edu/programs/engineering

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.
INSTRUCTIONAL PROGRAMS AND AREAS OF STUDY

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.mesacc.edu/programs/departments/english

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 and Literature (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 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. MCC’s English department hosts creative writing events and supports 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 the 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.mesacc.edu/programs/departments/exercise-science

All Exercise Science classes are located under the EXS prefix in the college catalog and when registering for classes. The Exercise Science program is the study of movement as it relates to physical activity, health and disease prevention, exercise, fitness and sport. The Exercise Science program prepares students for transfer into two degree pathways: Kinesiology, which draws from a body of knowledge in physiological, biological and psychological sciences in preparation for postgraduate careers in physical/occupational therapy, medicine, pharmacy, physician assistant, cardiac rehabilitation to name a few or in Exercise and Wellness, which provides students with knowledge and expertise in assisting individuals across the life span in adopting a more physically active lifestyle and healthy promotion/fitness programs, clinical/medical rehabilitation, community agencies and private health/fitness clubs and spas.

The Exercise Science field of study offers certifications and degrees to assist students in job acquisition or transfer to a four-year institution. Many of our academic courses are offered in a traditional classroom setting, as well, as, online or hybrid (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 at Mesa Community College: Maricopa-ASU Pathway Partnership (MAPP):
• Kinesiology – ASU Tempe
• Exercise and Wellness (Exercise and Wellness Concentration)

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
• Associate of Arts – emphasis Health Promotion
• Associate of Arts – emphasis Physical Education
• Associate of Arts – emphasis Athletic Training

Certifications:
• Strength & Conditioning and Personal Training Certificate
• Nutrition for Fitness and Wellness Professionals (Nutrition program offers this 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, focuses on the mechanical, neural, physiological and psychological mechanisms underlying human movement and consists of four sub-disciplines: Exercise Physiology, Motor Behavior, Biomechanics and Exercise and Health Psychology, which prepares students for post-baccalaureate degrees in Physical/Occupational Therapy, Medical School, Physician Assistant, Dentistry, Kinesiology or Chiropractic School.

ASU Downtown BS Kinesiology (See MAPP in Kinesiology)
NAU BS Athletic Training
NAU BS Exercise Science
GCU BS Exercise Science (emphasis Pre-Physical Therapy)
GCU BS Athletic Training

The following are transfer courses for Exercise Science/Kinesiology major at ASU Downtown:
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 & Wellness Concentration)

Exercise and Wellness Concentration focuses on physical activity and healthy lifestyle prescriptions, promotion and program design and delivery in a variety of fitness, community, worksite, organizational, and healthcare settings. Careers include worksite fitness programs, commercial fitness centers/multipurpose clubs, planned community fitness/recreation, hospital based fitness centers, college/university fitness and wellness, strength and conditioning coach, sports medicine clinics or graduate study in Physical Therapy, Medical School or Clinical Exercise Physiology. Also note that there is a Health Promotion Concentration in Exercise and Wellness, located under Health Science.
INSTRUCTIONAL PROGRAMS AND AREAS OF STUDY

ASU Downtown    BS Exercise and Wellness: (Exercise and Wellness concentration)
See MAPP in Exercise and Wellness: (Exercise and Wellness concentration)
Also see Exercise and Wellness: (Health Promotion Concentration) under Health Science
The following are transfer courses for the Exercise and Wellness: (Exercise and Wellness concentration) major at ASU Downtown:
EXS101    Introduction to Exercise Science, Kinesiology, and Physical Education
EXS212CR   Instructional Lab – Cardiorespiratory
EXS212FL   Instructional Lab – Flexibility and Mind/Body Exercises
EXS 212SC   Instructional Lab – Strength and Conditioning
HES100/WED110    Healthful Living or Principles of Fitness and Wellness
FON241    Principles of Human Nutrition
Suggested Electives: Most EXS, HES or WED prefix courses.

Fashion Design & Fashion Merchandising
Evonne Bowling, Program Director: 480-461-7140
Building TC 115
www.mesacc.edu/programs/fashion-merchandising-design
• 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/Emergency Medical Technology
Sonia Jones, Chairperson: 480-461-6300
Downtown Center
www.mesacc.edu/programs/departments/fire-science-emt

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 Leadership
- Fire Operations
- Paramedic

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 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.mesacc.edu/programs/geography

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 field trips, community outreach, study abroad, and international programs. MCC Geography partners with Arizona Audubon, Arizona Game and Fish Department, National Weather Service, AZ State Climate Office, Flood Control District of Maricopa County, National Park Service/Petrified Forest, and many other environmental, weather, and climate agencies to provide undergraduate research and internship opportunities.

For specific degree and certificate requirements, see Career and Technical Programs.
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
- CHM151/151 LL General Chemistry I and lab
- CHM152/152 LL 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

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**Health Sciences/Wellness**

Ann Stine, Chairperson: 480-461-7551
astine@mesacc.edu
Building ES 9

www.mesacc.edu/programs/departments/exercise-science

All Health Science classes are located under the HES prefix in the college catalog and when registering for classes. The Wellness classes can be found under the WED prefix in the college catalog and many of these courses focus on complimentary or alternative medicine curriculum. The Exercise and Wellness: Health Promotion concentration) focuses on establishing a foundational knowledge base for chronic disease prevention in the areas of nutrition, stress, physical activity, substance abuse. It prepares students in developing methods for promoting health behavior change and assessing group and community health needs by designing, implementing, administering and evaluating effective health promotion programs. Careers include worksite health promotion, government health departments and agencies, non-profit disease prevention agencies, planned community health promotion and recreation, healthcare organizations or graduate study in Public Health, Health promotion and education, Health psychology, Medical School.

The Health Science field of study provides degree programs that assist students in transferring to four-year institutions. Many of our academic courses are offered in traditional classroom settings, as well as, online or hybrid (a combination of both 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.

Pathways Offered:
- Maricopa-ASU Pathway Partnership (MAPP):
- Exercise and Wellness: (Health Promotion Concentration) – ASU Downtown
- Associate of Arts (AA):
- Associate of Arts: emphasis Health Promotion

**If You Plan to Major in Health Sciences/Health Promotion**

Health Promotion is the study of chronic disease prevention, lifestyle behaviors and patterns, assessing health needs and decision making and developing skills in designing,
implementing, administering and evaluation individual and community health programs. Careers include workplace and government health promotion agencies, as well as, non-profit, recreational and healthcare organizations.

ASU Downtown  BS  Exercise & Wellness: (Health Promotion Concentration)
NAU  BS  Health Sciences: Public Health

The following are transfer courses for the Exercise and Wellness: (Health Promotion Concentration) major at ASU Downtown:
FON241 Principles of Human Nutrition
HES100/WED110 Healthful Living/ Principles of Fitness and Wellness
HES154  First Aid/Cardiopulmonary Resuscitation
HES201  Substance Abuse and Behaviors

**Suggested Electives:** Some HES, WED and FON prefix courses.

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**History**

**Paul Hietter, Chairperson: 480-461-7346**

**Building SC 14**

[www.mesacc.edu/programs/departments/social-science](http://www.mesacc.edu/programs/departments/social-science)

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 1865
- **HIS104**  United States History, 1865 to Present

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**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.mesacc.edu/programs/interior-design](http://www.mesacc.edu/programs/interior-design)

Mesa Community College offers three levels of study in Interior Design: a certificate in Interior Merchandising, an AAS degree in Interior Design, and an Advanced Certificate in Interior Design. All student 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 (TC416)** – General computer lab. Open lab hours are posted.

The “id group” is a student club united by four active professional organizations: American Society of Interior Designers (ASID), International Interior Design Association (IIDA), International Furnishings and Design Association (IFDA), 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
Ann Tolzman, Chairperson: 480-461-7982
Elisabeth Rodriguez,
Program Director: 480-461-7404
Paul A. Elsner Library Administration
www.mesacc.edu/programs/departments/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
Andy Baldwin, Chairperson: 480-461-7978
Office NU170
Classrooms Building LS12
www.mesacc.edu/programs/departments/life-science

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 opportunities to grow environmentally friendly plants. Opportunities are available to learn how to develop organic, edible plants. 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.

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, Sustainability 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:

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<tr>
<th>University</th>
<th>Program</th>
<th>Description</th>
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<tbody>
<tr>
<td>UA</td>
<td>BS</td>
<td>General Biology</td>
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<tr>
<td>UA</td>
<td>BS</td>
<td>Microbiology</td>
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<td>UA</td>
<td>BS</td>
<td>Molecular and Cellular Biology</td>
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<tr>
<td>UA</td>
<td>BS</td>
<td>Health Sciences: Physiological Sciences</td>
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<tr>
<td>NAU</td>
<td>BS</td>
<td>Zoology</td>
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<tr>
<td>NAU</td>
<td>BS</td>
<td>Microbiology</td>
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<tr>
<td>NAU</td>
<td>BS</td>
<td>Zoology (Preprofessional)</td>
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<tr>
<td>NAU</td>
<td>BA</td>
<td>Biochemistry</td>
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<td>UA</td>
<td>BA</td>
<td>Ecology and Evolutionary Biology</td>
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<tr>
<td>UA</td>
<td>BS</td>
<td>Biochemistry</td>
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<td>UA</td>
<td>BS</td>
<td>Ecology and Evolutionary Biology</td>
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<tr>
<td>ASU</td>
<td>BS</td>
<td>Biology</td>
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<tr>
<td>ASU</td>
<td>BS</td>
<td>Conservation Biology</td>
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<tr>
<td>ASU</td>
<td>BS</td>
<td>Microbiology</td>
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<td>ASU</td>
<td>BS</td>
<td>Plant Biology</td>
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<td>ASU</td>
<td>BS</td>
<td>Molecular Biosciences and Biotechnology</td>
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<tr>
<td>ASU</td>
<td>BS</td>
<td>Biology with Concentration in Biology and Society</td>
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<tr>
<td>ASU West</td>
<td>BS</td>
<td>Life Sciences</td>
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<tr>
<td>NAU</td>
<td>BS</td>
<td>Biology (with emphases)</td>
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<tr>
<td>NAU</td>
<td>BS</td>
<td>Botany</td>
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<tr>
<td>NAU</td>
<td>BS</td>
<td>Microbiology</td>
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<td>NAU</td>
<td>BS</td>
<td>Microbiology (Preprofessional)</td>
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<td>NAU</td>
<td>BS</td>
<td>Zoology</td>
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<tr>
<td>NAU</td>
<td>BS</td>
<td>Zoology (Preprofessional)</td>
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<td>UA</td>
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<td>Biochemistry</td>
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<td>Ecology and Evolutionary Biology</td>
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<td>UA</td>
<td>BS</td>
<td>Ecology and Evolutionary Biology</td>
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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.mesacc.edu/programs/departments/applied-sciences-and-technology

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.mesacc.edu/programs/departments/applied-sciences-and-technology

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

Daphne Rossiter, Chairperson: 480-461-7349
Building MC 5
www.mesacc.edu/programs/departments/mathematics-computer-science

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
INSTRUCTIONAL PROGRAMS AND AREAS OF STUDY

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.mesacc.edu/programs/mortuary-science](http://www.mesacc.edu/programs/mortuary-science)

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](http://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**

<table>
<thead>
<tr>
<th>Class</th>
<th>Graduates/Enrollment</th>
<th>Pass Ratio-%</th>
<th>Licensure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996 - 97</td>
<td>18/18 100%</td>
<td>16/18 88.8%</td>
<td>11/16–69%</td>
</tr>
<tr>
<td>1997 - 98</td>
<td>34/34 100%</td>
<td>29/34 85.3%</td>
<td>26/29–90%</td>
</tr>
<tr>
<td>1998 - 99</td>
<td>30/30 100%</td>
<td>29/30 96.7%</td>
<td>23/29–80%</td>
</tr>
<tr>
<td>1999 - 00</td>
<td>22/22 100%</td>
<td>20/22 90.9%</td>
<td>20/20–100%</td>
</tr>
<tr>
<td>2000 - 01</td>
<td>14/14 100%</td>
<td>13/14 92.8%</td>
<td>10/13–77%</td>
</tr>
<tr>
<td>2001 - 02</td>
<td>17/20 85.0%</td>
<td>16/17 94.1%</td>
<td>17/17–100%</td>
</tr>
<tr>
<td>2002 - 03</td>
<td>21/21 100%</td>
<td>19/20 95.0%</td>
<td>16/20–80%</td>
</tr>
<tr>
<td>2003 - 04</td>
<td>29/3 93.5%</td>
<td>25/29 86.2%</td>
<td>28/29–97%</td>
</tr>
<tr>
<td>2004 - 05</td>
<td>16/21 76.1%</td>
<td>12/16 75%</td>
<td>16/16–100%</td>
</tr>
<tr>
<td>2005 - 06</td>
<td>24/25 96%</td>
<td>21/24 87.5%</td>
<td>21/24–88%</td>
</tr>
<tr>
<td>2006 - 07</td>
<td>21/22 95%</td>
<td>14/21 67%</td>
<td>19/21–92%</td>
</tr>
<tr>
<td>2007 - 08</td>
<td>22/29 75%</td>
<td>17/22 77%</td>
<td>22/29–75%</td>
</tr>
</tbody>
</table>

*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.mesacc.edu/programs/departments/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 (MTC)
- 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
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 www.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 HW8
www.mesacc.edu/programs/departments/nursing

The Nursing Department offers a wide range of courses and programs in:
• Nursing – Associate in Applied Science in Nursing
• Paramedic to Nurse Program
• Nurse Assisting Certificate of Completion
• Nurse Refresher Online Program
• Health Care Related
• Health Core Curriculum
• 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 email, phone, and onsite advisement for nursing in the Health Wellness building.

All nursing and pre-nursing students can join the Student Nursing Association. 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

K. Ann Stine, Chairperson
480-461-7551; Building ES 9
astine@mesacc.edu

www.mesacc.edu/programs/food-nutrition

Dr. Lori Zienkewicz, Registered Dietitian
480-461-7379; Office ES 102
loriz@mesacc.edu

Dr. Maureen Zimmerman, Registered Dietitian
480-461-7328; Office ES 101
zimmerman@mesacc.edu

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, healthy, 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.
   a. see MAPP (Dietetics) for ASU path
   b. see AA pathway for University of Arizona
3. MAPP transfer to ASU
   1. Human Nutrition
   2. Nutrition Communication
   3. Food Service Management
4. 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.)
5. 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
David Harris, OAS Program Director: 480-461-7304 dharris@mesacc.edu
See Computer Information Systems

Philosophy/Religious Studies
Debra Campbell, Chairperson: 480-461-7615
Building BP 43A
www.mesacc.edu/programs/departments/philosophy-religious-studies

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.
INSTRUCTIONAL PROGRAMS AND AREAS OF STUDY

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 monthly 3pm first and third Thursday (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.mesacc.edu/programs/departments/exercise-science

All Physical Education classes are located under the PED prefix in the college catalog or when registering for classes. The Physical Education program at Mesa Community College offers a wide variety of physical activity, leisure dance classes and outdoor recreational classes for your learning enjoyment, enhancement of physical performance, or improvement of physical fitness or health.

All physical education classes are categorized in the following manner:

PED101 Introductory or beginning skill level
PED102 Intermediate skill level
PED201 Advanced skill level

Followed by two-letter module that represents the activity being taught, for example a beginning level Boot Camp class would be identified as PED101BC. Find a list below of the wide range of 1-credit physical activity, leisure dance and outdoor recreation classes offered at Mesa Community College:

Aerobic Dance (AD) Aikido (AK)

PED115 Lifetime Fitness Center is a two-credit open entry/open exit strength and conditioning, group fitness (aerobics), and resistance training program which provides students to three workout facilities at the Southern and Dobson campus (Health Improvement Center, Fitness Center, and Group Activity Center) and two facilities at the Red Mountain campus (Fitness Center and Group Activity Center). PED115 offers population specific resistance training, cardiovascular training and strength and conditioning programs administered by college degreed professionals who are also Certified Personal Trainers or Strength and Conditioning Specialist through nationally accredited organizations.

PED120AF is a two credit only strength and conditioning class
PED124/125/224/225 are two credit Sport Performance Enhancement classes
PED133 is a two credit Olympic Style Lifting class
PED187 is a two credit adaptive physical education class for the Atypical student

All students must be high school age to enroll in any physical education class taught at Mesa Community College.

If You Plan to Major in Education with an Emphasis in Physical Education
Interested in a career in Education with an emphasis in Physical Education provides students curriculum that is based on teacher preparation courses in physical education, activity classes and teaching methodology preparing students to teach Physical Education from K through 12th grade. Opportunities exist to pursue a baccalaureate degree in this field of study.

ASU Polytechnic BAE Secondary Education: Physical Education
NAU BS Physical Education (Health minor)

The following are transfer courses for the Secondary Education: Physical Education degree at ASU:

HES100 Healthful Living
HES154 First Aid/CPR
EXS101 Introduction to Exercise Science, Kinesiology, and Physical Education
FON241 Principles of Human Nutrition

Suggested Electives:
Most EXS courses, some PED, HES, and WED courses.
Physical Science/Physics

Mike Sims, Chairperson: 480-461-7015
Building PS 8
www.mesacc.edu/programs/departments/physical-science

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:

<table>
<thead>
<tr>
<th>University</th>
<th>Degree</th>
<th>Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASU</td>
<td>BS</td>
<td>Physics</td>
</tr>
<tr>
<td>NAU</td>
<td>BS</td>
<td>Astronomy</td>
</tr>
<tr>
<td>NAU</td>
<td>Merged BS</td>
<td>Physics and Astronomy</td>
</tr>
<tr>
<td>NAU</td>
<td>Merged BS</td>
<td>Physics and Mathematics</td>
</tr>
<tr>
<td>UA</td>
<td>BS</td>
<td>Physics</td>
</tr>
<tr>
<td>UA</td>
<td>BS</td>
<td>Astronomy</td>
</tr>
<tr>
<td>UA</td>
<td>BS in Science Education Physics</td>
<td></td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 231</td>
<td>Calculus with Analytic Geometry II</td>
</tr>
<tr>
<td>MAT 241</td>
<td>Calculus with Analytic Geometry III</td>
</tr>
<tr>
<td>PHY 121</td>
<td>University Physics I</td>
</tr>
<tr>
<td>PHY 131</td>
<td>University Physics II</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>University</th>
<th>Degree</th>
<th>Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASU</td>
<td>BA</td>
<td>Political Science (Asian Studies)</td>
</tr>
<tr>
<td>ASU</td>
<td>BA</td>
<td>Political Science (Latin American Studies)</td>
</tr>
<tr>
<td>ASU</td>
<td>BS</td>
<td>Political Science</td>
</tr>
<tr>
<td>ASU</td>
<td>BA</td>
<td>Political Science</td>
</tr>
<tr>
<td>ASU West</td>
<td>BA</td>
<td>Social and Behavioral Science (Political Science)</td>
</tr>
<tr>
<td>ASU West</td>
<td>BS</td>
<td>Social and Behavioral Sciences (Political Science)</td>
</tr>
<tr>
<td>ASU West</td>
<td>BA</td>
<td>Political Science</td>
</tr>
<tr>
<td>ASU West</td>
<td>BS</td>
<td>Political Science</td>
</tr>
<tr>
<td>NAU</td>
<td>BA</td>
<td>International Affairs</td>
</tr>
<tr>
<td>NAU</td>
<td>BA</td>
<td>Political Science</td>
</tr>
<tr>
<td>NAU</td>
<td>BS</td>
<td>American Political Studies</td>
</tr>
<tr>
<td>NAU</td>
<td>BS</td>
<td>Political Science</td>
</tr>
<tr>
<td>UA</td>
<td>BA</td>
<td>Political Science</td>
</tr>
</tbody>
</table>

These three universities all require or accept the following courses for political science majors:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>POS 110</td>
<td>American National Government</td>
</tr>
<tr>
<td>POS 120</td>
<td>World Politics</td>
</tr>
<tr>
<td>POS 140</td>
<td>Comparative Government</td>
</tr>
<tr>
<td>POS 210</td>
<td>Political Ideologies</td>
</tr>
</tbody>
</table>

If You Plan to Major in Psychological Science

Ly Tran-Nguyen, Chairperson: 480-461-7925
Building BP 43A
www.mesacc.edu/programs/departments/psychological-science

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 main office at 480-461-7032 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 computer 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 several scholarships to students. 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.mesacc.edu/programs/departments/reading

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. 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.mesacc.edu/programs/recreation

The Recreation professions represent a diverse field focusing on the role of leisure in youth and adult development, of parks/open space to community quality of life, of leisure, sports and the natural resource of tourism to economic and community development, and providing human services in meeting community needs. These professional address challenges related to providing accessible leisure services, visitor opportunities, environmental quality of life, social problems and services to disadvantage populations.

The Parks and Recreation Management program prepares students for professional positions in a variety of public, private and nonprofit organizations. Career opportunities exist in such diverse settings as youth agencies, municipal park and recreation departments, county and state park agencies, tour operators, sport venues, commercial recreation, therapeutic recreation, hospitals, and special event management.

Recreation courses are offered in traditional classroom settings, as well as online or hybrid format (a combination of face-to-face classroom and online learning).

Pathways offered:
Maricopa-ASU Pathway Partnership (MAPP):
  • Parks and Recreation Management
  • Recreational Therapy
  • 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 provides an interdisciplinary education in the management of community-based recreation services, parks, protected areas, commercial recreation services, nonprofits and for profit organizations and tourism management. Opportunities exist to pursue a baccalaureate degree in this field of study.

ASU Downtown  BS  Parks and Recreation Management
  Recreational Therapy

ASU Downtown  BS  Nonprofit Leadership and Management

ASU Downtown  BS  Tourism Development and Management

NAU  BS  Parks and Recreation Management

The following are transfer courses for Recreation Management Majors at ASU Downtown 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, Chairperson: 480-461-7346
Building SC 14
www.mesacc.edu/programs/departments/social-science

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
Building SC
www.mesacc.edu/programs/social-work

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 students also have opportunities to visit the ASU Downtown School of Social Work and meet ASU Social Work Program advisors.

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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 MAPPSS/Alliance degree pathway, which requires a total of 60-64 credits. The MAPPSS/Alliance 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 volunteer 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 Counseling Addictions Among Diverse Families
- SWU220 Addictions and Mental Health
- SWU258 Victimology and Crisis Management
- SWU275AA Case Report Writing
- SWU282AA, AB, AC Service-Learning Experience Social Work

Sociology

Shereen Lerner, Chairperson: 480-461-7306
Mona Scott, Lead Sociology Faculty
Building SC 14
www.mesacc.edu/programs/sociology

The Field- Sociology is a cultural science dealing with the study of social life, social change and the social causes and consequences of human behavior. Sociology concerns itself with the social rules and processes that bind and separate people not only as individuals but as members of associations, groups and institutions.

Sociologists investigate the structure of groups, organizations and societies and how people interact within such contexts. Because all human behavior is social, the field of interest ranges from the analysis of short contacts between anonymous individuals on the street to the study of global social processes.

The Program- The primary purpose of the Sociology program at Mesa Community College is to provide concrete occasions and intellectual resources that can help students understand the social and cultural dimensions of human behavior.

Beyond The Classroom- The variety of skills that students gain through the Sociology program enable students to plug into many roles, such as clinicians (with further study) and researchers who implement the theory in day-to-day life. Students who major in Sociology find themselves in a variety of career fields including public administration, education, social work, business, politics, protocol and personnel work. Students with degrees in Sociology can also work in health and human services-related fields or in the criminal justice system. In addition, a number of graduates seek postgraduate degrees such as law, M.S.W. and M.B.A. degrees.

The Faculty- The Sociology department boasts a caring faculty who understand and work toward the uniqueness of each individual student. In addition to six full-time faculty members, the Sociology department is complemented by a number of adjunct professors. All faculty members in the department have practical experience.

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

Theatre Arts and Film
Susan Olson, Chairperson
Theatre Outback TH 29
www.mesacc.edu/programs/departments/communication-theatre-arts-film

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 Outreach, 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-Directors 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:

<table>
<thead>
<tr>
<th>University</th>
<th>Degree</th>
<th>Major</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASU</td>
<td>BA</td>
<td>Theatre</td>
</tr>
<tr>
<td>ASU West</td>
<td>BA</td>
<td>Interdisciplinary Arts and Performance</td>
</tr>
<tr>
<td>NAU</td>
<td>BA or BS</td>
<td>Theatre</td>
</tr>
<tr>
<td>UA</td>
<td>BFA or BA</td>
<td>Theatre Production/Theatre Arts</td>
</tr>
</tbody>
</table>

The three public Arizona universities all require the following courses for the theatre major:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>THP112</td>
<td>Acting I</td>
</tr>
<tr>
<td>THP212</td>
<td>Acting II</td>
</tr>
<tr>
<td>THP213</td>
<td>Introduction to Technical Theatre</td>
</tr>
<tr>
<td>THP217</td>
<td>Introduction to Design Scenography</td>
</tr>
<tr>
<td>THE220</td>
<td>Modern Drama (Dramatic Analysis)</td>
</tr>
</tbody>
</table>

Depending on the university you plan to transfer to, the following courses may also be recommended:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>THE111</td>
<td>Introduction to Theatre</td>
</tr>
<tr>
<td>THE118</td>
<td>Playwriting</td>
</tr>
<tr>
<td>THE205</td>
<td>Introduction to Cinema</td>
</tr>
<tr>
<td>THE206</td>
<td>Introduction to Television Arts</td>
</tr>
<tr>
<td>THE210</td>
<td>Contemporary Cinema</td>
</tr>
<tr>
<td>THP115</td>
<td>Theatre Make-up</td>
</tr>
<tr>
<td>THP131</td>
<td>Stage Movement</td>
</tr>
<tr>
<td>THP201AA</td>
<td>Theatre Production I</td>
</tr>
<tr>
<td>THP201AB</td>
<td>Theatre Production II</td>
</tr>
<tr>
<td>THP203</td>
<td>Technical Theatre Production</td>
</tr>
<tr>
<td>THP210</td>
<td>Acting: Television/Film</td>
</tr>
<tr>
<td>THP211</td>
<td>Creative Drama</td>
</tr>
<tr>
<td>THP214</td>
<td>Directing: Theatre Techniques</td>
</tr>
<tr>
<td>THP216</td>
<td>Beginning Stage Lighting</td>
</tr>
<tr>
<td>THP217</td>
<td>Introduction to Design Scenography</td>
</tr>
</tbody>
</table>
Veterinary Technology

Dr. Jill Sheport, Program Director: 480-461-7488
Building TC 50
www.mesacc.edu/programs/veterinary-technology

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.mesacc.edu/programs/welding-technology

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

Shereen Lerner, Chairperson: 480-461-7306
Building SC 14
www.mesacc.edu/programs/womens-studies

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.mesacc.edu/programs/departments/world-languages

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.
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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)

Example B:
- 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:
- Admitted & Earned Course Credit at a Public Community College or University – 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)

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)

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: Time Limit for Transfer Coursework

Students should be knowledgeable about the policies on time limits for transfer coursework for the institution to which they plan to transfer.
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.

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)-A, B, S**

Description: The Maricopa County Community College District Arizona General Education Curriculum (MCCCD AGECS) 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 AGECS transfers as a block without loss of credit.

In most cases, all courses used to satisfy the MCCCD AGECS will apply to graduation requirements of the university major for which the AGECS was designed.

For students planning to pursue an associate’s degree or transfer to an Arizona public community college or university, the AGECS-A is a component of the MCCCD Associate in Arts, the AGECS-B is a component of the MCCCD Associate in Business, and the AGECS-S is a component of the MCCCD Associate in Science.

**Purpose of the AGECSs**

There are three types of MCCCD AGECSs. They are the AGECS-A, the AGECS-B, and the AGECS-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 AGECs.

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/ecta
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: Recommend selecting a course that satisfies (L and SB) OR
   (L and HU) OR (L and COM), OR (L and CRE101) 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: Recommend selecting a course that satisfies (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: Recommend selecting a course that satisfies (L and SB) 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 AGE-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 AGE-B Mathematics Core area requires a course in Brief Calculus or a higher-level mathematics course.

Mathematics [MA] AGEC-S
The AGE-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 that 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 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 was issued is 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 (Eelective) 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/ccct. 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 [SQ] 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 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/ecta/
- 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.
GRADUATION POLICIES AND REQUIREMENTS

- 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/ecta. 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
      Recommend selecting 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) OR L (Literacy and Critical Inquiry) and COM or L (Literacy and Critical Inquiry) and CRE101 requirements simultaneously.
   c. Mathematical Studies [MA] 4
      To complete the Mathematical Studies requirement, select one course to satisfy Mathematics [MA] S.
   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]
   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 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

**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/ecta/
• 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
      1) MAT142 [MA] College Mathematics, or higher
(NotE: MAT150, MAT151, MAT152, MAT156 and MAT157 are excluded)
      AND
   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:
   EDU/ENH291 Children’s Literature
   ENH110 Introduction to Literature
   ENH241 American Literature Before 1860
   ENH242 American Literature After 1860
   HUM250 or HUM251 Ideas and Values in the Humanities
   THE111 Introduction to Theatre
   DAH100 Introduction to Dance
   DAH201 World Dance Studies
   MHL140 Survey of Music History
   MHL143 Music in World Cultures

2. MCCCDD 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 2 5 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:
      EDU220 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. Restricted Electives 7 Credits
      A total of 7 semester credits are required to satisfy the
      Restricted Electives.

      Courses must transfer to all public Arizona universities
      as Elective Credit, Departmental Elective, or Equivalent
      to a university course as indicated in the Arizona Course
      Equivalency Guide in effect when the course is taken.
      Courses identified as Non-transferable in the Arizona
      Course Equivalency Guide cannot be used to satisfy this
      requirement.

      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)
GRADUATION POLICIES AND REQUIREMENTS

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 (Eelective) 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/ctta/

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 Studies 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. MCCC 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 MCCC Additional Requirements because courses can satisfy a Core Area and MCCC 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

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### Academic Policies that Govern the Associate in Arts, Fine Arts – Art Degree

- 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 meet the graduation requirements of the university major for which the degree was awarded.

- 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, MCCC 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 Equivalency Guide.
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/ccct/ 

- 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/ccct/ 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.

1. 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 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 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
GRADUATION POLICIES AND REQUIREMENTS

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, MCCC 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/ctta/

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/ctta/ 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

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:
HUM/THE205 Introduction to Cinema 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.

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
GRADUATION POLICIES AND REQUIREMENTS

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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM/THP271</td>
<td>Voice and Diction</td>
<td>3</td>
</tr>
<tr>
<td>HUM/THE206</td>
<td>Introduction to Television Arts</td>
<td>3</td>
</tr>
<tr>
<td>HUM/THE210</td>
<td>Contemporary Cinema</td>
<td>3</td>
</tr>
<tr>
<td>THE118</td>
<td>Playwriting</td>
<td>3</td>
</tr>
<tr>
<td>THP120AA</td>
<td>Audition Techniques: Prepared Monologue</td>
<td>1</td>
</tr>
<tr>
<td>THP120AB</td>
<td>Audition Techniques: Cold Readings</td>
<td>1</td>
</tr>
<tr>
<td>THP130</td>
<td>Stage Combat OR</td>
<td></td>
</tr>
<tr>
<td>THP131</td>
<td>Stage Movement</td>
<td>3</td>
</tr>
<tr>
<td>THP210</td>
<td>Acting: TV/Film</td>
<td>3</td>
</tr>
<tr>
<td>THP211</td>
<td>Creative Drama</td>
<td>3</td>
</tr>
<tr>
<td>THP212</td>
<td>Acting II</td>
<td>3</td>
</tr>
<tr>
<td>THP214</td>
<td>Directing Techniques</td>
<td>3</td>
</tr>
<tr>
<td>THP216</td>
<td>Beginning Stage Lighting</td>
<td>3</td>
</tr>
<tr>
<td>THP217</td>
<td>Introduction to Design Scenography</td>
<td>3</td>
</tr>
<tr>
<td>THP219</td>
<td>Introduction to Puppetry</td>
<td>3</td>
</tr>
<tr>
<td>THP267</td>
<td>Painting Techniques for Film, TV/Theatre</td>
<td>3</td>
</tr>
</tbody>
</table>

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 Computer Information Systems should follow the ABus-GR pathway. Computer Information Systems majors should follow the Associate in Business Special Requirements pathway. Council Note: As the ABUS-GR is the recommended pathway for Accountancy majors, references to the TG-XR are recommended for removal.

   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
**GRADUATION POLICIES AND REQUIREMENTS**

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/ccct

- 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

<table>
<thead>
<tr>
<th>Core Areas</th>
<th>35 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. First-Year Composition (FYC)</td>
<td>6</td>
</tr>
<tr>
<td>b. Literacy and Critical Inquiry [L]</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course, requirement</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. First-Year Composition (FYC)</td>
<td>6</td>
</tr>
<tr>
<td>b. Literacy and Critical Inquiry [L]</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Mathematical Studies [MA/CS]</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>To complete the Mathematical Studies requirement select one course to satisfy Mathematics [MA] B and a second course from Computer/Statistics/Quantitative Applications [CS].</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) Mathematics [MA] B (3 credits)</td>
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<tr>
<td>MAT212, Brief Calculus, or a higher level mathematics course</td>
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<tr>
<td>AND</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Computers/Statistics/Quantitative Applications [CS] (3 credits)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIS105 [CS] Survey of Computer Information Systems</td>
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<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Humanities and Fine Arts [HU]</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students are encouraged to choose coursework from more than one discipline for a total of six semester credits.</td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Social and Behavioral Sciences [SB]</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students are encouraged to choose coursework from more than one discipline for a total of six semester credits.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Natural Sciences [SQ/SG]</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>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].</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students cannot take eight (8) semester credits of [SG] to meet the Natural Sciences requirement.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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]
GRADUATION POLICIES AND REQUIREMENTS

II. Common Lower Division Program Requirements 27 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
*MCCCD ACC250 or ACC211 may be taken in lieu of ACC111
Council Note: ACC250 is no longer an option
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)

*Students planning to attend ASU W.P. Carey will be required to take MAT217 or MAT218

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
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 Operating a Small Business
MKT271 Principles of Marketing
REA179 Real Estate Principles I
REA180 Real Estate Principles II
SBU200 Society and Business

**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 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. 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/
Council Note: The ABUS-SR is the recommended pathway for Accountancy majors, so references to TG-XR being removed.

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.
GRADUATION POLICIES AND REQUIREMENTS

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/cccta

Click on page labeled Curriculum
• Select Matrix of Courses that Can be Used to Satisfy MCCCD AGEC A, B and/or S.

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/QuantitativeApplications [CS]
   (3 credits)
   CIS105 [CS] Survey of Computer Information Systems
GRADUATION POLICIES AND REQUIREMENTS

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 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

Council Note: ACC250 is no longer an option.

*MC CCD 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 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;
GRADUATION POLICIES AND REQUIREMENTS

- 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;

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)

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

AJJ Administration of Justice Studies 205
AMS Automated Manufacturing System 150
ARC Architecture 243/244/245
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, 283)
CTR Court Reporting 101/102
DFT Drafting Technology 103/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/200DK
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
### GRADUATION POLICIES AND REQUIREMENTS

<table>
<thead>
<tr>
<th>Humanities and Fine Arts (9 credits)</th>
<th>Social and Behavioral Sciences (9 credits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students are encouraged to choose courses from more than one discipline.</td>
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</tr>
<tr>
<td>AIS American Indian Studies 213</td>
<td>AFR African American Studies 202</td>
</tr>
<tr>
<td>AJJ Administration of Justice Studies 123</td>
<td>AIS American Indian Studies 101/140/141/160/170</td>
</tr>
<tr>
<td>ARH Art Humanities Any ARH Course(s)</td>
<td>Administration of Justice Studies 101/119/162/200/225/258/259/270</td>
</tr>
<tr>
<td>CCS Chicana and Chicano Studies 101</td>
<td>ASM Anthropology 104/275</td>
</tr>
<tr>
<td>CNS Construction 101</td>
<td>CFS Child/Family Studies 157/159/176/205/235/259</td>
</tr>
<tr>
<td>COM Communication 241</td>
<td>COM Communication 100/100AA&amp;100AB&amp;100AC/110/110AA&amp;110AB&amp;110AC/163/230/250/263</td>
</tr>
<tr>
<td>DAI Dance Humanities 100/201/250</td>
<td>ECH Early Childhood Education 176</td>
</tr>
<tr>
<td>EDU Education 291/292/294</td>
<td>ECN Economics Any ECN Course(s)</td>
</tr>
<tr>
<td>ENG English 200/213/218</td>
<td>EDU Education 221/222</td>
</tr>
<tr>
<td>ENH English Humanities Any ENH Course(s)</td>
<td>FON Food and Nutrition 241&amp;241LL</td>
</tr>
<tr>
<td>FRE French 265</td>
<td>FOR Forensic Science 105/106</td>
</tr>
<tr>
<td>HCR Health Care Related 210</td>
<td>GLG Geology Any GLG course(s) (except 105)</td>
</tr>
<tr>
<td>HUM Humanities Any HUM Course(s) (EXCEPT 108/120/203/207)</td>
<td>PHS Physical Science 110/120</td>
</tr>
<tr>
<td>INT Interior Design 120/225</td>
<td>PHY Physics 101/101AA/111AA/111/112/115/116/121/131</td>
</tr>
<tr>
<td>LAT Latin 201/202</td>
<td>PSY Psychology 275/290AB/290AC</td>
</tr>
<tr>
<td>MHL Music/History/Literature 140/143/145/146/153/155/242</td>
<td>Literacy &amp; Critical Inquiry (3 credits)</td>
</tr>
<tr>
<td>PHI Philosophy Any PHI Course(s)</td>
<td>AIS American Indian Studies 213</td>
</tr>
<tr>
<td>REL Religious Studies Any REL Course(s) (EXCEPT 213/271)</td>
<td></td>
</tr>
</tbody>
</table>
BIO  Biology 294
COM  Communication 222/225/241
CRE  Critical Reading 101
CUL  Culinary Arts 223
ENG  English 111/200/215/216/217/218
ENH  English Humanities 254/255
GBS  General Business 233
GPH  Physical Geography 211
HUM  Humanities 225/250/251
IFS  Information Studies 101
JRN  Journalism 201/234
MCO  Mass Communications 220
PHI  Philosophy 103/106/218
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;

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)
### 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.

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIS</td>
<td>American Indian Studies 213</td>
</tr>
<tr>
<td>AIS</td>
<td>Administration of Justice Studies 123</td>
</tr>
<tr>
<td>ARH</td>
<td>Art Humanities Any ARH Course(s)</td>
</tr>
<tr>
<td>ASB</td>
<td>Anthropology 211/214/220/222/223/253</td>
</tr>
<tr>
<td>CCS</td>
<td>Chicanas and Chicano Studies 101</td>
</tr>
<tr>
<td>CNS</td>
<td>Construction 101</td>
</tr>
<tr>
<td>COM</td>
<td>Communication 241</td>
</tr>
<tr>
<td>DAH</td>
<td>Dance Humanities 100/201/250</td>
</tr>
<tr>
<td>EDU</td>
<td>Education 291/292/294</td>
</tr>
<tr>
<td>ENG</td>
<td>English 200/213/218</td>
</tr>
<tr>
<td>ENH</td>
<td>English Humanities Any ENH Course(s)</td>
</tr>
<tr>
<td>FRE</td>
<td>French 265</td>
</tr>
<tr>
<td>HCR</td>
<td>Health Care Related 210</td>
</tr>
<tr>
<td>HIS</td>
<td>History 101/102/103/108/111/113/114/243/253/254/275</td>
</tr>
<tr>
<td>HUM</td>
<td>Humanities Any HUM course(s) (EXCEPT 120/203/207/225)</td>
</tr>
<tr>
<td>INT</td>
<td>Interior Design 120/225</td>
</tr>
<tr>
<td>LAT</td>
<td>Latin 201/202</td>
</tr>
<tr>
<td>MHL</td>
<td>Music: History/Literature 140/143/145/146/153/155/242</td>
</tr>
<tr>
<td>PHI</td>
<td>Philosophy Any PHI Course(s)</td>
</tr>
<tr>
<td>REL</td>
<td>Religious Studies Any REL Course(s) (EXCEPT 271)</td>
</tr>
<tr>
<td>SLC</td>
<td>Studies in Language &amp; Culture 201</td>
</tr>
<tr>
<td>SPA</td>
<td>Spanish 241/242/265/266</td>
</tr>
<tr>
<td>SPS</td>
<td>Spanish Humanities 245</td>
</tr>
<tr>
<td>STO</td>
<td>Storytelling 292/294</td>
</tr>
<tr>
<td>THE</td>
<td>Theater 111/205/206/210</td>
</tr>
<tr>
<td>THP</td>
<td>Theater/Performance/Production 241</td>
</tr>
<tr>
<td>WST</td>
<td>Women’s Studies 209/284/285/290</td>
</tr>
</tbody>
</table>

**Social and Behavioral Sciences (3 credits)**

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

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
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<tbody>
<tr>
<td>AFR</td>
<td>African American Studies 202</td>
</tr>
<tr>
<td>AIS</td>
<td>American Indian Studies 101/140/141/160/170</td>
</tr>
<tr>
<td>AIS</td>
<td>Administration of Justice Studies 101/200/225/258/259/270</td>
</tr>
<tr>
<td>ASB</td>
<td>Anthropology 102/202/211/222/223/252</td>
</tr>
<tr>
<td>ASM</td>
<td>Anthropology 104/275</td>
</tr>
<tr>
<td>CFS</td>
<td>Child/Family Studies 157/159/176/205/235/259</td>
</tr>
<tr>
<td>COM</td>
<td>Communications 100/100AA&amp;100AB&amp;100AC/110/110AA&amp;110AB &amp; 110AC/ 163/230/250/263</td>
</tr>
<tr>
<td>ECH</td>
<td>Early Childhood Education 176</td>
</tr>
<tr>
<td>EBN</td>
<td>Economics Any EBN course(s)</td>
</tr>
<tr>
<td>EDU</td>
<td>Education 221/222</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGS</td>
<td>Agricultural Science 164</td>
</tr>
<tr>
<td>ASB</td>
<td>Anthropology (Soc/Behv Science) 231</td>
</tr>
<tr>
<td>ASM</td>
<td>Anthropology (Science/Math) 104/265</td>
</tr>
<tr>
<td>AST</td>
<td>Astronomy 101/102/111/112/113/114</td>
</tr>
<tr>
<td>FON</td>
<td>Food and Nutrition 241&amp;241LL</td>
</tr>
<tr>
<td>FOR</td>
<td>Forensic Science 105/106</td>
</tr>
<tr>
<td>GLG</td>
<td>Geology Any GLG course(s) (EXCEPT 105)</td>
</tr>
<tr>
<td>GPH</td>
<td>Physical Geography 111/112/113/211/212&amp;214/213/215</td>
</tr>
<tr>
<td>PHS</td>
<td>Physical Science 110/120</td>
</tr>
<tr>
<td>PHY</td>
<td>Physics 101/101AA/111/111AA/112/115/116/121/131</td>
</tr>
<tr>
<td>PSY</td>
<td>Psychology 275/290AB/290AC</td>
</tr>
<tr>
<td>EED</td>
<td>Early Education 200/205/222</td>
</tr>
<tr>
<td>EMT</td>
<td>Emergency Medical Technology 258</td>
</tr>
<tr>
<td>ENG</td>
<td>English 213</td>
</tr>
<tr>
<td>FOR</td>
<td>Forensic Science 275</td>
</tr>
<tr>
<td>FSC</td>
<td>Fire Science 258</td>
</tr>
<tr>
<td>FUS</td>
<td>Future Studies 101</td>
</tr>
<tr>
<td>GCU</td>
<td>Cultural Geography 102/121/122/141/221</td>
</tr>
<tr>
<td>HIS</td>
<td>Health Science 100</td>
</tr>
<tr>
<td>REL</td>
<td>History Any HIS course(s) (EXCEPT 111, 135, 170, 203, 251, 252)</td>
</tr>
<tr>
<td>IBS</td>
<td>International Business 109</td>
</tr>
<tr>
<td>MCO</td>
<td>Mass Communications 120</td>
</tr>
<tr>
<td>POS</td>
<td>Political Science Any POS course(s)</td>
</tr>
<tr>
<td>REC</td>
<td>Recreation 120</td>
</tr>
<tr>
<td>SBU</td>
<td>Society and Business 200</td>
</tr>
<tr>
<td>SLC</td>
<td>Studies in Language &amp; Culture 201</td>
</tr>
<tr>
<td>SOC</td>
<td>Sociology Any SOC course(s) (EXCEPT 143, 157, 245, 251, 253, 265, 270)</td>
</tr>
<tr>
<td>SWU</td>
<td>Social Work 102/171/258/292</td>
</tr>
<tr>
<td>WED</td>
<td>Wellness Education 110</td>
</tr>
<tr>
<td>WST</td>
<td>Women’s Studies 100/110/160/161</td>
</tr>
<tr>
<td>YAQ</td>
<td>Yaqui Indian History and Culture 100</td>
</tr>
</tbody>
</table>

**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.

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<td>Administration of Justice Studies 101/200/225/258/259/270</td>
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<td>CFS</td>
<td>Child/Family Studies 157/159/176/205/235/259</td>
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<td>COM</td>
<td>Communications 100/100AA&amp;100AB&amp;100AC/110/110AA&amp;110AB &amp; 110AC/ 163/230/250/263</td>
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</tr>
<tr>
<td>EDU</td>
<td>Education 221/222</td>
</tr>
</tbody>
</table>
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
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 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)**

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GLO298AA</td>
<td>Special Projects</td>
<td>1</td>
</tr>
</tbody>
</table>

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

**Track 4 – Science, Technology, and the World (9-10 credits)**

- ASB231 Introduction to Archaeological Field Methods
- ASM104 Bones, Stones, and Human Evolution
- BIO105 Environmental Biology
- BIO107 Introduction to Biotechnology
- CHM107 Chemistry and Society
- GLG110 Geological Disasters and the Environment
- GPH111 Introduction to Physical Geography
- +GPH210 Introduction to Environmental Geography
- PHS120 Introduction to Physical Science: Astronomy, Meteorology, Geology and Oceanography
- SOC180 Social Implications of Technology

**ACADEMIC CERTIFICATE IN CHILD AND FAMILY PROFESSIONAL DEVELOPMENT (16 CREDITS) MAJOR CODE: 6238**

The Academic Certificate (AC) in Child and Family Professional Development program is designed for practitioners in the early childhood, school-age, or home visitor field seeking coursework and portfolio/resource file assistance to meet a wide variety of national credentialing requirements (such as the Council for Professional Recognition CDA or the National Child Care Association CCP). Individuals completing this certificate will have fulfilled only the required training clock hours and resources file/portfolio prior to application to external credentialing organizations. Final credentialing assessment and award of the external credential is awarded by the external credentialing organization.

**Required Courses (16 credits)**

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECH253</td>
<td>National Credential Portfolio Development</td>
<td>3</td>
</tr>
</tbody>
</table>

**Academic Specialization:**

Students must complete one of the following blocks:

**Family Child Care**

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFS163</td>
<td>Family Child Care: Introduction to Business Management</td>
<td>3</td>
</tr>
<tr>
<td>CFS164</td>
<td>Family Child Care: Curriculum and Environment</td>
<td>3</td>
</tr>
<tr>
<td>EED205</td>
<td>The Developing Child: Prenatal to Age Eight</td>
<td>3</td>
</tr>
<tr>
<td>EED215</td>
<td>Early Learning: Health, Safety, Nutrition and Fitness</td>
<td>3</td>
</tr>
<tr>
<td>+EED260</td>
<td>Early Childhood Infant/Toddler Internship (1)</td>
<td>1</td>
</tr>
<tr>
<td>+EED261</td>
<td>Early Childhood Preschool Internship (1)</td>
<td>1</td>
</tr>
</tbody>
</table>

**Infant Toddler**

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECH205</td>
<td>The Developing Child: Prenatal to Age Eight</td>
<td>3</td>
</tr>
</tbody>
</table>
EED215 Early Learning: Health, Safety, Nutrition and Fitness 3
+EED260 Early Childhood Infant/Toddler Internship (1) OR
+EED261 Early Childhood Preschool Internship (1) 1
+ITD210 Early Attachments, Relationships, and Families: Birth to Age Three 3
+ITD220 Cognition and Communication: Birth to Age Three 3

**Preschool**
ECH128 Early Learning: Play and the Arts 3
EED205 The Developing Child: Prenatal to Age Eight 3
EED212 Guidance, Management and the Environment 3
EED215 Early Learning: Health, Safety, Nutrition and Fitness 3
+EED261 Early Childhood Preschool Internship 1

**Home Visitor**
CFS190 Home-Based Visitation 3
CFS205 Human Development 3
CFS220 Introduction to Parenting and Family Development 3
CFS225 Foundations of Parent Education 3
+FCS260 Family and Consumer Science Internship 1

**School Age**
CFS167 School-Age Child Care Provider 3
CFS/ECH176 Child Development 3
CFS206 Child and Family Organizations: Management and Administration 3
EED215 Early Learning: Health, Safety, Nutrition and Fitness 3
+FCS260 Family and Consumer Science Internship 1

**ACADEMIC CERTIFICATE IN LANGUAGE STUDIES (12-18 CREDITS) MAJOR CODE: 6237**
The Academic Certificate (AC) in Language Studies program is designed to provide students with a foundation in the study of culture, language, and linguistic structures. Students will have the opportunity to develop oral and written communication skills in a language other than English.

**Program Prerequisites (0-15 credits)**
201-level proficiency in a language other than English as indicated by assessment OR coursework 0-15

**Required Courses (6-8 credits)**
SLC201 Introduction to Linguistics 8
AND
Students must choose 3-5 credits in 202 or higher-level coursework in the language used to satisfy the program prerequisites 3-5

**Required Courses (6-10 credits)**
Students must choose two (2) courses from the list below. Prerequisites may not be used to satisfy the Restricted Electives.
+AFR/ASB202Ethnic Relations in the United States (3) OR
+SOC140 Racial and Ethnic Minorities (3) 3
+COM263 Elements of Intercultural Communication 3
+AHU+++ Any AHU Arabic Humanities course
+ARB+++ Any ARB Arabic course
+CHI+++ Any CHI Chinese course
+FLA+++ Any FLA Foreign Language Acquisition course
+FRE+++ Any FRE French course
+GER+++ Any GER German course
+GRK+++ Any GRK Greek course
+HBR+++ Any HBR Hebrew course
+HEB+++ Any HEB Hebrew course
+IPP+++ Any IPP Interpreter Preparation Program course
+ITA+++ Any ITA Italian course
+ITH+++ Any ITH Italian Humanities course
+JPN+++ Any JPN Japanese course
+LAT+++ Any LAT Latin course
+NAV+++ Any NAV Navajo course
+NVH+++ Any NVH Navajo Humanities course
+PIM+++ Any PIM Pima course
+POR+++ Any POR Portuguese course
+RUS+++ Any RUS Russian course
+SLC+++ Any SLC Studies in Language and Culture course
+SLG+++ Any SLG Sign Language course
+SPA+++ Any SPA Spanish course
+SPH+++ Any SPH Spanish Humanities course
+TRS+++ Any TRS Translation and Interpretation course

**ACADEMIC CERTIFICATE IN LANGUAGE AND LITERARY CULTURE OF THE USA (22-25 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 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 (13-16 credits)**
ENG101 First Year Composition (3) OR
ENG107 First-Year Composition for ESL (3) 3
ENG102 First Year Composition (3) OR
GRADUATION POLICIES AND REQUIREMENTS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG108</td>
<td>First Year Composition for ESL</td>
<td>3</td>
</tr>
<tr>
<td>+ENG109</td>
<td>Business Writing for ESL</td>
<td>OR</td>
</tr>
<tr>
<td>+ENG111</td>
<td>Technical and Professional Writing</td>
<td>3</td>
</tr>
<tr>
<td>ENH111</td>
<td>Literature and the American Experience</td>
<td>3</td>
</tr>
<tr>
<td>+CRE101</td>
<td>College Critical Reading</td>
<td>OR</td>
</tr>
<tr>
<td>Equivalent as indicated by assessment</td>
<td>0-3</td>
<td></td>
</tr>
<tr>
<td>+ENG298AA</td>
<td>Special Project</td>
<td>1</td>
</tr>
<tr>
<td>+Esl298AA</td>
<td>Special Project</td>
<td></td>
</tr>
</tbody>
</table>

**Required Courses (21 credits)**

- COM100 Introduction to Human Communication (3)
- 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)

- 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)
- ENG102 First Year Composition (3) OR
- ENG108 First Year Composition for ESL (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)

**ACADEMIC CERTIFICATE IN ORAL COMMUNICATION FLUENCY FOR NON-NATIVE ENGLISH SPEAKERS (15 CREDITS) MAJOR CODE: 6222**

The Academic Certificate (AC) in Oral Communication Fluency for Non-Native English Speakers is a concentrated 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 (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 (3 credits)**

Any approved General Education course in the cultural awareness [C] value (3)
GRADUATION POLICIES AND REQUIREMENTS

ACADEMIC CERTIFICATE IN ORAL COMMUNICATION COMPETENCE IN THE WORKPLACE (30-33 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 (18-21 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM110</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>+COM225</td>
<td>Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>+COM230</td>
<td>Small Group Communication</td>
<td>3</td>
</tr>
<tr>
<td>+COM282AC</td>
<td>Volunteerism for Speech Communication: A Service Learning Experience</td>
<td>3</td>
</tr>
<tr>
<td>CRE101</td>
<td>College Critical Reading (3) OR</td>
<td></td>
</tr>
<tr>
<td>ENG101</td>
<td>First-Year Composition (3) OR</td>
<td></td>
</tr>
<tr>
<td>ENG107</td>
<td>First-Year Composition for ESL (3)</td>
<td>3</td>
</tr>
<tr>
<td>ENG102</td>
<td>First-Year Composition (3) OR</td>
<td></td>
</tr>
<tr>
<td>ENG108</td>
<td>First-Year Composition for ESL (3)</td>
<td>3</td>
</tr>
</tbody>
</table>

Restricted Electives (9 credits)

If choosing BPC110 or CIS105 only one can be applied

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPC110</td>
<td>Computer Usage and Applications</td>
<td>3</td>
</tr>
<tr>
<td>CIS105</td>
<td>Survey of Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>+COM259</td>
<td>Communication in Business and Professions</td>
<td>3</td>
</tr>
<tr>
<td>COM263</td>
<td>Elements of Intercultural Communication</td>
<td>3</td>
</tr>
<tr>
<td>+ENG111</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>+GBS233</td>
<td>Business Communication</td>
<td>3</td>
</tr>
<tr>
<td>IBS109</td>
<td>Cultural Dimension for International Trade</td>
<td>3</td>
</tr>
<tr>
<td>+SWU292</td>
<td>Effective Helping in a Diverse World</td>
<td>3</td>
</tr>
</tbody>
</table>

Free Electives (3 credits)

Any approved General Education course in the Cultural Awareness [3] value (3) OR

COM+++++Any COM communication course except courses used to satisfy Required Courses or Restricted Elective area

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
CRW172 Introduction to Comic Book Writing 3
CRW180 Introduction to Writing Nonfiction 3
CRW190 Introduction to Screenwriting 3
THE118 Playwriting 3

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### Academic Certificate in Writing, Rhetoric, and Composition (10 Credits) Major Code: 6239

The Academic Certificate (AC) in Writing, Rhetoric, and Composition provides students with advanced instruction in the theory and practice of writing in a variety of rhetorical situations and multiple modalities. The certificate program will prepare students to write more effectively in both the workplace and higher education.

**Admission Criteria:** None

#### Program Prerequisites: (6 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ENG101</td>
<td>First-Year Composition (3) OR</td>
<td>3</td>
</tr>
<tr>
<td>+ENG107</td>
<td>First-Year Composition for ESL (3)</td>
<td>3</td>
</tr>
<tr>
<td>+ENG102</td>
<td>First-Year Composition (3) OR</td>
<td>3</td>
</tr>
<tr>
<td>+ENG108</td>
<td>First-Year Composition for ESL (3)</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Required Courses (4 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ENG270</td>
<td>Workplace Writing</td>
<td>3</td>
</tr>
<tr>
<td>+ENG297</td>
<td>Writing Program Portfolio</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Restricted Electives (4 credit)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ENG109</td>
<td>Business Writing for ESL</td>
<td>3</td>
</tr>
<tr>
<td>+ENG111</td>
<td>Technical and Professional Writing</td>
<td>3</td>
</tr>
<tr>
<td>+ENG213</td>
<td>Introduction to the Study of Language</td>
<td>3</td>
</tr>
<tr>
<td>+ENG215</td>
<td>Strategies of Academic Writing</td>
<td>3</td>
</tr>
<tr>
<td>+ENG216</td>
<td>Persuasive Writing on Public Issues</td>
<td>3</td>
</tr>
<tr>
<td>+ENG217</td>
<td>Personal and Exploratory Writing</td>
<td>3</td>
</tr>
<tr>
<td>+ENG218</td>
<td>Writing About Literature</td>
<td>3</td>
</tr>
<tr>
<td>+ENG219</td>
<td>Life Stories</td>
<td>3</td>
</tr>
<tr>
<td>ENG235</td>
<td>Magazine Article Writing</td>
<td>3</td>
</tr>
<tr>
<td>+ENG298++</td>
<td>Special Projects (any suffixed course) 1-3</td>
<td>3</td>
</tr>
</tbody>
</table>

### 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)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTC100</td>
<td>Fundamentals of Music (2) OR</td>
<td></td>
</tr>
<tr>
<td>MTC101</td>
<td>Introduction to Music Theory (3) OR</td>
<td>2-3</td>
</tr>
<tr>
<td></td>
<td>Permission of instructor</td>
<td></td>
</tr>
</tbody>
</table>

#### Required Courses (40 credits)

Students are required to complete a total of six (6) credits of MTC240.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>+ MTC105</td>
<td>Music Theory I</td>
<td>3</td>
</tr>
<tr>
<td>MTC106</td>
<td>Aural Perception I</td>
<td>1</td>
</tr>
<tr>
<td>+ MTC155</td>
<td>Music Theory II</td>
<td>3</td>
</tr>
<tr>
<td>MTC156</td>
<td>Aural Perception II</td>
<td>1</td>
</tr>
<tr>
<td>+ MTC205</td>
<td>Music Theory III</td>
<td>3</td>
</tr>
<tr>
<td>MTC206</td>
<td>Aural Perception III</td>
<td>1</td>
</tr>
<tr>
<td>+ MTC255</td>
<td>Music Theory IV</td>
<td>3</td>
</tr>
<tr>
<td>MTC256</td>
<td>Aural Perception IV</td>
<td>1</td>
</tr>
<tr>
<td>MTC191</td>
<td>Electronic Music I</td>
<td>3</td>
</tr>
<tr>
<td>+ MTC192</td>
<td>Electronic Music II</td>
<td>3</td>
</tr>
<tr>
<td>+ MTC193</td>
<td>Computer-Based Sound Synthesis</td>
<td>3</td>
</tr>
<tr>
<td>+ MTC240</td>
<td>Composition (3)</td>
<td>6</td>
</tr>
<tr>
<td>+ MTC291</td>
<td>Electronic Music III</td>
<td>3</td>
</tr>
</tbody>
</table>
GRADUATION POLICIES AND REQUIREMENTS

MUC195 Studio Music Recording I 3
+ MUC196 Studio Music Recording II (3) OR
MUC197 Live Sound Reinforcement I (3) 3

ACADEMIC CERTIFICATE IN SUSTAINABILITY (15-16 CREDITS) MAJOR CODE: 6240

The Academic Certificate (AC) in Sustainability is interdisciplinary that builds a strong academic expertise along one of four significant pillars of sustainability, where students will examine and assess how to minimize unintended consequences and enhance a mutually productive relationship between man and nature. The four pillars are organized into specialized tracks, including land use and human transformations of the earth, competition for water and other natural resources from the earth systems, political and economic treatment of the earth, and coupled human-environment interactions.

Required Courses (6 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>SSH111</td>
<td>Sustainable Cities</td>
<td>3</td>
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<tr>
<td>SUS110</td>
<td>Sustainable World</td>
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Restricted Electives (9-10 credits)

Students must select one (1) of the following four (4) tracks:

Credits 9-10

Track I: Earth Systems

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>AGS260</td>
<td>Origin and Composition of Soils</td>
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<td>AGS261</td>
<td>Soil Fertility and Management</td>
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<tr>
<td>BIO105</td>
<td>Environmental Biology</td>
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<tr>
<td>+BIO182</td>
<td>General Biology (Majors) II (4)</td>
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<tr>
<td>GLG101</td>
<td>Introduction to Geology-I Physical Lecture (3)</td>
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<tr>
<td>GLG103</td>
<td>Introduction to Geology-I Physical Lab (1)</td>
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<td>GLG110</td>
<td>Geological Disasters and the Environment</td>
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<tr>
<td>GLG111</td>
<td>Geological Disasters and the Environment Lab</td>
<td>1</td>
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<tr>
<td>GPH111</td>
<td>Introduction to Physical Geography</td>
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<tr>
<td>+GPH211</td>
<td>Landform Processes</td>
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<tr>
<td>GPH213</td>
<td>Introduction to Climatology (3) AND</td>
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<tr>
<td>+GPH215</td>
<td>Introduction to Climatology Laboratory (1)</td>
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Track II: Social, Political, Economic, Treatment of the Earth

<table>
<thead>
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<tr>
<td>ECN212</td>
<td>Microeconomic Principles</td>
<td>3</td>
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<tr>
<td>+ECN263</td>
<td>The Economics of Natural Resources, Population and the Environment</td>
<td>3</td>
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<tr>
<td>ENH206</td>
<td>Nature and Environmental Literature</td>
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<tr>
<td>GCU102</td>
<td>Introduction to Human Geography</td>
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<tr>
<td>GCU141</td>
<td>Introduction to Economic Geography</td>
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<tr>
<td>+HRM290</td>
<td>Ecotourism</td>
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<tr>
<td>PHI216</td>
<td>Environmental Ethics</td>
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</table>

ACADEMIC CERTIFICATE IN SUSTAINABILITY AND ECOLOGICAL LITERACY (16 CREDITS) MAJOR CODE: 6232

The Academic Certificate (AC) in in Sustainability and Ecological Literacy enhances students’ understanding of sustainable living practices associated with economics, equity and the environment. Through a combination of coursework and experiential learning, students engage in critical thinking, inquiry, and discourse, skills necessary for becoming socially responsible citizens who are ecologically and environmentally aware. The certificate is designed for, although not limited to, students seeking an Associate in Arts Degree and planning transfer to four-year colleges and universities.

Admission Criteria: None
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
AJS/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
AIS/ENH/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.

AGRICULTURAL PRODUCTION AND MANAGEMENT
Agribusiness MC
(See Agricultural Production and Management section 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 GW
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: Millwrighting GW
Construction Trades: Plastering and Cement Masonry GW
Construction Trades: Painting and Drywalling GW
<table>
<thead>
<tr>
<th>Program</th>
<th>Code</th>
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<tbody>
<tr>
<td>Construction Trades: Pre-Apprenticeship</td>
<td>GC, RS</td>
</tr>
<tr>
<td>Construction Trades: Sheet Metal</td>
<td>GW</td>
</tr>
<tr>
<td>Construction Trades: Electricity</td>
<td>GW</td>
</tr>
<tr>
<td>Construction Trades: Heat and Frost Insulation</td>
<td>GW</td>
</tr>
<tr>
<td>Construction Trades: Heavy Equipment Operations</td>
<td>GW</td>
</tr>
<tr>
<td>Construction Trades: Ironworking</td>
<td>GW</td>
</tr>
<tr>
<td>Construction Trades – Mechanical Trades: Heating, Ventilating and Air Conditioning</td>
<td>GW</td>
</tr>
<tr>
<td>Construction Trades – Mechanical Trades: Plumbing</td>
<td>GW</td>
</tr>
<tr>
<td>Construction Trades – Mechanical Trades: Pipefitting</td>
<td>GW</td>
</tr>
<tr>
<td>Construction Trades – Mechanical Trades: Sheet Metal</td>
<td>GW</td>
</tr>
<tr>
<td>Construction Trades: Concrete Form Builder</td>
<td>GW</td>
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<tr>
<td>Construction Trades: Pipe Trades – Pipefitting</td>
<td>GW</td>
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<tr>
<td>Construction Trades: Pipe Trades – Plumbing</td>
<td>GW</td>
</tr>
<tr>
<td>Power Plant Technology</td>
<td>GW, EM</td>
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<tr>
<td>Construction Trades: Pipe Trades – Steamfitting</td>
<td>GW</td>
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<tr>
<td>BUILDING AND CONSTRUCTION</td>
<td>MC</td>
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<tr>
<td>Architecture</td>
<td>MC</td>
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<tr>
<td>Architectural CAD Level III</td>
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<tr>
<td>Architectural Drafting CADD Level III</td>
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<tr>
<td>Architectural CAD Technology</td>
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<td>Architectural Technology</td>
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<td>Building Inspection</td>
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<td>Building Safety Technology</td>
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<tr>
<td>Civil Engineering Technology</td>
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<td>Construction</td>
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<td>Construction Drafting CADD Level III</td>
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<td>Construction Trades: Heavy Equipment Operations</td>
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<td>Construction Management</td>
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<td>Plan Review</td>
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<tr>
<td>Pre-Contractor Licensing</td>
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<tr>
<td>Residential Drafting CADD Level II</td>
<td>MC</td>
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<tr>
<td>Survey and Civil Drafting - CADD Level II</td>
<td>MC</td>
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<tr>
<td>Workforce Development: Carpenter Level I</td>
<td>RS</td>
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<tr>
<td>Workforce Development: Carpenter Level II</td>
<td>RS</td>
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<tr>
<td>Workforce Development: Furniture Construction/Refinishing Level I</td>
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<tr>
<td>Workforce Development: Furniture Construction/Refinishing Level II</td>
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<tr>
<td>ART, A/V TECHNOLOGY, AND COMMUNICATION</td>
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<td>Adolescent Development</td>
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<td>Adolescent Studies</td>
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<td>Adult Development and Aging</td>
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<td>Alteration Specialist</td>
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<td>Apparel Construction</td>
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<td>Costume Design and Production</td>
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<td>Costuming</td>
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<td>Family Development</td>
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<td>Family Life Education</td>
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<td>Family Support</td>
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<tr>
<td>Fashion Design</td>
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<tr>
<td>Fashion Design Level I</td>
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<tr>
<td>Fashion Design Level II</td>
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<tr>
<td>Fashion Illustration</td>
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<tr>
<td>Interior Merchandising</td>
<td>GC, MC, PC, EM</td>
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<tr>
<td>Interior Design</td>
<td>MC, PC, SC</td>
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<tr>
<td>Interior Design: Advanced</td>
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<tr>
<td>Interior Design: Professional Level</td>
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<td>Parent Education</td>
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<td>Pattern Design Level I</td>
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<td>MERCHANDISING</td>
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<tr>
<td>Fashion Merchandising</td>
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<tr>
<td>Fashion Merchandising &amp; Design</td>
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<tr>
<td>Image Consultant</td>
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<td>MUSIC</td>
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<td>Audio Production Technologies</td>
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<td>Beginning Piano Pedagogy</td>
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<td>Intermediate Piano Pedagogy</td>
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<td>Dance Technology</td>
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<td>Music Business</td>
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<td>COMMERCIAL ART/ADVERTISING ART</td>
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<tr>
<td>Computer Graphic Design</td>
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<td>Digital Media Arts</td>
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<td>Graphic Design: Visual Communication</td>
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<td>Journalism</td>
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<td>Workforce Development: Graphic Arts Level I</td>
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<tr>
<td>AEROSPACE AND AVIATION</td>
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<tr>
<td>Aircraft Maintenance Technology</td>
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<tr>
<td>Aircraft Maintenance Technology (Part 147)</td>
<td>CG</td>
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<tr>
<td>Airframe Maintenance (Part 147)</td>
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<tr>
<td>Airway Science Technology, Flight Emphasis</td>
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<td>Flight Technology</td>
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<td>Powerplant Maintenance (Part 147)</td>
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<td>BIOSCIENCE</td>
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<td>Biomedical Research Technology</td>
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<td>BUSINESS, MANAGEMENT, AND ADMINISTRATION</td>
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<tr>
<td>Accounting</td>
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<td>Accounting – Specialized Para-Professional</td>
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<td>Bookkeeping</td>
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<td>Software Quality Assurance</td>
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<td>(See Business Administration for additional programs and related areas)</td>
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<td>BUSINESS ADMINISTRATION</td>
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<td>Business</td>
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<td>Business (Fastrack)</td>
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<td>General Business</td>
<td>CG, GC, MC, PC, RS, SCC, SMC</td>
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<td>(See Management and Finance section for additional programs and related areas)</td>
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<td>International Business</td>
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<td>Management</td>
<td>PC, MC, SC</td>
</tr>
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<td>Management I</td>
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<tr>
<td>Management II</td>
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<td>Middle Management</td>
<td>GC, PV</td>
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<tr>
<td>Military Leadership</td>
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<td>Project Management</td>
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<td>Public Relations</td>
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<td>(See Middle Management section for additional programs and related areas)</td>
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<td>OFFICE OCCUPATIONS</td>
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<td>Administrative Office Professional</td>
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<td>Administrative Technology</td>
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<td>Business Technology Specialist</td>
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<td>Data Entry Clerk</td>
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<td>General Office Secretary</td>
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<td>Office Technology</td>
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<td>Paralegal Studies</td>
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<td>Report Writing: Broadcast Captioning</td>
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<td>Court Reporting: CART</td>
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<td>Court Reporting: Judicial</td>
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<td>Realtime Reporting Scoping</td>
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<td>Receptionist</td>
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<td>Management of Clinical Information Technology</td>
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<tr>
<td>Management of Clinical Information Technology: Health Information Technology Implementation Support</td>
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<td>Management of Clinical Information Technology</td>
<td>Health Information Technology Technical Support GW</td>
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<td>Management of Clinical Information Technology</td>
<td>Practice Workflow and Information Management Redesign GW</td>
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<tr>
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<td>Implementation Management GW</td>
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<td>Health Information Technology Training MC</td>
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<td>Automobile Insurance: Customer Service RS</td>
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<td>Automobile Policy: Customer Service RS</td>
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<td>Automobile Insurance Claims: Customer Service RS</td>
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<td>Broadband Telecommunications: Account Services RS</td>
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<td>Broadband Telecommunications: Field Operations RS</td>
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<td>Credit Counseling: Customer Service RS</td>
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<td>Customer Service Management EM</td>
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<td>Human Services-Assistance: Customer Service RS</td>
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<td>Human Services-Specialist: Customer Service RS</td>
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<td>Insurance-Customer Service RS</td>
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<td>Human Services - Unemployment Insurance: Customer Service RS</td>
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<td>Motor Vehicle: Customer Service RS</td>
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<td>Organizational Leadership</td>
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<td>Organizational Management</td>
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<td>Pharmacy: Customer Service SM</td>
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<td>Quality Customer Service RS</td>
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<td>Utilities Customer Service RS</td>
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<td>EDUCATION AND TRAINING</td>
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<tr>
<td></td>
<td>Early Childhood Education</td>
</tr>
<tr>
<td></td>
<td>Child and Family Organizations Management and Administration GC, RS</td>
</tr>
<tr>
<td></td>
<td>Child Development Associate (CDA) Preparation GC, PVC</td>
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<td></td>
<td>Curriculum for Young Children PC</td>
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<tr>
<td></td>
<td>Early Care Specialist MC</td>
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<td></td>
<td>Early Childhood Education and Administration PC</td>
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<td></td>
<td>Early Childhood Classroom Management PC</td>
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<tr>
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<td>Early Childhood Development SM</td>
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<td>Early Childhood Education PV, GC, MC</td>
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<td></td>
<td>Early Childhood Administration and Management GC, MCC, RSC, SM</td>
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<td></td>
<td>Early Learning and Development CG, MC, RS, SC</td>
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<td></td>
<td>Family Child Care Management SC, RSC</td>
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<td>Infant and Toddler Development SC</td>
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<td>WORKFORCE DEVELOPMENT</td>
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<td>Workforce Development and Community Re-Entry RS</td>
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<td>EDUCATION</td>
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<td>Gifted Education EM</td>
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<td>Reading Specialist Endorsement EM</td>
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<td>Teacher Assisting EM</td>
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<td>Foundations of Student Services EM</td>
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<td>LIBRARY MEDIA TECHNOLOGY</td>
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<td>Library Information Technology Advanced MC</td>
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<td>Library Information Technology: Basic MC</td>
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<td>Library Information Technology: Practitioners MC</td>
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<td>Library Information Technology: School Library Media Center MC</td>
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- Paralegal
- Legal Studies
- Law Enforcement Technology
- Law Enforcement Investigator
- Police Academy Preparation Level I
- Police Science
- Police Supervision
- Public Safety Technology
- Victimology

**FIRE SCIENCE**

- Driver Operator
- Emergency Management
- Emergency Response and Operations
- Fire Academy
- Fire Officer Leadership
- Fire Science
- Firefighter Operations
- Hazardous Materials Response

**SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS**

- Science and Lab Emphasis
- Science, Lab Emphasis
- Science
- Science: General

**TRANSPORTATION, DISTRIBUTION, AND LOGISTICS/AUTOMOTIVE TECHNOLOGY**

- Automotive Technology
- Automotive Chassis
- Automotive Drive Trains
- Automotive Electrical Systems
- Automotive Engines and Drive Trains
- Automotive Engine Performance Diagnosis & Air Conditioning
- Automotive Performance Technology
- Automotive Suspension, Steering and Brakes
- Automotive Technology
- Brakes, Alignment, Suspension and Steering
- Engine Performance and Diagnosis
- Transmissions and Power Trains
- Workforce Development: Automotive Technology Level I
- Workforce Development: Automotive Technology Level II

**ELECTRONICS/ELECTRICAL TECHNOLOGY**

- Automation Technology
- Automation Technology (Level II)
- Automation Technology (Level III)
- Computer and Networking Technology
- Electric Utility Technology
- Electric Utility Design Technology
- Electrical Technology
- Electromechanical Automation Technology
- Electronics Engineering Technology
- Electronics Technology
- Meter Technology
- Network Maintenance
- Workforce Development: Electrical Level I
- Workforce Development: Electrical Level II

**MARKETING, SALES, AND SERVICE**

- Marketing
- Marketing I
- Marketing II
- Salesmanship

**LAW, PUBLIC SAFETY, CORRECTIONS, AND SECURITY**

- Advanced Emergency Medical Technology (Paramedic)
- Community Emergency Response Team (CERT): Level I
- Emergency Medical Technology
- Emergency Communications and Deployment
- Fire Investigation

**ADMINISTRATION OF JUSTICE**

- Administration of Justice
- Administration of Justice-Comprehensive
- Administration of Justice-Fundamentals
- Administration of Justice Studies
- Advanced Corrections
- Basic Corrections
- Corrections

**ELECTRONICS/ELECTRICAL TECHNOLOGY**

- Automation Technology Level I
- Automation Technology Level II
- Automation Technology Level III
- Computer and Networking Technology
- Electric Utility Technology
- Electric Utility Design Technology
- Electrical Technology
- Electromechanical Automation Technology
- Electronics Engineering Technology
- Electronics Technology
- Meter Technology
- Network Maintenance
- Workforce Development: Electrical Level I
- Workforce Development: Electrical Level II

**MARKETING, SALES, AND SERVICE**

- Marketing
- Marketing I
- Marketing II
- Salesmanship

**LAW, PUBLIC SAFETY, CORRECTIONS, AND SECURITY**

- Advanced Emergency Medical Technology (Paramedic)
- Community Emergency Response Team (CERT): Level I
- Emergency Medical Technology
- Emergency Communications and Deployment
- Fire Investigation

**ADMINISTRATION OF JUSTICE**

- Administration of Justice
- Administration of Justice-Comprehensive
- Administration of Justice-Fundamentals
- Administration of Justice Studies
- Advanced Corrections
- Basic Corrections
- Corrections

College Acronyms/Name:
- CG: Chandler Gilbert Community College
- PC: Phoenix College
- EM: Estrella Mountain Community College
- PV: Paradise Valley Community College
- GC: Glendale Community College
- RS: Rio Salado College
- GW: GateWay Community College
- SC: Scottsdale Community College
- MC: Mesa Community College
- SM: South Mountain Community College
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Administration of Justice Studies Certificates/Degrees

• Associate in Applied Science in Administration 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: Burt Ouderkirk
Contact: (480) 461-7080

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: 3398 Total Credits: 65

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
ENGI07 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) 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
CAREER AND TECHNICAL PROGRAMS

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 a 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 Degree

- **Associate in Applied Science in Agribusiness**

Department Chairperson: Janice Pierson
Contact: (480) 461-7724
Program Director: Peter Conden
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-1980s 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, herdsman, 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 Area3
Social and Behavioral Sciences
ECN211  Macroeconomic Principles                3
Natural Sciences
CHM130  Fundamental Chemistry (3) AND CHM130LL Fundamental Chemistry Laboratory (1)  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

Department Chairperson: Bob Bonura
Contact: (480) 461-7173
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 Design 3
- 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 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
- BLT263 General Building Code 3
- CNS175 Working Drawing Analysis, Blueprint Reading 3
## CAREER AND TECHNICAL PROGRAMS

### Construction Management (Office Operation)
- **CNS201** Construction Management (Office Operation) 3

### Computer Aided Design and Drafting
- **CNS230** Computer Aided Design and Drafting II 3
- **CNS240** Computer Aided Design and Drafting III 3

### Introduction to Plan Review
- **CNS285** Introduction to Residential Plan Review 3
- **CNS286** Introduction to Commercial Plan Review 3

### Real Estate Principles
- **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

### Construction Management (Office Operation) Total Credits: 27

### Required Courses: Credits: 33
- **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
- **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
- **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)
BLT262 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

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: Bob Bonura
Contact: (480) 461-7173
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
# CAREER AND TECHNICAL PROGRAMS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>APT171</td>
<td>Automotive Air Conditioning</td>
<td>4</td>
</tr>
<tr>
<td>APT181</td>
<td>Engine Performance and Diagnosis I</td>
<td>6</td>
</tr>
<tr>
<td>+APT262</td>
<td>Automotive Electrical and Electronic Systems II</td>
<td>4</td>
</tr>
<tr>
<td>+APT282</td>
<td>Engine Performance and Diagnosis II</td>
<td>6</td>
</tr>
<tr>
<td>GTC107</td>
<td>Technical Mathematics I</td>
<td>3</td>
</tr>
</tbody>
</table>

Restricted Electives: Credits: 3
+AUT270++  | Automotive Technology                            | 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       |

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**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       |
- APT171   | Automotive Air Conditioning                      | 4       |
- GTC/MET107 | Technical Mathematics I                     | 3       |

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**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       |

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**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.
Biotechnology Certificates/Degrees

- Associate in Applied Science in Biotechnology
- Certificate of Completion in Biotechnology

Department Chairperson: Andy Baldwin
Contact: (480) 461-7978
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
### 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**
- **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**

#### 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 within the program.

**Required Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO181</td>
<td>4</td>
</tr>
<tr>
<td>BIO211AA</td>
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<td>BIO212AA</td>
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<td>BIO212AB</td>
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</tr>
<tr>
<td>BIO220</td>
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</tr>
<tr>
<td>+BIO240</td>
<td>4</td>
</tr>
<tr>
<td>+BIO249</td>
<td>1</td>
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<tr>
<td>CHM151</td>
<td>3</td>
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<tr>
<td>CHM151LL</td>
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<tr>
<td>+CHM152</td>
<td>3</td>
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<tr>
<td>+CHM152LL</td>
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</tr>
</tbody>
</table>

### 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:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
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<td>+CHM130</td>
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<tr>
<td>CHM130LL</td>
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<tr>
<td>MAT120</td>
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</tr>
<tr>
<td>MAT121</td>
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<tr>
<td>MAT122</td>
<td>4</td>
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**Required Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO181</td>
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<tr>
<td>BIO211AA</td>
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<td>BIO212AA</td>
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<td>BIO220</td>
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</tbody>
</table>

#### Department Chairperson: Linda Collins

**Contact:** (480) 461-7077
<table>
<thead>
<tr>
<th>Track I - Business Communication</th>
<th>Credits: 15</th>
</tr>
</thead>
<tbody>
<tr>
<td>OAS108 Business English</td>
<td>3</td>
</tr>
<tr>
<td>CSM/TQM101 Quality Customer Service</td>
<td>3</td>
</tr>
<tr>
<td>TQM240 Project Management in Quality Organizations</td>
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</table>

Restricted Electives: Credits: 8-16

Students must select one of the following tracks:

<table>
<thead>
<tr>
<th>Track II - Management</th>
<th>Credits: 16</th>
</tr>
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<tbody>
<tr>
<td>MGT147 Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT229 Management and Leadership I</td>
<td>3</td>
</tr>
<tr>
<td>MGT230 Management and Leadership II</td>
<td>3</td>
</tr>
<tr>
<td>MGT276 Personnel/Human Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>TQM230 Teamwork Dynamics</td>
<td>2</td>
</tr>
<tr>
<td>TQM235 Motivation, Evaluation, and Recognition Systems</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Track III - Marketing</th>
<th>Credits: 15</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKT101 Introduction to Public Relations</td>
<td>3</td>
</tr>
<tr>
<td>MKT263 Advertising Principles</td>
<td>3</td>
</tr>
<tr>
<td>MKT267 Principles of Salesmanship</td>
<td>3</td>
</tr>
<tr>
<td>MKT268 Merchandising</td>
<td>3</td>
</tr>
<tr>
<td>+MKT273 Marketing Research</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Track IV - Management Information Systems</th>
<th>Credits: 15</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS117DM Microsoft Access: Database Management</td>
<td>3</td>
</tr>
<tr>
<td>CIS150AB Object-Oriented Programming Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>+CIS159 Visual Basic Programming I</td>
<td>3</td>
</tr>
<tr>
<td>CIS250 Management of Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIS162AD C# Level I (3) OR +CIS259 Visual Basic Programming II (3)</td>
<td>3</td>
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<table>
<thead>
<tr>
<th>Track V - Real Estate</th>
<th>Credits: 15</th>
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<tbody>
<tr>
<td>REA179 Real Estate Principles I</td>
<td>3</td>
</tr>
<tr>
<td>REA180 Real Estate Principles II</td>
<td>3</td>
</tr>
<tr>
<td>REA282 Real Estate Finance (3) OR REA285 Real Estate Selling (3)</td>
<td>3</td>
</tr>
<tr>
<td>REA283 Property Management (3) OR REA270 Basic Appraisal Principles (2) AND REA273 Residential Market Analysis</td>
<td>3</td>
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<tr>
<td>REA278 Residential Appraiser Site Valuation and Cost Approach (1)</td>
<td>3</td>
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<tr>
<td>+REA288 Real Estate Investment Strategy (3) OR REA271 Basic Appraisal Procedure (2) AND REA274 Residential Appraiser Site Valuation and Cost Approach (1)</td>
<td>3</td>
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<table>
<thead>
<tr>
<th>Track VI - International Trade</th>
<th>Credits: 15</th>
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<tbody>
<tr>
<td>IBS109 Cultural Dimension for International Trade</td>
<td>3</td>
</tr>
<tr>
<td>+IBS116 Export/Import Management</td>
<td>3</td>
</tr>
<tr>
<td>+IBS118 International Marketing Management</td>
<td>3</td>
</tr>
<tr>
<td>+IBS123 U.S. Custom and Export Licensing Regulations</td>
<td>3</td>
</tr>
<tr>
<td>+IBS140 International Financial Management</td>
<td>3</td>
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<table>
<thead>
<tr>
<th>Track VII - Multimedia Technology</th>
<th>Credits: 15</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS108 Electronic Portfolio Development</td>
<td>1</td>
</tr>
<tr>
<td>CIS120DC Flash: Digital Animation</td>
<td>3</td>
</tr>
<tr>
<td>CIS120DK Introduction to Digital Video Editing</td>
<td>3</td>
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<tr>
<td>CIS/MMT140 Survey of Multimedia Technology</td>
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<tr>
<td>MTC/TCM120 Introduction to Sound Design for Film and Video</td>
<td>3</td>
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<table>
<thead>
<tr>
<th>Track VIII - Web Technology</th>
<th>Credits: 15</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS133DA Internet/Web Development Level I</td>
<td>3</td>
</tr>
<tr>
<td>+CIS233DA Internet/Web Development Level II</td>
<td>3</td>
</tr>
<tr>
<td>CIS233DC Internet Web Publishing: Dreamweaver</td>
<td>3</td>
</tr>
<tr>
<td>+CIS235 e-Commerce (3) OR CIS120DC Flash: Digital Animation (3)</td>
<td>3</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Track IX - Project Management</th>
<th>Credits: 14</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS224 Project Management Microsoft Project for Windows</td>
<td>3</td>
</tr>
<tr>
<td>+MGT242 Project Scope and Procurement Management</td>
<td>2</td>
</tr>
<tr>
<td>+MGT243 Project Time and Cost Management</td>
<td>2</td>
</tr>
<tr>
<td>+MGT244 Project Risk and Quality Management</td>
<td>2</td>
</tr>
<tr>
<td>+MGT245 Project, Human Resources and Communications Management</td>
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</tr>
<tr>
<td>+MGT246 Principles of Project Management</td>
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<table>
<thead>
<tr>
<th>Track X - Small Business</th>
<th>Credits: 13-14</th>
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<tbody>
<tr>
<td>+ACC115 Computerized Accounting</td>
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</tr>
<tr>
<td>CIS131AA Doing Business on the Internet</td>
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</tr>
<tr>
<td>CIS133CA Internet/Web Development Level I-C</td>
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<tr>
<td>EPS250 Introduction to Entrepreneurship (2) AND EPS295 The Business Plan for Business Start-Up (2) OR MGT253 Owning and Operating a Small Business (3)</td>
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<tr>
<td>SBS204 Small Business Marketing and Advertising</td>
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</tr>
<tr>
<td>SBS213 Hiring and Managing Employees</td>
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</tr>
<tr>
<td>SBS214 Small Business Customer Relations</td>
<td>1</td>
</tr>
</tbody>
</table>
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 Management 2
- 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
CIS224  Project Management Microsoft Project for Windows  3
+MGT242  Project Scope and Procurement Management  2
+MGT243  Project Time and Cost Management  2
+MGT244  Project Risk and Quality Management  2
+MGT245  Project Human Resources and Committee Management  2
+MGT246  Principles of Project Management  3

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
CIS114AE  Excel: Level I (1) AND
+CIS114BE  Excel: Level II (1) OR
CIS114DE  Excel Spreadsheet (3)  2-3
CIS117AM  Database Management:
+Microsoft Access-Level I (1) AND
+CIS117BM  Microsoft Access-Level II (1) OR
CIS117DM  Microsoft Access: Database Management (3)  2-3
CIS118AB  PowerPoint: Level I  1
+CIS118BB  PowerPoint: Level II  1
OAS135DK  Word: Level I  2

Restricted Electives: Credits: 3
BPC100AD  Computing Fundamentals  1
BPC100BD  Key Software Applications  1
BPC106CD  Living Online  1
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

+MGT242  Project Scope and Procurement Management  2
+MGT243  Project Time and Cost Management  2
+MGT244  Project Risk and Quality Management  2
+MGT245  Project Human Resources and Committee Management  2
## Restricted Electives: Credits: 6-7

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNT140AA</td>
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<td>MST150</td>
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<td>+BPC170</td>
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<td>CNT140AA</td>
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<tr>
<td>CNT140AA</td>
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</tr>
</tbody>
</table>

## Program Notes:
Students must earn a grade of “C” or better in all courses within the program.

## THE CERTIFICATE OF COMPLETION (CCL) IN TECHNOLOGY SUPPORT ANALYST

This certificate 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: 19-20**

**Program Notes:** Students must earn a grade of “C” or better for each course listed in the “Required Courses” area.

### Required Courses: Credits: 13

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIS105</td>
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<td>BPC170</td>
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<td>CNT140</td>
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<td>CST140AA</td>
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### Restricted Electives: Credits: 6-7

<table>
<thead>
<tr>
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<tbody>
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<td>+BPC270</td>
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</tr>
<tr>
<td>CIS121AH</td>
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</table>

### THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN RETAIL MANAGEMENT

This program 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. **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

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACC115</td>
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<td>BPC110</td>
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<td>BPC/OAS111AA</td>
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<tr>
<td>CIS121AE</td>
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<td>BPC123</td>
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<td>+CIS233BA</td>
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<tr>
<td>+OAS103AA</td>
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</table>

### THEASSOCIATE IN APPLIED SCIENCE (AAS) IN RETAIL MANAGEMENT

This program 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. **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

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
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<td>ACC111</td>
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<td>+GBS161</td>
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<td>GBS205</td>
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<td>MGT229</td>
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<td>MGT276</td>
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<td>MKT268</td>
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<tr>
<td>MKT271</td>
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</tbody>
</table>
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: 5291 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

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: 5291 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
+GIS233AB 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) OR
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 is designed to meet the needs of students who wish a broad overview of business and desire not to enroll in a specialized curriculum in business. The program is designed to acquaint students with major subject areas of business, to improve the student’s business vocabulary, and to provide students with an understanding of influencing factors in business decision making and activities. In addition, this program may aid a student in recognizing a specific business field to be pursued in future studies. 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
CIS114DE  Excel Spreadsheet  3
CIS117DM  Microsoft Access: Database Management  3
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
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 is designed to provide business training for various entry-level positions in business. The courses include an introduction to business concepts, accounting and computer principles, and legal issues related to business. An Associate in Applied Science (AAS) is also available.  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.
# Career and Technical Programs

**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

**CIS114DE** Excel Spreadsheet 3

**CIS117DM** Microsoft Access: Database Management 3

**CIS133DA** Internet/Web Development Level I 3

**THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN ORGANIZATIONAL MANAGEMENT** program 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:** 60

**Required Courses:** Credits: 18

**Certificate of Completion in Organizational Leadership (5731)18**

**Restricted Electives:** Credits: 19-25

Students must choose 19-25 industry/job specific course credits from any MCCCD occupational program and have them approved by a department chair.

Industry/job related course credits must include a minimum of 9 credits with a common subject or theme. Program of study must be approved by the business department chair or designee.

**General Education:** Credits: 22-27

**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 from the Oral Communication area. 3

**Critical Reading**

+CRE101 College Critical Reading (3) OR
Equivalent by assessment 0-3

**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:** 18

**Program Notes:** Students must earn a grade of “C” or better in all courses within the program.

**Required Courses:** Credits: 18

**BPC110** Computer Usage and 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
+ GBSS233 Business Communication 3
**MGT175** Business Organization and Management (3) OR
**TQM240** Project Management in Quality Organizations (3) 3
**MGT101** Techniques of Supervision (3) OR
**MGT229** Management and Leadership I (3) 3
Caterpillar Technician Training Certificates/Degrees

- **Associate in Applied Science in Caterpillar Technician Training**

Department Chairperson: Bob Bonura  
Contact: (480) 461-7173  
Program Director: Joe Rauscher  
Contact: (480) 461-7136

**THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN CATERPILLAR TECHNICIAN TRAINING** is based upon prepares students to use advanced technology to service and repair Caterpillar machines and equipment. Students become skilled in electronically controlled engines, sophisticated computer-based diagnosis, and state-of-the-art hydraulics and transmissions, as well as other high demand skills. The program combines general education curriculum, specialized technological coursework, and practical experience to prepare students to work in authorized Caterpillar service facilities.

**Major Code: 3005 Total Credits: 76**

Program Notes: Students must earn a grade of “C” or better in all courses within the program.

Program Prerequisites Courses: Credits: 3  
GTC107 Technology Mathematics  3

Required Courses: Credits: 55  
CTT110 Introduction to Caterpillar Service Industry  3  
CTT111 Caterpillar Engine Fundamentals  4  
CTT112 Hydraulic Fundamentals  3  
CTT113 Fuel Systems  3  
CTT114 Basic Electrical Fundamentals  3  
CTT115 Air Conditioning Fundamentals  3  
CTT116 Power Trains I  3  
+CTT117 Machine Hydraulic Systems  3  
+CTT118 Caterpillar Dealer Internship I  3  
+CTT119 Caterpillar Dealer internship II  3  
+CTT200 Power Trains II  3  
CTT201 Machine Electronics  3  
+CTT202 Engine Diagnostics and Repair  3  
CTT203 Machine Diagnostics  3  
CTT204 Machine Specific Systems  3  
+CTT205 Caterpillar Dealer Internship III  3  
+CTT206 Caterpillar Dealer Internship IV  3  
GTC129 Manufacturing Welding  3

General Education: Credits: 21-23  
First-Year Composition

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**Child and Family Studies Certificates/Degrees**

- **Associate in Applied Science in Early Learning and Development**

- **Certificate of Completion in Early Care Specialist**

- **Associate in Applied Science in Early Childhood Administration and Management**

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 LEARNING AND DEVELOPMENT** program is designed to prepare individuals to enter the workforce as Early Childhood Professionals and to assist individuals employed in the field to upgrade and expand their skills. The program emphasizes the roles of early care and education professionals, families and the wider society as they together meet the contemporary needs of young children. Course work includes the principles of developmental science, professionalism in early childhood work, philosophies and methods of early learning, and the impact of standards on practice. To apply planning, management and evaluation skills, students will observe, participate and intern in state licensed early childhood programs. **Major Code: 3357 Total Credits: 63-68**

Program Notes: Students must earn a grade of “C” or better in all courses within the program.
### Required Courses: Credits: 32

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ECH128</td>
<td>Early Learning: Play and the Arts</td>
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<tr>
<td>EED200</td>
<td>Foundations of Early Childhood Education</td>
<td>3</td>
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<tr>
<td>EED212</td>
<td>Guidance, Management and the Environment</td>
<td>3</td>
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<td>EED215</td>
<td>Early Learning: Health, Safety, Nutrition and Fitness</td>
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<tr>
<td>EED220</td>
<td>Child, Family, Community and Culture</td>
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<td>EED222</td>
<td>Introduction to the Exceptional Young Child: Birth to Age Eight</td>
<td>3</td>
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<tr>
<td>EED245</td>
<td>Early Learning: Language Acquisition and Literacy Development</td>
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<tr>
<td>+EED255</td>
<td>Portfolio Development and Writing for the Profession</td>
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<tr>
<td>+EED260</td>
<td>Early Childhood Infant/Toddler Internship</td>
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<td>+EED261</td>
<td>Early Childhood Preschool Internship</td>
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<tr>
<td>+EED278</td>
<td>Early Learning: Curriculum and Instruction-Birth/Preschool</td>
<td>3</td>
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<tr>
<td>+EED280</td>
<td>Standards, Observation and Assessment of Typical/Atypical Behaviors of Young Children Birth to Age Eight</td>
<td>3</td>
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</table>

### Restricted Electives: Credits: 9

Students must complete one of the following Blocks:

- **Block One: Infant and Toddler Development:**
  - ITD200 The Physical Child: Birth to Age Three 3
  - ITD210 Early Attachments, Relationships and Families: Birth to Age Three 3
  - ITD220 Cognition and Communication: Birth to Age Three 3

- **Block Two: Family Child Care Management:**
  - CFS163 Family Child Care: Introduction to Business Management 3
  - CFS164 Family Child Care: Curriculum and Environment 3
  - CFS207 Organization and Community Leadership in Child and Family Organizations 3

- **Block Three: Early Childhood Business Management:**
  - 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

- **Block Four: Any CFS, ECH, EED, ITD or FCS prefixed courses not listed in the Required Courses Area**
  - CFS+++++ Any CFS Child/Family Studies course(s) 1-9
  - ECH+++++ Any ECH Early Childhood Education course(s) except courses used to satisfy Required Courses area 1-9
  - EED+++++ Any EED Early Education course(s) except courses used to satisfy Required Courses area 1-9

### General Education: Credits: 22-27

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</table>
| 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) | 3        |
| CRE101      | College Critical Reading (3) OR Equivalent as indicated by assessment. | 3       |
| CFS163      | Child Development (3) OR  
EED205      | The Developing Child: Prenatal to Age Eight (3) OR  
CFS235      | Developing Child: Theory into Practice, Prenatal – Age 8 (3) | 3       |
| CFS164      | Family Child Care: Curriculum and Environment 3        |
| CFS207      | Organization and Community Leadership in Child and Family Organizations 3 |
| CFS208      | Child and Family Organizations: Fiscal Management and Grant Writing 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 |

### Total Credits: 29

Program Notes: Students must earn a grade of “C” or better in all courses within the program.

**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: 29**

Program Notes: Students must earn a grade of “C” or better in all courses within the program.

**Required Courses: Credits: 26**

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<tr>
<td>EED205</td>
<td>The Developing Child: Prenatal to Age Eight (3)</td>
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<td>ECH128</td>
<td>Early Learning: Play and the Arts</td>
<td>3</td>
</tr>
<tr>
<td>EED200</td>
<td>Foundations of Early Childhood Education</td>
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<td>EED212</td>
<td>Guidance, Management and the Environment</td>
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<tr>
<td>EED215</td>
<td>Early Learning: Health, Safety, Nutrition and Fitness</td>
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</tbody>
</table>

**Program Notes:** Students must earn a grade of “C” or better in all courses within the program.
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
- +EED265 Early Childhood Infant/Toddler Internship (1) OR
- +EED266 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

**Restricted Electives: Credits: 3**

Any 100/200 level CFS or ECH or EED prefixed courses may be selected, except courses used to satisfy the Required Courses area.

- +CFS+++++ Any CFS Child/Family Studies Course 3
- +ECH+++++ Any ECH Early Childhood Education Course3
- +EED+++++ Any EED Early Education Course (not in required core) 1-3
- +ITD+++++ Any ITD Infant/Toddler Development Course3

**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

**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
**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**
- **Associate in Applied Science in Programming and System Analysis**
- **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  
CIS105 Survey of Computer Information Systems  
CIS117DM Microsoft Access: Database Management (3) OR  
+CIS276DA MySQL Database (3) OR

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<tr>
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<th>Course Title</th>
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<tr>
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<td>Internet/Web Development Level I</td>
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<tr>
<td>CIS126DL</td>
<td>Linux Operating System (3) OR</td>
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</tr>
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<td>MST150+</td>
<td>Microsoft Windows (3)</td>
<td>3</td>
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<tr>
<td>+CIS150AB</td>
<td>Object-Oriented Programming Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>+CIS159</td>
<td>Visual Basic Programming I</td>
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</tr>
<tr>
<td>+CIS262AD</td>
<td>C#: Level I</td>
<td>3</td>
</tr>
<tr>
<td>+CIS163AA</td>
<td>Java Programming: Level I</td>
<td>3</td>
</tr>
<tr>
<td>+CIS166AA</td>
<td>Introduction to JavaScripting (3) OR</td>
<td>3</td>
</tr>
<tr>
<td>+CIS166AB</td>
<td>Web Scripting with Perl/CGI (3) OR</td>
<td>3</td>
</tr>
<tr>
<td>+CIS166AC</td>
<td>Web Scripting with (ASP),.NET (3) OR</td>
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</tr>
<tr>
<td>+CIS166AD</td>
<td>Web Scripting with (JSP) (3) OR</td>
<td>3</td>
</tr>
<tr>
<td>+CIS166AE</td>
<td>Web Scripting with (PHP) (3) OR</td>
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<tr>
<td>+CIS166AF</td>
<td>Web Scripting with Python (3)</td>
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<tr>
<td>+CIS259</td>
<td>Visual Basic Programming II</td>
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<tr>
<td>+CIS262AB</td>
<td>C++: Level II</td>
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<tr>
<td>+CIS262AD</td>
<td>C#: Level II</td>
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<tr>
<td>+CIS263AA</td>
<td>Java Programming: Level II</td>
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</tr>
<tr>
<td>CIS224</td>
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<tr>
<td>+CIS249</td>
<td>Software Testing for Quality Assurance</td>
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<tr>
<td>+CIS250</td>
<td>Management of Information Systems</td>
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<tr>
<td>+CIS190</td>
<td>Introduction to Local Area Networks (3) OR</td>
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<tr>
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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 | 3 |
COM110 Interpersonal Communication (3) OR | 3 |
COM225 Public Speaking (3) OR | 3 |
COM230 Small Group Communication (3) | 3 |
Critical Reading  
Required Program Prerequisites: 0  
Mathematics  
MAT120 Intermediate Algebra (5) OR | 3-5 |
MAT121 Intermediate Algebra (4) OR | 3-5 |
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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
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<td></td>
<td><strong>THE CERTIFICATE OF COMPLETION (CCL) IN COMPUTER PROGRAMMING</strong> 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. <strong>Major Code:</strong> 5207 Total Credits: 30</td>
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Program Notes: Students must earn a grade of “C” or better for all courses required within the program.

#### Required Courses: Credits: 24

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<td>Microsoft Access: Database Management</td>
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</tr>
<tr>
<td>+CIS276DA</td>
<td>MySQL Database</td>
<td>3</td>
</tr>
<tr>
<td>+CIS276DB</td>
<td>SQL Server Database</td>
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<tr>
<td>+CIS276DC</td>
<td>Oracle Database</td>
<td>3</td>
</tr>
<tr>
<td>CIS133DA</td>
<td>Internet/Web Development Level I</td>
<td>3</td>
</tr>
<tr>
<td>CIS126DL</td>
<td>Linux Operating System</td>
<td>3</td>
</tr>
<tr>
<td>MST150++</td>
<td>Microsoft Windows</td>
<td>3</td>
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<tr>
<td>+CIS150AB</td>
<td>Object-Oriented Programming Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>+CIS159</td>
<td>Visual Basic Programming I</td>
<td>3</td>
</tr>
<tr>
<td>+CIS162AD</td>
<td>C#: Level I</td>
<td>3</td>
</tr>
<tr>
<td>+CIS163AA</td>
<td>Java Programming: Level I</td>
<td>3</td>
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#### Restricted Electives: Credits: 6

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<td>C++: Level I</td>
<td>3</td>
</tr>
<tr>
<td>+CIS166AA</td>
<td>Introduction to JavaScripting</td>
<td>3</td>
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<td>+CIS259</td>
<td>Visual Basic Programming II</td>
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<tr>
<td>+CIS262AB</td>
<td>C++: Level II</td>
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<tr>
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<tr>
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<td>Java Programming: Level II</td>
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<tr>
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<td>+CIS250</td>
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<tr>
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<tr>
<td>CNT140AA</td>
<td>Cisco Networking Fundamentals (4)</td>
<td>3</td>
</tr>
<tr>
<td>+MST140</td>
<td>Microsoft Networking Essentials (3)</td>
<td>3-4</td>
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</tbody>
</table>

### THE CERTIFICATE OF COMPLETION (CCL) IN SOFTWARE QUALITY ASSURANCE

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

<table>
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<td>CIS159</td>
<td>Visual Basic Programming I</td>
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<tr>
<td>CIS162AB</td>
<td>C++: Level I</td>
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</tr>
<tr>
<td>CIS162AD</td>
<td>C#: Level I</td>
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</tr>
<tr>
<td>CIS163AA</td>
<td>Java Programming: Level I</td>
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#### Required Courses: Credits: 12

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<tr>
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<th>Course Name</th>
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<tr>
<td>+CIS244</td>
<td>Testing Software Tools</td>
<td>3</td>
</tr>
<tr>
<td>+CIS246</td>
<td>Software Quality</td>
<td>3</td>
</tr>
<tr>
<td>+CIS248</td>
<td>Engineering Quality in Software Development</td>
<td>3</td>
</tr>
<tr>
<td>+CIS249</td>
<td>Software Testing for Quality Assurance</td>
<td>3</td>
</tr>
</tbody>
</table>

### THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN PROGRAMMING AND SYSTEM ANALYSIS

The Program provides an in-depth exploration of different computer language and technical skills. The program includes, but is not limited to the following: operating systems, local area networks, team roles, and dynamics. A Certificate of Completion (CCL) is also available. **Major Code:** 3844 Total Credits: 64-67

Program Notes: Students must earn a grade of “C” or better for each course listed in the “Required Courses” area.

#### Program Prerequisites: 0-3 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>CRE101</td>
<td>College Critical Reading (3) or Equivalent by assessment</td>
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#### Required Courses: Credits: 36-37

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<tr>
<td>ACC111</td>
<td>Accounting Principles I</td>
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<tr>
<td>CIS105</td>
<td>Survey of Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIS224</td>
<td>Project Management Microsoft</td>
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<tr>
<td>CIS126DA</td>
<td>UNIX Operations System (3)</td>
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<tr>
<td>CIS126DL</td>
<td>Linux Operating System (3)</td>
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<tr>
<td>MST150</td>
<td>Microsoft Windows Professional (3)</td>
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</tr>
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</table>
CAREER AND TECHNICAL PROGRAMS

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
+CIS166 Web Scripting/Programming (3) OR
+CIS166AA Introduction to Java Scripting (3) OR
+CIS166AB Web Scripting with Perl/CGI (3) OR
+CIS166AC Web Scripting with Active Server Pages (ASP).NET (3) OR
+CIS166AD Web Scripting with Java Server Pages (JSP) (3) OR
+CIS166AE Web Scripting with PHP:HyperText Preprocessor (PHP) (3)
+CIS166AF Web Scripting with Python (3)
+CIS190 Introduction to Local Area Networks (3) OR
+CNT140 Cisco Networking Basics (4) OR
+MST140 Microsoft Networking Essentials (3) 3-4
+CIS225 Business Systems Analysis and Design (3) OR
+CIS225AB Object Oriented Analysis and Design (3) OR
+CIS250 Management of Information Systems (3) 3
+CIS217AM Advanced Microsoft Access: Database Management (3) OR
+CIS119DO Introduction to Oracle: SQL (3) OR
+CIS276DA My SQL Database (3) 3
Select 2 courses for a total of 6 credits:
+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
+GBS233 Business Communication 3
Restricted Electives: Credits: 6
+CIS251 Computer Game Development-Level II (3)
+CIS259 Visual Basic Programming II 3
+CIS262++ Any C Programming: Level II course 3
+CIS263AA Java Programming: Level II 3
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
Required Program Prerequisites 0
Mathematics
MAT150 College Algebra/Functions (5) OR
MAT151 College Algebra/Functions (4) OR
MAT152 College Algebra/Functions (3) 3-5

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
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
+CIS225 Business Systems Analysis and Design (3) OR
+CIS225AB Object Oriented Analysis and Design (3) OR
+CIS250 Management of Information Systems (3) 3
+CIS119DO Introduction to Oracle: SQL (3) OR
+CIS276DA My SQL Database (3) 3
+GIS233 Business Communication 3

Restricted Electives: Credits: 3
+CIS251 Computer Game Development-Level II (3)
+CIS259 Visual Basic Programming II 3
+CIS262++ Any C Programming: Level II course 3
+CIS263AA Java Programming: Level II 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
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
+CIS225 Business Systems Analysis and Design (3) OR
+CIS225AB Object Oriented Analysis and Design (3) OR
+CIS250 Management of Information Systems (3) 3
+CIS119DO Introduction to Oracle: SQL (3) OR
+CIS276DA My SQL Database (3) 3
+GIS233 Business Communication 3

Restricted Electives: Credits: 3
+CIS251 Computer Game Development-Level II (3)
+CIS259 Visual Basic Programming II 3
+CIS262++ Any C Programming: Level II course 3
+CIS263AA Java Programming: Level II 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
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
+CIS225 Business Systems Analysis and Design (3) OR
+CIS225AB Object Oriented Analysis and Design (3) OR
+CIS250 Management of Information Systems (3) 3
+CIS119DO Introduction to Oracle: SQL (3) OR
+CIS276DA My SQL Database (3) 3
+GIS233 Business Communication 3

Restricted Electives: Credits: 3
+CIS251 Computer Game Development-Level II (3)
+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**

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<td>CIS224</td>
<td>Project Management Microsoft Project for Windows</td>
<td>3</td>
</tr>
<tr>
<td>CIS117DM</td>
<td>Microsoft Access: Database Management (3)</td>
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<tr>
<td>+CIS276DA</td>
<td>MySQL Database (3) OR</td>
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<tr>
<td>+CIS276DB</td>
<td>SQL Server Database (3) OR</td>
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<tr>
<td>+CIS276DC</td>
<td>Oracle Database (3)</td>
<td>3</td>
</tr>
<tr>
<td>+CIS150AB</td>
<td>Object-Oriented Programming Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>+CIS166AA</td>
<td>Introduction to JavaScript</td>
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</tr>
<tr>
<td>+CIS233DA</td>
<td>Internet/Web Development Level II</td>
<td>3</td>
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<tr>
<td>+CIS234</td>
<td>XML Application Development</td>
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<td>+CIS250</td>
<td>Management of Information Systems</td>
<td>3</td>
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<tr>
<td>+CIS290AC</td>
<td>Computer Information Systems Internship</td>
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</tbody>
</table>

**Restricted Electives: Credits: 12**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS120DC</td>
<td>Flash: Digital Animation</td>
<td>3</td>
</tr>
<tr>
<td>CIS126DL</td>
<td>Linux Operating System</td>
<td>3</td>
</tr>
<tr>
<td>+CIS159</td>
<td>Visual Basic Programming I</td>
<td>3</td>
</tr>
<tr>
<td>+CIS162AD</td>
<td>C#: Level I</td>
<td>3</td>
</tr>
<tr>
<td>+CIS163AA</td>
<td>Java Programming: Level I</td>
<td>3</td>
</tr>
<tr>
<td>+CIS166AB</td>
<td>Web Scripting with Perl/CGI</td>
<td>3</td>
</tr>
<tr>
<td>+CIS166AC</td>
<td>Web Scripting with Active Server Pages (ASP).NET</td>
<td>3</td>
</tr>
<tr>
<td>+CIS166AD</td>
<td>Web Scripting with Java Server Pages (JSP)</td>
<td></td>
</tr>
<tr>
<td>+CIS166AE</td>
<td>Web Scripting with PHP: Hypertext Preprocessor (PHP)</td>
<td>3</td>
</tr>
<tr>
<td>+CIS217AM</td>
<td>Advanced Microsoft Access: Database Management</td>
<td>3</td>
</tr>
<tr>
<td>+CIS233DC</td>
<td>Internet Web Development Dreamweaver</td>
<td>3</td>
</tr>
<tr>
<td>+CIS259</td>
<td>Visual Basic Programming II</td>
<td>3</td>
</tr>
<tr>
<td>+CIS262AD</td>
<td>C# Level II</td>
<td>3</td>
</tr>
<tr>
<td>+CIS263AA</td>
<td>Java Programming: Level II</td>
<td>3</td>
</tr>
<tr>
<td>MST150</td>
<td>Microsoft Windows Professional (3) OR</td>
<td></td>
</tr>
<tr>
<td>MST150XP</td>
<td>Microsoft Windows XP Professional (3)</td>
<td>3</td>
</tr>
</tbody>
</table>

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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CIS117DM</td>
<td>Microsoft Access: Database Management (3)</td>
<td></td>
</tr>
<tr>
<td>+CIS276DA</td>
<td>MySQL Database (3) OR</td>
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</tr>
<tr>
<td>+CIS276DB</td>
<td>SQL Server Database (3) OR</td>
<td></td>
</tr>
<tr>
<td>+CIS276DC</td>
<td>Oracle Database (3)</td>
<td>3</td>
</tr>
<tr>
<td>+CIS150AB</td>
<td>Object-Oriented Programming Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>+CIS166AA</td>
<td>Introduction to JavaScript</td>
<td>3</td>
</tr>
<tr>
<td>+CIS233DA</td>
<td>Internet/Web Development Level II</td>
<td>3</td>
</tr>
<tr>
<td>+CIS166AB</td>
<td>Web Scripting with Perl/CGI</td>
<td>3</td>
</tr>
<tr>
<td>+CIS166AC</td>
<td>Web Scripting with Active Server Pages (ASP).NET</td>
<td>3</td>
</tr>
<tr>
<td>+CIS166AD</td>
<td>Web Scripting with Java Server Pages (JSP)</td>
<td></td>
</tr>
<tr>
<td>+CIS166AE</td>
<td>Web Scripting with PHP: Hypertext Preprocessor (PHP)</td>
<td>3</td>
</tr>
<tr>
<td>+CIS217AM</td>
<td>Advanced Microsoft Access: Database Management</td>
<td>3</td>
</tr>
<tr>
<td>+CIS233DC</td>
<td>Internet Web Development Dreamweaver</td>
<td>3</td>
</tr>
<tr>
<td>+CIS259</td>
<td>Visual Basic Programming II</td>
<td>3</td>
</tr>
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<td>+CIS262AD</td>
<td>C#: Level I</td>
<td>3</td>
</tr>
<tr>
<td>+CIS263AA</td>
<td>Java Programming: Level II</td>
<td>3</td>
</tr>
<tr>
<td>MST150</td>
<td>Microsoft Windows Professional (3) OR</td>
<td></td>
</tr>
<tr>
<td>MST150XP</td>
<td>Microsoft Windows XP Professional (3)</td>
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**Restricted Electives: Credits: 12**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS120DC</td>
<td>Flash: Digital Animation</td>
<td>3</td>
</tr>
<tr>
<td>CIS126DL</td>
<td>Linux Operating System</td>
<td>3</td>
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<tr>
<td>+CIS159</td>
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<tr>
<td>+CIS162AD</td>
<td>C#: Level I</td>
<td>3</td>
</tr>
<tr>
<td>+CIS163AA</td>
<td>Java Programming: Level I</td>
<td>3</td>
</tr>
</tbody>
</table>

MST150      | Microsoft Windows Professional (3) OR            | 3       |
MST150XP    | Microsoft Windows XP Professional (3)            | 3       |
### CAREER AND TECHNICAL PROGRAMS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS166AB</td>
<td>Web Scripting with Perl/CGI</td>
<td>3</td>
</tr>
<tr>
<td>CIS166AC</td>
<td>Web Scripting with Active Server Pages (ASP).NET</td>
<td>3</td>
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<tr>
<td>CIS166AD</td>
<td>Web Scripting with Java Server Pages (JSP)</td>
<td>3</td>
</tr>
<tr>
<td>CIS166AE</td>
<td>Web Scripting with PHP: Hypertext Preprocessor (PHP)</td>
<td>3</td>
</tr>
<tr>
<td>CIS217AM</td>
<td>Advanced Microsoft Access: Database Management</td>
<td>3</td>
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<tr>
<td>CIS234</td>
<td>XML Application Development</td>
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</tr>
<tr>
<td>CIS259</td>
<td>Visual Basic Programming II</td>
<td>3</td>
</tr>
<tr>
<td>CIS262AD</td>
<td>C# Level II</td>
<td>3</td>
</tr>
<tr>
<td>CIS263AA</td>
<td>Java Programming: Level II</td>
<td>3</td>
</tr>
<tr>
<td>MST150</td>
<td>Microsoft Windows Professional (3) OR</td>
<td></td>
</tr>
<tr>
<td>MST150XP</td>
<td>Microsoft Windows XP Professional (3)</td>
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</table>

**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: 64**

Program Notes: Students must earn a grade of “C” or better for all courses required within the program.

**Required Courses: Credits: 33**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS120DC</td>
<td>Flash: Digital Animation</td>
<td>3</td>
</tr>
<tr>
<td>CIS120DF</td>
<td>Computer Graphics: Adobe Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>CIS133DA</td>
<td>Internet/Web Development Level I</td>
<td>3</td>
</tr>
<tr>
<td>CIS166AA</td>
<td>Introduction to Java Scripting</td>
<td>3</td>
</tr>
<tr>
<td>CIS220DC</td>
<td>Flash: Advanced Animation and ActionScript</td>
<td></td>
</tr>
<tr>
<td>CIS233DA</td>
<td>Internet/Web Development Level II</td>
<td>3</td>
</tr>
<tr>
<td>CIS233DC</td>
<td>Internet Web Development: Dreamweaver</td>
<td>3</td>
</tr>
<tr>
<td>CIS234</td>
<td>XML Application Development</td>
<td>3</td>
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<tr>
<td>CIS235</td>
<td>e-Commerce</td>
<td>3</td>
</tr>
<tr>
<td>CIS243</td>
<td>Internet/Web Development Level III</td>
<td>3</td>
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<tr>
<td>CIS290AC</td>
<td>Computer Information Systems Internship (3)</td>
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<tr>
<td>CIS298AC</td>
<td>Special Projects (3)</td>
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**Restricted Electives: Credits: 6**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS120B</td>
<td>Computer Graphics: Adobe Illustrator</td>
<td>3</td>
</tr>
<tr>
<td>CIS120DK</td>
<td>Introduction to Digital Video Editing</td>
<td>3</td>
</tr>
<tr>
<td>CIS120L</td>
<td>Digital Video Compositing: After Effects</td>
<td>3</td>
</tr>
<tr>
<td>CIS166AB</td>
<td>Web Scripting with Perl/CGI</td>
<td>3</td>
</tr>
<tr>
<td>CIS166AE</td>
<td>Web Scripting with PHP: Hypertext Preprocessor (PHP)</td>
<td>3</td>
</tr>
<tr>
<td>CIS220DK</td>
<td>Advanced Digital Video Production: Premiere</td>
<td>3</td>
</tr>
<tr>
<td>CIS224</td>
<td>Project Management Microsoft Project for Windows</td>
<td>3</td>
</tr>
<tr>
<td>+CIS291</td>
<td>Business Video Projects</td>
<td>3</td>
</tr>
<tr>
<td>MTC/TCM120</td>
<td>Introduction to Sound Design for Film and Video</td>
<td>3</td>
</tr>
</tbody>
</table>

**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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS120DC</td>
<td>Flash: Digital Animation</td>
<td>3</td>
</tr>
<tr>
<td>CIS120DF</td>
<td>Computer Graphics: Adobe Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>CIS133DA</td>
<td>Internet/Web Development Level I</td>
<td>3</td>
</tr>
<tr>
<td>+CIS166AA</td>
<td>Introduction to Java Scripting</td>
<td>3</td>
</tr>
<tr>
<td>+CIS233DC</td>
<td>Internet Web Development: Dreamweaver</td>
<td>3</td>
</tr>
</tbody>
</table>
| +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**
CAREER AND TECHNICAL PROGRAMS

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 Volunteermism for Computer Information Systems: A Service Learning Experience (3) OR
+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
CIS133DA Internet/Web Development Level I 3
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
CIS224 Project Management Microsoft Project for Windows 3
CNT140AA Cisco Networking Fundamentals 4

Restricted Electives: Credits: 9
CIS120DC Flash: Digital Animation 3
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
+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
CIS133DA Internet/Web Development Level I 3
CIS117DM Microsoft Access: Database Management (3) OR
CIS124 Project Management Microsoft Project for Windows 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
CIS224 Project Management Microsoft Project for Windows 3
CNT140AA Cisco Networking Fundamentals 4

Restricted Electives: Credits: 9
CIS120DC Flash: Digital Animation 3
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
+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 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 assessment

Required Courses: Credits: 37
CIS105 Survey of Computer Information Systems 3
+CIS107 The Electronic Game Industry 3
+CIS108 Electronic Portfolio Development 1
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
CIS120DF Computer Graphics: Adobe Photoshop (3) OR
CIS120DG Fireworks: Web Graphics (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.

<table>
<thead>
<tr>
<th>Required Courses: Credits: 25</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS105</td>
</tr>
<tr>
<td>+CIS107</td>
</tr>
<tr>
<td>+CIS151</td>
</tr>
<tr>
<td>+ART/ADA170</td>
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<tr>
<td>CIS130DA</td>
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<tr>
<td>+ADA/ART/</td>
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<td>MMT184</td>
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<td>+CIS220DC</td>
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<td>+CIS108</td>
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<td>Restricted Electives: Credits: 3</td>
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<tr>
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<td>+MMT216</td>
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<tr>
<td>+MTC/TCM120</td>
</tr>
<tr>
<td>CIS120DB</td>
</tr>
<tr>
<td>CIS224</td>
</tr>
</tbody>
</table>

**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

<table>
<thead>
<tr>
<th>Required Courses: Credits: 40</th>
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<tbody>
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<tr>
<td>+CIS233DC</td>
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<tr>
<td>+CIS291</td>
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<td>+CIS220DK</td>
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**General Education: Credits: 22-24**

<table>
<thead>
<tr>
<th>First-Year Composition</th>
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<tr>
<td>Any approved general education course in the First-Year Composition Area</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Oral Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any approved general education course in the Oral Communication Area</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Critical Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Met by CRE101 or equivalent as indicated by assessment in Program Prerequisite area.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mathematics</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT120 Intermediate Algebra (5) OR</td>
</tr>
<tr>
<td>MAT121 Intermediate Algebra (4) OR</td>
</tr>
<tr>
<td>MAT122 Intermediate Algebra (3) OR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Humanities and Fine Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any approved general education course in the Humanities and Fine Arts Area</td>
</tr>
</tbody>
</table>
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
CIS120DB Computer Graphics: Adobe Illustrator (3) OR
CIS120DF Computer Graphics: Adobe Photoshop (3) OR
CIS120DG Computer Graphics: Macromedia Fireworks (3) 3
ART142 Introduction to Digital Photography 3
CIS120DC Computer Graphics: Macromedia Flash 3
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: Bob Bonura
Contact: (480) 461-7173
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
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MAT150</td>
<td>College Algebra/Functions (5) OR</td>
<td></td>
</tr>
<tr>
<td>MAT151</td>
<td>College Algebra/Functions (4) OR</td>
<td></td>
</tr>
<tr>
<td>MAT152</td>
<td>College Algebra/Functions (3)</td>
<td>3-5</td>
</tr>
</tbody>
</table>

Restricted Electives: Credits: 27

Students will choose one of the three tracks

**Track I-Construction Drafting**  Credits: 27

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARC160</td>
<td>Site Planning</td>
<td>3</td>
</tr>
<tr>
<td>+ARC161</td>
<td>Residential Architecture Drafting I: Computer &amp; Board</td>
<td>3</td>
</tr>
<tr>
<td>+ARC162</td>
<td>Advance Residential Architecture Drafting II: Computer &amp; Board</td>
<td>3</td>
</tr>
<tr>
<td>+ARC163</td>
<td>Commercial Architecture Drafting I: Computer &amp; Board</td>
<td>3</td>
</tr>
<tr>
<td>+ARC164</td>
<td>Advance Commercial Architecture Drafting II: Computer &amp; Board</td>
<td>3</td>
</tr>
<tr>
<td>BLT140</td>
<td>Environmentally Responsible Building</td>
<td>3</td>
</tr>
<tr>
<td>BLT262</td>
<td>Introduction International Residential Code (IRC)</td>
<td>3</td>
</tr>
<tr>
<td>+CET101</td>
<td>Surveying I</td>
<td>3</td>
</tr>
<tr>
<td>+CET102</td>
<td>Surveying II</td>
<td>3</td>
</tr>
<tr>
<td>+CET201</td>
<td>Boundary Control and Legal Principles I</td>
<td>3</td>
</tr>
<tr>
<td>+CET202</td>
<td>Boundary Control and Legal Principles II</td>
<td>3</td>
</tr>
<tr>
<td>+CET257</td>
<td>Route and Construction Surveying</td>
<td>3</td>
</tr>
<tr>
<td>+CNS201</td>
<td>Construction Management: Office Operation</td>
<td>3</td>
</tr>
<tr>
<td>+CNS230</td>
<td>Computer Aided Design &amp; Drafting (CADD) 3D for Construction and Architecture (CADD II)</td>
<td>3</td>
</tr>
<tr>
<td>+CNS240</td>
<td>Advanced Computer Aided Design &amp; Drafting (CADD) for Construction and Architecture (CADD III)</td>
<td>3</td>
</tr>
<tr>
<td>+CNS250</td>
<td>Civil Drafting I: Land Development</td>
<td>3</td>
</tr>
<tr>
<td>+CNS251</td>
<td>Civil Drafting II: Land Development</td>
<td>3</td>
</tr>
<tr>
<td>+CNS252</td>
<td>Civil Drafting III: Land Development</td>
<td>3</td>
</tr>
<tr>
<td>CNS261</td>
<td>Microcomputers for Constructors</td>
<td>3</td>
</tr>
<tr>
<td>+CNS282++</td>
<td>Volunteerism for Construction: A Service-Learning Experience (any suffixed courses)</td>
<td>1-3</td>
</tr>
<tr>
<td>+CNS290++</td>
<td>Construction Internship (any suffixed courses)</td>
<td>1-3</td>
</tr>
<tr>
<td>+CNS296++</td>
<td>Cooperative Education (any suffixed courses)</td>
<td>1-3</td>
</tr>
<tr>
<td>+CNS298++</td>
<td>Special Project</td>
<td>1-3</td>
</tr>
</tbody>
</table>

**Track II-Construction Inspection**  Credits: 27

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ARC161</td>
<td>Residential Architecture Drafting I: Computer &amp; Board</td>
<td>3</td>
</tr>
<tr>
<td>+ARC163</td>
<td>Commercial Architecture Drafting I: Computer &amp; Board</td>
<td>3</td>
</tr>
<tr>
<td>ELC123</td>
<td>Residential Electrical Wiring and Codes</td>
<td>3</td>
</tr>
<tr>
<td>BLT121</td>
<td>Electrical Codes</td>
<td>3</td>
</tr>
<tr>
<td>BLT127</td>
<td>Plumbing Codes</td>
<td>3</td>
</tr>
<tr>
<td>BLT128</td>
<td>Mechanical Codes</td>
<td>3</td>
</tr>
<tr>
<td>BLT140</td>
<td>Environmentally Responsible Building</td>
<td>3</td>
</tr>
<tr>
<td>BLT262</td>
<td>Introduction International Residential Code (IRC)</td>
<td>3</td>
</tr>
<tr>
<td>BLT263</td>
<td>Building Codes</td>
<td>3</td>
</tr>
<tr>
<td>+CNS200</td>
<td>Construction Management: Field Operation</td>
<td>3</td>
</tr>
<tr>
<td>+CNS201</td>
<td>Construction Management: Office Operation</td>
<td>3</td>
</tr>
<tr>
<td>CNS263</td>
<td>Electrical Construction Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>+CNS271</td>
<td>Home Inspection Structure</td>
<td>3</td>
</tr>
<tr>
<td>+CNS272</td>
<td>Home Inspection Plumbing, Electrical &amp; HVAC</td>
<td>3</td>
</tr>
<tr>
<td>+CNS273</td>
<td>Home Inspection Insulation and Interior</td>
<td>3</td>
</tr>
<tr>
<td>+CNS274</td>
<td>Home Inspection Roofing and Exteriors</td>
<td>3</td>
</tr>
<tr>
<td>+CNS282++</td>
<td>Volunteerism for Construction: A Service-Learning Experience (any suffixed courses)</td>
<td>1-3</td>
</tr>
<tr>
<td>+CNS285</td>
<td>Introduction to Residential Plan Review</td>
<td>3</td>
</tr>
<tr>
<td>+CNS286</td>
<td>Introduction to Commercial Plan Review</td>
<td>3</td>
</tr>
<tr>
<td>+CNS290++</td>
<td>Construction Internship (any suffixed courses)</td>
<td>1-3</td>
</tr>
<tr>
<td>+CNS296++</td>
<td>Cooperative Education (any suffixed courses)</td>
<td>1-3</td>
</tr>
<tr>
<td>+CNS298++</td>
<td>Special Project</td>
<td>1-3</td>
</tr>
</tbody>
</table>

**Track III-Construction Management**  Credits: 27

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BLT140</td>
<td>Environmentally Responsible Building</td>
<td>3</td>
</tr>
<tr>
<td>BLT262</td>
<td>Introduction International Residential Code (IRC)</td>
<td>3</td>
</tr>
<tr>
<td>BLT263</td>
<td>Building Codes</td>
<td>3</td>
</tr>
<tr>
<td>+CET101</td>
<td>Surveying I</td>
<td>3</td>
</tr>
<tr>
<td>+CET102</td>
<td>Surveying II</td>
<td>3</td>
</tr>
<tr>
<td>CNS250</td>
<td>Construction Estimating and Print Reading</td>
<td>4</td>
</tr>
<tr>
<td>+CNS200</td>
<td>Construction Management: Field Operation</td>
<td>3</td>
</tr>
<tr>
<td>+CNS201</td>
<td>Construction Management (Office Operation)</td>
<td>3</td>
</tr>
<tr>
<td>CNS221</td>
<td>Applied Engineering Mechanics-Statics</td>
<td>3</td>
</tr>
<tr>
<td>CNS243</td>
<td>Heavy Construction Equipment, Methods, and Materials</td>
<td>3</td>
</tr>
<tr>
<td>+CNS260</td>
<td>Strength of Materials</td>
<td>3</td>
</tr>
<tr>
<td>CNS261</td>
<td>Microcomputers for Constructors</td>
<td>3</td>
</tr>
<tr>
<td>CNS263</td>
<td>Electrical Construction Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>+CNS282++</td>
<td>Volunteerism for Construction: A Service-Learning Experience (any suffixed courses)</td>
<td>1-3</td>
</tr>
<tr>
<td>+CNS290++</td>
<td>Construction Internship (any suffixed courses)</td>
<td>1-3</td>
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<tr>
<td>+COM225</td>
<td>Public Speaking</td>
<td>3</td>
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<tr>
<td>ECN211</td>
<td>Macroeconomic Principles</td>
<td>3</td>
</tr>
<tr>
<td>ECN212</td>
<td>Microeconomic Principles</td>
<td>3</td>
</tr>
<tr>
<td>GBS206</td>
<td>Business Law (UCC)</td>
<td>3</td>
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</table>
## CAREER AND TECHNICAL PROGRAMS

### 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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BLT121</td>
<td>Electrical Codes</td>
<td>3</td>
</tr>
<tr>
<td>BLT127</td>
<td>Plumbing Codes</td>
<td>3</td>
</tr>
<tr>
<td>BLT128</td>
<td>Mechanical Codes</td>
<td>3</td>
</tr>
<tr>
<td>BLT262</td>
<td>Introduction International Residential Code (IRC)</td>
<td>3</td>
</tr>
<tr>
<td>BLT263</td>
<td>Building Codes</td>
<td>3</td>
</tr>
<tr>
<td>CNS175</td>
<td>Working Drawing Analysis: Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>+CNS282AC</td>
<td>Volunteerism for Construction: A Service-Learning Experience (3) OR</td>
<td>3</td>
</tr>
<tr>
<td>+CNS290AC</td>
<td>Construction Internship (3) OR</td>
<td></td>
</tr>
<tr>
<td>+CNS296WC</td>
<td>Cooperative Education (3) OR</td>
<td></td>
</tr>
<tr>
<td>+CNS298AC</td>
<td>Special Projects (3)</td>
<td></td>
</tr>
</tbody>
</table>

### PROGRAM NOTES:
Students must earn a grade of “C” or better for each course listed in the required courses area.

### REQUIRED COURSES:
- 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 COMPUTER AIDED DESIGN AND 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 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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ARC150</td>
<td>Architectural Desktop I</td>
<td>3</td>
</tr>
<tr>
<td>ARC161</td>
<td>Residential Architecture Drafting</td>
<td>3</td>
</tr>
<tr>
<td>ARC163</td>
<td>Commercial Architecture Drafting</td>
<td>3</td>
</tr>
<tr>
<td>CNS130</td>
<td>Construction Drawing Foundation</td>
<td>3</td>
</tr>
<tr>
<td>+CNS230</td>
<td>Computer Aided Design &amp; Drafting (CADD) 3D for Construction and Architecture (CADD II)</td>
<td>3</td>
</tr>
<tr>
<td>+CNS240</td>
<td>Advanced Computer Aided Design &amp; Drafting (CADD) for Construction and Architecture (CADD III)</td>
<td>3</td>
</tr>
<tr>
<td>+CNS250</td>
<td>Civil Drafting I: Land Development</td>
<td>3</td>
</tr>
<tr>
<td>+CNS251</td>
<td>Civil Drafting II: Land Development</td>
<td>3</td>
</tr>
<tr>
<td>+CNS282AC</td>
<td>Volunteerism for Construction: A Service-Learning Experience (3) OR</td>
<td>3</td>
</tr>
<tr>
<td>+CNS290AC</td>
<td>Construction Internship (3) OR</td>
<td></td>
</tr>
<tr>
<td>+CNS296WC</td>
<td>Cooperative Education (3) OR</td>
<td></td>
</tr>
<tr>
<td>+CNS298AC</td>
<td>Special Projects (3)</td>
<td></td>
</tr>
</tbody>
</table>

### PROGRAM NOTES:
Students must earn a grade of “C” or better for each course listed in the required courses area.

### REQUIRED COURSES:
- +ARC150 Architectural Desktop I 3
- +ARC161 Residential Architecture Drafting 3
- +ARC163 Commercial Architecture Drafting 3
- 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 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 PREREQUISITE TO 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
Dental Degree

**Associate in Applied Science in Dental Hygiene**

Department Chairperson: Janice Pierson  
Contact: (480) 461-7724  
Program Director: Cynthia Chillock  
Contact: (480) 654-7761

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, Ill. 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 Level One Fingerprint 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

Required Courses: Credits: 58
+DHE110 Pharmacology 3
+DHE112 Oral Pathology 3
+DHE115 Emergency Medicine 2
+DHE119 Head and Neck Anatomy 3
+DHE120 Pre-Clinical Dental Hygiene 6
+DDHE121 Dental Anatomy, Embryology and Histology 2
+DHE117 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
+DAE201 Dental Materials 2
+DAE202 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 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
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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART100</td>
<td>Introduction to Computer Graphic Art</td>
<td>1</td>
</tr>
<tr>
<td>ART111</td>
<td>Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ADA/ART112</td>
<td>Two-Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>ART113</td>
<td>Color</td>
<td>3</td>
</tr>
<tr>
<td>ART142</td>
<td>Introduction to Digital Photography</td>
<td>3</td>
</tr>
<tr>
<td>+ADA/ART177</td>
<td>Computer-Photographic Imaging</td>
<td>3</td>
</tr>
<tr>
<td>+ART255</td>
<td>Art Marketing (3) OR</td>
<td></td>
</tr>
<tr>
<td>ART255AA</td>
<td>Self-Promotion (1) AND</td>
<td></td>
</tr>
<tr>
<td>+ART255AB</td>
<td>The Portfolio (1) AND</td>
<td></td>
</tr>
<tr>
<td>+ART255AC</td>
<td>Marketing Fine Art (1)</td>
<td>3</td>
</tr>
<tr>
<td>+ART202</td>
<td>Digital Arts Survey</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one of the following four (4) tracks: Credits 15-18

**Track I-Web Design**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS133DA</td>
<td>Internet/Web Development Level I (3) OR</td>
<td></td>
</tr>
<tr>
<td>+ADA/ART169</td>
<td>Two-Dimensional Computer Design (3)</td>
<td></td>
</tr>
<tr>
<td>+ADA/ART183</td>
<td>Computer Aided Graphic Arts I</td>
<td>3</td>
</tr>
<tr>
<td>+ART/MMT190</td>
<td>Art of Web Site Design</td>
<td>3</td>
</tr>
<tr>
<td>+ART192</td>
<td>Advanced Web Presentation Design</td>
<td>3</td>
</tr>
<tr>
<td>+MMT216</td>
<td>Multimedia Project Management (3) OR</td>
<td></td>
</tr>
<tr>
<td>+ART203</td>
<td>Aesthetics of Web Design (3)</td>
<td>3</td>
</tr>
<tr>
<td>+ART200</td>
<td>Animation and Interactivity</td>
<td>3</td>
</tr>
</tbody>
</table>

**Track II-Digital Illustration**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART116</td>
<td>Life Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>+ART122</td>
<td>Drawing and Composition II</td>
<td>3</td>
</tr>
<tr>
<td>+ADA/ART169</td>
<td>Two-Dimensional Computer Design</td>
<td>3</td>
</tr>
<tr>
<td>+ART270</td>
<td>Intermediate Computer Photographic Imaging</td>
<td>3</td>
</tr>
<tr>
<td>+ADA/ART289</td>
<td>Computer Illustration</td>
<td>3</td>
</tr>
</tbody>
</table>

**Track III-Digital Photography**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART131</td>
<td>Photography I</td>
<td>3</td>
</tr>
<tr>
<td>+ART132</td>
<td>Photography II</td>
<td>3</td>
</tr>
<tr>
<td>+ART143</td>
<td>Intermediate Digital Photography</td>
<td>3</td>
</tr>
<tr>
<td>+ART270</td>
<td>Intermediate Computer Photographic Imaging</td>
<td>3</td>
</tr>
<tr>
<td>+ART274</td>
<td>Advanced Computer Photographic Imaging</td>
<td>3</td>
</tr>
</tbody>
</table>

**Track IV-Graphic Design**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>+ART143</td>
<td>Intermediate Digital Photography (3) OR</td>
<td></td>
</tr>
<tr>
<td>+ADA/ART289</td>
<td>Computer Illustration (3)</td>
<td>3</td>
</tr>
<tr>
<td>+ART/MMT190</td>
<td>Art of Web Site Design</td>
<td>3</td>
</tr>
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<td>+ADA/ART169</td>
<td>Two-Dimensional Computer Design</td>
<td>3</td>
</tr>
<tr>
<td>+ART/ADA183</td>
<td>Computer Aided Graphic Arts I</td>
<td>3</td>
</tr>
<tr>
<td>+ADA/ART283</td>
<td>Computer Aided Graphic Arts II</td>
<td>3</td>
</tr>
</tbody>
</table>

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 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

### Required Courses: Credits: 19

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
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</thead>
<tbody>
<tr>
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<td>Intermediate Computer Photographic Imaging</td>
<td>3</td>
</tr>
<tr>
<td>+ART289</td>
<td>Computer Illustration</td>
<td>3</td>
</tr>
</tbody>
</table>

### 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 art 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

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART111</td>
<td>Drawing I (3) OR Permission of Department or Division</td>
<td>3</td>
</tr>
</tbody>
</table>

### Required Courses: Credits: 19

<table>
<thead>
<tr>
<th>Code</th>
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<td>+ART270</td>
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<td>3</td>
</tr>
<tr>
<td>+ART289</td>
<td>Computer Illustration</td>
<td>3</td>
</tr>
</tbody>
</table>

### 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.

Program Notes: Students must earn a grade of “C” or better for all courses required within the program.

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<tr>
<th>Code</th>
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<tr>
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<td>3</td>
</tr>
<tr>
<td>+ART132</td>
<td>Photography II</td>
<td>3</td>
</tr>
<tr>
<td>ART142</td>
<td>Introduction to Digital Photography</td>
<td>3</td>
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<td>+ART270</td>
<td>Intermediate Computer Photographic Imaging</td>
<td>3</td>
</tr>
<tr>
<td>+ART274</td>
<td>Advanced Computer Photographic Imaging</td>
<td>3</td>
</tr>
</tbody>
</table>

### 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.

Program Notes: Students must earn a grade of “C” or better for all courses required within the program.

<table>
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<tr>
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<tbody>
<tr>
<td>ART100</td>
<td>Introduction to Computer Graphic Art</td>
<td>1</td>
</tr>
<tr>
<td>ADA/ART112</td>
<td>Two-Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>ART142</td>
<td>Introduction to Digital Photography</td>
<td>3</td>
</tr>
<tr>
<td>+ADA/ART169</td>
<td>Two-Dimensional Computer Design</td>
<td>3</td>
</tr>
<tr>
<td>+ADA/ART177</td>
<td>Computer-Photographic Imaging</td>
<td>3</td>
</tr>
<tr>
<td>+ADA/ART183</td>
<td>Computer Aided Graphic Arts I</td>
<td>3</td>
</tr>
<tr>
<td>+ART/MMT190</td>
<td>Art of Web Site Design</td>
<td>3</td>
</tr>
<tr>
<td>+ADA/ART283</td>
<td>Computer Aided Graphic Arts II</td>
<td>3</td>
</tr>
</tbody>
</table>

### 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.

Program Notes: Students must earn a grade of “C” or better for all courses required within the program.

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART100</td>
<td>Introduction to Computer Graphic Art</td>
<td>1</td>
</tr>
<tr>
<td>CIS133DA</td>
<td>Internet/Web Development Level I (3) OR</td>
<td>3</td>
</tr>
</tbody>
</table>
### Two-Dimensional Computer Design (3)

+ART169

### Computer-Photographic Imaging (3)

+ART177

### Computer Aided Graphic Arts I (3)

+ART183

### Art of Web Site Design (3)

+ART/MMT190

### Advanced Web Presentation Design (3)

+ART192

### Multimedia Project Management (3)

+MMT216

### Aesthetics of Web Design (3)

+ART203

### Animation and Interactivity (3)

+ART200

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### 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:** Bob Bonura  
**Contact:** (480) 461-7173

**THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN ELECTRO/MECHANICAL DRAFTING** prepares students to work as drafter 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

**Required Courses:** Credits: 20  
DFT110 Technical Drafting I  
+DFT111 Technical Drafting II  
+DFT112 Technical Drafting III  
+DFT115 Geometric Dimensioning and Tolerancing  
+DFT252AA Computer Aided Drafting I: AutoCAD  
+DFT254AA Computer Aided Drafting II: AutoCAD  
GTC106AA Industrial Safety

**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

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### Track II-C.N.C. Programming Credits: 24

GTC102 Machine Processes, Theory and Application

+GTC/MET108 Technical Mathematics II  
+GTC/MET206 CNC Programming

GTC216 Properties of Materials

+GTC236 CAD/CAM CNC Programming  
+GTC266 Solids CAD/CAM Programming  
GTC276 Solids Programming

**GTC113** Lean Manufacturing

**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)

**Oral Communication**

COM100 Introduction to Human Communication (3) OR

COM110 Interpersonal Communication (3) OR  
COM230 Small Group Communication (3)

**Critical Reading**

CRE101 College Critical Reading (3) OR  
Equivalent as indicated by assessment

**Mathematics**

Met by ELE105 or GTC108 in Required Courses area

**Humanities and Fine Arts**

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

**Social and Behavioral Sciences**

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

**Natural Sciences**

Any approved general education course from the Natural Sciences area

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**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
## Education Certificates/Degrees

- **Certificate of Completion in Bilingual Endorsement**
- **Certificate of Completion in ESL Endorsement**
- **Certificate of Completion in Reading Specialist Endorsement**

### BILINGUAL ENDORSEMENT

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**

### CERTIFICATE OF COMPLETION (CCL) IN COMPUTER AIDED DRAFTING

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**

### CERTIFICATE OF COMPLETION (CCL) IN MECHANICAL DRAFTING

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**

---

**Education Certificates/Degrees**

- 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 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**

### CERTIFICATE OF COMPLETION (CCL) IN COMPUTER AIDED DRAFTING

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### CERTIFICATE OF COMPLETION (CCL) IN MECHANICAL DRAFTING

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### Required Courses for Bilingual Endorsement

- **EDU230** Cultural Diversity in Education (3)
- **EPD241** Methods for Teaching the Bilingual Student (3)
- **EDU230** Cultural Diversity in Education (3)
- **EPD244** Reading and Writing in SEI/ESL/Bilingual Settings (3)
- **EPD246** Teaching and Assessment of English Language Learners (ELL) (3)
- **EDU230** Cultural Diversity in Education (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)

---

**Education Certificates/Degrees**

- 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

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### Required Courses for Bilingual Endorsement

- **EDU230** Cultural Diversity in Education (3)
- **EPD241** Methods for Teaching the Bilingual Student (3)
- **EDU230** Cultural Diversity in Education (3)
- **EPD244** Reading and Writing in SEI/ESL/Bilingual Settings (3)
- **EPD246** Teaching and Assessment of English Language Learners (ELL) (3)
- **EDU230** Cultural Diversity in Education (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)
### 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 the Reading Specialist 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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDU220</td>
<td>Introduction to Serving English Language Learners (ELL) (3) OR</td>
<td></td>
</tr>
<tr>
<td>EPD220</td>
<td>Introduction to Serving the English Language Learner for Certified Teachers (3)</td>
<td></td>
</tr>
<tr>
<td>EDU230</td>
<td>Cultural Diversity in Education</td>
<td>3</td>
</tr>
<tr>
<td>EDU233</td>
<td>Structured English Immersion (SEI) and English as a Second Language (ESL) Teaching Methods (3) OR</td>
<td></td>
</tr>
<tr>
<td>EPD233</td>
<td>Structured English Immersion and English as a Second Language Teaching Method for Certified Teachers (3)</td>
<td>3</td>
</tr>
<tr>
<td>EPD244</td>
<td>Reading and Writing in SEI/ESL/Bilingual Settings</td>
<td>3</td>
</tr>
<tr>
<td>EPD246</td>
<td>Teaching and Assessment of English Language Learners (ELL)</td>
<td>3</td>
</tr>
<tr>
<td>EPD247</td>
<td>Practicum for English as a Second Language (ESL)/Bilingual Teachers</td>
<td>3</td>
</tr>
<tr>
<td>ENG213</td>
<td>Introduction to the Study of Language (3) OR</td>
<td>3</td>
</tr>
<tr>
<td>SLC201</td>
<td>Introduction to Linguistics (3)</td>
<td>3</td>
</tr>
</tbody>
</table>

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

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### THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN ELECTRONIC ENGINEERING TECHNOLOGY

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: 67**

**Program Notes:** Students must earn a grade of “C” or better for all courses required within the program.

#### Required Courses: Credits: 12

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDU270AA</td>
<td>Elementary Reading and Decoding</td>
<td>3</td>
</tr>
<tr>
<td>EDU270AB</td>
<td>Secondary Reading and Decoding</td>
<td>3</td>
</tr>
<tr>
<td>EPD275</td>
<td>Diagnosis and Remediation of Reading K-12</td>
<td>3</td>
</tr>
<tr>
<td>EPD279</td>
<td>Reading Practicum K-12</td>
<td>3</td>
</tr>
</tbody>
</table>

#### 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

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### Electronics Certificates/Degrees

- **Associate in Applied Science in Electronic Engineering Technology**
- **Associate in Applied Science in Electronics Technology**
- **Certificate of Completion in Electronics Technology**

**Department Chairperson:** Bob Bonura

**Contact:** (480) 461-7173

**THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN ELECTRONIC ENGINEERING TECHNOLOGY**

Program is designed to give students a foundation of experience important in engineering assistants, field engineers, prototype designers, specification writers, technical representatives, etc. 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: 67**
Program Notes: Students must earn a grade of “C” or better in all courses within the program.

Program Prerequisites: Credits: 0-5
MAT120 Intermediate Algebra (5) OR
MAT121 Intermediate Algebra (4) OR
MAT122 Intermediate Algebra (3) OR Equivalent or satisfactory score on a placement exam 0-5

Required Courses: Credits: 47
ECE102 Engineering Analysis Tools and Techniques 2
ECE103 Engineering Problem Solving and Design 2
+ELE111 Circuit Analysis I 4
+ELE112 Circuit Analysis II 4
+ELE121 Solid State Devices and Circuits I 4
+ELE131 Digital Logic and Circuits 3
ELE181 Computer Programming for Technology 3
+ELE222 Solid-State Devices and Circuits II 4
+ELE241 Microprocessor Concepts 4
+MAT120 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: 20-26
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 0-3
Mathematics
MAT150 College Algebra/Functions (5) OR
MAT151 College Algebra/Functions (4) OR
MAT152 College Algebra/Functions (3) 3-5
MAT182 Plane Trigonometry (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 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 program is designed to give students a foundation of experience important in electronics technicians, manufacturing supervisors, test equipment specialists, prototype fabricators, and in other positions in 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: 67-71
Program Notes: Students must earn a grade of “C” or better for each course listed in the “Required Courses” area.

Program Prerequisites: Credits: 0-5
+ELE101 Beginning Algebra for Technology (3) OR
+MAT090 Developmental Algebra (5) OR
+MAT091 Introductory Algebra (4) OR
+MAT092 Introductory Algebra (3) OR
+MAT093 Introductory Algebra/Math Anxiety Reduction (5) OR
Permission of Instructor 0-5

Required Courses: Credits: 53
+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
+ELE173 Fabrication Techniques 2
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
GTC106AA Industrial Safety 2
+GTC185 Electro-Mechanical Devices 4

General Education Requirements: Credits: 14-18
First-Year Composition
+Any approved General Education course in the First Year Composition area 6

148
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 0-3
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 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. 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 Personal Training Specialist
• 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: 60-68

Program Notes: A grade of “C” or better is required for all courses within the program.
++ indicates any module.

Required Courses: Credits: 32-38
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 OR (3)
REC240 Wilderness First Responder (3) 3
MGT101 Techniques of Supervision (3) OR
MGT126 Customer Service Skills and Strategies (3)OR
MGT175 Business Organization and Management (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 4-8
Students must select four (4) different activities from the following list:
REC155++ Any recreational activity modules not used to satisfy other required courses
PED+++++ Any physical education 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
GBS205 Legal, Ethical, and Regulatory Issues in Business 3
GCU221 Arizona Geography 3
HES100 Healthful Living 3
HIS105 Arizona History 3
HIS106 Southwest History 3
HRM110 Introduction to Hospitality and Tourism 3
PSY230 Introduction to Statistics 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: 39-47

Program Notes: A grade of “C” or better is required for all courses within the program.
++ indicates any module.

Required Courses: Credits: 33-41
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) OR
REC240 Wilderness First Responder (3) 3
MGT101 Techniques of Supervision (3) OR
MGT126 Customer Service Skills and Strategies (3) OR
MGT175 Business Organization and Management (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 4-8
Students must select four (4) different activities from the following list:

REC155++ Any recreational activity modules not used to satisfy other required courses
PED++++ Any physical education 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
GBS205 Legal, Ethical, and Regulatory Issues in Business 3
GCU221 Arizona Geography 3
HES100 Healthful Living 3
HIS105 Arizona History 3
HIS106 Southwest History 3
HRM110 Introduction to Hospitality and Tourism 3
PSY230 Introduction to Statistics 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 also are eligible for this program. Major Code: 3059 Total Credits: 62-67

Program Notes: Students must earn a grade of “C” or better required for all courses within the program.

Required Courses: Credits: 37-40
EXS101 Introduction to Exercise Science, Kinesiology and Physical Education 3

EXS112 Professional Applications of Fitness Principles 2
EXS125 Introduction to Exercise Physiology 3
EXS130 Strength Fitness-Physiological Principles and Training Techniques 3
EXS132 Cardiovascular Fitness: Physiological Principles and Training Techniques 3
EXS138 Starting Your Own Personal Training Business 1
EXS145 Guidelines for Exercise Testing and Prescription 3
EXS214 Instructional Competency: Flexibility and Mind-Body Exercises 2
EXS216 Instructional Competency: Muscular Strength and Conditioning 2
EXS218 Instructional Competency: Cardiorespiratory Exercises and Activities 2
EXS239 Practical Applications of Personal Training Skills and Techniques Internship (3) OR
EXS239AA Practical Applications of Personal Training Skills and Techniques Internship (1) AND
EXS239AB Practical Applications of Personal Training Skills and Techniques Internship (2) 3
FON100 Introductory Nutrition (3) OR
FON241 Principles of Human Nutrition (3) 3
FON210 Sports Nutrition and Supplements for Physical Activities 3
FON247 Weight Management Theory 3
HES154 First Aid/Cardiopulmonary Resuscitation (3) OR
BLS Health Care Provider and First Aid Certification 0-3

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)

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HES100</td>
<td>Healthful Living (3) OR</td>
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<tr>
<td>PSY101</td>
<td>Introduction to Psychology (3)</td>
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</table>

### Natural Sciences

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>BIO160</td>
<td>Introduction to Human Anatomy and Physiology</td>
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</table>

THE CERTIFICATE OF COMPLETION (CCL) IN PERSONAL TRAINING SPECIALIST program is designed to help prepare students for employment in the fitness industry as Personal Trainers. This curriculum provides students with a fundamental knowledge of human physiology and anatomy, introduction into career options in the field of Exercise Science, Kinesiology and Physical Education/Coaching, emergency response readiness, health appraisals and assessments; application of exercise fitness principles and strength and cardiorespiratory training techniques; a fundamental knowledge of nutrition, 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: 30-37**

#### Required Courses: Credits: 28-34

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXS101</td>
<td>Introduction into Exercise Science, Kinesiology and Physical Education</td>
<td>3</td>
</tr>
<tr>
<td>BIO160</td>
<td>Introduction to Human Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>EXS112</td>
<td>Professional Applications of Fitness Principles</td>
<td>3</td>
</tr>
<tr>
<td>EXS125</td>
<td>Exercise Science</td>
<td>3</td>
</tr>
<tr>
<td>EXS130</td>
<td>Strength Fitness-Physiological Principles and Training Techniques</td>
<td>3</td>
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<tr>
<td>EXS132</td>
<td>Cardiovascular Fitness: Physiological Principles and Training Techniques</td>
<td>3</td>
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<tr>
<td>EXS145</td>
<td>Guidelines for Exercise Testing and Prescription</td>
<td>3</td>
</tr>
<tr>
<td>FON100</td>
<td>Introduction Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>HES154</td>
<td>First Aid/Cardiopulmonary Resuscitation (3) OR BLS Health Care Provider and First Aid Certification (3)</td>
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<tr>
<td>+EXS239</td>
<td>Practical Applications of Personal Training Skills and Techniques Internship (3) OR</td>
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<tr>
<td>+EXS239AA</td>
<td>Practical Applications of Personal Training Skills and Techniques Internship (1) AND</td>
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<tr>
<td>+EXS239AB</td>
<td>Practical Applications of Personal Training Skills and Techniques Internship (2)</td>
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#### Restricted Electives Credits: 4-6

Choose 4-6 credits from one of the groups below

Wellness/Prevention:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HES100</td>
<td>Healthful Living (3) OR</td>
<td>3</td>
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<tr>
<td>WED110</td>
<td>Principles of Fitness and Wellness (3)</td>
<td>3</td>
</tr>
<tr>
<td>HES271</td>
<td>Prevention and Treatment of Athletic Injuries</td>
<td>3</td>
</tr>
<tr>
<td>EXS138</td>
<td>Starting Your Own Personal Training Business 1</td>
<td></td>
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</tbody>
</table>

Nutrition:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>+FON230</td>
<td>Nutrition for Special Populations</td>
<td>3</td>
</tr>
<tr>
<td>+FON247</td>
<td>Theory of Weight Management</td>
<td>3</td>
</tr>
<tr>
<td>EXS138</td>
<td>Starting Your Own Personal Training Business 1</td>
<td></td>
</tr>
</tbody>
</table>

Group Fitness

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>+EXS190</td>
<td>Small Group Personal Training in a Studio Setting</td>
<td>2</td>
</tr>
<tr>
<td>+EXS192</td>
<td>Small Group Personal Training in a Gym</td>
<td>2</td>
</tr>
</tbody>
</table>

### Nutrition for Fitness and Wellness

The CERTIFICATE OF COMPLETION (CCL) IN NUTRITION FOR FITNESS AND WELLNESS program is designed to 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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FON100</td>
<td>Introductory Nutrition (3) OR</td>
<td>3</td>
</tr>
<tr>
<td>+FON100AA</td>
<td>Introductory Nutrition I (2) AND</td>
<td></td>
</tr>
<tr>
<td>+FON100AC</td>
<td>Introductory Nutrition II (1) OR Equivalent FON course</td>
<td></td>
</tr>
<tr>
<td>FON210</td>
<td>Sports Nutrition and Supplements for Physical Activity</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Block One

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EXS112</td>
<td>Professional Applications of Fitness Principles</td>
<td>3</td>
</tr>
<tr>
<td>FON100</td>
<td>Introductory Nutrition (3) OR</td>
<td>3</td>
</tr>
<tr>
<td>+FON100AA</td>
<td>Introductory Nutrition I (2) AND</td>
<td></td>
</tr>
<tr>
<td>+FON100AC</td>
<td>Introductory Nutrition II (1) OR Equivalent FON course</td>
<td></td>
</tr>
<tr>
<td>FON247</td>
<td>Weight Management Theory</td>
<td>3</td>
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</tbody>
</table>

#### Block Two

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EXS125</td>
<td>Introduction to Exercise Physiology</td>
<td>3</td>
</tr>
<tr>
<td>EXS130</td>
<td>Strength Fitness-Physiological Principles and Training Techniques</td>
<td>3</td>
</tr>
<tr>
<td>FON210</td>
<td>Sports Nutrition and Supplements for Physical Activity</td>
<td>3</td>
</tr>
<tr>
<td>FON230</td>
<td>Nutrition for Special Populations</td>
<td>3</td>
</tr>
</tbody>
</table>
Fire Science/Paramedicine Certificates/Degrees

- **Associate in Applied Science in Emergency Response and Operations**
- **Certificate of Completion in Emergency Management**
- **Certificate of Completion in Fire Science**
- **Certificate of Completion in Fire Officer Leadership**
- **Certificate of Completion in Firefighter Operations**
- **Certificate of Completion in Advanced Emergency Medical Technology (Paramedicine)**
- **Certificate of Completion in Driver Operator**

Department Chairperson: Sonia Jones
Contact: (480) 461-7050

**THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN EMERGENCY RESPONSE AND OPERATIONS** program 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. Additional Certificates of Completion (CCL) are available. **Major Code: 3112 Total Credits: 60**

**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 Paramedicine may be required to complete a program entrance exam as appropriate OR Permission of Program Director.

**Program Prerequisites:** Credits: 0-9
- EMT/HLR101 Cardiopulmonary Resuscitation/Basic Cardiac Life Support (.50) OR Current validation in Basic Life Support (BLS) Health Care Provider/Professional Rescuer (0) OR Permission of Program Director 0-.50

**Track I: Fire Operations and Track II: Paramedicine**

+EMT/FSC104 Basic Emergency Medical Technology (9) OR Arizona State EMT Certification or equivalent (0) OR

**Required Courses:** Credits: 18-45.5
Students must select one (1) of the following five (5) 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 for Firefighters 3

**Track II-Paramedicine Credits:** 43.5-45.5
+EMT235 Emergency Cardiac Care 3
+EMT236 Pharmacology in an Emergency Setting 3
+EMT240 Advanced Cardiac Life Support 2
+EMT242 Pediatric Advanced Life Support (1) OR
+EMT265 Pediatric Education for Prehospital Providers: Advanced (1) 1
+EMT245 Trauma Management I (2) OR
+EMT246 Trauma Management II (4) 2-4
+EMT272AA Advanced Emergency Medical Technology 12.5
+EMT272AB Advanced Emergency Medical Technology 12.5
+EMT272LL Advanced Emergency Medical Technology Practicum 7.5

**Track III-Emergency Management Credits:** 18
AJS/DPR/FSC139 Emergency Response to Terrorism 3
AJS/DPR/FSC146 Disaster Recovery Operations 3
AJS/DPR/FSC147 Emergency Preparedness 3
AJS/DPR/FSC148 Fundamentals of Emergency Management 3
AJS/DPR/FSC149 Hazard Mitigation 3
FSC224 Incident Command Systems 3

**Track IV-Fire Science Credits:** 24
AJS/DPR/FSC147 Emergency Preparedness (3) OR AJS/DPR/FSC148 Fundamentals of Emergency Management (3) 3
FSC105 Hazardous Materials First Responder 3
FSC108 Fundamentals of Fire Prevention 3
FSC113 Introduction to Fire Suppression 3
FSC117 Fire Apparatus 3
FSC119 Introduction Fire Service Ethics 3
+FSC208 Firefighter Safety and Building Construction 3
FSC215 Customer Service in the Public Sector 3

**Track V-Fire Investigation Credits:** 24
FSC105 Hazardous Materials First Responder 3
FSC108 Fundamentals of Fire Prevention 3
### CAREER AND TECHNICAL PROGRAMS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>FSC119</td>
<td>Introduction Fire Service Ethics</td>
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<tr>
<td>+FSC208</td>
<td>Firefighter Safety and Building Construction</td>
<td>3</td>
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<tr>
<td>FSC209</td>
<td>Fire Investigation I</td>
<td>3</td>
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<tr>
<td>+FSC210</td>
<td>Fire Investigation II</td>
<td>3</td>
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<tr>
<td>+FSC211</td>
<td>Fire Investigation III</td>
<td>3</td>
</tr>
<tr>
<td>+FSC212</td>
<td>Fire Investigation IV</td>
<td>3</td>
</tr>
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</table>

**Restricted Electives: Credits: 0-20**

Students must choose the appropriate number of credits to meet the program total for completion. Selected courses will not apply in both Required Courses and Restricted electives areas.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>AJS+++++</td>
<td>Any AJS Administration of Justice Studies courses</td>
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<tr>
<td>DPR+++++</td>
<td>Any DPR Disaster Preparedness and Emergency Response courses</td>
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<tr>
<td>EMT+++++</td>
<td>Any EMT Emergency Medical Technology courses</td>
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<tr>
<td>FSC+++++</td>
<td>Any FSC Fire Science Technology courses</td>
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<tr>
<td>LET+++++</td>
<td>Any LET Law Enforcement Technology courses</td>
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**General Education: Credits: 22-25**

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<tr>
<th>Component</th>
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<tr>
<td>First-Year Composition</td>
<td>Any approved general education courses from the First-Year Composition area.</td>
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<tr>
<td>Oral Communication</td>
<td>Any approved general education course from the Oral Communication area.</td>
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<tr>
<td>Critical Reading</td>
<td>Any approved general education course from the Critical Reading area.</td>
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<tr>
<td>Mathematics</td>
<td>Any approved general education course from the Mathematics area.</td>
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<tr>
<td>Humanities and Fine Arts</td>
<td>Any approved general education course from the Humanities and Fine Arts area.</td>
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<tr>
<td>Social and Behavioral Sciences</td>
<td>Any approved general education course from the Social and Behavioral Sciences area.</td>
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<tr>
<td>Natural Sciences</td>
<td>Any approved general education course from the Natural Sciences area.</td>
<td>4</td>
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</table>

**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. Graduates may find employment in 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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AJS/FSC139</td>
<td>Emergency Response to Terrorism</td>
<td>3</td>
</tr>
<tr>
<td>AJS/FSC146</td>
<td>Disaster Recovery Operations</td>
<td>3</td>
</tr>
<tr>
<td>AJS/FSC147</td>
<td>Emergency Preparedness</td>
<td>3</td>
</tr>
<tr>
<td>AJS/FSC148</td>
<td>Fundamentals of Emergency Management</td>
<td>3</td>
</tr>
<tr>
<td>AJS/FSC149</td>
<td>Hazard Mitigation</td>
<td>3</td>
</tr>
<tr>
<td>FSC224</td>
<td>Incident Command Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

**THE CERTIFICATE OF COMPLETION (CCL) IN FIRE SCIENCE** program 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: 24**

**Program Notes:** Students must earn a grade of “C” or better in all courses within the program.

**Required Courses: Credits: 24**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>FSC105</td>
<td>Hazardous Materials First Responder</td>
<td>3</td>
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<td>FSC108</td>
<td>Fundamentals of Fire Prevention</td>
<td>3</td>
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<tr>
<td>FSC113</td>
<td>Introduction to Fire Suppression</td>
<td>3</td>
</tr>
<tr>
<td>FSC117</td>
<td>Fire Apparatus</td>
<td>3</td>
</tr>
<tr>
<td>FSC119</td>
<td>Introduction Fire Service Ethics</td>
<td>3</td>
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<tr>
<td>AJS/DPR/FSC147</td>
<td>Emergency Preparedness (3) OR Emergency Preparedness (3)</td>
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</tr>
<tr>
<td>AJS/DPR/FSC148</td>
<td>Fundamentals of Emergency Management (3)</td>
<td>3</td>
</tr>
<tr>
<td>+FSC208</td>
<td>Firefighter Safety and Building Construction</td>
<td>3</td>
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<tr>
<td>FSC215</td>
<td>Customer Service in the Public Sector</td>
<td>3</td>
</tr>
</tbody>
</table>

Program Prerequisites: Credits: 9

+EMT/FSC104  Basic Emergency Medical Technology 9
THE CERTIFICATE OF COMPLETION (CCL) IN FIRE OFFICER LEADERSHIP program may be useful to professional firefighters seeking promotions and salary advancement within the Fire Services. The program will provide courses for experienced professional firefighters who desire to learn advanced fire ground tactics and strategy, building construction, practical incident command, supervisory training of personnel, and human resources 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 Leadership program or permission of program director.

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: 17-27**

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: 12-13  
+EMT/FSC104 Basic Emergency Medical Technology (9) 0-9  
FSC105 Hazardous Materials/First Responder 3  
FSC130 Fitness for Firefighters/CPAT (1) OR Permission of Program Director 0-1  

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: 9**

Required Courses: Credits: 9  
EMT/FSC104 Basic Emergency Medical Technology 9  

THE CERTIFICATE OF COMPLETION (CCL) IN ADVANCED EMERGENCY MEDICAL TECHNOLOGY (PARAMEDICINE) 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: 39.5-46.5**

Admission Criteria:  
Formal application and admission to the program is required. Minimum ninth-grade-level reading proficiency.

Program Prerequisites: Credits: 16  
A grade of “C” or better is required for all courses in the Program Prerequisites area.

Certificate of Completion in Basic Emergency Medical Technology (5270) 9  
BIO156 Human Biology for Allied Health (4) OR 4  
BIO181 General Biology (Majors) I (4)  
PSY101 Introduction to Psychology (3) OR 3  
SOC140 Racial and Ethnic Minorities (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 25  
+EMT272AB Advanced Emergency Medical Technology (12.5)  
+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/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 DRIVER OPERATOR program is designed for students who need (1) advanced training as professional firefighters, (2) preparation courses for career advancement opportunities in fire services, and/or (3) more comprehensive information about the role and function of an emergency vehicle driver/operator. **Major Code: 5418 Total Credits: 8**

Program Notes: Students must earn a grade of “C” or better in all courses within the program.

Required Courses: Credits: 8
FSC111  Emergency Vehicle Driver Operator  2
FSC117  Fire Apparatus  3
FSC118  Fire Hydraulics  3

**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**
- **Certificate of Completion in Textile and Apparel: Pattern I**
- **Certificate of Completion in Textile and Apparel: Pattern II**
- **Certificate of Completion in Textile and Apparel: Knitwear Specialist**
- **Certificate of Completion in Textile and Apparel: Fashion Stylist**

**Certificate of Completion in Textile and Apparel: Designer**

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 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
MKT253  Owning and Operating a Small Business  3
MKT101  Introduction to Public Relations  3
MKT263  Advertising Principles  3
+MKT/TEC274AC  Fashion Merchandising Study Tour  3
## CAREER AND TECHNICAL PROGRAMS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>TEC106</td>
<td>History of Fashion</td>
<td>3</td>
</tr>
<tr>
<td>+TEC221</td>
<td>Computer-Assisted Fashion Design</td>
<td>3</td>
</tr>
<tr>
<td>+TEC241</td>
<td>Advanced Computer-Assisted Fashion Design</td>
<td>3</td>
</tr>
<tr>
<td>TEC+++</td>
<td>Any TEC prefixed course not listed under Required Courses area</td>
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</table>

### 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)

### Track III - Fashion Retailing Credits: 28

- ACC111 Accounting Principles I 3
- +ACC230 Uses of Accounting Information I 3
- 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 Merchandising 3
- 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

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<tr>
<td>ENG107</td>
<td>First-Year Composition for ESL (3) AND</td>
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<tr>
<td>ENG102</td>
<td>First-Year Composition (3) OR</td>
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<tr>
<td>ENG108</td>
<td>First-Year Composition for ESL (3) OR</td>
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<td>ENG111</td>
<td>Technical Writing (3)</td>
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### Oral Communication

<table>
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<td>Introduction to Human Communication (3) OR</td>
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<tr>
<td>COM110</td>
<td>Interpersonal Communication (3) OR</td>
<td></td>
</tr>
<tr>
<td>COM225</td>
<td>Public Speaking (3) OR</td>
<td></td>
</tr>
<tr>
<td>COM230</td>
<td>Small Group Communication (3) OR</td>
<td>3</td>
</tr>
</tbody>
</table>

### 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

### 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

This program is designed to prepare students for employment in alterations for the apparel industry. Students will develop skills in advanced clothing construction, tailoring and couture techniques appropriate for a variety of fabrics and designs, and fitting techniques for all types of apparel. They will develop the ability to select appropriate fashion fabrics, interfacing, and lining materials for specific items of apparel. Students completing this certificate will be able to alter and repair ready-made garments 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

157
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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>TEC106</td>
<td>History of Fashion</td>
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</tr>
<tr>
<td>TEC111</td>
<td>Clothing Construction</td>
<td>3</td>
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<tr>
<td>+TEC124</td>
<td>Advanced Clothing Construction</td>
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<tr>
<td>TEC125</td>
<td>Fashion Design (3) OR</td>
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<tr>
<td>TEC134</td>
<td>Fashion Illustration I (3)</td>
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<tr>
<td>TEC222</td>
<td>Textiles</td>
<td>3</td>
</tr>
<tr>
<td>+TEC223</td>
<td>Tailoring</td>
<td>3</td>
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<tr>
<td>+TEC225</td>
<td>Pattern Design I</td>
<td>3</td>
</tr>
<tr>
<td>+TEC230</td>
<td>Pattern Design II</td>
<td>3</td>
</tr>
<tr>
<td>THP201+</td>
<td>Theatre Production (any module) (1-3)</td>
<td>1-3</td>
</tr>
</tbody>
</table>

**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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>COM110</td>
<td>Interpersonal Communication</td>
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<tr>
<td>FON100</td>
<td>Introductory to Nutrition</td>
<td>3</td>
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<tr>
<td>INT150</td>
<td>Color and Design</td>
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<tr>
<td>PSY132</td>
<td>Psychology and Culture (3) OR</td>
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<tr>
<td>TEC105</td>
<td>Cultural Aspects of Clothing (3)</td>
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<td>TEC222</td>
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<tr>
<td>TEC245</td>
<td>Wardrobe Strategies</td>
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<tr>
<td>TEC250</td>
<td>Apparel Quality Analysis</td>
<td>3</td>
</tr>
<tr>
<td>TEC275AC</td>
<td>Image Consultant Internship</td>
<td>3</td>
</tr>
</tbody>
</table>

**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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKT/TEC109</td>
<td>Introduction to Fashion Merchandising</td>
<td>3</td>
</tr>
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</table>

**Required Courses:** Credits: 24

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BPC110</td>
<td>Computer Usage and Applications (3) OR</td>
<td></td>
</tr>
<tr>
<td>CIS105</td>
<td>Survey of Computer Information Systems (3)</td>
<td></td>
</tr>
<tr>
<td>MGT229</td>
<td>Management and Leadership I (3) OR</td>
<td></td>
</tr>
<tr>
<td>MGT253</td>
<td>Owning and Operating a Small Business (3)</td>
<td></td>
</tr>
<tr>
<td>TEC151</td>
<td>Display and Visual Merchandising</td>
<td>3</td>
</tr>
<tr>
<td>TEC222</td>
<td>Textiles</td>
<td>3</td>
</tr>
<tr>
<td>TEC250</td>
<td>Apparel Quality Analysis</td>
<td>3</td>
</tr>
<tr>
<td>TEC255</td>
<td>Fashion Retail Merchandising</td>
<td>3</td>
</tr>
<tr>
<td>TEC260</td>
<td>Fashion Sales Management</td>
<td>3</td>
</tr>
<tr>
<td>TEC272+</td>
<td>Retail Merchandising Internship (any module) (1-3)</td>
<td></td>
</tr>
<tr>
<td>TQM101</td>
<td>Quality Customer Service</td>
<td>3</td>
</tr>
</tbody>
</table>

**THE CERTIFICATE OF COMPLETION (CCL) IN TEXTILE AND APPAREL: PATTERN** program is designed for students with an interest in design and development of flat patterns for custom and commercial apparel. It provides students with advanced skills using the proper techniques in pattern drafting, grading and CAD applications for apparel patterns. Completers of the certificate will enter the fashion industry at entry-level positions but with an understanding of the pattern drafting industry. **Major Code: 5764 Total Credits: 13**

Program Notes: Students must earn a grade of “C” or better for all courses required within the program.

**Program Prerequisites:** Credits: 0-3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEC111</td>
<td>Clothing Construction (3) OR</td>
<td></td>
</tr>
<tr>
<td>TEC125</td>
<td>Fashion Design (3) OR</td>
<td></td>
</tr>
</tbody>
</table>

Permission of Program Director

**Required Courses:** Credits: 15

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>+TEC221</td>
<td>Computer-Assisted Fashion Design</td>
<td>3</td>
</tr>
<tr>
<td>+TEC225</td>
<td>Pattern Design I</td>
<td>3</td>
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</tbody>
</table>
THE CERTIFICATE OF COMPLETION (CCL) IN TEXTILE AND APPAREL: PATTERN II program is designed for students with an interest in design and development of flat patterns for custom and commercial apparel. It provides students with advanced skills using the proper techniques in pattern drafting, grading and CAD applications for apparel patterns. Completers of the certificate will enter the fashion industry at entry-level positions with an understanding of the pattern drafting industry. **Major Code:** 5765 **Total Credits:** 11

Program Notes: Students must earn a grade of “C” or better for all courses required within the program.

Program Prerequisites: Credits: 0-13
+Certificate of Completion in Textile and Apparel: Pattern I (5764) (13) OR permission of Program Director 0-13

Required Courses: Credits: 11
+TEC224 Pattern Drafting 2
+TEC228 Advanced Draping for Fashion Design 3
+TEC230 Pattern Design II 3
+TEC233 Computer-Assisted Pattern Making 3

THE CERTIFICATE OF COMPLETION (CCL) IN TEXTILE AND APPAREL: KNITWEAR SPECIALIST program is designed for students with an interest in apparel construction with knit fabrics for custom and commercial apparel. It provides students with skills using the proper techniques in sewing with knit fabrics. Completers of the certificate will enter the fashion industry at entry-level positions with an understanding of the knitwear industry. **Major Code:** 5766 **Total Credits:** 11

Program Notes: Students must earn a grade of “C” or better for all courses required within the program.

Program Prerequisites: Credits: 0-3
TEC111 Clothing Construction (3) OR permission of Program Director 0-3

Required Courses: Credits: 11
TEC122 Sewing with Knits 3
TEC129 Sewing with a Serger 2
+TEC226 Draping for Fashion Design 3
+TEC229 Advanced Serging 2
+TEC270 Design Studio 1

THE CERTIFICATE OF COMPLETION (CCL) IN TEXTILE AND APPAREL: FASHION STYLIST program is designed for students with an interest in visual display and merchandise styling for wholesale or retail trades. It provides students with skills defining target market, historical and current fashions, visual display techniques, color theory, and fashion styling practices. Completers of the certificate will enter the fashion industry at entry-level positions but with an understanding of the styling profession. **Major Code:** 5768 **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
TEC106 History of Fashion 3
MKT/TEC109 Introduction to Fashion Merchandising 3
MKT/TEC151 Display and Visual Merchandising 3
TEC245 Wardrobe Strategies 3
INT150 Color and Design 3

THE CERTIFICATE OF COMPLETION (CCL) IN TEXTILE AND APPAREL: DESIGNER program is designed for students with advanced skills in techniques for dyeing, painting, printing, digital embroidery applications and construction methods for fabrics. Completers of the certificate will enter the fashion industry at entry-level positions with an understanding of the applied textile design industry and/or the ability to create custom materials. **Major Code:** 5770 **Total Credits:** 15

Program Notes: Students must earn a grade of “C” or better for all courses required within the program.

Program Prerequisites: Credits: 0-3
TEC111 Clothing Construction (3) OR TEC125 Fashion Design (3 OR permission of Program Director 0-3

Required Courses: Credits: 11
TEC113 Textiles: Dyeing 1
TEC114 Textiles: Block Printing/Silk Screening 1
TEC115 Textiles: Hand Painting 1
TEC116 Textiles: Stitchery and Embellishment 1
TEC161 Digital Machine Embroidery Laboratory 1
+TEC221 Computer-Assisted Fashion Design 3
TEC222 Textiles 3
TEC227 Couture Sewing 3
TEC270 Design Studio 1
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: 0-8
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 0-5

**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 0-8

**Required Courses:** Credits: 25-33
GCU102 Introduction to Human Geography (3) OR
GPH111 Introduction to Physical Geography (4) OR 3-4
GPH230 Spatial Database I (3) 3-4
+GPH219 Introduction to GIS Using ArcGIS 3
+GPH220 Intermediate GIS Using ArcGIS 3
GPH270 Introduction to Cartography and Geospatial Technologies 3

+GCU/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
CIS117DM Microsoft Access: Database Management 3
+CIS159 Visual Basic Programming I 3
+GPH273 Advanced GIS Using ArcGIS (3) OR
GPH275 Introduction to Remote Sensing (3) 3

**Track II-Developer** Credits: 14
CIS117DM Microsoft Access: Database Management 3
+CSC110AB Introduction to Computer Science (Java) 4
CSC181AB Applied Problem Solving with Visual BASIC4
+GPH273 Advanced GIS Using ArcGIS (3) OR
GPH275 Introduction to Remote Sensing (3) 3

**Track III-Transfer Emphasis** Credits: 17
+CSC110AB Introduction to Computer Science (Java) 4
CSC181AB Applied Problem Solving with Visual BASIC4
+CSC200AB Principles of Computer Science (Java) 4
+MAT220 Calculus with Analytic Geometry I 5

**Restricted Electives:** Credits: 2-8
GPH++++ Any GPH Physical Geography course(s)
not listed under Required Course area 2-8

**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: 25-33

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: 0-8

The credit hour range is subject to change depending on the student’s educational experiences and track selected. 0-8

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 0-5

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 Pre calculus (5) OR

Satisfactory score on District placement exam 0-8

Required Courses: Credits: 25-33

GCU102 Introduction to Human Geography (3) OR
GPH111 Introduction to Physical Geography (4) OR 3-4
GPH230 Spatial Database I (3) 3-4
+GPH219 Introduction to GIS Using ArcGIS 3
+GPH220 Intermediate GIS Using ArcGIS 3
GPH270 Introduction to Cartography and Geospatial Technologies 3
+GCU/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
CIS117DM Microsoft Access: Database Management 3
+CIS159 Visual Basic Programming I 3
+GPH273 Advanced GIS Using ArcGIS (3) OR
GPH275 Introduction to Remote Sensing (3) 3

Track II-Developer Credits: 14
CIS117DM Microsoft Access: Database Management 3
+CSC110AB Introduction to Computer Science (Java) 4
CSC181AB Applied Problem Solving with Visual BASIC4
+GPH273 Advanced GIS Using ArcGIS (3) OR
GPH275 Introduction to Remote Sensing (3) 3

Track III-Transfer Emphasis Credits: 17
+CSC110AB Introduction to Computer Science (Java) 4
CSC181AB Applied Problem Solving with Visual BASIC4
+CSC200AB Principles of Computer Science (Java) 4
+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: Janice Pierson
Contact: (480) 461-7124
Program Director: Peter Conden
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
### Career and Technical Programs

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGS260</td>
<td>Origin and Composition of Soils</td>
<td>4</td>
</tr>
<tr>
<td>AGS262</td>
<td>Irrigation Design, Installation, Operation, and Trouble Shooting</td>
<td>3</td>
</tr>
<tr>
<td>AGS268</td>
<td>Insect, Weed and Pest Control</td>
<td>4</td>
</tr>
</tbody>
</table>

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
This program 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
This program 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
- AGB130  Establishing and Running an Agribusiness 3
- AGB139  Agribusiness Computer Operations 3
- AGS260  Origin and Composition of Soils 4
- AGS268  Insect, Weed and Pest Control 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 Kroeling
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. 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
Journalism/Public Relations Degrees

- Associate in Applied Science in Journalism
- Associate in Applied Science in Public Relations

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**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIS105</td>
<td>Survey of Computers Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>ENG216</td>
<td>Persuasive Writing on Public Issues</td>
<td>3</td>
</tr>
<tr>
<td>JRN133</td>
<td>Development of Small Publications (3) OR</td>
<td>3</td>
</tr>
<tr>
<td>JRN205</td>
<td>Copyediting (3)</td>
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<tr>
<td>JRN201</td>
<td>News Writing</td>
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<tr>
<td>JRN203</td>
<td>Writing for Online Media</td>
<td>3</td>
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<tr>
<td>JRN215</td>
<td>News Production</td>
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<tr>
<td>JRN225</td>
<td>Photojournalism</td>
<td>3</td>
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<tr>
<td>JRN234</td>
<td>Feature Writing</td>
<td>3</td>
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<tr>
<td>JRN240</td>
<td>++ Journalism Internship</td>
<td>1-3</td>
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<tr>
<td>MCO120</td>
<td>Media and Society</td>
<td>3</td>
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<tr>
<td>MCO220</td>
<td>Cultural Diversity and the Media</td>
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**Restricted Electives: Credits: 3**

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<th>Course Title</th>
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<tr>
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<td>Introduction to Literature</td>
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<td>ENH112</td>
<td>Chicano Literature</td>
<td>3</td>
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<tr>
<td>ENH113</td>
<td>Writers/Directors and Current Issues</td>
<td>3</td>
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<td>ENH114</td>
<td>African-American Literature</td>
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<td>ENH206</td>
<td>Nature and Environmental Literature</td>
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<tr>
<td>GBS233</td>
<td>Business Communication</td>
<td>3</td>
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<tr>
<td>HIS243</td>
<td>History of World Religions</td>
<td>3</td>
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<td>REL243</td>
<td>World Religions</td>
<td>3</td>
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<tr>
<td>HUM107</td>
<td>Humanities Through the Arts</td>
<td>3</td>
</tr>
<tr>
<td>HUM125</td>
<td>The Urban Experience</td>
<td>3</td>
</tr>
<tr>
<td>HUM201</td>
<td>Humanities: Universal Themes</td>
<td>3</td>
</tr>
<tr>
<td>HUM250</td>
<td>Ideas and Values in the Humanities</td>
<td>3</td>
</tr>
<tr>
<td>HUM251</td>
<td>Ideas and Values in the Humanities</td>
<td>3</td>
</tr>
<tr>
<td>JRN212</td>
<td>Broadcast Writing</td>
<td>3</td>
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<tr>
<td>JRN236</td>
<td>Advanced Practicum: Public Relations</td>
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<tr>
<td>MGT250</td>
<td>Human Relations in Business</td>
<td>3</td>
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**General Education: Credits: 25-27**

**First-Year Composition**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENG101</td>
<td>First-Year Composition (3) AND</td>
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</tr>
<tr>
<td>ENG102</td>
<td>First-Year Composition (3) OR</td>
<td></td>
</tr>
<tr>
<td>ENG111</td>
<td>Technical Writing (3)</td>
<td>6</td>
</tr>
</tbody>
</table>

**Oral Communication**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM100</td>
<td>Introduction to Human Communication (3)</td>
<td></td>
</tr>
<tr>
<td>COM110</td>
<td>Interpersonal Communication (3) OR</td>
<td></td>
</tr>
<tr>
<td>COM225</td>
<td>Public Speaking (3) OR</td>
<td></td>
</tr>
<tr>
<td>COM230</td>
<td>Small Group Communication (3) OR</td>
<td></td>
</tr>
</tbody>
</table>

**Critical Reading**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRE101</td>
<td>College Critical Reading (3) OR</td>
<td></td>
</tr>
</tbody>
</table>

**Mathematics**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT102</td>
<td>Mathematical Concepts Applications (3)</td>
<td></td>
</tr>
<tr>
<td>MAT120</td>
<td>Intermediate Algebra (5) OR</td>
<td></td>
</tr>
<tr>
<td>MAT121</td>
<td>Intermediate Algebra (4) OR</td>
<td></td>
</tr>
<tr>
<td>MAT122</td>
<td>Intermediate Algebra Accelerated (3) OR</td>
<td></td>
</tr>
</tbody>
</table>

**Humanities and Fine Arts**

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENH110</td>
<td>Introduction to Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENH112</td>
<td>Chicano Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENH113</td>
<td>Writers/Directors and Current Issues</td>
<td>3</td>
</tr>
<tr>
<td>ENH114</td>
<td>African-American Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENH206</td>
<td>Nature and Environmental Literature</td>
<td>3</td>
</tr>
<tr>
<td>GBS233</td>
<td>Business Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

**Social and Behavioral Sciences**

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIS243</td>
<td>History of World Religions</td>
<td>3</td>
</tr>
<tr>
<td>REL243</td>
<td>World Religions</td>
<td>3</td>
</tr>
</tbody>
</table>

**Natural Sciences**

Any approved general education course from the Natural Sciences Area

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENH110</td>
<td>Introduction to Literature</td>
<td>3</td>
</tr>
<tr>
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<td>Chicano Literature</td>
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<td>ENH113</td>
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<tr>
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<td>African-American Literature</td>
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<tr>
<td>ENH206</td>
<td>Nature and Environmental Literature</td>
<td>3</td>
</tr>
<tr>
<td>GBS233</td>
<td>Business Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

**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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART131</td>
<td>Photography I</td>
<td>3</td>
</tr>
<tr>
<td>BPC110</td>
<td>Computer Usage and Applications</td>
<td>3</td>
</tr>
<tr>
<td>JRN125</td>
<td>Photo Editing</td>
<td>3</td>
</tr>
<tr>
<td>JRN133</td>
<td>Development of Small Publications</td>
<td>3</td>
</tr>
<tr>
<td>JRN201</td>
<td>Newswriting (3) OR</td>
<td>3</td>
</tr>
<tr>
<td>JRN212</td>
<td>Broadcast Writing (3)</td>
<td>3</td>
</tr>
<tr>
<td>JRN215</td>
<td>News Production</td>
<td>3</td>
</tr>
<tr>
<td>JRN234</td>
<td>Feature Writing</td>
<td>3</td>
</tr>
<tr>
<td>JRN235</td>
<td>Practicum: Public Relations</td>
<td>3</td>
</tr>
<tr>
<td>MCO120</td>
<td>Media and Society</td>
<td>3</td>
</tr>
<tr>
<td>MKT101</td>
<td>Introduction to Public Relations</td>
<td>3</td>
</tr>
<tr>
<td>MKT263</td>
<td>Advertising Principles</td>
<td>3</td>
</tr>
<tr>
<td>MKT267</td>
<td>Principles of Salesmanship</td>
<td>3</td>
</tr>
</tbody>
</table>
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: Chas Moore
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: 61-64

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
Students should select ten (10) credits from the following courses:
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
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LBT265</td>
<td>Database Management for Libraries</td>
<td>1</td>
</tr>
<tr>
<td>LBT266</td>
<td>Advances in Information Systems</td>
<td>1</td>
</tr>
<tr>
<td>LBT270</td>
<td>Practicum Projects</td>
<td>1</td>
</tr>
<tr>
<td>LBT273</td>
<td>Special Topics in Library Information Services</td>
<td>1</td>
</tr>
<tr>
<td>LBT274</td>
<td>Independent Study in Library Information Services</td>
<td>1</td>
</tr>
<tr>
<td>IFS101</td>
<td>Information Skills in the Digital Age</td>
<td>1</td>
</tr>
</tbody>
</table>

**Track II: Library Practitioner Credits: 10**

- LBT255 Organization and Management of the Small Library 3
- LBT246 Library Services for Children and Young Adults 2
- LBT262 Computer Maintenance and Security for Libraries 1
- LBT265 Database Management for Libraries 1
- LBT266 Advances in Information Systems 1
- LBT270 Practicum Projects 1
- LBT273 Special Topics in Library Information Services 1
- LBT274 Independent Study in Library Information Services 1
- IFS101 Information Skills in the Digital Age 1

Students should select seven (7) credits from the following courses:

- 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
- LBT262 Computer Maintenance and Security for Libraries 1
- LBT265 Database Management for Libraries 1
- LBT266 Advances in Information Systems 1
- LBT270 Practicum Projects 1
- LBT273 Special Topics in Library Information Services 1
- LBT274 Independent Study in Library Information Services 1
- IFS101 Information Skills in the Digital Age 1

**Restricted Electives: Credits: 9**

Students should select nine (9) credits from the following except courses used to satisfy required courses area

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BPC++</td>
<td>Any BPC Business-Personal Computers prefixed course (3-6)</td>
<td></td>
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<tr>
<td>CIS++++</td>
<td>Any CIS Computer Information Systems prefixed course (3-6)</td>
<td></td>
</tr>
<tr>
<td>ENH++++</td>
<td>Any ENH English Humanities prefixed course (3-6)</td>
<td></td>
</tr>
<tr>
<td>IFS++++</td>
<td>Any IFS Information Studies prefixed course (3-6)</td>
<td></td>
</tr>
<tr>
<td>LBS++++</td>
<td>Any LBS Library Skills prefixed course (3-6)</td>
<td>3-6</td>
</tr>
<tr>
<td>LBT++++</td>
<td>Any LBT Library Technology prefixed course (1-9)</td>
<td></td>
</tr>
<tr>
<td>+ART/MMT190</td>
<td>Art of Website Design</td>
<td>3</td>
</tr>
<tr>
<td>CIS105</td>
<td>Survey of Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIS133DA</td>
<td>Internet/Web Development Level I</td>
<td>3</td>
</tr>
<tr>
<td>+CIS233BA</td>
<td>Internet/Web Development Level II-B</td>
<td>1</td>
</tr>
<tr>
<td>+CIS233DA</td>
<td>Internet/Web Development Level II</td>
<td>3</td>
</tr>
<tr>
<td>+COM225</td>
<td>Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>+COM230</td>
<td>Small Group Communication</td>
<td>3</td>
</tr>
<tr>
<td>COM263</td>
<td>Elements of Intercultural Communication</td>
<td>3</td>
</tr>
<tr>
<td>CPD102AH</td>
<td>Stress Management</td>
<td>2</td>
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<tr>
<td>CPD103BA</td>
<td>Women in Transition</td>
<td>2</td>
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<tr>
<td>EDU220</td>
<td>Introduction to Serving English Language Learners (ELL)</td>
<td>3</td>
</tr>
<tr>
<td>EDU221</td>
<td>Introduction to Education</td>
<td>3</td>
</tr>
<tr>
<td>EDU230</td>
<td>Cultural Diversity in Education</td>
<td>3</td>
</tr>
<tr>
<td>EDU236</td>
<td>Classroom Relationships</td>
<td>3</td>
</tr>
<tr>
<td>EDU/ENH291</td>
<td>Children’s Literature</td>
<td>3</td>
</tr>
<tr>
<td>EDU/HUM/STO292</td>
<td>The Art of Storytelling</td>
<td>3</td>
</tr>
<tr>
<td>IFS101</td>
<td>Information Skills for the Digital Age</td>
<td>3</td>
</tr>
<tr>
<td>MCO120</td>
<td>Media and Society</td>
<td>3</td>
</tr>
<tr>
<td>+MCO220</td>
<td>Cultural Diversity and the Media</td>
<td>3</td>
</tr>
<tr>
<td>OAS101</td>
<td>Computer Typing I: Keyboarding and Formatting</td>
<td>3</td>
</tr>
</tbody>
</table>

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

Students should select two (2) credits from the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>LBT212</td>
<td>Introduction to Archival Methods 2</td>
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</tr>
<tr>
<td>LBT215</td>
<td>Cataloging and Classification of Library Materials 2</td>
<td></td>
</tr>
<tr>
<td>LBT217</td>
<td>Serials Management 1</td>
<td></td>
</tr>
<tr>
<td>LBT218</td>
<td>Basic Materials Repair 1</td>
<td></td>
</tr>
<tr>
<td>LBT219</td>
<td>Collection Maintenance and Shelf Management 1</td>
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</tr>
<tr>
<td>LBT234</td>
<td>Advanced Internet Research 1</td>
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</tr>
<tr>
<td>LBT252</td>
<td>Customer Service and Supervisory Skills for Paraprofessionals 1</td>
<td></td>
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<tr>
<td>LBT262</td>
<td>Computer Maintenance and Security for Libraries 1</td>
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<tr>
<td>LBT265</td>
<td>Database Management for Libraries 1</td>
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<td>Practicum Projects 1</td>
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</tr>
<tr>
<td>MCO120</td>
<td>Media and Society</td>
<td>3</td>
</tr>
<tr>
<td>+MCO220</td>
<td>Cultural Diversity and the Media</td>
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</tr>
<tr>
<td>OAS101</td>
<td>Computer Typing I: Keyboarding and Formatting</td>
<td>3</td>
</tr>
</tbody>
</table>
### CAREER AND TECHNICAL PROGRAMS

**OAS111AA**  Computer Keyboarding I  1

**+PSY255**  Psychology of the Information Age  3

**CSM/TQM101**  Quality Customer Service  3

**General Education: Credits: 22-25**

**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  0-3

**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 Systems3

+ **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
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: Bob Bonura
Contact: (480) 461-7173

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATP101</td>
<td>Introduction to Automated Systems and Robotics</td>
<td>2</td>
</tr>
<tr>
<td>ATP105</td>
<td>Engineering Documentation</td>
<td>2</td>
</tr>
<tr>
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<tr>
<td>FAC/GTC/MIT/OSH106</td>
<td>Industrial Safety</td>
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### 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

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<td>Introduction to Automated Systems and Robotics</td>
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<td>ATP105</td>
<td>Engineering Documentation</td>
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<td>ATP130</td>
<td>DC Circuit Analysis</td>
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<td>Industrial Safety</td>
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### 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 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 repairperson.

#### Major Code: 5630 Total Credits: 15-17

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.

#### Program Prerequisites: Credits: 17

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<td>Engineering Documentation</td>
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<td>+ENG101</td>
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<td>+ENG111</td>
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### General Education: Credits: 25-27

#### First Year Composition
- ENGI01 First-Year Composition (3) AND (3) | 6

#### 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) Equivalent or satisfactory completion of a higher level mathematics course. | 3-5

### 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.
Required Courses: Credits: 15-17

ATP130  DC Circuit Analysis  2
ATP135  AC Circuit Analysis  2
+ATP150  Fluid Power I - Hydraulics, Pneumatics, and Vacuum Concepts  2
ATP175  Introduction to Motors and Motor Controls  2
ATP180  PLC I - 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++  Cooperaive 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
- WL101 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
### Track I-Electro-Mechanical

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### General Education: Credits: 21-22

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### Humanities and Fine Arts

Any approved general education course in the Humanities and Fine Arts Area

### Social and Behavioral Sciences

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

PSY125 is recommended.

### Natural Sciences

Any approved general education course from the Natural Sciences Area

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

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### Required Courses: Credits: 34

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<th>Course Title</th>
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<td>ELE100</td>
<td>Concepts of Electricity and Electronics</td>
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<tr>
<td>QCT143</td>
<td>Principles of Quality Assurance (3) OR</td>
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</table>

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 Prerequisites: Credits: 7

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<tr>
<td>ELE100</td>
<td>Concepts of Electricity and Electronics</td>
<td>3</td>
</tr>
<tr>
<td>GTC104</td>
<td>Manufacturing Processes</td>
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<tr>
<td>GTC106</td>
<td>Industrial Safety</td>
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<tr>
<td>+GTC108</td>
<td>Technical Mathematics II</td>
<td>3</td>
</tr>
<tr>
<td>GTC181</td>
<td>Introduction to Fluid Power</td>
<td>3</td>
</tr>
<tr>
<td>+GTC185</td>
<td>Electro-mechanical Devices</td>
<td>4</td>
</tr>
<tr>
<td>GTC216</td>
<td>Properties of Materials</td>
<td>3</td>
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<tr>
<td>MET131</td>
<td>Lean Manufacturing</td>
<td>3</td>
</tr>
<tr>
<td>GTC208</td>
<td>Statistical Process Control (3) OR</td>
<td></td>
</tr>
<tr>
<td>QCT143</td>
<td>Principles of Quality Assurance (3) OR</td>
<td></td>
</tr>
</tbody>
</table>
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 3
+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: 29-30
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 3
MET131 Lean Manufacturing 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: AutoCAD 3
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
MG117 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: Bob Bonura
Contact: (480) 461-7173

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 C++ 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 area0

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: AutoCAD 3
+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 Technology 3
GTC110 Semiconductor Processing Technology I 3
+GTC296WC Cooperative Education 3

**CAREER AND TECHNICAL PROGRAMS**

**Mortuary Science Degree**

• **Associate in Applied Science in Mortuary Science**

  Department Chairperson: Bob Bonura
  Contact: (480) 461-7173
  
  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: 69-70**

  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: 34
  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
  MSP211 Compendium 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
  
  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
- Certificate of Completion in Piano Pedagogy
- Certificate of Completion in Intermediate Piano Pedagogy

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. The program is designed to give students a foundation of knowledge, competency, and experience important in the commercial music marketplace.

Major Code: 3024 Total Credits: 67-69

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
+MUC122 Sound Design I (3) OR MTC/TCM120 Introduction to Sound Design for Film and Video (3) 3
+MUC222 Sound Design II (3) OR +MTC/TCM220 Advanced Sound Design for Film and Video (3) 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
### 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 required within the program.

**Admission Criteria:**

- Formal application and admission to the program is required.

**Required Courses:** Credits: 41

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MTC105</td>
<td>Music Theory I</td>
<td>3</td>
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<tr>
<td>MTC106</td>
<td>Aural Perception I</td>
<td>1</td>
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<tr>
<td>MUC122</td>
<td>Sound Design I (3) OR</td>
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<tr>
<td>MTC/TCM120</td>
<td>Introduction to Sound Design for Film and Video (3)</td>
<td>3</td>
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<tr>
<td>MTC191</td>
<td>Electronic Music I</td>
<td>3</td>
</tr>
<tr>
<td>MTC222</td>
<td>Sound Design II (3) OR</td>
<td></td>
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<tr>
<td>MTC/TCM220</td>
<td>Advanced Sound Design for Film and Video (3)</td>
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<td>MUC109</td>
<td>Music Business: Merchandising and the Law</td>
<td>3</td>
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<td>MUC110</td>
<td>Music Business: Recording and Mass Media</td>
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<tr>
<td>MUC111</td>
<td>Digital Audio Workstation I (DAW I)</td>
<td>3</td>
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<tr>
<td>MUC112</td>
<td>Digital Audio Workstation II (DAW II)</td>
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<tr>
<td>MUC195</td>
<td>Studio Music Recording I (3) OR</td>
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<tr>
<td>MUC195AA</td>
<td>Studio Music Recording I (3) OR</td>
<td>3</td>
</tr>
<tr>
<td>MUC196</td>
<td>Studio Music Recording II</td>
<td>3</td>
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<tr>
<td>MUC197</td>
<td>Live Sound Reinforcement I</td>
<td>3</td>
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<tr>
<td>MUC198</td>
<td>Live Sound Reinforcement II</td>
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<tr>
<td>MUC297AA</td>
<td>Music Internship</td>
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**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

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<tr>
<th>Course Code</th>
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<tr>
<td>ACC109</td>
<td>Accounting Concepts (3) OR</td>
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<td>ACC111</td>
<td>Accounting Principles I (3)</td>
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<tr>
<td>BPC128</td>
<td>Introduction to Desktop Publishing</td>
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<tr>
<td>CIS131AA</td>
<td>Doing Business on the Internet</td>
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<tr>
<td>+COM259</td>
<td>Communication in Business and Professions</td>
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</tr>
<tr>
<td>GBS151</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>MUC209</td>
<td>Music Business: Industry</td>
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<tr>
<td>MUC110</td>
<td>Music Business: Recording and Mass Media</td>
<td>3</td>
</tr>
<tr>
<td>+MUC111</td>
<td>Digital Audio Workstation I (DAW I)</td>
<td>3</td>
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<td>MUC195</td>
<td>Studio Music Recording I</td>
<td>3</td>
</tr>
<tr>
<td>+MUC295A</td>
<td>Self-Promotion for Music</td>
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<tr>
<td>+MUC297AB</td>
<td>Music Internship</td>
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<tr>
<td>SBS230</td>
<td>Financial and Tax Management for Small Business</td>
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**Restricted Electives:** Credits: 3

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<tbody>
<tr>
<td>MHL+++</td>
<td>Any MHL Music: History/Literature course</td>
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**General Education:** Credits: 22-25

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<th>Course Code</th>
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<tr>
<td>ENG101</td>
<td>First-Year Composition (3) AND</td>
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<tr>
<td>ENG102</td>
<td>First-Year Composition (3)</td>
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<tr>
<td>Oral Communication Any approved general education course in the Oral Communication area</td>
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**Critical Reading**

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<tbody>
<tr>
<td>CRE101</td>
<td>College Critical Reading (3) OR</td>
<td>3</td>
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<tr>
<td>equivalent as indicated by assessment 0-3</td>
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</table>

**Mathematics**

<table>
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<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>+Any approved general education course in the Mathematics area</td>
<td>3</td>
</tr>
</tbody>
</table>
CAREER AND TECHNICAL PROGRAMS

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

THE CERTIFICATE OF COMPLETION (CCL) IN BEGINNING PIANO PEDAGOGY program is for pianists who want to teach beginning piano students. Classes offered include learning various methods, techniques, repertoire, skills, style and musicianship necessary to teach piano effectively. **Major Code: 5743 Total Credits: 15**

Program Notes: Students must earn a grade of “C” or better for all courses required within the program. ++ indicates any module.

Required Courses: Credits: 15
- +MTC105  Music Theory I  3
- +MTC106  Aural Perception I  1
- MUP102AD  Private Instruction: Piano  2
- +MUP123AA  Studio Class/Piano (.5)
  (Two (2) semesters of course is required)  1
- +MUP140  Elementary Piano Pedagogy  2
- + MUP152AD  Private Instruction: Piano  2
- MUP181  Chamber Music Ensembles (1)
  (Two (2) semesters of course is required)  2
- +MUP240  Piano Literature  2

THE CERTIFICATE OF COMPLETION (CCL) IN INTERMEDIATE PIANO PEDAGOGY program is for pianists who want to teach intermediate piano students. Classes offered include learning various methods, techniques, repertoire, skills, style and musicianship necessary to teach piano effectively. **Major Code: 5749 Total Credits: 15**

Program Notes: Students must earn a grade of “C” or better for all courses required within the program. ++ indicates any module.

Required Courses: Credits: 15
- MHL140  Survey of Music History (3) OR
- +MHL242  Music History and Literature
  1750 to present (3)  3
- +MUP123AA  Studio Class/Piano (.5)
  (Two (2) semesters of course is required)  1
- +MUP141  Intermediate Piano Pedagogy  2
- +MUP166  Jazz Piano I  1
- MUP181  Chamber Music Ensembles (1)
  (Two (2) semesters of course is required)  2
- +MUP202AD  Private Instruction: Piano  2
- +MUP241  Piano Artistry  2
- +MUP252AD  Private Instruction: Piano  2
# 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 Linux Networking Administration**
- **Certificate of Completion in Linux Professional**
- **Certificate of Completion in Network Administration: Cisco Network Professional**
- **Certificate of Completion in Network Administration: Microsoft Windows Server**

Department Chairperson: Linda Collins  
Contact: (480) 461-7077

**THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN LINUX NETWORKING ADMINISTRATION** is designed to help prepare students for a variety of industry-recognized Linux certification exams as well as provide practical hands-on skills for the workplace. The program includes a core of Linux classes including Linux Operating System Basics, System Administration, Network Administration and Network Security. These classes will help develop a student’s knowledge and skill level in preparation for employment or to improve professional skills. **Major Code: 3013 Total Credits: 60-64**

Program Notes: Students must earn a grade of “C” or better for all courses required within the program.

### Required Courses: Credits: 24-25

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>+BPC270</td>
<td>Microcomputer Maintenance II</td>
<td>3</td>
</tr>
<tr>
<td>+BPC273</td>
<td>Advanced Server Computer Maintenance: Server+Prep</td>
<td>3</td>
</tr>
<tr>
<td>CIS121AH</td>
<td>Microsoft PowerShell/Command Line Operations</td>
<td>3</td>
</tr>
<tr>
<td>+CIS197</td>
<td>VMware ESXi Server Enterprise</td>
<td>4</td>
</tr>
<tr>
<td>+CIS226AL</td>
<td>Internet/Intranet Server Administration: Linux</td>
<td>3</td>
</tr>
<tr>
<td>+CIS241DL</td>
<td>Apache Web Server Administration (Linux/Unix)</td>
<td>3</td>
</tr>
<tr>
<td>+CIS250</td>
<td>Management of Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>+CIS270</td>
<td>Essentials of Network and Information Security</td>
<td>3</td>
</tr>
<tr>
<td>+CIS274DL</td>
<td>Linux Enterprise Network Security</td>
<td>3</td>
</tr>
<tr>
<td>+CIS275DL</td>
<td>Linux Capstone</td>
<td>3</td>
</tr>
<tr>
<td>+CIS296WC</td>
<td>Cooperative Education</td>
<td>3</td>
</tr>
<tr>
<td>+CIS290++</td>
<td>Computer Information Systems Internship1-3</td>
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</tr>
<tr>
<td>+CIS298AC</td>
<td>Special Projects</td>
<td>3</td>
</tr>
<tr>
<td>+CIS190</td>
<td>Introduction to Local Area Networks (3)</td>
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</tr>
<tr>
<td>CNT140</td>
<td>Cisco Networking Basics (4) OR</td>
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<tr>
<td>+CNT150AA</td>
<td>Cisco Routing Protocols and Concepts</td>
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<tr>
<td>+CNT160AA</td>
<td>Cisco Local Area Networking (LAN) Switching and Wireless</td>
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<tr>
<td>+CNT170AA</td>
<td>Cisco Accessing the Wide-Area Network (WAN)</td>
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</tr>
<tr>
<td>MST150++</td>
<td>Microsoft Windows (any MST150 suffixed course)</td>
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<tr>
<td>+MST155++</td>
<td>Implementing Windows Network Infrastructure (3) OR</td>
<td></td>
</tr>
<tr>
<td>+MST155DA</td>
<td>Windows Server Network Infrastructure Configuration (4) OR</td>
<td>3-4</td>
</tr>
<tr>
<td>+MST157</td>
<td>Implementing Windows Directory Services (3) OR</td>
<td></td>
</tr>
<tr>
<td>+MST157DA</td>
<td>Active Directory Windows Server Configuration (4) OR</td>
<td>3-4</td>
</tr>
<tr>
<td>+MST158DA</td>
<td>Windows Server Administration</td>
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</table>

General Education: Credits: 22-25

**First-Year Composition**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>+ENG101</td>
<td>First-Year Composition (3) OR</td>
<td></td>
</tr>
<tr>
<td>+ENG107</td>
<td>First-Year Composition for ESL (3) AND</td>
<td></td>
</tr>
<tr>
<td>+ENG102</td>
<td>First-Year Composition (3) OR</td>
<td></td>
</tr>
<tr>
<td>+ENG108</td>
<td>First-Year Composition for ESL (3)</td>
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</tbody>
</table>

**Oral Communication**

Any approved general education course from the Oral Communication area.

**Critical Reading**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>+CRE101</td>
<td>College Critical Reading (3) OR</td>
<td>3-4</td>
</tr>
</tbody>
</table>

Equivalent as indicated by assessment.
**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**
- 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** is designed to help prepare students for a variety of industry-recognized Linux certification exams as well as provide practical hands-on skills for the workplace. The program includes a core of Linux classes including Linux Operating System Basics, System Administration, Network Administration and Network Security. These classes will help develop a student’s knowledge and skill level in preparation for employment or for improve 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 3
- +CIS238DL  Linux System Administration 3
- +CIS240DL  Linux Network Administration 3
- +CIS271DL  Linux Security 3

**Restricted Electives:** Credits: 12
- +BPC170  Computer Maintenance I: A+ Prep 3
- +BPC270  Computer Maintenance II: A+ Technician 3
- CIS105  Survey of Computer Information Systems 3
- CIS121AH  Microsoft PowerShell/Command Line Operations 3
- +CIS197  VMware ESXI Server Enterprise 4
- +CIS226AL  Internet/Intranet Server Administration-Linux 3
- +CIS239DL  Linux Shell Scripting 3
- +CIS241DL  Apache Web Server Administration (Linux/Unix) 3
- +CIS270  Essentials of Network and Information Security 3
- +CIS274DL  Linux Enterprise Network Security 3
- +CIS275DL  Linux Capstone 3
- CIS280  Current Topics in Computing 3

**+CIS290++  Computer Information Systems Internship (any suffixed course) 1-3**

**CIS190**  Introduction to Local Area Networks (3) OR 3

**CNT140**  Cisco Networking Basics (4) OR 4

**MST140**  Microsoft Networking Essentials (3) OR 3

**+CNT150AA**  Cisco Networking Router Technologies 4

**MST150++**  Microsoft Windows Professional (any suffixed course) 3

**+MST155++**  Implementing Windows Network Infrastructure (3) OR 3

**+MST155DA**  Windows Server Network Infrastructure Configuration (4) 3

**THE CERTIFICATE OF COMPLETION (CCL) IN LINUX NETWORK ADMINISTRATION** is designed to help prepare students for a variety of industry-recognized Linux certification exams as well as provide practical hands-on skills for the workplace. The program includes a core of Linux classes including Linux Operating System Basics, System Administration, Network Administration and Network Security. These classes will help develop 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
- CIS126DL  Linux Operating System 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 3
- CNT140  Cisco Networking Basics (4) OR 4
- MST140  Microsoft Networking Essentials (3) OR 3
- MST150++  Microsoft Windows Professional (Any module.) 3

**Restricted Electives:** Credits: 12
- +BPC270  Computer Usage and Applications (3) OR 3
- +CIS105  Survey of Computer Information Systems (3) OR 3
- +BPC273  Advanced Server Computer Maintenance: Server+Prep 3
- +CIS197  VMware ESXI Server Enterprise 4
- CIS121AH  Microsoft PowerShell/Command Line Operations 3
- +CIS226AL  Internet/Intranet Server Administration-Linux 3
### CAREER AND TECHNICAL PROGRAMS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>CIS241DL</td>
<td>Apache Web Server Administration (Linux/Unix)</td>
<td>3</td>
</tr>
<tr>
<td>CIS250</td>
<td>Management of Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIS270</td>
<td>Essentials of Network and Information Security</td>
<td>3</td>
</tr>
<tr>
<td>CIS274DL</td>
<td>Linux Enterprise Network Security</td>
<td>3</td>
</tr>
<tr>
<td>CIS275DL</td>
<td>Linux Capstone</td>
<td>3</td>
</tr>
<tr>
<td>CIS280</td>
<td>Current Topics in Computing</td>
<td>3</td>
</tr>
<tr>
<td>CIS296WC</td>
<td>Cooperative Education</td>
<td>3</td>
</tr>
<tr>
<td>CIS290++</td>
<td>Computer Information Systems Internship (any suffixed course)</td>
<td>1-3</td>
</tr>
<tr>
<td>CIS298AC</td>
<td>Special Projects</td>
<td>3</td>
</tr>
<tr>
<td>CIS190</td>
<td>Introduction to Local Area Networks (3) OR</td>
<td></td>
</tr>
<tr>
<td>CNT140AA</td>
<td>Cisco Networking Fundamentals (4) OR</td>
<td></td>
</tr>
<tr>
<td>MST140</td>
<td>Microsoft Networking Essentials (3) 3-4</td>
<td></td>
</tr>
<tr>
<td>+CNT150AA</td>
<td>Cisco Routing Protocols and Concepts</td>
<td>4</td>
</tr>
<tr>
<td>+CNT160AA</td>
<td>Cisco Local Area Networking (LAN) Switching and Wireless</td>
<td>4</td>
</tr>
<tr>
<td>+CNT170AA</td>
<td>Cisco Accessing the Wide-Area Network (WAN)</td>
<td>4</td>
</tr>
<tr>
<td>MST150++</td>
<td>Microsoft Windows (any MST150 suffixed course)</td>
<td>3</td>
</tr>
<tr>
<td>+MST155++</td>
<td>Implementing Windows Network Infrastructure (3) OR</td>
<td></td>
</tr>
<tr>
<td>+MST155DA</td>
<td>Windows Server Network Infrastructure Configuration (4)</td>
<td>3-4</td>
</tr>
<tr>
<td>+MST157</td>
<td>Implementing Windows Directory Services (3) OR</td>
<td></td>
</tr>
<tr>
<td>+MST157DA</td>
<td>Active Directory Windows Server Configuration (4)</td>
<td>3-4</td>
</tr>
<tr>
<td>+MST158DA</td>
<td>Windows Server Administration</td>
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</table>

### Restricted Electives: Credits: 6

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BPC170</td>
<td>Computer Maintenance I: A+ Prep</td>
<td>3</td>
</tr>
<tr>
<td>BPC273</td>
<td>Advanced Server Computer Maintenance: Server+ Prep</td>
<td>3</td>
</tr>
<tr>
<td>CIS105</td>
<td>Survey of Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>+CIS197</td>
<td>VMware ESXi Server Enterprise</td>
<td>4</td>
</tr>
<tr>
<td>CIS121AH</td>
<td>Microsoft PowerShell/Command Line Operations</td>
<td>3</td>
</tr>
<tr>
<td>+CIS225AL</td>
<td>Internet/Intranet Server Administration-Linux3</td>
<td></td>
</tr>
<tr>
<td>+CIS239DL</td>
<td>Linux Shell Scripting</td>
<td>3</td>
</tr>
<tr>
<td>+CIS240DL</td>
<td>Linux Network Administration</td>
<td>3</td>
</tr>
<tr>
<td>+CIS241DL</td>
<td>Apache Web Server Administration (Linux/Unix)</td>
<td></td>
</tr>
<tr>
<td>+CIS270</td>
<td>Essentials of Network and Information Security</td>
<td>3</td>
</tr>
<tr>
<td>+CIS271DL</td>
<td>Linux Security</td>
<td>3</td>
</tr>
<tr>
<td>+CIS190</td>
<td>Introduction to Local Area Networks (3) OR</td>
<td></td>
</tr>
<tr>
<td>CNT140</td>
<td>Cisco Networking Basics (4) OR</td>
<td></td>
</tr>
<tr>
<td>MST140</td>
<td>Microsoft Networking Essentials (3) 3-4</td>
<td></td>
</tr>
<tr>
<td>+CNT150AA</td>
<td>Cisco Networking Router Technologies</td>
<td></td>
</tr>
<tr>
<td>MST150++</td>
<td>Microsoft Windows Professional (any suffixed course)</td>
<td>3</td>
</tr>
<tr>
<td>CIS280</td>
<td>Current Topics in Computing</td>
<td>3</td>
</tr>
<tr>
<td>+CIS290++</td>
<td>Computer Information Systems Internship (any suffixed course)</td>
<td>1-3</td>
</tr>
</tbody>
</table>

### THE ASSOCIATE IN APPLIED SCIENCE (AAS) IN NETWORKING 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: 63-66**

**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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRE101</td>
<td>College Critical Reading (3) OR Equivalent by assessment</td>
<td>0-3</td>
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**Required Courses:**  

<table>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIS105</td>
<td>Survey of Computer Information Systems (3) OR</td>
<td>3</td>
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<tr>
<td>BPC110</td>
<td>Computer Usage and Applications (3)</td>
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<tr>
<td>+BPC170</td>
<td>Computer Maintenance I: A+ Essentials Prep</td>
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<tr>
<td>+BPC270</td>
<td>Computer Maintenance II: A+ Technician Prep</td>
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182
## Career and Technical Programs

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIS126++</td>
<td>Linux Operating System (Any module)</td>
<td>3</td>
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<tr>
<td>+MST150++</td>
<td>Microsoft Windows Professional (Any module)</td>
<td>3</td>
</tr>
<tr>
<td>+CIS266</td>
<td>Network Integration Capstone</td>
<td>4</td>
</tr>
<tr>
<td>+CIS270</td>
<td>Essentials of Network and Information Security (3) OR</td>
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<tr>
<td>CNT205</td>
<td>Cisco Certified Network Associate Security (4)</td>
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<tr>
<td>CNT271DL</td>
<td>Linux Security (3)</td>
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<tr>
<td>CNT140AA</td>
<td>Cisco Networking Fundamentals</td>
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<td></td>
<td><strong>Restricted Electives: Credits: 15</strong></td>
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<td>Students should select 15 credits from the following, except any courses to satisfy Required Courses area</td>
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<tr>
<td>+CIS163AA</td>
<td>Java Programming: Level I</td>
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<td>+CIS238DL</td>
<td>Linux System Administration</td>
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<td>+CIS239DL</td>
<td>Linux Shell Scripting</td>
<td>3</td>
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<td>+CIS240DL</td>
<td>Linux Network Administration</td>
<td>3</td>
</tr>
<tr>
<td>+CIS247DA</td>
<td>Cyber Forensics and Incident Handling</td>
<td>3</td>
</tr>
<tr>
<td>+CIS270</td>
<td>Essentials of Network and Information Security</td>
<td>3</td>
</tr>
<tr>
<td>+CIS271DL</td>
<td>Linux Security</td>
<td>3</td>
</tr>
<tr>
<td>+MST150++</td>
<td>Microsoft Windows Professional (Any module)</td>
<td>3</td>
</tr>
<tr>
<td>+MST155DA</td>
<td>Windows Server Network Infrastructure Configuration</td>
<td>4</td>
</tr>
<tr>
<td>+MST157DA</td>
<td>Active Directory Windows Server Configuration</td>
<td>4</td>
</tr>
<tr>
<td>MST158DA</td>
<td>Windows Server Administration</td>
<td>4</td>
</tr>
<tr>
<td>+CNT150AA</td>
<td>Cisco Routing Protocols and Concepts</td>
<td>4</td>
</tr>
<tr>
<td>+CNT160AA</td>
<td>Cisco Local Area Networking (LAN) Switching and Wireless</td>
<td>4</td>
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<tr>
<td>+CNT170AA</td>
<td>Cisco Accessing the Wide-Area Network (WAN)</td>
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<tr>
<td>+CNT2+++</td>
<td>Any CNT200 level prefixed course</td>
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### General Education: Credits: 22-24

**First-Year Composition**

<table>
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<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>ENG101</td>
<td>First-Year Composition (3) OR</td>
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<tr>
<td>ENG107</td>
<td>First-Year Composition for ESL (3) AND</td>
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</tr>
<tr>
<td>ENG102</td>
<td>First-Year Composition (3) OR</td>
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**Oral Communication**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>COM100</td>
<td>Introduction to Human Communication (3) OR</td>
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</tr>
<tr>
<td>COM110</td>
<td>Interpersonal Communication (3) OR</td>
<td></td>
</tr>
<tr>
<td>COM225</td>
<td>Public Speaking (3) OR</td>
<td></td>
</tr>
<tr>
<td>COM230</td>
<td>Small Group Communication (3) OR</td>
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**Critical Reading**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td></td>
<td>Met by program prerequisites.</td>
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### Mathematics

<table>
<thead>
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<th>Course Name</th>
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<td>MAT142</td>
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<td>Satisfactory completion of a higher level mathematics course</td>
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### Humanities and Fine Arts

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PHI214</td>
<td>Business Ethics (3) OR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Any approved general education course in the Humanities and Fine Arts Area</td>
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</table>

### Social and Behavioral Sciences

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Any approved general education course in the Social and Behavioral Sciences Area</td>
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</tr>
</tbody>
</table>

### Natural Sciences

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Any approved general education course in the Natural Sciences Area</td>
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</tr>
</tbody>
</table>

**THE CERTIFICATE OF COMPLETION (CCCL) 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: 16**

**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: 0-4**

<table>
<thead>
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<th>Course Name</th>
<th>Credits</th>
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<tr>
<td>CNT170AA</td>
<td>Cisco Accessing the Wide-Area Network (WAN)</td>
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**Cisco Certificated Network Associate (CCNA) Industry Certification 0-4**

**Required Courses: Credits: 16**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>+CNT200</td>
<td>CCNP ROUTE: Implementing Cisco IP Routing</td>
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</tr>
<tr>
<td>+CNT202</td>
<td>Cisco Secure Firewall Appliance Configuration</td>
<td>4</td>
</tr>
<tr>
<td>+CNT205</td>
<td>Cisco Certified Network Associate Security</td>
<td>4</td>
</tr>
<tr>
<td>+CNT206</td>
<td>Cisco Certified Network Associate Wireless</td>
<td>4</td>
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</tbody>
</table>
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 (602) 286-8178
- GateWay Community College (623) 935-8949
- 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
- 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 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.

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Description</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIO156</td>
<td>Introductory Biology for Allied Health (4) OR</td>
<td>4</td>
</tr>
<tr>
<td>BIO181</td>
<td>General Biology (Majors) I (4) OR One year of high school biology</td>
<td>0-4</td>
</tr>
<tr>
<td>+BIO201</td>
<td>Human Anatomy and Physiology I</td>
<td>4</td>
</tr>
<tr>
<td>+CHM130</td>
<td>Fundamental Chemistry (3) AND</td>
<td></td>
</tr>
<tr>
<td>+CHM130LL</td>
<td>Fundamental Chemistry Laboratory (1) OR One year of high school chemistry</td>
<td>0-4</td>
</tr>
<tr>
<td>+MAT120</td>
<td>Intermediate Algebra (5) OR</td>
<td></td>
</tr>
<tr>
<td>+MAT121</td>
<td>Intermediate Algebra (4) OR</td>
<td></td>
</tr>
<tr>
<td>+MAT122</td>
<td>Intermediate Algebra (3) OR Satisfactory completion of higher-level mathematics course</td>
<td>3-5</td>
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<tr>
<td>PSY101</td>
<td>Introduction to Psychology (3) OR</td>
<td></td>
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<tr>
<td>+PSY240</td>
<td>Developmental Psychology (3)</td>
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**CAREER AND TECHNICAL PROGRAMS**

Required Courses: Credits: 35  
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<td>+NUR151</td>
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<tr>
<td>+NUR171</td>
<td>Nursing Theory and Science II</td>
<td>8</td>
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<tr>
<td>+NUR251</td>
<td>Nursing Theory and Science III</td>
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<td>+NUR271</td>
<td>Nursing Theory and Science IV</td>
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<td>+NUR291</td>
<td>Nursing Clinical Capstone</td>
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General Education: Credits: 16-19  
First-Year Composition  
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<tr>
<td>+ENG107</td>
<td>First-Year Composition for ESL (3) AND</td>
<td></td>
</tr>
<tr>
<td>+ENG102</td>
<td>First-Year Composition (3) OR</td>
<td></td>
</tr>
<tr>
<td>+ENG108</td>
<td>First-Year Composition for ESL (3)</td>
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</table>

Oral Communication Waived.  
Critical Reading  
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CRE101</td>
<td>College Critical Reading (3) OR Equivalent by assessment</td>
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</table>

Mathematics  
Met by MAT120, or MAT121, or MAT122 OR Satisfactory completion of higher level mathematics course in Program Prerequisites area.  

Humanities and Fine Arts  
Any approved course in the Humanities and Fine Arts area.  

Natural Science  
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>+BIO202</td>
<td>Human Anatomy and Physiology II (4) AND</td>
<td></td>
</tr>
<tr>
<td>+BIO205</td>
<td>Microbiology (4)</td>
<td>8</td>
</tr>
</tbody>
</table>

Social and Behavioral Sciences  
Met by PSY101 or PSY240 in Program Prerequisites area.  

THE PRACTICAL NURSING CERTIFICATE OF COMPLETION (CCL) 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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>BIO156</td>
<td>Introductory Biology for Allied Health</td>
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<td>General Biology (Majors)</td>
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<td>BIO201</td>
<td>Human Anatomy and Physiology I</td>
<td>4</td>
</tr>
<tr>
<td>CHM130</td>
<td>Fundamental Chemistry I</td>
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</tr>
<tr>
<td>CHM130LL</td>
<td>Fundamental Chemistry Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>MAT120</td>
<td>Intermediate Algebra (5)</td>
<td>4</td>
</tr>
<tr>
<td>MAT121</td>
<td>Intermediate Algebra (4)</td>
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</tr>
<tr>
<td>MAT122</td>
<td>Intermediate Algebra (3)</td>
<td>3</td>
</tr>
<tr>
<td>PSY101</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY240</td>
<td>Developmental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>NUR151</td>
<td>Nursing Theory and Science I</td>
<td>10</td>
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<tr>
<td>NUR171</td>
<td>Nursing Theory and Science II</td>
<td>8</td>
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<tr>
<td>NUR191</td>
<td>Practical Nursing Transition Course</td>
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</tbody>
</table>

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 MCCCD Nurse Assisting Program is approved by the Arizona State Board of Nursing.

Waiver of Licensure/Certification Guarantee
Admission or completion from the MCCCD 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

THE CERTIFICATE OF COMPLETION (CCL) IN NURSING REFRESHER program provides registered nurses with a review and update of nursing theory and practice. The Nursing Refresher program is approved by the Arizona State Board of Nursing. Successful program completion satisfies the Arizona State Board of Nursing RN license renewal requirement for applicants who do not meet the practice mandate as stated in The Nurse Practice Act, R4-19312 (B). **Major Code: 5739**

Total Credits: 10

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.

Admission Criteria
Formal application and admission to the program is required. All applicants must have an active RN license or an inactive RN license that is eligible for renewal per Regulatory Board requirements.

A minimum of 1 year work experience as a registered nurse following licensure is required.

Applicants must have practices nursing no longer than 15 years ago.

Participation in a specialty track clinical experience requires at least 1 year prior RN work experience in the identified
nursing specialty. All applicants must be in good standing with the Regulatory Board. RN's with restricted licenses are not eligible for the program. Once enrolled, students receiving any disciplinary actions against their license must notify the Nursing Program Chair within five (5) school days. The Nursing Program Chair reserves the right to restrict the student’s participation in clinical experiences and involvement in patient care until the license is valid and unrestricted.

Health and Safety Requirements for the Nursing 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.

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.

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.

Program Prerequisites: None.

Required Courses: Credits: 10
NUR228 Registered Nurse Refresher 6
+ NUR229 Registered Nurse Preceptorship 4

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 OF APPLIED SCIENCE (AAS) IN STRENGTH, NUTRITION, AND PERSONAL TRAINING program is designed to prepare 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 curriculum is designed to provide students with a stronger educational background making them more marketable in the field of fitness and nutrition. This degree may 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: 61-66**

Program Notes: Students must earn a grade of “C” or better required for all courses within the program.

**Required Courses: Credits: 36-39**

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<td>Introduction to Exercise Science, Kinesiology, and Physical Education</td>
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<tr>
<td>EXS112</td>
<td>Professional Applications of Fitness Principles</td>
<td>3</td>
</tr>
<tr>
<td>EXS125</td>
<td>Introduction to Exercise Physiology</td>
<td>3</td>
</tr>
<tr>
<td>EXS130</td>
<td>Strength Fitness: Physiological Principles and Training Techniques</td>
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<tr>
<td>EXS132</td>
<td>Cardiovascular Fitness: Physiological Principles and Training Techniques</td>
<td>3</td>
</tr>
<tr>
<td>EXS138</td>
<td>Starting Your Own Personal Training Business</td>
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<tr>
<td>EXS145</td>
<td>Guidelines for Exercise Testing and Prescription</td>
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<tr>
<td>EXS214</td>
<td>Instructional Competency: Flexibility and Mind-Body Exercises</td>
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<tr>
<td>EXS216</td>
<td>Instructional Competency: Muscular Strength and Conditioning</td>
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<tr>
<td>EXS218</td>
<td>Instructional Competency: Cardiorespiratory Exercises and Activities</td>
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<td>+EXS239</td>
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<td>+EXS239AB</td>
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<tr>
<td>FON100</td>
<td>Introductory Nutrition (3) OR</td>
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**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**

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**Required Courses: Credits: 39**

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<td>Introductory Nutrition</td>
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<tr>
<td>FON104</td>
<td>Certification in Food Service</td>
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<tr>
<td>FON118</td>
<td>Commercial Baking Techniques (3) OR</td>
<td>3</td>
</tr>
<tr>
<td>FON135</td>
<td>Cooking Life (3)</td>
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<tr>
<td>FON122</td>
<td>Principles of Food and Beverage Service</td>
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<tr>
<td>FON143</td>
<td>Food and Culture</td>
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<tr>
<td>FON160</td>
<td>Modern Food Systems</td>
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<td>+FON161</td>
<td>Sustainable Food Production Systems</td>
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<tr>
<td>+FON162</td>
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<td>+FON163</td>
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<tr>
<td>+FON285</td>
<td>Food and Nutrition Studies Internship (3)</td>
<td>6</td>
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</tbody>
</table>

Students must complete six (6) credits of internship.

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
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</tr>
</thead>
<tbody>
<tr>
<td>+PHI216</td>
<td>Environmental Ethics</td>
<td>3</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECN212</td>
<td>Microeconomic Principles (3)</td>
<td>3</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td></td>
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<tr>
<td>BIO105</td>
<td>Environmental Biology (4) OR</td>
<td>3</td>
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<tr>
<td>CHM107</td>
<td>Chemistry and Society (3)</td>
<td>3</td>
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</table>

THE ASSOCIATE OF APPLIED SCIENCE (AAS) IN STRENGTH, NUTRITION, AND PERSONAL TRAINING program is designed to prepare 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 curriculum is designed to provide students with a stronger educational background making them more marketable in the field of fitness and nutrition. This degree may 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: 61-66**

Program Notes: Students must earn a grade of “C” or better required for all courses within the program.

**Required Courses: Credits: 36-39**

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>EXS101</td>
<td>Introduction to Exercise Science, Kinesiology, and Physical Education</td>
<td>3</td>
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<tr>
<td>EXS112</td>
<td>Professional Applications of Fitness Principles</td>
<td>3</td>
</tr>
<tr>
<td>EXS125</td>
<td>Introduction to Exercise Physiology</td>
<td>3</td>
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<tr>
<td>EXS130</td>
<td>Strength Fitness: Physiological Principles and Training Techniques</td>
<td>3</td>
</tr>
<tr>
<td>EXS132</td>
<td>Cardiovascular Fitness: Physiological Principles and Training Techniques</td>
<td>3</td>
</tr>
<tr>
<td>EXS138</td>
<td>Starting Your Own Personal Training Business</td>
<td>1</td>
</tr>
<tr>
<td>EXS145</td>
<td>Guidelines for Exercise Testing and Prescription</td>
<td>3</td>
</tr>
<tr>
<td>EXS214</td>
<td>Instructional Competency: Flexibility and Mind-Body Exercises</td>
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<tr>
<td>EXS216</td>
<td>Instructional Competency: Muscular Strength and Conditioning</td>
<td>2</td>
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<tr>
<td>EXS218</td>
<td>Instructional Competency: Cardiorespiratory Exercises and Activities</td>
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<tr>
<td>+EXS239</td>
<td>Practical Applications of Personal Training Skills and Techniques Internship (3)</td>
<td>3</td>
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<tr>
<td>+EXS239AA</td>
<td>Practical Applications of Personal Training Skills and Techniques Internship (1) AND</td>
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<tr>
<td>+EXS239AB</td>
<td>Practical Applications of Personal Training Skills and Techniques Internship (2) OR</td>
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<tr>
<td>FON100</td>
<td>Introductory Nutrition (3) OR</td>
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</tbody>
</table>
FON241 Principles of Human Nutrition (3) 3
+FON210 Sports Nutrition and Supplements for Physical Activities 3
+FON247 Weight Management Theory 3
HES154 First Aid/Cardiopulmonary Resuscitation (3) OR BLS Health Care Provider and First Aid Certification 3

General Education: Credits: 25-27
First Year Composition
ENG101 First Year Composition (3) AND 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
HES100 Healthful Living (3) OR PSY101 Introduction to Psychology (3) 3

Natural Sciences
BIO160 Introduction to Human Anatomy and Physiology 4

THE CERTIFICATE OF COMPLETION (CCL) IN NUTRITION FOR FITNESS AND WELLNESS program is designed to 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
## CAREER AND TECHNICAL PROGRAMS

**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

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<tr>
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<td>English Composition (3)</td>
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<td>Macroeconomics (3) OR ECN212</td>
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<td>REA282</td>
<td>Real Estate Finance</td>
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<tr>
<td>GBS219</td>
<td>Statistics for Real Estate Appraisers</td>
<td>3</td>
</tr>
<tr>
<td>+REA281</td>
<td>Principles of Real Estate Law</td>
<td>3</td>
</tr>
<tr>
<td>+REA282</td>
<td>Real Estate Finance</td>
<td>3</td>
</tr>
<tr>
<td>OAS108</td>
<td>Business English (3) OR ENG101</td>
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<tr>
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<td>Macroeconomics (3) OR ECN212</td>
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<tr>
<td>GBS219</td>
<td>Statistics for Real Estate Appraisers</td>
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<tr>
<td>+REA281</td>
<td>Principles of Real Estate Law</td>
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<tr>
<td>REA270</td>
<td>Basic Appraisal Principles</td>
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<tr>
<td>REA271</td>
<td>Basic Appraisal Procedures</td>
<td>2</td>
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<td>BPC110</td>
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<td>Macroeconomics (3) OR ECN212</td>
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</tr>
<tr>
<td>+REA281</td>
<td>Principles of Real Estate Law</td>
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</table>
| 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

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<td>ECN211</td>
<td>Macroeconomics (3) OR ECN212</td>
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<td>Real Estate Finance</td>
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<tr>
<td>GBS219</td>
<td>Statistics for Real Estate Appraisers</td>
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<tr>
<td>+REA281</td>
<td>Principles of Real Estate Law</td>
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<td>REA270</td>
<td>Basic Appraisal Principles</td>
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<td>REA271</td>
<td>Basic Appraisal Procedures</td>
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<td>OAS108</td>
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<td>Macroeconomics (3) OR ECN212</td>
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<td>GBS219</td>
<td>Statistics for Real Estate Appraisers</td>
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<td>+REA281</td>
<td>Principles of Real Estate Law</td>
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<tr>
<td>REA270</td>
<td>Basic Appraisal Principles</td>
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<td>Macroeconomics (3) OR ECN212</td>
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<td>REA282</td>
<td>Real Estate Finance</td>
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<tr>
<td>GBS219</td>
<td>Statistics for Real Estate Appraisers</td>
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</tr>
<tr>
<td>+REA281</td>
<td>Principles of Real Estate Law</td>
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</tr>
</tbody>
</table>
**Veterinary Technology Degree**

- **Associate in Applied Science in Veterinary Technology**

  Department Chairperson: Janice Pierson  
  Contact: (480) 461-7724  
  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  
  - BJO181 General Biology (Majors)  
  - CHM130 Fundamental Chemistry (3) AND  
  - CHM130LL Fundamental Chemistry Laboratory (1)  
  - CRE101 College Critical Reading (3) OR equivalent as indicated by assessment  
  - ENG101 First Year Composition (3) OR  
  - ENG107 First Year Composition for ESL (3)  
  - ENG102 First Year Composition (3) OR  
  - ENG111 Technical Writing (3)  
  - MAT120 Intermediate Algebra (5) OR  
  - MAT121 Intermediate Algebra (4) OR  
  - MAT122 Intermediate Algebra (3)  
  - MAT123 Intermediate Algebra (3-5)
Required Courses: Credits: 43

AGB132 Agribusiness Accounting and Office Management 3
AGB139 Agribusiness Computer Operations 3
+ANH200 Veterinary Clinical Pathology Methods 3
+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 Nursing 3
+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 Management 3
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 (3) OR
COM110 Interpersonal Communication (3) 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: Bob Bonura
Contact: (480) 461-7173

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: 62-69**

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
+DFT114 Machine Trades Blueprint Reading 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
## CAREER AND TECHNICAL PROGRAMS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>WLD106</td>
<td>Arc Welding</td>
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<tr>
<td>+WLD206</td>
<td>Advanced Weld - Heliarc and Wire Feed</td>
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</tr>
<tr>
<td>+WLD208</td>
<td>Advanced Arc Welding - Certification</td>
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</tr>
<tr>
<td>WLD225</td>
<td>Welding Inspection and Quality Control</td>
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</tr>
</tbody>
</table>

**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: 18-22**

### 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. **0-3**

### 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 **3**
- PSY125 Leadership and Group Relations recommended.

### Natural Sciences
- Any approved General Education course from the Natural Sciences Area **4**

**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**
Course Descriptions

AAA Advancing Academic Achievement .................. 199
ACC Accounting .................................................. 199
AES Aerospace Studies ...................................... 199
AFR African American Studies ............................ 200
AGB Agribusiness .............................................. 200
AGL Agricultural Landscape .................................. 201
AGS Agricultural Science .................................... 201
AIS American Indian .......................................... 202
AJS Administration of Justice ................................ 203
ANH Animal Health ............................................. 205
ANS Animal Science ............................................ 206
APT Automotive Performance Technology ............. 207
ARB Arabic ......................................................... 218
ARC Architecture ............................................... 208
ARH Art History/Humanities .................................. 209
ART Art .............................................................. 209
ASB Anthropology Social/Behavioral Science ......... 212
ASM Anthropology Science/Mathematics ................ 213
AST Astronomy .................................................... 214
AUT Automotive Technology .................................. 214
BIO Biology ........................................................ 215
BLT Building Safety and Construction Technology .... 217
BPC Business Personal Computers ....................... 217
CCS Chicana and Chicano Studies ....................... 218
CET Civil Engineering Technology .......................... 218
CFS Child/Family Studies ..................................... 219
CHI Chinese ........................................................ 219
CHM Chemistry ................................................... 220
CIS Computer Information Systems ...................... 221
CNS Construction ................................................ 228
CNT Cisco Network technology ............................. 234
COM Communication ............................................ 231
CPD Counseling and Personal Development .......... 232
CRE Critical Reading ............................................ 232
CRW Creative Writing .......................................... 232
CSC Computer Science ......................................... 233
CTT Caterpillar Technician Training ..................... 234
CUL Culinary ........................................................ 235
CWE Career Work Experience .............................. 235
DAH Dance Humanities ....................................... 235
DAN Dance-Performing Arts .................................. 235
DFT Drafting Technology ...................................... 238
DHE Dental Hygiene Education ............................. 239
ECE Engineering Science ..................................... 241
ECH Early Childhood Education ............................ 241
ECN Economics ................................................... 241
EDU Education .................................................... 242
EED Early Education ............................................. 244
EEE Electrical Engineering .................................... 244
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<td>ELT</td>
<td>Electronics Technology</td>
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<td>Emergency Medical Technology</td>
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<td>Education Professional Development</td>
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<td>Entrepreneurial Studies</td>
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<td>EQS</td>
<td>Equine Science</td>
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<td>ESL</td>
<td>English as a Second Language</td>
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<td>ETL</td>
<td>Excellence/Teaching/Learning</td>
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AAA - Advancing Academic Achievement

AAA115 1 Credit 1 Period
Creating College Success
Strategies to create success in college. Methods for selecting and developing effective academic strategies, increasing self-awareness and developing self-management strategies. Elements of college resources and relationships with others explored in support of students’ educational experience. Prerequisites: None.

AAA150 3 Credits 3 Periods
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.

ACC - Accounting

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

ACC109 3 Credits 3 Periods
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.

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

ACC115 2 Credits 3 Periods
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.

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

ACC230 3 Credits 3 Periods
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.

ACC240 3 Credits 3 Periods
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.

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

ACC270AC 3 Credits 3 Periods
Accounting Internship
Accounting work experience in a business or industry. Eighty hours of designated work per credit totaling 240 hours per semester. Maximum of 3 credits allowed. Prerequisites: Departmental approval

ACC282 1 Credits 1 Periods
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.

ACC298 1-3 Credits See Page 292
Special Projects

AES - Aerospace Studies

AES101 2 Credits 2 Periods
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, officercitizenship and professionalism. Prerequisites: None.
COURSE DESCRIPTIONS

AES103 2 Credits 2 Periods
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.

AES201 2 Credits 2 Periods
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.

AES203 2 Credits 2 Periods
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.

AES294 1 Credit 3 Periods
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.

AFR - African American Studies

AFR110 3 Credits 3 Periods
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.

AFR202 3 Credits 3 Periods
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.

AGB - Agribusiness

AGB130 3 Credits 3 Periods
Establishing and Running an Agribusiness
Basic principles used in establishing and running an Agribusiness. Emphasis on business requirements to maintain a business enterprise in Arizona. Prerequisites: None.

AGB132 3 Credits 3 Periods
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.

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

AGB140 3 Credits 5 Periods
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.

AGB290 3 Credits 6 Periods
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.

AGB296 1-3 Credits 5-15 Periods
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.
AGL - Agricultural Landscape

AGL181  3 Credits 6 Periods
Landscape Construction Techniques
The methods used in site preparation; installation of edgings; construction of walks, patios and decks; installation of sprinkler systems; rock shapes and the planting of trees, shrubs, ground covers, and lawns. Prerequisites: None.

AGL189  3 Credits 6 Periods
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.

AGL282  3 Credits 6 Periods
Landscape Computer Aided Design
Computer-aided landscape design, site layout and analysis, landscape design modeling, graphics, sprinkler design, detail drawings, landscape legends, sectional and 3-D views, E-Z estimate and Database use. Prerequisites: (AGB139, or CAD100, or CAD101) and AGL189, or permission of instructor.

AGL296  1-3 Credits 5-15 Periods
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.

AGS - Agricultural Science

AGS164  4 Credits 6 Periods
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.

AGS168  3 Credits 5 Periods
Grounds Equipment Management
Selection, use and maintenance of grounds equipment, including both manual and power equipment. Prerequisites: None.

AGS182AA  2 Credits 4 Periods
Gardening Practices And Techniques
Cultural practices of vegetables, fruits and ornamental plants as they relate to organic and inorganic gardening. Prerequisites: None.

AGS183  3 Credits 3 Periods
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.

AGS186  3 Credits 5 Periods
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.

AGS187  3 Credits 3 Periods
Indoor Foliage Plants
Environmental and nutritional requirements for foliage plants used for interior decoration. Includes identification, nomenclature and uses. Prerequisites: None.

AGS192  3 Credits 5 Periods
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.

AGS260  4 Credits 6 Periods
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.

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

AGS262  3 Credits 5 Periods
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.

**AGS268 4 Credits 6 Periods**

**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.

**AGS284 3 Credits 3 Periods**

**Lawn And Turf Care**

Factors that affect the establishment and maintenance of turf grasses. Includes budgets, schedules and selection of equipment. Prerequisites: None.

**AGS285 2 Credits 3 Periods**

**Propagation of Horticultural Plants**

Principles and processes of propagation of crops using seed, budding, grafting, and cuttings in greenhouse structures and open ground. Prerequisites: None.

**AGS290 3 Credits 6 Periods**

**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.

**AGS296 1-3 Credits 5-15 Periods**

**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.

**AGS298**

**Special Projects**

1-3 Credits See Page 292

**AIS - American Indian Studies**

**AIS101 3 Credits 3 Periods**

**Survey of American Indian Issues**

Introduction to critical issues related to Native Americans.

Examines political, economic, and social issues. Focuses on contemporary issues and factors influencing American Indian communities. Prerequisites: None.

**AIS105 3 Credits 3 Periods**

**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.

**AIS110 3 Credits 3 Periods**

**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.

**AIS170 3 Credits 3 Periods**

**American Indian History of the Southwest**

Covers history of Indian peoples in the southwestern United States from pre-Columbian era to the present. Includes historical events, the development and implementation of Spanish-Mexican and United States’ policies and their impact on Indian peoples in these areas, and current issues of importance to Indian peoples. Prerequisites: None.

**AIS213 3 Credits 3 Periods**

**American Indian Religions**

Tribal traditions of the people native to North America, and pan-Indian religions in the twentieth century. Prerequisites: ENG101 or ENG107 or equivalent.

**AIS261 3 Credits 3 Periods**

**Native Women's Literature: The Americas**

Explores contemporary native women’s (indigenous to the Americas) literature. Selected literature (oral tradition, poetry, fiction, nonfiction, and drama) focuses on themes relevant to native women. Examines the trends and movements within American Indian and women’s literary history. Prerequisites: ENG101.
AJS - Administration of Justice

AJS101 3 Credits 3 Periods
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.

AJS109 3 Credits 3 Periods
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.

AJS113 3 Credits 3 Periods
Evidence Technology/Fingerprints
Fingerprint identification, interpretation, and classification. The fundamentals of fingerprinting and the problems in developing latent prints, preservation of evidence and the chain of evidence. Prerequisites: None.

AJS119 3 Credits 4 Periods
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.

AJS123 3 Credits 3 Periods
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.

AJS151 1 Credit 1 Period
Firearms I
Moral aspects, legal provisions, safety precautions and restrictions covering the use of firearms, and the firing of sidearms and shotguns. Prerequisites: None.

AJS153 1 Credit 1 Period
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.

AJS192 3 Credits 3 Periods
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.

AJS198AB 1 Credit 1 Period
Special Topics in the Administration of Justice
Explores special topics related to the administration of justice with an emphasis on current issues. Prerequisites: None.

AJS200 3 Credits 3 Periods
Current Issues In Criminal Justice
Examines current issues, techniques and trends in the Criminal Justice System. Prerequisites: None.

AJS201 3 Credits 3 Periods
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.

AJS205 3 Credits 3 Periods
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.

AJS212 3 Credits 3 Periods
Juvenile Justice Procedures
Examines the history and development of juvenile justice theories, procedures, and institutions. Prerequisites: None.
COURSE DESCRIPTIONS

AJS215 3 Credits 3 Periods
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.

AJS216 3 Credits 3 Periods
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.

AJS225 3 Credits 3 Periods
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.

AJS230 3 Credits 3 Periods
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.

AJS240 3 Credits 3 Periods
The Correction Function
Examines the history and development of correctional theories and institutions. Prerequisites: None.

AJS241 3 Credits 3 Periods
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.

AJS258 3 Credits 3 Periods
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.

AJS260 3 Credits 3 Periods
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.

AJS269AC 3 Credits 15 Periods
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.

AJS270 3 Credits 3 Periods
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.

AJS275 3 Credits 3 Periods
Criminal Investigation I
Introduction to the theory of criminal investigation. Examines crime scene procedures, case preparation, interviewing, and basic investigative techniques. Prerequisites: None.

AJS282 1-3 Credits 1-3 Periods
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.

AJS290AI 1 Credit 1 Period
Theories Of Criminal Behavior
Theories of human behavior and crime. Biological, sociological, and psychological approaches to the theories of criminal behavior. Prerequisites: None.

AJS290AU 1 Credit 1 Period
Child Abuse Investigation
Definition and investigation of the causes and effects of child abuse. Prerequisites: None.
### COURSE DESCRIPTIONS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AJS290AW</td>
<td>1</td>
<td>1</td>
<td>Narcotics And Dangerous Drugs</td>
<td>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.</td>
</tr>
<tr>
<td>AJS290BE</td>
<td>1</td>
<td>1</td>
<td>Probation And Parole</td>
<td>Current issues in probation and parole, including sentencing, parole revocation, and administrative procedure. Prerequisites: None.</td>
</tr>
<tr>
<td>AJS290BH</td>
<td>1</td>
<td>1</td>
<td>Sex Crimes Investigation</td>
<td>Investigative procedures employed by the police and courtroom procedures utilized by the prosecuting attorney in sex-related crimes. Prerequisites: None.</td>
</tr>
<tr>
<td>AJS290BU</td>
<td>1</td>
<td>1</td>
<td>Family Violence</td>
<td>Family violence issues as they relate to the criminal justice response. Prerequisites: None.</td>
</tr>
<tr>
<td>AJS290BV</td>
<td>1</td>
<td>1</td>
<td>Victim Assistance</td>
<td>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.</td>
</tr>
<tr>
<td>ANH200</td>
<td>3</td>
<td>6</td>
<td>Veterinary Clinical Pathology Methods</td>
<td>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 Health program) or permission of Instructor.</td>
</tr>
<tr>
<td>ANH205</td>
<td>3</td>
<td>6</td>
<td>Clinical Veterinary Anatomy And Physiology</td>
<td>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.</td>
</tr>
<tr>
<td>ANH210</td>
<td>2</td>
<td>4</td>
<td>Animal Nursing</td>
<td>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.</td>
</tr>
<tr>
<td>ANH220</td>
<td>3</td>
<td>5</td>
<td>Animal Pharmacology</td>
<td>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.</td>
</tr>
<tr>
<td>ANH230</td>
<td>3</td>
<td>6</td>
<td>Veterinary Radiography And Imaging</td>
<td>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.</td>
</tr>
<tr>
<td>ANH240</td>
<td>3</td>
<td>6</td>
<td>Veterinary Anesthesia, Surgery, And Emergency Nursing</td>
<td>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,</td>
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</tbody>
</table>
instrument sterilization techniques and monitoring veterinary patients for vital signs. Prerequisites: ANS112, ANH210, ANH220, and admission to the Veterinary Technician/Animal Health program.

**ANH250AA** 0.5 Credit 0.5 Period
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.

**ANH250AB** 0.5 Credit 0.5 Period
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.

**ANH250AC** 0.5 Credit 0.5 Period
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.

**ANH250AD** 0.5 Credit 0.5 Period
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.

**ANS - Animal Science**

**ANS110** 3 Credits 3 Periods
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.

**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** 3 Credits 5 Periods
Animal Science And Health Practices
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
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<th>Course Title</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>ANS212</td>
<td>3</td>
<td>3</td>
<td>Livestock Production And Management</td>
<td>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.</td>
</tr>
<tr>
<td>ANS222</td>
<td>3</td>
<td>3</td>
<td>Animal Anatomy And Physiology</td>
<td>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.</td>
</tr>
<tr>
<td>ANS222LL</td>
<td>1</td>
<td>3</td>
<td>Animal Anatomy And Physiology Laboratory</td>
<td>Laboratory experience in support of ANS222. Includes dissection of preserved animal specimens. Prerequisites: None. Corequisites: ANS222.</td>
</tr>
<tr>
<td>ANS290</td>
<td>3</td>
<td>6</td>
<td>Internship</td>
<td>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.</td>
</tr>
<tr>
<td>ANS296</td>
<td>1-3</td>
<td>5-15</td>
<td>Cooperative Education</td>
<td>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.</td>
</tr>
<tr>
<td>APT101</td>
<td>2</td>
<td>2</td>
<td>Automotive Service Operations</td>
<td>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.</td>
</tr>
<tr>
<td>APT111</td>
<td>3</td>
<td>3</td>
<td>Internal Combustion Engines Theory</td>
<td>Study of construction and operating principles of internal combustion engines and related lubrication, cooling, fuel, and electrical systems. Prerequisites: None.</td>
</tr>
<tr>
<td>APT131</td>
<td>6</td>
<td>10</td>
<td>Automotive Power Trains</td>
<td>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.</td>
</tr>
<tr>
<td>APT141</td>
<td>6</td>
<td>10</td>
<td>Alignment, Steering, And Suspension</td>
<td>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.</td>
</tr>
<tr>
<td>APT151</td>
<td>4</td>
<td>7</td>
<td>Automotive Brake Systems</td>
<td>Designed for beginning automotive students. Fundamentals of drum, disc, and ABS brakes. Includes training in diagnosis, testing, service, and repair. Prerequisites: None.</td>
</tr>
<tr>
<td>APT161</td>
<td>4</td>
<td>7</td>
<td>Auto Electrical/Electronic Systems I</td>
<td>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.</td>
</tr>
<tr>
<td>APT171</td>
<td>4</td>
<td>7</td>
<td>Automotive Air Conditioning</td>
<td>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.</td>
</tr>
<tr>
<td>APT181</td>
<td>6</td>
<td>10</td>
<td>Engine Performance And Diagnosis I</td>
<td>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.</td>
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</table>
### 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 instrumentation, and chassis electronic control systems. Includes training in diagnosis, testing, service, and repair. Prerequisites: APT161 or instructor permission.

### ARB - Arabic

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
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</thead>
<tbody>
<tr>
<td>ARB101</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td><strong>Elementary Arabic I</strong></td>
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<tr>
<td>Introduction to the basic alphabet, grammar, pronunciation and vocabulary of the Arabic language. Listening, speaking, reading and writing skills. Prerequisites: None.</td>
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<tr>
<th>Course Code</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ARB102</td>
<td>4</td>
<td>5</td>
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<tr>
<td><strong>Elementary Arabic II</strong></td>
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<tr>
<td>A continuation of ARB101. Continued study of grammar and vocabulary, with emphasis on pronunciation and speaking skills. Prerequisites: ARB101 or equivalent.</td>
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<tbody>
<tr>
<td>ARB201</td>
<td>4</td>
<td>5</td>
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<tr>
<td><strong>Intermediate Arabic I</strong></td>
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<tr>
<td>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.</td>
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<tbody>
<tr>
<td>ARB202</td>
<td>4</td>
<td>5</td>
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<tr>
<td><strong>Intermediate Arabic II</strong></td>
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<tr>
<td>Advanced grammatical structures in Arabic. Further development of language skills with emphasis on speaking the language. Prerequisites: ARB201 or permission of Department or Division.</td>
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### ARC - Architecture

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<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
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<tbody>
<tr>
<td>ARC100</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td><strong>Introduction To Environmental Design</strong></td>
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<tr>
<td>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.</td>
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<tbody>
<tr>
<td>ARC140</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td><strong>Rendering And Portfolio Development</strong></td>
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<tr>
<td>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.</td>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>ARC161</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td><strong>Residential Architectural Drafting</strong></td>
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<tr>
<td>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.</td>
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<th>Course Code</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ARC162</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td><strong>Advanced Residential Architectural Drafting</strong></td>
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</tr>
<tr>
<td>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.</td>
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<tr>
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<tbody>
<tr>
<td>ARC165</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Introduction To Architecture Professional Practice And Ethics</strong></td>
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<tr>
<td>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.</td>
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<th>Credits</th>
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<tbody>
<tr>
<td>ARC225</td>
<td>3</td>
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<tr>
<td><strong>Fundamentals of Architectural Detailing</strong></td>
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<tr>
<td>Introduction to construction/architecture detailing. Examines functional, construction-related, and aesthetic applications of detailing. Prerequisites: CNS130, or CNS180, or permission of Department or Division.</td>
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<tr>
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<tbody>
<tr>
<td>ARC226</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Advanced Architectural Detailing</strong></td>
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<tr>
<td>Advanced methods of detailing major construction materials such as wood, steel, and concrete, ranging from simple residential to more complicated commercial structures.</td>
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</tbody>
</table>
Includes detailing foundations, exterior and interior walls, roof and ceiling areas. Prerequisites: CNS130, or CNS180, or permission of Department or Division.

**ARC251**  
**Introduction to Revit**  
3 Credits 6 Periods  
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. Previous architectural and CAD experience strongly recommended.

**ARC265**  
**Sketchup I: Introduction to Sketchup**  
3 Credits 6 Periods  
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.

**ARC282**  
**Volunteerism For Architecture: A Service-Learning Experience**  
1-3 Credits 1-3 Periods  
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.

**ARC290AC**  
**Architecture Internship**  
3 Credits 3 Periods  
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.

**ARC298**  
**Special Projects**  
1-3 Credits See Page 292

### ARH - Art History/Humanities

**ARH100**  
**Introduction to Art**  
3 Credits 3 Periods  
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.

**ARH101**  
**Prehistoric Through Gothic Art**  
3 Credits 3 Periods  
History of art from prehistoric through medieval period. Prerequisites: None.

**ARH102**  
**Renaissance Through Contemporary Art**  
3 Credits 3 Periods  
History of art from around the world from the Renaissance through contemporary period. Prerequisites: None.

**ARH115**  
**History of Photography**  
3 Credits 3 Periods  
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.

### ART - Art

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

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

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

**ART113**  
**Color**  
3 Credits 6 Periods  
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.

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

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

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

**ART118**  
3 Credits 6 Periods  
**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.

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

**ART131**  
3 Credits 6 Periods  
**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.

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

**ART142**  
3 Credits 6 Periods  
**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.

**ART143**  
3 Credits 6 Periods  
**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.

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

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

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

**ART166**  
3 Credits 6 Periods  
**Watercolor Painting II**  
Painting in water-soluble media. Emphasis on individual techniques and design. Prerequisites: ART165.

**ART167**  
3 Credits 6 Periods  
**Painting I**  
Exploration of technical and expressive possibilities of various painting media in easel painting. Prerequisites: (ART111 and ADA/ART112), or permission of Instructor.

**ART168**  
3 Credits 6 Periods  
**Painting II**  
Continued refinement of painting skills and investigation of new possibilities in painting. Prerequisites: ART167 or permission of Instructor.

**ART169**  
3 Credits 6 Periods  
**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.

**ART177**  
3 Credits 6 Periods  
**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.

**ART183**  
3 Credits 6 Periods  
**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.

**ART190** 3 Credits 6 Periods
**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.

**ART192** 3 Credits 6 Periods
**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.

**ART202** 3 Credits 6 Periods
**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.

**ART203** 3 Credits 6 Periods
**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.

**ART211** 3 Credits 6 Periods
**Drawing and Composition III**
Advanced development of drawing skill with emphasis on compositional theory. Prerequisites: ART122 or permission of Instructor.

**ART216** 3 Credits 6 Periods
**Life Drawing III**
Advanced creative study from model in various painting and drawing media. Prerequisites: ART117 or permission of Instructor.

**ART217** 3 Credits 6 Periods
**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.

**ART222** 3 Credits 6 Periods
**Drawing and Composition IV**
Further study of drawing techniques with emphasis on individual problems and techniques. Prerequisites: ART211 or permission of Instructor.

**ART255** 3 Credits 3 Periods
**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.

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

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

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

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

**ART267** 3 Credits 6 Periods
**Painting III**
Development of materials and techniques of painting. Individual problem-solving. Prerequisites: ART168 or permission of Instructor.
ART268  3 Credits 6 Periods
Painting IV
Advanced problems in painting. Study with greater emphasis on personal expression. Prerequisites: ART267 or permission of Instructor.

ART270  3 Credits 6 Periods
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).

ART274  3 Credits 6 Periods
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.

ART283  3 Credits 6 Periods
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.

ART289  3 Credits 6 Periods
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.

ART290  1-3 Credits 2- 6 Periods
Studio Art
Studio course for art majors allowing continuation in a subject field. ART290 may be repeated for credit. Prerequisites: Permission of Instructor.

ART295BC  3 Credits 6 Periods
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.

ART295DA  1 Credit 2 Periods
Art Workshop/Seminar: Photography
Advanced level workshop seminar in art disciplines. Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division chair.

ART295GB  2 Credits 4 Periods
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.

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

ASB - Anthropology: Social/Behavioral Science

ASB102  3 Credits 3 Periods
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.

ASB202  3 Credits 3 Periods
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.

ASB211  3 Credits 3 Periods
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.

ASB214  3 Credits 3 Periods
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.

**ASB220** 3 Credits 3 Periods

**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.

**ASB222** 3 Credits 3 Periods

**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.

**ASB223** 3 Credits 3 Periods

**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.

**ASB226** 3 Credits 3 Periods

**Human Impacts on Ancient Environments**

Interrelationship between humans and their environments, using archaeological data and case studies beginning with early hominids. Uses of research to identify environmental change and distinguish between climatic and human-induced global change. Explores ways in which prehistoric people caused and responded to environmental changes. Prerequisites: None.

**ASB231** 4 Credits 8 Periods

**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.

**ASB235** 3 Credits 3 Periods

**Southwest Archaeology**

Anthropological perspective and comparative study of the cultures of prehistoric native peoples of the North American southwest. Prerequisites: None.

**ASB252** 3 Credits 3 Periods

**Anthropology of Sport**

Cross-cultural examination of symbolic and social dimensions of sports, past and present. Prerequisites: None.

**ASB253** 3 Credits 3 Periods

**Death and Dying Across Cultures**

Responses to death and dying in cultures around the world. Explanations for particular cultural responses to death and dying. Examples drawn from ancient and contemporary cultures. Prerequisites: None.

**ASB282** 1-3 Credits 1-3 Periods

**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.

**ASM - Anthropology: Science/Mathematics**

**ASM104** 4 Credits 5 Periods

**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.

**ASM275** 3 Credits 3 Periods

**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.

**AST – Astronomy**

**AST111** 3 Credits 3 Periods
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.

**AST112** 3 Credits 3 Periods
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.

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

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

**ATP – AUTOMATION TECHNOLOGY**

**ATP101** 2 Credits 2 Periods
Introduction to Automated Systems and Robotics
An introduction to mechanization, distribution systems, Automated Storage and Retrieval Systems (ASRS), and the role of the manufacturing technician. Includes general manufacturing techniques, industry standards, and statistical process control. Prerequisites: None.

**ATP105** 2 credits, 2 periods
Engineering Documentation
Analysis and interpretation of engineering documentation, common to manufacturing processes. Prerequisites: None.

**ATP130** 2 credits, 2 periods
DC Circuit Analysis
Direct current (DC) electric circuits. Ohm’s law, Kirchoff’s laws, series, parallel and series. Prerequisites: None.

**ATP135** 2 Credits 3 Periods
AC Circuit Analysis
Alternating Current (AC) circuits containing resistance and reactance. Detailed coverage of AC circuit parameters, including theorems, impedance matching, and resonance. Prerequisites: None.

**ATP150** 2 Credits 3 Periods
Fluid Power 1 – Hydraulics, Pneumatics, and Vacuum Concepts
Fundamental fluid power and vacuum for industry. Pneumatic, hydraulic, and vacuum system technologies with emphasis on assembly, integration, and measurement. Prerequisites: None.

**ATP160** 2 Credits 3 Periods
Programmable Logic Controllers 1 – Introduction to Ladder Logic
Integration of Human Machine Interfaces (HMI) to Programmable Logic Controllers (PLC’s). Memory usage and types of HMI systems. Prerequisites: None.

**AUT - Automotive Technology**

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

**AUT270AC** 3 Credits 3 Periods
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, AUT270AB, or AUT270AC. Prerequisites: Permission of Department or Division.

**AUT282** 1-3 Credits 1-3 Periods
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.
AUT296  1-3 Credits 5-15 Periods
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.

AUT298  Special Projects
1-3 Credits See Page 292

BIO - Biology

BIO100  4 Credits 6 Periods
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.

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

BIO107  4 Credits 6 Periods
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.

BIO108  4 Credits 6 Periods
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.

BIO109  4 Credits 6 Periods
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.

BIO111  2 Credits 3 Periods
Microbes and Society
Examination of the science of microbes and the impact of microbes on human affairs. Topics include principles of microbial diversity, cell structure, growth and reproduction, global processes, disease, and prevention of disease. Prerequisites: None.

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

BIO160  4 Credits 6 Periods
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.

BIO181  4 Credits 6 Periods
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: Grade of “C” or better in RDG091 or eligibility for CRE101 as indicated by appropriate reading placement test score. One year of high school or one semester of college-level biology and chemistry is strongly recommended.

BIO182  4 Credits 6 Periods
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.

BIO201  4 Credits 6 Periods
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) and (grade of “C” or better in RDG091 or eligibility for CRE101 as indicated by appropriate reading placement test score). CHM130 or higher numbered CHM prefixed course or one year of high school chemistry suggested but not required.
COURSE DESCRIPTIONS

BIO202  4 Credits 6 Periods
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.

BIO205  4 Credits 6 Periods
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) and [(grade of “C” or better in RDG091) or (eligibility for CRE101 as indicated by appropriate reading placement test score)]. CHM130 or higher numbered CHM prefixed course or one year of high school chemistry suggested but not required.

BIO211AA  1 Credit 1 Period
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.

BIO212AA  5 Credits 9 Periods
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.

BIO212AB  5 Credits 9 Periods
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.

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

BIO240  4 Credits 4 Periods
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.

BIO244  1 Credit 3 Periods
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.

BIO249  4 Credits 4 Periods
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.

BIO280  3 Credits 3 Periods
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.

BIO297  1-3 Credits 1-3 Periods
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.

BIO298  Special Projects
1-3 Credits See Page 292
### COURSE DESCRIPTIONS

**BLT - Building Safety and Construction Technology**

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<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Description</th>
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| BLT121      | 3       | 3       | 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. |
| BLT140      | 3       | 3       | 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. |
| BLT263      | 3       | 3       | 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. |

**BPC - Business-Personal Computers**

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<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Description</th>
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| BPC100AA    | 0.5     | 0.5     | 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. |
| BPC100AB    | 0.5     | 0.5     | 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. |
| BPC100AD    | 1       | 2       | Computing Fundamentals  
Fundamental computer concepts and terminology for business and personal computers. Prerequisites: None. |
| BPC100BD    | 1       | 1       | Key Software Applications  
Covers basic features of software applications for business and personal computers. Prerequisites: None. |
| BPC100CD    | 1       | 1       | Living Online  
Fundamental network and Internet concepts and terminology for business and personal computers. Covers basic features of electronic mail applications. Prerequisites: None. |
| BPC100DD    | 3       | 4       | Internet And Computing Fundamentals  
Fundamental computer and Internet concepts and terminology for business and personal computers. Covers basic features of software applications. Prerequisites: None. |
| BPC101AA    | 1       | 2       | 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. |
| BPC101AB    | 1       | 2       | Introduction to Microcomputers I: Macintosh  
Microcomputer software applications for the Macintosh personal computer, including electronic spreadsheet and word processing, Keyboarding review, and a desktop environment. Prerequisites: None. |
| BPC106AH    | 0.5     | 0.5     | MS Outlook: Level I  
Messaging and word processing functions of a Microsoft Outlook electronic work state. Prerequisites: None. |
| BPC106BH    | 0.5     | 0.5     | 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. |
| BPC110      | 3       | 4       | Computer Usage And Applications  
Introduction to business and personal computer operations and usage. Software applications for analyzing and solving problems. Prerequisites: None. |
business problems including word processing, spreadsheet, database, and presentation graphics. Prerequisites: None.

BPC111AA 1 Credit 1.7 Periods
Computer Keyboarding I
Mastery of essential microcomputer keyboarding skills. Emphasis on touch typing of alphabetic and numeric keys and symbols. Prerequisites: None.

BPC125 1 Credit 1 Period
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.

BPC128AF 1 Credit 2 Periods
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.

BPC170 3 Credits 4 Periods
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.

BPC210 3 Credits 4 Periods
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.

BPC225 1 Credit 2 Periods
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.

BPC250 3 Credits 4 Periods
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.

BPC270 3 Credits 4 Periods
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.

BPC282 1-3 Credits 1-3 Periods
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.

CCS - Chicana and Chicano Studies

CCS101 3 Credits 3 Periods
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.

CET - Civil Engineering Technology

CET101 3 Credits 5 Periods
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.

CET102 Surveying II
3 Credits 5 Periods
Surveying principles including triangulation, municipal and land surveys, topographic surveys, earthwork, state plane coordinate systems, stadia methods, practical astronomy, highway curves, super elevations and construction. Prerequisites: CET101 or permission of Department or Division.

CFS - Child/Family Studies

CFS101AH Art Activities For The Young Child
1 Credit 1 Period
The creative use of art media and techniques at appropriate developmental levels. Prerequisites: None.

CFS123 Health And Nutrition In Early Childhood Settings
1 Credit 1 Period
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.

CFS125 Safety In Early Childhood Settings
1 Credit 1 Period
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.

CFS157 Marriage And Family Life
3 Credits 3 Periods
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.

CFS160 Using Music, Speech, And Movement With Children’s Literature
1 Credit 1 Period
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.

CFS176 Child Development
3 Credits 3 Periods
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.

CFS179 Child Care: A Multifaceted Career
1 Credit 1 Period
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.

CFS205 Human Development
3 Credits 3 Periods
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.

CHI - Chinese

CHI101 Elementary Chinese (Mandarin) I
5 Credits 6 Periods
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.

CHI102 Elementary Chinese (Mandarin) II
5 Credits 6 Periods
Study of grammar and vocabulary along with the study of Chinese culture. Emphasis on pronunciation and speaking skills. Prerequisites: CHI101 or equivalent.

CHI115 Beginning Chinese Conversation I
3 Credits 3 Periods
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.
CHM - Chemistry

CHM090 1 Credit 1 Period
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.

CHM095 1 Credit 1 Period
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).

CHM107 3 Credits 3 Periods
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.

CHM107LL 1 Credit 3 Periods
Chemistry and Society Laboratory
Laboratory experience in support of CHM107. Prerequisites or Corequisites: CHM107.

CHM130 3 Credits 3 Periods
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.

CHM130LL 1 Credit 3 Periods
Fundamental Chemistry Laboratory
Laboratory experience in support of CHM130. Prerequisites or Corequisites: CHM130.

CHM138 3 Credits 3 Periods
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.

CHM138LL 1 Credit 3 Periods
Chemistry for Allied Health Lab
Laboratory experience in support of CHM138, Chemistry for Allied Health. Prerequisites: None. Corequisites: CHM138.

CHM151 3 Credits 3 Periods
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.

CHM151LL 1 Credit 3 Periods
General Chemistry I Laboratory
Laboratory experience in support of CHM151. Prerequisites: CHM130LL or permission of instructor. Prerequisites or Corequisites: CHM150 or CHM151.

CHM152 3 Credits 3 Periods
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.

CHM152LL 1 Credit 3 Periods
General Chemistry II Laboratory
Laboratory experience in support of CHM152. Prerequisites: CHM151LL or permission of Instructor. Prerequisites or Corequisites: CHM152.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM230</td>
<td>3</td>
<td>3</td>
<td>Fundamental Organic Chemistry</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>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.</td>
</tr>
<tr>
<td>CHM230LL</td>
<td>1</td>
<td>3</td>
<td>Fundamental Organic Chemistry Laboratory</td>
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<td>Laboratory experience in support of CHM230. Prerequisites: CHM130LL, or CHM151LL, or equivalent. Prerequisites or Corequisites: CHM230.</td>
</tr>
<tr>
<td>CHM235</td>
<td>3</td>
<td>3</td>
<td>General Organic Chemistry I</td>
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<tr>
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<td>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.</td>
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<tr>
<td>CHM235LL</td>
<td>1</td>
<td>4</td>
<td>General Organic Chemistry I Laboratory</td>
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<td></td>
<td>Laboratory experience in support of CHM235. Prerequisites: CHM152LL, or CHM154LL, or equivalent. Corequisites: CHM235.</td>
</tr>
<tr>
<td>CHM236</td>
<td>3</td>
<td>3</td>
<td>General Organic Chemistry IIA</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>CHM236LL</td>
<td>1</td>
<td>4</td>
<td>General Organic Chemistry IIA Laboratory</td>
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<tr>
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<td></td>
<td></td>
<td>Laboratory experience in support of CHM236. Prerequisites: CHM235LL or equivalent. Corequisites: CHM235.</td>
</tr>
<tr>
<td>CHM260</td>
<td>3</td>
<td>3</td>
<td>Fundamental Biochemistry</td>
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<tr>
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<td>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.</td>
</tr>
<tr>
<td>CHM260LL</td>
<td>1</td>
<td>3</td>
<td>Fundamental Biochemistry Laboratory</td>
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<tr>
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<td></td>
<td>Laboratory experience in support of CHM260. Prerequisites: CHM230 and CHM230LL or permission of Instructor. Corequisites: CHM260.</td>
</tr>
<tr>
<td>CHM260</td>
<td>3</td>
<td>3</td>
<td>General Organic Chemistry IIA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>CHM260LL</td>
<td>1</td>
<td>4</td>
<td>General Organic Chemistry IIA Laboratory</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>Laboratory experience in support of CHM236. Prerequisites: CHM235LL or equivalent. Corequisites: CHM235.</td>
</tr>
<tr>
<td>CHM260</td>
<td>3</td>
<td>3</td>
<td>Fundamental Biochemistry</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>CHM260LL</td>
<td>1</td>
<td>3</td>
<td>Fundamental Biochemistry Laboratory</td>
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<tr>
<td></td>
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<td></td>
<td>Laboratory experience in support of CHM260. Prerequisites: CHM230 and CHM230LL or permission of Instructor. Corequisites: CHM260.</td>
</tr>
<tr>
<td>CHM298</td>
<td>1-3</td>
<td>See Page 292</td>
<td>Special Projects</td>
</tr>
</tbody>
</table>

### CIS - Computer Information Systems

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS100</td>
<td>0.5</td>
<td>0.5</td>
<td>Internet: A Tool For Learning</td>
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<tr>
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<td></td>
<td>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.</td>
</tr>
<tr>
<td>CIS103</td>
<td>3</td>
<td>4</td>
<td>Introduction to Social Media</td>
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<td>Explain and use social media technologies. Create and maintain accounts on various sites to socialize, write, and share multimedia, while understanding the related ethics, privacy and security issues. Prerequisites: None.</td>
</tr>
<tr>
<td>CIS105</td>
<td>3</td>
<td>4</td>
<td>Survey of Computer Information Systems</td>
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<tr>
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<td>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.</td>
</tr>
<tr>
<td>CIS107</td>
<td>3</td>
<td>4</td>
<td>The Electronic Game Industry</td>
</tr>
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<td>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.</td>
</tr>
</tbody>
</table>
CIS108  1 Credit 2 Periods  
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.

CIS113AE  1 Credit 1.3 Periods  
Microsoft Word: Word Processing Level I  
Using word processing software to create, name and manage files, edit text, and do basic formatting of documents. Prerequisites: None.

CIS113BE  1 Credit 1.3 Periods  
Microsoft Word: Word Processing – Level II  
Using more advanced features of word processing software to format documents, create lists, mail-merged documents, and documents with themes and styles. Prerequisites: CIS113AE or permission of Instructor.

CIS113CE  1 Credit 1.4 Periods  
Microsoft Word: Word Processing – Level III  
Utilizing more advanced features of word processing software to incorporate style and theme elements, use desktop publishing capabilities, and insert tables. Prerequisites: CIS113AE or permission of Instructor.

CIS114AE  1 Credit 2 Periods  
Excel: Level I  
Computer spreadsheet skills for solving business problems using Excel, including calculations, forecasting, and projections. Prerequisites: None.

CIS114BE  1 Credit 2 Periods  
Excel: Level II  
Additional Excel spreadsheet techniques, including macro programming, database searching, extraction, and linking to obtain prescribed reports and graphs. Prerequisites: CIS114AE or permission of Instructor.

CIS114CE  1 Credit 1 Period  
Excel: Level III  
Additional Excel spreadsheet techniques, including complex macros, statistics, and matrix manipulation. Project design using multiple, integrated spreadsheets. Prerequisites: CIS114BE or permission of Instructor.

CIS114DE  3 Credits 5 Periods  
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.

CIS117AM  1 Credit 2 Periods  
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.

CIS117BM  1 Credit 2 Periods  
Database Management: Microsoft Access – Level II  
Exploration of additional components of the Microsoft Access database management program. Prerequisites: CIS117AM or permission of Instructor.

CIS117CM  1 Credit 2 Periods  
Database Management: Microsoft Access – Level III  
Application of the features of the Microsoft Access program to some common database management problems. Prerequisites: NCIS117BM.

CIS117DM  3 Credits 5 Periods  
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.

CIS118AB  1 Credit 2 Periods  
PowerPoint: Level I  
Use of PowerPoint software to produce professional-quality presentation visuals. Prerequisites: None.

CIS118BB  1 Credit 2 Periods  
PowerPoint: Level II  
Use of PowerPoint software add movement and sound to desktop presentations to enhance audience attention. Prerequisites: CIS118AB.

CIS120DB  3 Credits 4 Periods  
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.
CIS120DC  3 Credits 4 Periods  
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.

CIS120DF  3 Credits 4 Periods  
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.

CIS120DK  3 Credits 4 Periods  
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.

CIS120DL  3 Credits 4 Periods  
Digital Video Compositing: After Effects  
Includes creating visual effects for video projects. Techniques and methodologies used to create shots for big budget special effects will be explored. Topics such as color and light matching, keying, motion tracking, rotoscoping and working with film will be discussed. Prerequisites: None.

CIS121AE  1 Credit 2 Periods  
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.

CIS124AA  1 Credit 1.7 Periods  
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.

CIS124BA  1 Credit 1.7 Periods  
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.

CIS126DL  3 Credits 4 Periods  
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.

CIS130DA  3 Credits 4 Periods  
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.

CIS130DB  3 Credits 4 Periods  
3D Studio Max: Animation  
Introduction to three-dimensional animation tools and principles, with an emphasis on character construction and animation. 3D Studio Max will be the primary application for use in this class. Prerequisites: CIS105.

CIS131AA  1 Credit 1 Period  
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.

CIS133AA  1 Credit 2 Periods  
Internet/Web Development Level I-A  
Overview of the Internet and its resources. Hands-on experience with various Internet communication tools. Prerequisites: None.
CIS133DA  3 Credits 4 Periods
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.

CIS138DA  3 Credits 4 Periods
Desktop Design and Publishing Using Adobe InDesign
Use of Adobe InDesign to compose and print textual and graphic materials of high quality. Includes word processing of copy, use of graphics programs, layout of design elements, printing alternatives, and file formats. Prerequisites: CIS105, or BPC110, or permission of Instructor.

CIS150AB  3 Credits 4 Periods
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.

CIS151  3 Credits 4 Periods
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.

CIS159  3 Credits 4 Periods
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.

CIS162AB  3 Credits 4 Periods
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.

CIS162AD  3 Credits 4 Periods
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.

CIS163AA  3 Credits 4 Periods
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.

CIS166AA  3 Credits 4 Periods
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.

CIS166AC  3 Credits 4 Periods
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.

CIS166AE  3 Credits 4 Periods
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.

CIS213DE  3 Credits 4 Periods
Advanced Microsoft Word: Word Processing
Using advanced word processing software features to perform tasks such as mail merge, collaboration, web pages, math functions, macros, photo enhancements, graphics, tables, forms and manage long documents. Prerequisites: CIS113DE or (CIS113AE and CIS113BE and CIS113CE) or permission of instructor.

CIS220DC  3 Credits 4 Periods
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.

**CIS220DF**  
3 Credits 4 Periods  
**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.

**CIS220DK**  
3 Credits 4 Periods  
**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.

**CIS224**  
3 Credits 4 Periods  
**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.

**CIS226AL**  
3 Credits 4 Periods  
**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.

**CIS230DA**  
3 Credits 4 Periods  
**3D Studio Max: Materials**  
Emphasis on creating and applying materials and textures to three-dimensional environments. Techniques for creating skins, surfaces, and shading types for objects, environments and characters will be explored. Original textures, both life-like and imaginary, will be created using 3D Studio Max and a 2D computer graphics software application. Prerequisites: CIS130DA, or BPC/CIS120DF, or BPC/CIS120DG, or permission of instructor.

**CIS233DA**  
3 Credits 4 Periods  
**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.

**CIS233DC**  
3 Credits 4 Periods  
**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.

**CIS234**  
3 Credits 4 Periods  
**XML Application Development**  
The use of Extensible Markup Language (XML) to make documents smarter, simplify Web automation, and to communicate between databases, both within and between corporations. Includes techniques for XML generation, data extraction and sharing, and transformation and managing of XML files. Prerequisites: BPC/CIS133CA or BPC/CIS133DA or permission of instructor.

**CIS235**  
3 Credits 4 Periods  
**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.

**CIS236**  
2 Credits 3 Periods  
**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.
CIS237 3 Credits 4 Periods
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.

CIS238DL 3 Credits 4 Periods
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.

CIS240DL 3 Credits 4 Periods
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.

CIS243 3 Credits 4 Periods
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.

CIS244 3 Credits 4 Periods
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.

CIS246 3 Credits 4 Periods
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.

CIS247DA 3 Credits 4 Periods
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.

CIS248 3 Credits 4 Periods
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.

CIS249 3 Credits 4 Periods
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.

CIS250 3 Credits 4 Periods
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.
CIS251  3 Credits 4 Periods
Computer Game Development-Level II
Advanced object-oriented game development, advanced game design, and advanced game theory. Use of game development software tools to demonstrate advanced concepts for modeling real-time simulations and creating computer games using object oriented development tools. In depth coverage of game programming (scripting) techniques, and decision logic using object oriented techniques. Prerequisites: CIS151 or permission of instructor.

CIS259  3 Credits 4 Periods
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.

CIS262AB  3 Credits 4 Periods
C++: Level II
Advanced level C++ programming with emphasis on arrays, data management, dynamic memory allocation, object-oriented programming concepts, input/output operations, libraries, and debugging techniques. Includes overview of other advanced applications of C++. Prerequisites: CIS162AB or permission of instructor.

CIS262AD  3 Credits 4 Periods
C# Level II
Advanced C# programming with emphasis on data structures, dynamic memory allocation, object-oriented programming, user interfaces, and database processing. Overview of web applications, network programming, and reporting tools. Prerequisites: CIS162AD, or permission of instructor.

CIS266  4 Credits 5 Periods
Network Integration Capstone
Application of project management, installation and troubleshooting to integrate multiple operating systems. Topics include: diagnostic and troubleshooting procedures, security vulnerability and penetration software to installation. Prerequisites: (CIS238DL and CIS240DL) or (CNT270 or CNT170Aa) or [(MST155 or MST155DA) and (MST157 or MST157DA)] and (CIS270 or CNT205 or CIS271DL) or associated industry certifications or permission of Instructor.

CIS270  3 Credits 4 Periods
Essentials Of Network And Information Security
Threats to security of information systems; responsibilities and basic tools for information security, including communication security, infrastructure security, organizational security and basic cryptography. Introduction to the language of network security and hardware, software and firmware components of an information 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.

CIS271DL  3 Credits 4 Periods
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.

CIS276DA  3 Credits 4 Periods
MySQL Database
A broad overview of the MySQL database. Includes Structured Query Language (SQL) instruction for data definition, data manipulation, and data retrieval. Develops knowledge and skills required to install MySQL, model and create new databases, manage users, authentication, and stored procedures, and development backup/restore strategies. Prerequisites: CIS105 or permission of instructor.

CIS276DB  3 Credits 4 Periods
SQL Server Database
A broad overview of the Microsoft Structured Query Language (SQL) Server database. Includes SQL instruction for data definition, data manipulation, and data retrieval. Develops knowledge and skills required to install SQL Server, model and create new databases, manage users, authentication, and stored procedures, and develop backup/restore strategies.. Prerequisites: CIS105 or permission of instructor.

CIS282  1-3 Credits 1-3 Periods
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.
CIS284  4 Credits 5 Periods
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.

CIS290  1-3 Credits 6-18 Periods
Computer Information Systems Internship
Work experience in business or industry. Prerequisites: Permission of Instructor.

CIS298  Special Projects
1-3 Credits See Page 292

CNS - Construction

CNS101  3 Credits 3 Periods
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.

CNS130  3 Credits 6 Periods
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 drafting, sketching, scaling, and dimensioning with computer and board. Prerequisites: None.

CNS175  3 Credits 3 Periods
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.

CNS180  3 Credits 3 Periods
Building Construction Methods, Materials, And Equipment
Comprehensive study of construction methods, materials, codes, and equipment used in building construction. Prerequisites: None.

CNS181  3 Credits 3 Periods
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.

CNS200  3 Credits 3 Periods
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.

CNS205  3 Credits 3 Periods
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.

CNS221  3 Credits 3 Periods
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.

CNS230  3 Credits 6 Periods
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.

CNS240  3 Credits 6 Periods
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.

CNS243  3 Credits 3 Periods
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: CNS230, or permission of Department or Division.

CNS250  3 Credits 6 Periods
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.

CNS251  3 Credits 6 Periods
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.

CNS252  3 Credits 6 Periods
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.

CNS263  3 Credits 3 Periods
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: CNS230, or permission of Department or Division.

CNS271  3 Credits 3 Periods
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.

CNS272  3 Credits 3 Periods
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.

CNS273  3 Credits 3 Periods
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.

CNS274  3 Credits 3 Periods
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.

CNS282  1-3 Credits 1-3 Periods
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.

CNS285  3 Credits 3 Periods
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.
CNS286 3 Credits 3 Periods
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.

CNT160AA 4 Credits 6 Periods
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.

CNT170AA 4 Credits 6 Periods
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.

CNT200 4 Credits 6 Periods
CCNP ROUTE: Implementing Cisco IP Routing
Development of knowledge and skills needed to manage Internet Protocol (IP) traffic and access, understand scalable internetworks configure advanced routing protocols Border Gateway Protocol [BGP], Enhanced Interior Gateway Routing Protocol [EIGRP] Open Shortest Path First [OSPF], as well as Internet Protocol (IPv6), and configuration of secure routing solutions to support branch offices and mobile workers. Comprehensive labs emphasize hands-on learning and practice to reinforce configuration skills. Preparation for Cisco Certified Network Professional (CCNP) exam. Prerequisites: CNT170AA, or CCNA industry certification, or permission of Instructor. Corequisites: CNT220.

CNT220 4 Credits 6 Periods
Cisco SWITCH: Implementing Cisco IP Switching
Development of knowledge and skills in building, monitoring, and maintaining switching in converged enterprise networks using advanced and multi-layer switching technologies.
Planning, configuring, securing and verifying the implementation of complex enterprise switching solutions. Hands-on learning practice to reinforce configuration skills. Prerequisites: CNT170AA, or CCNA industry certification, or permission of instructor. Corequisites: CNT200.

CNT231 4 Credits 6 Periods
CCNP TSHOOT: Maintaining and Troubleshooting Cisco IP Networks
Development of knowledge and skills in monitoring and maintaining complex enterprise routed and switched Internet Protocol (IP) networks. Skills learned include the planning and execution of regular network maintenance, as well as support and troubleshooting using technology-based processes and best practices, in a systematic approach. Extensive labs emphasize hands-on learning and practice to reinforce configuration skills. Preparation for Cisco Certified Network Professional (CCNP) exam Prerequisites: (CNT200 and CNT220), or permission of instructor.

COM - Communication

COM100 3 Credits 3 Periods
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.

COM110 3 Credits 3 Periods
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.

COM120 3 Credits 3 Periods
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.

COM207 3 Credits 3 Periods
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.

COM221 3 Credits 3 Periods
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 or permission of instructor.

COM225 3 Credits 3 Periods
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.

COM230 3 Credits 3 Periods
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.

COM263 3 Credits 3 Periods
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.

COM270 3 Credits 3 Periods
Health Communication
Theory and practice of interpersonal, intercultural, public, and team communication skills in a healthcare setting. Prerequisites: ENG101, or ENG107, or permission of Department or Division.

COM271 3 Credits 3 Periods
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.

COM282 1-3 Credits 1-3 Periods
Volunteering 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.

COM296  1-2 Credits 5-10 Periods
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.

COM298  Special Projects  1-3 Credits See Page 292

CPD - Counseling and Personal Development

CPD102AB  2 Credits 2 Periods
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.

CPD102AD  2 Credits 2 Periods
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.

CPD102AH  2 Credits 2 Periods
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.

CPD103BA  2 Credits 2 Periods
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.

CPD150  3 Credits 3 Periods
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.

CPD160  3 Credits 3 Periods
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.

CPD282  1-3 Credits 1-3 Periods
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.

CPD298  Special Projects  1-3 Credits See Page 292

CRE - Critical Reading

CRE101  3 Credits 3 Periods
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).

CRW - Creative Writing

CRW150  3 Credits 3 Periods
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.
### Course Descriptions

**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.

**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.

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

**CRW200**  
**Readings for Writers**  
Close analysis and interpretation of selected literary texts designed to strengthen the students’ own writing by extending their familiarity with the genre in which they write and their knowledge of selected literary elements. One-on-one meetings between student and instructor. May be repeated for a total of six (6) credits. Prerequisites: CRW150, or permission of Instructor.

**CRW201**  
**Portfolio**  
Close analysis of the creative writing portfolio culminating in selection, revision, editing, and compiling of the student’s own literary work in a portfolio. Students meet individually with instructor to choose, prepare, and compile their work. Prerequisites: (Acceptance into Creative Writing Certificate Program and completion of at least nine (9) credit hours in creative writing (CRW)), or permission of Program Director.

**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 work shopping. Prerequisites: CRW160 or permission of Instructor.

**CRW270**  
**Intermediate Fiction Writing**  
Writing a series of original short stories; analysis of established works of fiction; concentration on revising students’ fiction through intensive work shopping. Prerequisites: CRW170.

**CRW272**  
**Planning and Structuring the Novel**  
Focus on planning, structuring, and beginning a novel; prewriting, writing, analysis, evaluation, and revision of novel plans and excerpts. Prerequisites: CRW150 or permission of instructor.

**CRW273**  
**Writing the Novel**  
Provides the beginning novelist with structure, support, and guidance vital to sustained writing; focus on establishing goals and using critique sessions with instructor and peers to draft a novel; open- and topic-focused in-class forums, novel writing, peer and instructor critiques. Prerequisites: CRW272 or permission of instructor.

**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.

**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.

**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.
### COURSE DESCRIPTIONS

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Title</th>
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<tr>
<td><strong>CSC205AB</strong></td>
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<td>4</td>
<td>Object-Oriented Programming And Data Structures</td>
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<td>Programming for Computer Engineering</td>
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<td>Caterpillar Engine Fundamentals</td>
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<tr>
<td><strong>CTT112</strong></td>
<td>3</td>
<td>5</td>
<td>Hydraulic Fundamentals</td>
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<tr>
<td><strong>CTT113</strong></td>
<td>3</td>
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<td>Fuel Systems</td>
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<td><strong>CTT114</strong></td>
<td>3</td>
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<td><strong>CTT115</strong></td>
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<td><strong>CTT118</strong></td>
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<td>3</td>
<td>Caterpillar Dealer Internship I</td>
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<td><strong>CTT119</strong></td>
<td>3</td>
<td>3</td>
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<tr>
<td><strong>CTT200</strong></td>
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<tr>
<td><strong>CTT201</strong></td>
<td>3</td>
<td>5</td>
<td>Machine Electronics</td>
</tr>
<tr>
<td><strong>CTT202</strong></td>
<td>3</td>
<td>5</td>
<td>Engine Diagnostics And Repair</td>
</tr>
</tbody>
</table>

**CSC205AB**
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.

**CSC220**
Introduction to procedural programming (C/C++) and hardware description language (VHDL). Prerequisites: ((EEE120 or CSC120) and CSC205) or permission of Instructor.

**CSC240AA**
Introduction to procedural (C/C++), applicative (LISP), and declarative (Prolog) languages. Prerequisites: CSC210 or permission of Instructor.

**CTT110**
Introduction to the Caterpillar organization and product line, basic shop safety, and shop operation. Includes computer operations and service information systems. Prerequisites: None.

**CTT111**
Introduction to diesel engine theory and service procedures. Focuses on Caterpillar engine systems and applications. Prerequisites: None.

**CTT112**
Hydraulic fundamentals, including functions of valves used in Caterpillar hydraulic systems, functions of vane pumps, gear pumps, and piston pumps, and assembly and disassembly of hydraulic components. Includes ISO hydraulic symbols. Prerequisites: None.

**CTT113**
Introduction to fuel systems used in Caterpillar engines. Covers fuel selection, calibrations, and nozzle testing procedures, governor operation, and hydraulic fuel ratio controls. Includes 1.1 and 1.2 MUI and HEUI, EUI, Nippondenso, and Zexel fuel systems. Prerequisites: None.

**CTT114**
Basic electrical and electronic principles used by the technician to diagnose and repair electrical systems in Caterpillar machines. Prerequisites: None.

**CTT115**
Introduction to principles, systems, components, and servicing of air conditioning systems used in Caterpillar productions. Prerequisites: None.

**CTT118**
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 tool usage, shop safety, connective devices, computers and service information systems, air intake and exhaust systems, lubrication systems, cooling systems, fuel systems, engines, and electrical systems. Required intern to complete a list of learning objectives, keep a logbook, and be evaluated by dealership supervisor and internship coordinator. Prerequisites: None.

**CTT119**
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 hydraulics, pumps, valves, cylinders, and pilot-operated implement system. Requires intern to complete a list of learning objectives, keep a logbook, and be evaluated by dealership supervisor and internship coordinator. Prerequisites: CTT118.

**CTT200**
Methods of transferring power. Hydraulic-driven machines and mechanical power train components, including differentials, brakes, final drives, and undercarriage. Prerequisites: None.

**CTT201**
Introduction to machine electronic systems and diagnostic tooling used to diagnose and repair the complex electrical/electronic systems installed in Caterpillar machines. Prerequisites: None.

**CTT202**
In-depth study of engine diagnostics and repair techniques used to troubleshoot and repair engine problems in Caterpillar machines.

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COURSE DESCRIPTIONS

machines. Selection and use of Caterpillar diagnostic tools. Covers oil, air, cooling, and fuel systems. Prerequisites: CTT113.

CTT203 3 Credits 5 Periods
**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.

CTT204 3 Credits 5 Periods
**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.

CTT205 3 Credits 3 Periods
**Caterpillar Dealer Internship III**
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 air conditioning systems, power trains, couplings, transmissions, and hydraulic systems. Requires intern to complete a list of learning objectives, keep a logbook, and be evaluated by dealership supervisor and internship coordinator. Prerequisites: CTT119.

CTT206 3 Credits 3 Periods
**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.

CUL - Culinary

CUL107 3 Credits 5 Periods
**Principles and Techniques of Garde Manager**
Prepares students for employment in garde manager 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.

CWE - Career Work Experience

CWE198 1-3 Credits 1-3 Periods
**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.

DAH - Dance Humanities

DAH100 3 Credits 3 Periods
**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.

DAH201 3 Credits 3 Periods
**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.

DAH250 3 Credits 3 Periods
**Dance in Popular Culture**
Interdisciplinary approach investigating the role dance plays in shaping American popular culture from the late 19th to the early 21st centuries. Explores social and cultural issues of power, class, gender, age and sexual orientation. Prerequisites: None.

DAN - Dance - Performing Arts

DAN115AA 1 Credit 3 Periods
**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.

DAN120AE 1 Credit 3 Periods
**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.

DAN120AK 1 Credit 3 Periods
**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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Description</th>
</tr>
</thead>
</table>
| DAN125AC    | 1       | 2       | 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. |
| DAN129      | 1       | 3       | 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. |
| DAN130      | 1       | 3       | 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. |
| DAN131      | 1       | 3       | 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. |
| DAN132      | 1       | 3       | 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. |
| DAN133      | 1       | 3       | 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. |
| DAN134      | 1       | 3       | 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. |
| DAN135      | 1       | 3       | 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. |
| DAN136      | 1       | 3       | 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. |
| DAN137      | 1       | 1       | Dance Seminar I  
  Level I scientific evaluation and in-depth discussion of the theory and practice of work done in dance technique class. Prerequisites: None. 1 Corequisites: Any ballet, modern dance, or modern jazz dance technique course. 1 Credit 1 Period |
| DAN138      | 1       | 3       | 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. |
| DAN139      | 1       | 3       | 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. |
| DAN140      | 1       | 3       | 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. |
| DAN141      | 1       | 3       | 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. |
| DAN142      | 1       | 3       | 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. |
**COURSE DESCRIPTIONS**

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Periods</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAN155</td>
<td>1</td>
<td>3</td>
<td>Dance Performance II</td>
<td>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.</td>
</tr>
<tr>
<td>DAN210</td>
<td>3</td>
<td>3</td>
<td>Dance Production I</td>
<td>Introduction to the elements of light, sound, and scenery as they relate to the art of dance. Prerequisites: None.</td>
</tr>
<tr>
<td>DAN221</td>
<td>2</td>
<td>3</td>
<td>Rhythmic Theory For Dance I</td>
<td>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.</td>
</tr>
<tr>
<td>DAN222</td>
<td>2</td>
<td>3</td>
<td>Rhythmic Theory For Dance II</td>
<td>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.</td>
</tr>
<tr>
<td>DAN231</td>
<td>1</td>
<td>3</td>
<td>Ballet III</td>
<td>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.</td>
</tr>
<tr>
<td>DAN232</td>
<td>1</td>
<td>3</td>
<td>Modern Dance III</td>
<td>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.</td>
</tr>
<tr>
<td>DAN233</td>
<td>1</td>
<td>3</td>
<td>Modern Jazz Dance III</td>
<td>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.</td>
</tr>
<tr>
<td>DAN234</td>
<td>1</td>
<td>3</td>
<td>Ballet IV</td>
<td>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.</td>
</tr>
<tr>
<td>DAN235</td>
<td>1</td>
<td>3</td>
<td>Modern Dance IV</td>
<td>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.</td>
</tr>
<tr>
<td>DAN236</td>
<td>1</td>
<td>3</td>
<td>Modern Jazz Dance IV</td>
<td>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.</td>
</tr>
<tr>
<td>DAN250</td>
<td>1</td>
<td>3</td>
<td>Dance Performance III</td>
<td>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.</td>
</tr>
<tr>
<td>DAN255</td>
<td>1</td>
<td>3</td>
<td>Dance Performance IV</td>
<td>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.</td>
</tr>
<tr>
<td>DAN264</td>
<td>3</td>
<td>3</td>
<td>Choreography I</td>
<td>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.</td>
</tr>
<tr>
<td>DAN265</td>
<td>3</td>
<td>3</td>
<td>Choreography II</td>
<td>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.</td>
</tr>
</tbody>
</table>
DAN280  2 Credits 6 Periods
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.

DFT - Drafting Technology

DFT100  3 Credits 6 Periods
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.

DFT105AA  3 Credits 6 Periods
Computer Aided Drafting I: Autocad
Industrial use of AutoCAD equipment (hardware and software) in the areas of mechanical, electronic and construction drawings. Prerequisites: None.

DFT110  3 Credits 6 Periods
Technical Drafting I
Fundamentals of drafting including lettering, basic drawing concepts, geometric construction and multiview projection. Prerequisites: None.

DFT111  3 Credits 6 Periods
Technical Drafting II
Dimensioning and tolerancing, sectional views and auxiliary views. Prerequisites: DFT/MET105AA, or DFT110, or equivalent.

DFT112  3 Credits 6 Periods
Technical Drafting III
Detail and assembly drawings, dimensioning and tolerancing per current manufacturing standards. Prerequisites: (DFT111 and DFT254AA) or equivalent.

DFT113  3 Credits 6 Periods
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.

DFT114  3 Credits 3 Periods
Machine Trades Blueprint Reading
Analysis and interpretation of technical drawings common to manufacturing and the machine trades. Prerequisites: None.

DFT115  3 Credits 3 Periods
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.

DFT245AA  3 Credits 6 Periods
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 drawings, circuit planning, and integrated circuit drawings. Prerequisites: (DFT/MET105AA, DFT110, ELE113 and ELE131) or equivalent or permission of Instructor.

DFT245AB  3 Credits 6 Periods
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.

DFT252AA  3 Credits 6 Periods
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.

DFT254AA  3 Credits 6 Periods
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.

DFT256AA  3 Credits 6 Periods
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.
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</tr>
</thead>
<tbody>
<tr>
<td>DFT296</td>
<td>Cooperative Education</td>
<td>1-3</td>
<td>5-15</td>
</tr>
<tr>
<td>DHE110</td>
<td>Pharmacology</td>
<td>3</td>
<td>3</td>
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<tr>
<td>DHE112</td>
<td>Oral Pathology</td>
<td>3</td>
<td>3</td>
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<tr>
<td>DHE115</td>
<td>Emergency Medicine</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>DHE117</td>
<td>Dental Radiography</td>
<td>2</td>
<td>2</td>
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<tr>
<td>DHE119</td>
<td>Head And Neck Anatomy</td>
<td>3</td>
<td>3</td>
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<tr>
<td>DHE120</td>
<td>Pre-Clinical Dental Hygiene</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>DHE121</td>
<td>Dental Anatomy, Embryology and Histology</td>
<td>2</td>
<td>3</td>
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<tr>
<td>DHE125</td>
<td>Dental Radiography Laboratory</td>
<td>1</td>
<td>3</td>
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<tr>
<td>DHE127</td>
<td>Prevention Of Dental Disease</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>DHE132</td>
<td>Dental Hygiene Theory I</td>
<td>3</td>
<td>5</td>
</tr>
</tbody>
</table>

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.

DHE - Dental Hygiene Education

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.

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.

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.

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.
professional accountability. Prerequisites: (DHE120 and admission to the Dental Hygiene Program) or permission of Instructor. Corequisites: DHE133.

DHE133 3 Credits 9 Periods
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.

DHE201 2 Credits 2 Periods
Dental Materials

DHE202 1 Credit 3 Periods
Dental Materials Laboratory
Manipulate permanent and temporary restorative materials, impression material, dental waxes, cements, periodontal dressings, bases and liners. Fabricate mouth protectors, study models, and custom impression trays. Laboratory proficiency in margination of permanent restorative materials. Prerequisites: Admission to the Dental Hygiene Program or permission of instructor. Corequisites: DHE201.

DHE212 2 Credits 2 Periods
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.

DHE213 5 Credits 15 Periods
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: DHE213.

DHE219 2 Credits 2 Periods
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.

DHE225 3 Credits 3 Periods
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.

DHE227 1 Credit 1 Period
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.

DHE229 3 Credits 3 Periods
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.

DHE232 2 Credits 3 Periods
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.

DHE233 5 Credits 15 Periods
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.
**ECE - Engineering Science**

**ECE102  2 Credits 4 Periods**

**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.

**ECE103  2 Credits 4 Periods**

**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).

**ECE201  2 Credits 3 Periods**

**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), (MAT230 or MAT231), and (PHY115 or PHY121).

**ECE202  2 Credits 3 Periods**

**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.

**ECE203  2 Credits 3 Periods**

**Applications of Engineering Mechanics**
Applications of engineering mechanics, including structural analysis, centroids and center of mass of complex objects, area and mass moments of inertia of complex objects, kinematics of rigid bodies and interconnected rigid bodies, and kinetics of rigid bodies and interconnected rigid bodies. Prerequisites: ECE202. Corequisites: MAT240 or MAT241.

**ECE214  4 Credits 6 Periods**

**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.

**ECH - Early Childhood Education**

**ECH126AB  1 Credit 2 Periods**

**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.

**ECH128  3 Credits 4 Periods**

**Early Learning: Play and the Arts**
Examines theory, research and practices relating to play and the creative arts in early childhood. Considers practical constraints and alternative perspectives. Includes participation in a play environment with young children. Prerequisites: None.

**ECH270  1 Credit 1 Period**

**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.

**ECH273  1 Credit 1 Period**

**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.

**ECH275  1 Credit 1 Period**

**Literacy Development and the Young Child**
Literacy from birth through the early childhood years. Focus on developmentally appropriate ways to encourage speaking, listening, writing, and reading in the home classroom. Prerequisites: None.

**ECN - Economics**

**ECN110  3 Credits 3 Periods**

**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.
ECN160 3 Credits 3 Periods
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.

ECN170 3 Credits 3 Periods
Political Economy
The relationship between politics and economics in the United States, with emphasis on current issues and government responses. Consideration of problems raised by alternative political economic systems. Prerequisites: None.

ECN200 3 Credits 3 Periods
Labor Leadership
Review of local union structure, union democracy, and local management from the perspective of the union leader, including the role of the local union in collective bargaining negotiations and the basic clauses of collective bargaining agreements. Grievance procedures, arbitration of contract problems, and legal requirements of local union government reports. Prerequisites: None.

ECN202 3 Credits 3 Periods
Labor and the American Economy
Factors which shape wages and control labor supply in the labor market. How various factors combine to set wages in a free market economy and government activities affect the American labor market. Prerequisites: None.

ECN204 3 Credits 3 Periods
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.

ECN208 3 Credits 3 Periods
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.

ECN211 3 Credits 3 Periods
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.

ECN212 3 Credits 3 Periods
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.

ECN213 3 Credits 3 Periods
The World Economy
An analysis of the economic interdependence among nations, with emphasis on international trade and finance. Consideration given to the role and function of the multinational enterprise. Prerequisites: None.

ECN280 3 Credits 3 Periods
Health Care Economics
Macroeconomic analysis of the production and distribution of health care. Consideration given to the problems of government regulation. Prerequisites: ECN212 or permission of instructor.

ECN298 Special Projects
1-3 Credits See Page 292

EDU - Education

EDU101AA 1 Credit 1 Period
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.

EDU101AB 2 Credits 2 Periods
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.
EDU111 1 Credit 2 Periods
Inquiry-Based Instructional Approaches for Science and Mathematics I
Exploring teaching as a career option through observations and active participation in science or mathematics lessons. Supervised experience in planning and implementing inquiry-based science and/or mathematics lessons in elementary classroom settings. Prerequisites: None. EDU111 requires additional lab time outside of class.

EDU112 1 Credit 2 Periods
Inquiry-Based Instructional Approaches for Science and Mathematics II
Exploring teaching as a career option through observations and active participation in science or mathematics lessons. Supervised experience in planning and implementing inquiry-based science and/or mathematics lessons in middle school classroom settings. Prerequisites: EDU111. EDU111 requires additional lab time outside of class.

EDU220 3 Credits 3 Periods
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.

EDU221 3 Credits 3 Periods
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.

EDU222 3 Credits 3 Periods
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.

EDU230 3 Credits 3 Periods
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.

EDU236 3 Credits 3 Periods
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.

EDU250 3 Credits 3 Periods
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.

EDU282 1-3 Credits 1-3 Periods
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.

EDU291 3 Credits 3 Periods
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.

EDU292 3 Credits 3 Periods
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.
EED - Early Education

EED200 3 Credits 3 Periods
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.

EED205 3 Credits 3 Periods
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.

EED212 3 Credits 3 Periods
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.

EED215 3 Credits 3 Periods
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.

EED220 3 Credits 3 Periods
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.

EED222 3 Credits 3 Periods
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.

EED245 3 Credits 3 Periods
Early Learning: Language Acquisition and Literacy Development
Overview of language acquisition and development, emergent literacy, early literacy development, and appropriate early experiences with books, reading, and writing for typical and atypical children birth to age eight. Emphasis placed on reading and writing readiness, methods to enhance literacy development, and strategies for selecting and using children’s books. Prerequisites: None.

EED255 3 Credits 3 Periods
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.

EED260 1 Credit 1 Period
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.

EED261 1 Credit 1 Period
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.

EED272 3 Credits 3 Periods
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.

EEE - Electrical Engineering

EEE120 4 Credits 6 Periods
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.

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).

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.

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.

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.

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.

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.

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.

ELE173  
Fabrication Techniques  
Materials, tools, processes, skills and techniques used for fabricating prototype electronic systems. Topics covered will include safety, component identification, schematic diagrams, materials selection, assembly pictorials, soldering, surface-mount soldering, de-soldering/re-work, inspection, printed circuit board construction and repair, automated assembly, and Electrostatic Discharge (ESD) awareness and procedures. Prerequisites: None. Corequisites: ELE121

ELE181  
Computer Programming For Technology  
Elementary computer programming techniques. Hands-on computer usage. Prerequisites: None.

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.

ELE241  
Microprocessor Concepts  
Architectures of selected microprocessors. Presentation of machine and assembly language programming. Prerequisites: ELE131.

ELE243  
Microprocessor Applications  
Prepares 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.

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.

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.

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 synchronous modems. Prerequisites: ELE121 and ELE241.

ELT - Electronics Technology

ELT298 Special Projects
1-3 Credits See Page 292

EMT - Emergency Medical Technology

EMT101 Cardiopulmonary Resuscitation/Basic Cardiac Life Support
0.5 Credits 0.45 Periods
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.

EMT104 Basic Emergency Medical Technology
9 Credits 11.4 Periods
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-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.

EMT200 Refresher Course For Certified Emergency Medical Technicians
2 Credits 3 Periods
Designed to meet National and Arizona Department of Health Services (A-DHS) recertification requirements 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.

EMT200AB EMT-Basic Certification Expanded Refresher Challenge
1 Credit 1 Period
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.

EMT238 Vehicular Extrication and Patient Stabilization
2 Credits 2 Periods
Participative course designed for the Emergency Medical Technicians (EMT). Incorporates new knowledge and skills necessary to access, extricate, and care for victims of crash incidents. Provides exposure to scene management, including size-up, disentanglement, victim stabilization for single and multi-victim situations, hazardous materials incidents, integration of local emergency medical services (EMS) for patient assessment and management, and standard operating procedures to selected victim scenarios. Prerequisites: Basic EMT certification, current enrollment in an EMT-Basic program, nurse with emergency department experience, or law enforcement personnel, or permission of instructor.

EMT245 Trauma Management I
2 Credits 3.50 Periods
Designed to instruct pre-hospital care personnel in the critical skills necessary to manage the trauma victim and the emergency
scene through the Incident Command System (ICS). Enhances basic emergency medical technology (EMT) skills by focusing on emergency care interventions. Provides exposure to victim assessment, initial treatment, resuscitative techniques, victim stabilization, transportation of the victim to an emergency care facility, and documentation. Prerequisites: Basic EMT certification or nurse with emergency room experience, or permission of department.

EMT249 .50 Credits .50 Periods
12 Lead ECG Rhythm Analysis
Designed to acquaint all levels of emergency care providers with electrocardiographic (ECG) rhythm analysis and interpretation using the 12-lead electrocardiogram (ECG). Required content for identification and treatment of myocardial infarction and its complications. Prerequisites: EMT235, or permission of instructor.

EMT272AA 12.5 Credits 17.3 Periods
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.

EMT298 Special Project 1-3 Credits See Page 292

ENG - English

ENG081 3 Credits 3 Periods
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.

ENG091 3 Credits 3 Periods
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.

ENG100AA 1 Credit 1 Period
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.

ENG100AB 1 Credit 1 Period
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.

ENG100AC 1 Credit 1 Period
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.

ENG100AD 1 Credit 1 Period
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.

ENG100AE 1 Credit 1 Period
Composition Skills
Developing generative and evaluative writing skills using selected software programs. Prerequisites: Appropriate English placement test score, or a grade of “C” or better in ENG091 or ENG097, or permission of instructor.

ENG101 3 Credits 3 Periods
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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Description</th>
</tr>
</thead>
</table>
| ENG102      | 3       | 3       | 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. |
| ENG107      | 3       | 3       | First-Year Composition for ESL  
Equivalent of ENG101 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. |
| ENG108      | 3       | 3       | 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. |
| ENG111      | 3       | 3       | 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. |
| ENG200      | 3       | 3       | 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. |
| ENG213      | 3       | 3       | Introduction to the Study of Language  
Study of language as code; phonetics, phonology, morphology, syntax, semantics; language acquisition; historical and sociolinguistics. Prerequisites: A grade of “C” or better in ENG102, or ENG111, or permission of Instructor. |
| ENG215      | 3       | 3       | 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. |
| ENG216      | 3       | 3       | 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. |
| ENG217      | 3       | 3       | 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. |
| ENG235      | 3       | 3       | Magazine Article Writing  
Basic skills and techniques used by professional writers for publication in magazines. Includes analyzing markets, identifying article slant, writing query letters, research techniques, editing, and submission procedures. Emphasis on nonfiction. Prerequisites: None. |
| ENG282      | 1-3     | 1-3     | Volunteering 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. |
| ENG295      | 3       | 3       | Teaching Composition in the Two-Year College  
Overview of the theoretical and pedagogical strategies of teaching composition in the community college. Prerequisites: Bachelor’s degree and permission of instructor. |
<p>| ENG298      | Special | Projects| See Page 292 |</p>
<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Periods</th>
<th>Course Title</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>ENH110</td>
<td>3</td>
<td>3</td>
<td>Introduction to Literature</td>
<td>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.</td>
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<tr>
<td>ENH111</td>
<td>3</td>
<td>3</td>
<td>Literature and the American Experience</td>
<td>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.</td>
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<tr>
<td>ENH114</td>
<td>3</td>
<td>3</td>
<td>African-American Literature</td>
<td>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.</td>
</tr>
<tr>
<td>ENH190</td>
<td>3</td>
<td>3</td>
<td>Introduction to US Ethnic Literature</td>
<td>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.</td>
</tr>
<tr>
<td>ENH214</td>
<td>3</td>
<td>3</td>
<td>Poetry Study</td>
<td>Involves reading, discussing, and analyzing poetry of various forms and from selected periods. Prerequisites: None.</td>
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<tr>
<td>ENH221</td>
<td>3</td>
<td>3</td>
<td>Survey of English Literature Before 1800</td>
<td>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.</td>
</tr>
<tr>
<td>ENH222</td>
<td>3</td>
<td>3</td>
<td>Survey of English Literature After 1800</td>
<td>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.</td>
</tr>
<tr>
<td>ENH230</td>
<td>3</td>
<td>3</td>
<td>Introduction to Shakespeare</td>
<td>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.</td>
</tr>
<tr>
<td>ENH235</td>
<td>3</td>
<td>3</td>
<td>Survey of Gothic Literature</td>
<td>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.</td>
</tr>
<tr>
<td>ENH241</td>
<td>3</td>
<td>3</td>
<td>American Literature Before 1860</td>
<td>Includes literature written prior to 1860 in the United States. Prerequisites: None.</td>
</tr>
<tr>
<td>ENH242</td>
<td>3</td>
<td>3</td>
<td>American Literature After 1860</td>
<td>Includes literature written after 1860 in the United States. Prerequisites: None.</td>
</tr>
<tr>
<td>ENH251</td>
<td>3</td>
<td>3</td>
<td>Mythology</td>
<td>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.</td>
</tr>
<tr>
<td>ENH252</td>
<td>3</td>
<td>3</td>
<td>Biblical Backgrounds of Literature</td>
<td>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.</td>
</tr>
<tr>
<td>ENH254</td>
<td>3</td>
<td>3</td>
<td>Literature and Film</td>
<td>Deals with genres and/or themes in reference to the Old and New Testament which are recurrent in world literature. Prerequisites: None.</td>
</tr>
</tbody>
</table>
### ENH255 3 Credits 3 Periods
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.

### ENH275 3 Credits 3 Periods
Modern Fiction
Includes novels and short stories of modern writers which reflect significant themes of our time. Prerequisites: None.

### ENH277AH 3 Credits 3 Periods
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.

### ENH284 3 Credits 3 Periods
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.

### ENH285 3 Credits 3 Periods
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.

### ENH291 3 Credits 3 Periods
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.

### ENH295 3 Credits 3 Periods
Banned Books and Censorship

### EPD - Education Professional Development

### EPD220 3 Credits 3 Periods
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.

### EPD233 3 Credits 3 Periods
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.

### EPD271AA 3 Credits 3 Periods
Essential Elements of Elementary Reading and Writing Instruction K-8
Overview of the interrelated critical components of reading and writing instruction. Focus on developmental stages, benchmarks, and research-based instructional strategies to effectively teach literacy in the elementary grades. Prerequisites: Must hold a provisional or standard elementary, secondary, or special education teaching certificate.
Elements of Elementary Content Area Reading and Writing K-8
Focus on practical and effective methods and strategies for the teaching of reading and writing in the elementary content area based on research-based principles and theories. Prerequisites: EPD270, EPD271AA, and must hold a provisional or standard elementary, secondary, or special education teaching certificate.

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.

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.

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: (RDG091 with a C or better or equivalent as indicated by placement), and ((MAT090, or MAT091, or MAT092) with a C or better or equivalent as indicated by placement), and (ENG091 with a C or better or equivalent as indicated by placement).

Special Projects
1-3 Credits See Page 292

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.

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.

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.

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).

ESL I-Writing With Oral Practice
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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Course Title</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESL022</td>
<td>3</td>
<td>3</td>
<td>ESL II-Writing With Oral Practice</td>
<td>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 Instructor.</td>
</tr>
<tr>
<td>ESL030</td>
<td>3</td>
<td>3</td>
<td>English As A Second Language III: Grammar</td>
<td>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).</td>
</tr>
<tr>
<td>ESL031</td>
<td>3</td>
<td>3</td>
<td>English As A Second Language III: Listening And Speaking</td>
<td>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.</td>
</tr>
<tr>
<td>ESL032</td>
<td>3</td>
<td>3</td>
<td>ESL III-Writing With Oral Practice</td>
<td>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.</td>
</tr>
<tr>
<td>ESL040</td>
<td>3</td>
<td>3</td>
<td>English As A Second Language IV: Grammar</td>
<td>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).</td>
</tr>
<tr>
<td>ESL041</td>
<td>3</td>
<td>3</td>
<td>English As A Second Language IV: Listening And Speaking</td>
<td>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.</td>
</tr>
<tr>
<td>ESL042</td>
<td>3</td>
<td>3</td>
<td>ESL IV-Writing With Oral Practice</td>
<td>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.</td>
</tr>
<tr>
<td>ESL087</td>
<td>3</td>
<td>3</td>
<td>Basic Writing Skills for English Language Learners</td>
<td>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 a grade of “C” or better in ESL077, or permission of Department or Division.</td>
</tr>
<tr>
<td>ESL097</td>
<td>3</td>
<td>3</td>
<td>Fundamentals of Writing for English Language Learners</td>
<td>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.</td>
</tr>
<tr>
<td>ETL287</td>
<td>1</td>
<td>1</td>
<td>Teaching And Learning Seminar</td>
<td>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.</td>
</tr>
</tbody>
</table>
EXS - Exercise Science

EXS101  3 Credits 3 Periods
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.

EXS112  3 Credits 3 Periods
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.

EXS125  3 Credits 3 Periods
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.

EXS130  3 Credits 4.5 Periods
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.

EXS132  3 Credits 3 Periods
Cardiovascular Fitness: Physiological Principles and Training Techniques
Covers principles and techniques of aerobic training and the application of these to the development of aerobic training programs. Includes instructional techniques and safety, and stresses injury prevention. Prerequisites: None.

EXS145  4.5 Credits 5 Periods
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.

EXS214  2 Credits 3 Periods
Instructional Competency: 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.

EXS216  2 Credits 3 Periods
Instructional Competency: 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.

EXS218  2 Credits 3 Periods
Instructional Competency: 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.

EXS230  3 Credits 3 Periods
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.

EXS239  3 Credits 5.4 Periods
Practical Applications of Personal Training Skills and Techniques Internship
Work experience in a fitness or health related facility. Eighty (80) hours of designed work per credit. Prerequisites: EXS220, or HES154 within the past two years, or current CPR certification, or permission of Department or Division.

EXS239AA  1 Credits 1.8 Periods
Practical Applications of Personal Training Skills and Techniques Internship
Work experience in a fitness or health related facility. Eighty (80) hours of designed work per credit. Prerequisites: EXS220, or HES154 within the past two years, or current CPR certification, or permission of Department or Division.
<table>
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<tr>
<th>Course Code</th>
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<th>Periods</th>
<th>Description</th>
</tr>
</thead>
</table>
| EXS265BB   | 3       | 3       | Basketball Theory of Coaching  
Reviews the principles, philosophy, strategies and theory of coaching basketball, as a competitive sport. Prerequisites: None. |
| EXS265FB   | 3       | 3       | Football Theory of Coaching  
Reviews the principles, philosophy, strategies and theory of coaching football, as a competitive sport. Prerequisites: None. |
| EXS265TE   | 3       | 3       | Tennis Theory of Coaching  
Reviews the principles, philosophy, strategies and theory of coaching tennis, as a competitive sport. Prerequisites: None. |
| EXS265TF   | 3       | 3       | Track and Field Theory of Coaching  
Reviews the principles, philosophy, strategies and theory of coaching track and field, as a competitive sport. Prerequisites: None. |
| EXS281BB   | 3       | 3       | 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. |
| EXS281FB   | 3       | 3       | 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. |
| EXS281SO   | 3       | 3       | 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. |

FLA - Foreign Language Acquisition

<table>
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<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Description</th>
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</thead>
</table>
| FLA282     | 1-3     | 1-3     | 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. |

FON - Food and Nutrition

<table>
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<tr>
<th>Course Code</th>
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<th>Periods</th>
<th>Description</th>
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</table>
| FON100     | 3       | 3       | 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. |
| FON104     | 1       | 1       | 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. |
| FON125     | 1       | 1       | 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. |
| FON135     | 3       | 4       | 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.

**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.

**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.

**FON161**  
**Sustainable Food Production Systems**  
Study of the global food system and its impacts. Emphasis on the movement towards sustainable food systems. Prerequisites: FON160

**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.

**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.

**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.

**FON285**  
**Food and Nutrition Studies Internship**  
Work experience in an area directly related to sustainable food systems. Application of sustainable food system principles and practices from seed to support to service, including gardening and farming, managing food waste, advocacy, preparing and preserving food, and working with chefs and small farmers who are committed to supporting and providing local and regional sustainable food. Supervision and evaluation by an internship coordinator. Prerequisites: CUL105, FON104, and permission of Department Chairperson or Program Director.

**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.

**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.

**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.

**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.

FRE202 4 Credits 4 Periods
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.

FSC - Fire Science Technology

FSC101 3 Credits 4 Periods
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.

FSC102 11 Credits 19.6 Periods
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.

FSC105 3 Credits 3 Periods
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.

FSC106 3 Credits 3 Periods
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.

FSC108 3 Credits 3 Periods
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.

FSC110 3 Credits 3 Periods
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.

FSC111 2 Credits 2 Periods
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.

FSC113 3 Credits 3 Periods
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.

FSC117 3 Credits 3 Periods
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.
FSC118  3 Credits 3 Periods
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 pumper. Prerequisites: None.

FSC119  3 Credits 3 Periods
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.

FSC130  1 Credit 1.5 Periods
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.

FSC134  3 Credits 4.6 Periods
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.

FSC139  3 Credits 3 Periods
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.

FSC146  3 Credits 3 Periods
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.

FSC147  3 Credits 3 Periods
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.

FSC148  3 Credits 3 Periods
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.

FSC149  3 Credits 3 Periods
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.

FSC202  3 Credits 3 Periods
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.

FSC204  3 Credits 3 Periods
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.

FSC205  3 Credits 3 Periods
Command Strategies for Major Emergencies
Effective methods of managing major emergency incidents including multiple alarm structural fires, high rise fires, major brush fires, complex hazardous materials incidents and multi-casualty medical incidents. Includes incidents that require the commitment of resources based on a transitional situation and/or managing the effective interaction between numerous agencies to achieve control. Prerequisites: FSC204.
FSC208  3 Credits 3 Periods
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.

FSC214  3 Credits 3 Periods
Human Resource Management in Fire Service
Management of fire service personnel functions. Includes selection procedures, employee discipline, performance ratings, elements of supervision. Labor relations and related personnel responsibilities. Prerequisites: FSC202 or four years in the fire service.

FSC215  3 Credits 3 Periods
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.

FSC224  3 Credits 3 Periods
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.

FSC258  3 Credits 3 Periods
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.

FSC298  Special Projects
1-3 Credits See Page 292

GBS104  1 Credit 1 Period
Quality Telephone Techniques
Specific telephone communication techniques for delivering professional customer service. Prerequisites: None.

GBS131  3 Credits 3 Periods
Business Calculations
Review of basic arithmetic and application of mathematics to business problems; includes percentage, interest, discount, and markups. Prerequisites: None.

GBS132  3 Credits 3 Periods
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.

GBS151  3 Credits 3 Periods
Introduction to Business
Characteristics and activities of current local, national, and international business. An overview of economics, marketing, management and finance. Prerequisites: None.

GBS175  3 Credits 3 Periods
Professional Development
Examines personal qualities and professional skills needed to find a good job. Explores techniques required to build a successful career. Prerequisites: None.

GBS205  3 Credits 3 Periods
Legal, Ethical, and Regulatory Issues in Business
Legal theories, ethical issues and regulatory climate affecting business policies and decisions. Prerequisites: None.

GBS206  3 Credits 3 Periods
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.

GBS207  3 Credits 3 Periods
Business Law (General Corporate)
Legal and ethical aspects of agency, partnerships, corporations, bankruptcy, antitrust, securities, and other regulations of business. Prerequisites: None.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GBS211</td>
<td>3</td>
<td>3</td>
<td>Legal, Ethical and Regulatory Issues of the Internet Studies</td>
<td>Legal, ethical and regulatory issues of the Internet environment, including personal, commercial and business electronic transactions in cyberspace. Prerequisites: GBS210 or permission of instructor.</td>
</tr>
<tr>
<td>GBS220</td>
<td>3</td>
<td>3</td>
<td>Quantitative Methods In Business</td>
<td>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.</td>
</tr>
<tr>
<td>GBS221</td>
<td>3</td>
<td>3</td>
<td>Business Statistics</td>
<td>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.</td>
</tr>
<tr>
<td>GBS223</td>
<td>3</td>
<td>3</td>
<td>Business Communication</td>
<td>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.</td>
</tr>
<tr>
<td>GBS261</td>
<td>3</td>
<td>3</td>
<td>Investments I</td>
<td>Evaluation of various investment forms including study of inflation, taxation, government securities, stocks and bonds, real estate and retirement plans. Prerequisites: None.</td>
</tr>
<tr>
<td>GBS270AC</td>
<td>3</td>
<td>3</td>
<td>Business Internship</td>
<td>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.</td>
</tr>
<tr>
<td>GBS282</td>
<td>1-3</td>
<td>1-3</td>
<td>Volunteerism General Business: Service-Learning Experience</td>
<td>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.</td>
</tr>
</tbody>
</table>

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</thead>
<tbody>
<tr>
<td>GCU102</td>
<td>3</td>
<td>3</td>
<td>Introduction to Human Geography</td>
<td>Systematic study of human use of the earth. Spatial organization of economic, social, political, and perceptual environments. Prerequisites: None.</td>
</tr>
<tr>
<td>GCU121</td>
<td>3</td>
<td>3</td>
<td>World Geography I: Eastern Hemisphere</td>
<td>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.</td>
</tr>
<tr>
<td>GCU122</td>
<td>3</td>
<td>3</td>
<td>World Geography II: Western Hemisphere</td>
<td>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.</td>
</tr>
<tr>
<td>GCU221</td>
<td>3</td>
<td>3</td>
<td>Arizona Geography</td>
<td>The historical to modern development of Arizona. The interplay between the physical, cultural and economic factors affecting Arizona today. Prerequisites: None.</td>
</tr>
</tbody>
</table>

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<tr>
<th>Course Code</th>
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<th>Periods</th>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GER101</td>
<td>4</td>
<td>4</td>
<td>Elementary German I</td>
<td>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.</td>
</tr>
<tr>
<td>GER102</td>
<td>4</td>
<td>4</td>
<td>Elementary German II</td>
<td>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.</td>
</tr>
<tr>
<td>GER115</td>
<td>3</td>
<td>3</td>
<td>Beginning German Conversation I</td>
<td>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.</td>
</tr>
</tbody>
</table>
## COURSE DESCRIPTIONS

### GER - German

**GER201 Intermediate German I**
4 Credits 4 Periods
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.

**GER202 Intermediate German II**
4 Credits 4 Periods
Continued development of German language skills and continued study of the German culture. Prerequisites: GER201, or equivalent, or permission of Department or Division.

### GLG - Geology

**GLG101 Introduction To Geology I: Physical Lecture**
3 Credits 3 Periods
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.

**GLG102 Introduction to Geology II: Historical Lecture**
3 Credits 3 Periods
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.

**GLG103 Introduction To Geology I: Physical Lab**
1 Credits 3 Periods
May accompany GLG101. Study of common rock-forming minerals, rocks, and maps. Prerequisites: None.

**GLG104 Introduction to Geology II: Historical Lab**
1 Credit 3 Periods
May accompany GLG102. Study of geological structures and rocks, fossils, and geologic maps. May require field trips. Prerequisites: None.

**GLG105 Introduction to Planetary Science**
4 Credits 6 Periods
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.

**GLG111 Geologic Disasters and the Environment Lab**
1 Credit 3 Periods
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.

**GLG121 Geology of the Grand Canyon**
1 Credit 2 Periods
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.

**GLG230AA Field Geology of the Southwest**
1 Credit 5 Periods
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.

**GLG231AB Special Topics in Geology**
1 Credit 1 Period
Exploration of important topics in geology. Specific topic varies. Prerequisites: None.

**GLG280 Geology of Arizona Lecture**
3 Credits 3 Periods
Acquaints students with the physical and historical geology of Arizona, including the origin of present-day land forms and outstanding modern geologic features and processes now in operation. Prerequisites: None.

**GLG282 Volunteerism for Geology: A Service-Learning Experience**
1-3 Credits 1-3 Periods
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.

### GLO - Global Citizenship

**GLO298AA Special Projects**
1-3 Credits See Page 292
**GPH - Geography: Physical**

**GPH111**  
4 Credits 6 Periods  
*Introduction to Physical Geography*  
Spatial and functional relationships among climates, landforms, soils, water, and plants. Prerequisites: None.

**GPH210**  
3 Credits 3 Periods  
*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.

**GPH212**  
3 Credits 3 Periods  
*Introduction to Meteorology I*  
Atmospheric processes and elements. General and local circulation, heat exchange and atmospheric moisture. Prerequisites: None.

**GPH213**  
3 Credits 3 Periods  
*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.

**GPH214**  
1 Credit 3 Periods  
*Introduction to Meteorology I Laboratory*  
Basic meteorological and climatological measurements. Prerequisites: None. Prerequisites: None. Corequisites: GPH212.

**GPH215**  
1 Credit 3 Periods  
*Introduction to Climatology Laboratory*  
A mathematical, statistical, and spatial analysis of climatological phenomena. Prerequisites: None. Corequisites: GPH213.

**GPH219**  
3 Credits 3 Periods  
*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.

**GPH220**  
3 Credits 3 Periods  
*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.

**GPH267**  
3 Credits 3 Periods  
*Extreme Weather and Climate*  
Emphasis on interaction of physical and cultural geography in potentially hazardous weather and climate processes. Exploration of hazard risk analysis. Prerequisites: ENG101 or ENG107.

**GPH270**  
3 Credits 3 Periods  
*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.

**GPH273**  
3 Credits 3 Periods  
*Advanced GIS Using ArcGIS*  
Advanced data and spatial analysis techniques in Geographic Information Systems (GIS), using ArcGIS. Prerequisites: GPH220 or permission of Instructor.

**GPH275**  
3 Credits 3 Periods  
*Introduction to Remote Sensing*  
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.

**GPH279**  
1-3 Credits 1-3 Periods  
*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) GPH279 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.

**GRK - Greek**

**GRK101**  
4 Credits 5 Periods  
*Elementary Classical Greek I*  
First semester course in classical Greek, emphasis on written structures of language. Attention placed on classical Greek pronunciation. Prerequisites: None.
GTC - General Technology

GTC102 3 Credits 6 Periods
**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.

GTC104 4 Credits 7 Periods
**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.

GTC106 2 Credits 2 Periods
**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.

GTC107 3 Credits 3 Periods
**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.

GTC108 3 Credits 3 Periods
**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.

GTC127 3 Credits 4 Periods
**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.

GTC130 3 Credits 6 Periods
**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.

GTC144 3 Credits 5 Periods
**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.

GTC185 4 Credits 6 Periods
**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.

GTC206 3 Credits 4 Periods
**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.

GTC216 3 Credits 3 Periods
**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.
### GTC - Machine Tools

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Course Title</th>
<th>Prerequisites</th>
</tr>
</thead>
</table>
| GTC223      | 3       | 6       | Advanced Machine Tools | GTC102 or (MET101 and MET150).
| GTC236      | 3       | 6       | CAD/CAM Computer Numerical Control (CNC) Programming | |
| GTC246      | 3       | 6       | Advanced CAD/CAM CNC Programming | GTC236.
| GTC266      | 3       | 6       | Solids Modeling-Solidworks | |
| GTC276      | 3       | 6       | Solids Programming | |
| GTC298      | 1-3     |        | Special Projects | See Page 292 |

### HBR - Hebrew

<table>
<thead>
<tr>
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<th>Periods</th>
<th>Course Title</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>HBR101</td>
<td>4</td>
<td>4</td>
<td>Elementary Biblical Hebrew I</td>
<td></td>
</tr>
</tbody>
</table>
| HBR102      | 4       | 4       | Elementary Biblical Hebrew II | HBR101, or equivalent.
| HBR201      | 4       | 4       | Intermediate Biblical Hebrew I | Advanced study of grammar and vocabulary of classical Hebrew with emphasis on oral reading and interpretation skills. Prerequisites: HBR101, or equivalent.

### HCC - Health Care

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Prerequisites</th>
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</thead>
<tbody>
<tr>
<td>HCC130</td>
<td>3</td>
<td>3</td>
<td>Fundamentals In Health Care Delivery</td>
<td>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.</td>
</tr>
<tr>
<td>HCC130AA</td>
<td>.50</td>
<td>.50</td>
<td>Health Care Today</td>
<td>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. Prerequisites: None.</td>
</tr>
<tr>
<td>HCC130AB</td>
<td>.50</td>
<td>.50</td>
<td>Workplace Behaviors in Health Care</td>
<td>Health care and life values. Definition and importance of values, ethics, and essential behaviors in the workplace. Worker rights and responsibilities. Prerequisites: None.</td>
</tr>
<tr>
<td>HCC130AC</td>
<td>.50</td>
<td>.50</td>
<td>Personal Wellness and Safety</td>
<td>Introduces healthful living practices to include nutrition, stress management and exercise. Includes Occupational Safety and Health Administration (OSHA) standard precautions and facility safety. Use of principles of body mechanics in daily living activities. Prerequisites: None.</td>
</tr>
<tr>
<td>HCC130AD</td>
<td>.50</td>
<td>.50</td>
<td>Communication and Teamwork in Health Care Organizations</td>
<td>Emphasis on basic communication skills which facilitate teamwork in the health care setting. Focus on development of</td>
</tr>
</tbody>
</table>
personal communication skills and an understanding of how effective communication skills promote teamwork. Focus on intercultural communication strategies. Prerequisites: None.

**HCC130AE**
**Legal Issues in Health Care**
Basic legal terminology used in the health care setting. Legal concepts related to health care employment, medical documentation, and communication. Introduction to regulatory requirements in health care. Prerequisites: None.

**HCC130AF**
**Decision Making in the Health Care Setting**
Principles and application of a decision making model. Description and application of ethics and process improvement and the relationship of both to the decision making model. Prerequisites: None.

**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.

**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.

**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.

**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.

**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.

**HES210**
**Cultural Aspects of Health and Illness**
Examines how culture influences health and illness, health care practices, barriers to health care, interactions with health care professionals, and health disparities in the U.S. Prerequisites: None.
COURSE DESCRIPTIONS

**HES271 3 Credits 3 Periods**
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.

**HIS - History**

**HIS100 3 Credits 3 Periods**
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.

**HIS101 3 Credits 3 Periods**
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.

**HIS102 3 Credits 3 Periods**
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.

**HIS103 3 Credits 3 Periods**
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.

**HIS104 3 Credits 3 Periods**
United States History 1865 to Present
The political, economic, and social development of United States from 1865 to the present time. Prerequisites: None.

**HIS105 3 Credits 3 Periods**
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.

**HIS106 3 Credits 3 Periods**
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.

**HIS107 3 Credits 3 Periods**
Selected Issues in United States History
Survey of selected major issues in history of United States from early times to present. Prerequisites: None.

**HIS108 3 Credits 3 Periods**
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.

**HIS109 3 Credits 3 Periods**
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.

**HIS110 3 Credits 3 Periods**
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.

**HIS111 3 Credits 3 Periods**
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.

**HIS113 3 Credits 3 Periods**
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.

**HIS114 3 Credits 3 Periods**
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.

**HIS140 3 Credits 3 Periods**
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.

**HIS145**  
**3 Credits 3 Periods**  
**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.

**HIS201**  
**3 Credits 3 Periods**  
**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.

**HIS203**  
**3 Credits 3 Periods**  
**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.

**HIS204**  
**3 Credits 3 Periods**  
**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.

**HIS212**  
**3 Credits 3 Periods**  
**Historical Foundations of Religion**  
Survey of the historical contexts in which the major religions have emerged and evolved. Focuses on social and political events throughout history and their impact on religious beliefs and practices. Prerequisites: None.

**HIS251**  
**3 Credits 3 Periods**  
**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.

**HIS252**  
**3 Credits 3 Periods**  
**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.

**HIS273**  
**3 Credits 3 Periods**  
**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.

**HIS282**  
**1-3 Credits 1-3 Periods**  
**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.

**HIS298**  
**Special Projects**  
**1-3 Credits See Page 292**

**HLR - Health Related**

**HLR286**  
**3 Credits 3 Periods**  
**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.

**HRM - Hotel Restaurant Management**

**HRM110**  
**3 Credits 3 Periods**  
**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.

**HRM145**  
**3 Credits 3 Periods**  
**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.
HRM160  3 Credits 3 Periods
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.

HRM260  3 Credits 3 Periods
Hospitality Human Resource Management
Examines concepts and applications of human resource management in the hospitality industry. Topics include recruitment, selection, training and evaluation. Emphasis on current management methods and productivity in the service environment. Prerequisites: HRM110 or approval of instructor.

HRM270  3 Credits 3 Periods
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.

HRM280  3 Credits 3 Periods
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.

HUM - Humanities

HUM100  1 Credit 1 Period
Great Ideas Symposium
Interrelationships among cultures and behavior in the modern world. Focuses on selected themes and topics. Prerequisites: None.

HUM107  3 Credits 3 Periods
Humanities Through the Arts
Introduction to humanities including film, drama, music, literature, painting, sculpture, and architecture. Prerequisites: None.

HUM201  3 Credits 3 Periods
Humanities: Universal Themes
Origins and creation myths, the material world, and the spiritual world as themes in the humanities. Prerequisites: None.

HUM202  3 Credits 3 Periods
Humanities: Universal Themes
The hero/heroine, fool, the social world, and the future as themes in the humanities. Prerequisites: None.

HUM205  3 Credits 3 Periods
Introduction to Cinema
Survey of the history and development of the art of motion pictures, including criticism of aesthetic and technical elements. Prerequisites: None.

HUM209  3 Credits 3 Periods
Women and Films
Analysis of images of women in films from both historical and contemporary perspectives. Prerequisites: None.

HUM210  3 Credits 3 Periods
Contemporary Cinema
A study of contemporary films, directors and critics with emphasis on evaluating film as an art form. Prerequisites: None.

HUM211AA  3 Credits 3 Periods
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.

HUM214  3 Credits 3 Periods
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.

HUM215  3 Credits 3 Periods
Film Comedy
Explores the basics of humor in film by tracing its roots through a historical examination of a variety of arts, artists, and theorists. Focuses on films’ unique contributions to the world of laughter. Investigates how comedy, and film comedy in particular, provides an essential and unifying force for culture and society. Prerequisites: None.

HUM225  3 Credits 3 Periods
Introduction to Popular Culture
Introduction to major topics in the field of popular culture studies. Includes basic theories, methods, and concepts used to analyze popular culture texts and practices. Prerequisites: ENG101 or ENG107.
COURSE DESCRIPTIONS

HUM250 3 Credits 3 Periods
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.

HUM251 3 Credits 3 Periods
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.

HUM292 3 Credits 3 Periods
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.

IBS - International Business

IBS101 3 Credits 3 Periods
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.

IBS109 3 Credits 3 Periods
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.

IBS116 3 Credits 3 Periods
Export/Import Management
Basics of importing and exporting processes with focus on documentation and procedures. Includes transportation and distribution options, freight forwarders, International Common Terms (INCO) shipping terms, packaging strategies, contract negotiation, and execution of international contracts. Prerequisites: IBS101, or permission of instructor.

IBS118 3 Credits 3 Periods
International Marketing Management
Planning, implementing, and managing international marketing strategies through application of international marketing research and evaluation in diverse cultural, economic, and political environments. Emphasis on implementation of product, price, promotion, and distribution strategies. Prerequisites: IBS101, or permission of instructor.

IBS123 3 Credits 3 Periods
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.

IBS140 3 Credits 3 Periods
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.

IFS - Information Studies

IFS101 3 Credits 3 Periods
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.

IGS – Integrated Studies

IGS291 3 Credits 3 Periods
Studies in global Awareness
Interdisciplinary examination of selected topics in global awareness. Study of the human organization and modern global interdependence. Selected topics vary. Prerequisites: ENG101, or ENG107, or equivalent.

INT - Interior Design

INT100 3 Credits 6 Periods
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.

INT105 3 Credits 3 Periods 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.

INT115 3 Credits 3 Periods Historical Architecture And Furniture
Historical survey of the development of furniture, interiors, and architecture from antiquity to the 19th Century. Prerequisites: None.

INT120 3 Credits 3 Periods 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.

INT140 3 Credits 6 Periods 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.

INT145 3 Credits 6 Periods 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.

INT150 3 Credits 6 Periods 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.

INT160 3 Credits 3 Periods 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.

INT170 3 Credits 6 Periods 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.

INT175 3 Credits 6 Periods 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).

INT190 3 Credits 6 Periods 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.

INT200 3 Credits 6 Periods 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.

INT205 3 Credits 6 Periods 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.

INT230 3 Credits 6 Periods 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.
### COURSE DESCRIPTIONS

**INT260** 3 Credits 3 Periods  
**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.

**INT268** 3 Credits 6 Periods  
**Lighting Design**  
Study of interior lighting design and its impact on the health safety and welfare of the public. Prerequisites: AAS Degree in Interior Design or permission of Department or Division.

**INT271AA** 1 Credit 5 Periods  
**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.

**INT271AB** 2 Credits 10 Periods  
**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.

**INT271AC** 3 Credits 15 Periods  
**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.

**INV - Innovation**

**INV150** 3 Credits 3 Periods  
**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.

**ITA - Italian**

**ITA101** 4 Credits 4 Periods  
**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.

**ITA102** 4 Credits 4 Periods  
**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.

**ITA201** 4 Credits 4 Periods  
**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.

**JPN - Japanese**

**JPN101** 5 Credits 6 Periods  
**Elementary Japanese I**  
Basic grammar, pronunciation, and vocabulary of Japanese. Study of Japanese culture. Development of speaking, listening, reading and writing skills. Prerequisites: None.

**JPN102** 5 Credits 6 Periods  
**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.

**JPN201** 5 Credits 6 Periods  
**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.

**JPN202** 5 Credits 6 Periods  
**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.
## JRN - Journalism

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>JRN125</td>
<td>3</td>
<td>3</td>
<td>Photo Editing</td>
<td>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.</td>
</tr>
<tr>
<td>JRN201</td>
<td>3</td>
<td>5</td>
<td>News Writing</td>
<td>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.</td>
</tr>
<tr>
<td>JRN203</td>
<td>3</td>
<td>3</td>
<td>Writing for Online Media</td>
<td>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.</td>
</tr>
<tr>
<td>JRN205</td>
<td>3</td>
<td>3</td>
<td>Copyediting</td>
<td>Specific skills and techniques of copyediting. Understanding of editing skills to enhance a writer’s abilities whether one’s own or someone else’s. Critically evaluate word usage and meaning to achieve the 3 Cs of writing clarity, completeness and conciseness. Prerequisites: Placement into ENG101 or permission of instructor.</td>
</tr>
<tr>
<td>JRN215</td>
<td>3</td>
<td>5</td>
<td>News Production</td>
<td>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.</td>
</tr>
<tr>
<td>JRN225</td>
<td>3</td>
<td>3</td>
<td>Photojournalism</td>
<td>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.</td>
</tr>
<tr>
<td>JRN234</td>
<td>3</td>
<td>3</td>
<td>Feature Writing</td>
<td>Emphasis on crafting stylized stories for publications. Includes research, interviewing, writing techniques, editing and professional concerns. Prerequisites: Placement into ENG101, or ENG107, or equivalent.</td>
</tr>
<tr>
<td>JRN235</td>
<td>3</td>
<td>5</td>
<td>Practicum: Public Relations</td>
<td>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.</td>
</tr>
<tr>
<td>JRN236</td>
<td>3</td>
<td>5</td>
<td>Advanced Practicum: Public Relations</td>
<td>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.</td>
</tr>
<tr>
<td>JRN240</td>
<td>1-3</td>
<td>1-3</td>
<td>Journalism Internship</td>
<td>Journalism work experience with a newspaper or other news organization. 80 hours of designated work per credit. Maximum of 6 credits allowed. Prerequisites: JRN215.</td>
</tr>
<tr>
<td>JRN298</td>
<td>Special</td>
<td>1-3</td>
<td>Projects</td>
<td>See Page 292</td>
</tr>
</tbody>
</table>

## JUD - Judicial Studies

<table>
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<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>JUD101</td>
<td>1</td>
<td>1</td>
<td>The Courts In Arizona</td>
<td>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.</td>
</tr>
<tr>
<td>JUD103</td>
<td>1</td>
<td>1</td>
<td>Role Of The Court Staff</td>
<td>Roles and responsibilities of court staff and other court personnel in Arizona. Prerequisites: None.</td>
</tr>
<tr>
<td>JUD107</td>
<td>2</td>
<td>2</td>
<td>Civil Procedure In Arizona Courts</td>
<td>Rules of civil procedure as applied to both standard civil actions and small claims cases found in Arizona limited</td>
</tr>
</tbody>
</table>
COURSE DESCRIPTIONS

jurisdiction courts. Conduct of the typical civil trials and small claims hearings, and pretrial procedures in managing a civil calendar. Prerequisites: None.

**JUD109**  
1 Credit 1 Period  
**Judicial Writing**  
Judicial writing skills, including research skills, organization, grammar, and style. Goals and objectives of writing in courts. Prerequisites: None.

**JUD111**  
1 Credit 1 Period  
**Sentencing Misdemeanants**  
Alternatives, methods, laws, rules and practices governing the sentencing of persons convicted of misdemeanors under Arizona law. Prerequisites: None.

**JUD113**  
2 Credits 2 Periods  
**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.

**JUD115**  
2 Credits 2 Periods  
**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.

**JUD119**  
1 Credit 1 Period  
**Alternative Dispute Resolution**  
Techniques for conflict resolution. Prerequisites: None.

**JUD121**  
1 Credit 1 Period  
**Appeals**  
Processing of appeals from limited jurisdiction to general jurisdiction courts. Prerequisites: None.

**LAT - Latin**

**LAT101**  
4 Credits 4 Periods  
**Elementary Latin I**  
Introduction to the basic grammar and vocabulary of the Latin language. Practice reading and translating Latin into English. Prerequisites: None.

**LAT102**  
4 Credits 4 Periods  
**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.

**LAT202**  
4 Credits 4 Periods  
**Intermediate Latin II**  
Refinement of translation techniques using selections from Virgil's Aeneid; emphasis on use of language and meter. Prerequisites: LAT201.

**LBS - Library Skills**

**LBS220**  
1 Credit 1 Period  
**Information Literacy And The Internet**  
Exploration of the Internet as an informational resource. Development of basic information literacy skills. Prerequisites: None.

**LBT - Library Technology**

**LBT101**  
3 Credits 3 Periods  
**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.

**LBT110**  
3 Credits 3 Periods  
**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.

**LBT140**  
3 Credits 3 Periods  
**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.
LBT218 1 Credit 1 Period
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.

LBT254 2 Credits 3 Periods
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.

LBT262 1 Credit 1 Period
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.

LBT270 1 Credit 5 Periods
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.

LBT237 1 Credit 1 Period
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.

LBT272AA 1 Credit 5 Periods
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.

LBT272AB 1 Credit 5 Periods
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.

LBT272AC 1 Credit 5 Periods
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.

LBT274 1 Credit 5 Periods
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.

LBT282 1-3 Credits 1-3 Periods
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.

LDR - Leadership

LDR102 2 Credits 2 Periods
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.
MAT - Mathematics

MAT082  3 Credits 3 Periods
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.

MAT090  5 Credits 5 Periods
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.

MAT092  3 Credits 3 Periods
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.

MAT102  3 Credits 3 Periods
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.

MAT108  2 Credits 2 Periods
Tutored Mathematics
Structured tutorial assistance and math study skills to help students achieve success in a mathematics course in which they are concurrently enrolled. Mathematics study skills emphasized. Prerequisites: None. Corequisites: MAT082, or MAT090, or MAT091, or MAT092, or MAT120, or MAT121, or MAT122, or MAT140, or MAT141, or MAT142, or MAT150, or MAT151, or MAT152, or permission of department chair.

MAT108AA  1 Credit 1 Period
Tutored Mathematics
Structured tutorial assistance and math study skills to help students achieve success in a mathematics course in which they are concurrently enrolled. Mathematics study skills emphasized. Prerequisites: None. Corequisites: MAT072, or MAT081, or MAT082, or MAT083 or MAT090, or MAT091, or MAT092, or MAT093, or MAT120, or MAT121, or MAT122, or MAT140, or MAT141, or MAT142, or MAT150, or MAT151, or MAT152, or permission of department chair.

MAT120  5 Credits 5 Periods
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.

MAT121  4 Credits 4 Periods
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.

MAT122  3 Credits 3 Periods
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.

MAT142  3 Credits 3 Periods
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.

MAT150 5 Credits 5 Periods
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.

MAT151 4 Credits 4 Periods
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.

MAT152 3 Credits 3 Periods
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.

MAT156 3 Credits 3 Periods
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.

MAT157 3 Credits 3 Periods
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.

MAT182 3 Credits 3 Periods
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.

MAT187 5 Credits 5 Periods
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.

MAT206 3 Credits 3 Periods
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.

MAT212 3 Credits 3 Periods
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.

MAT218 4 Credits 4 Periods
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.

MAT220 5 Credits 5 Periods
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.

MAT225 3 Credits 3 Periods
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.

MAT227 3 Credits 3 Periods
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.

MAT231 4 Credits 4 Periods
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.

MAT241 4 Credits 4 Periods
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.

MAT276 4 Credits 4 Periods
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.

MAT282 1-3 Credits 1-3 Periods
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.

MAT298 Special Projects 1-3 Credits See Page 292

MCO - Mass Communication

MCO120 3 Credits 3 Periods
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.

MCO220 3 Credits 3 Periods
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.

MET - Manufacturing Technology

MET112 3 Credits 5 Periods
Inspection Techniques
Set-up and use of inspection tools, equipment, per industry standards including the use of surface plates, right angle blocks, cylindrical squares, V-Blocks, and related equipment. Selection, completion and interpretation of information from inspection forms. Inspection alternatives, tool control activities, and application of geometric dimensioning and tolerance. Prerequisites: (A grade of “C” or better in MAT082, or higher level mathematics course, or satisfactory score on District Placement exam) or permission of Department or division. Prerequisites or Corequisites: MET109
MET131  3 Credits 3 Periods
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.

MET207  3 Credits 3 Periods
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: MET231 or permission of Program Director. Prerequisites/Corequisites: GTC/MET206 or permission of Program Director.

MET208  3 Credits 3 Periods
CNC Lathe: Operator Training I
Computer Numerical Control (CNC) Lathe qualified setup and functioning program. Operation of lathe. Changing tool values. Replacing and qualifying tooling. CNC Lathe operator training including machine controls, tooling and operations. Proper machine shop safety. Prerequisites: MET231 or permission of Program Director. Prerequisites/Corequisites: GTC/MET206 or permission of Program Director.

MET209  3 Credits 6 Periods
CNC Mill: Operator Training II
Setup and operation of a computerized numerical control (CNC) mill and fourth axis rotary table. Computerized numerical control (CNC) machining center. Manufacturing operation instruction and functioning program. Changing tool values. Replacement and qualifying tooling. Advanced program editing including CANNED cycle use and manipulation. CNC mill operator training including advanced machine control manipulation communication techniques, and fixturing concepts. Proper machine shop safety. Prerequisites: (MET102, MET203, Met206, and MET207) or permission of department.

MET210  3 Credits 6 Periods
CNC Lathe: Operator Training II
Setup and operation of a Computer Numerical Control (CNC) lathe and CNC Mill/Turn. Manufacturing operation instructions and functioning program. Changing tool values. Replacing and qualify tooling. Advanced CNC lathe topics including production tooling and coolants, live tooling (mill/turn), tail stock, bar pull/feed, advanced program editing, CANNED cycle use and manipulation, and set up time reduction. Proper machine shop safety. Prerequisites: (MET102, MET203, MET206 and MET208) or permission of department.

MET250  3 Credits 24 Periods
Machining Practices II
Lab to accompany MET103. Hands-on experience in fabricating sophisticated metal components, complex level of planning, layout, measuring, setup and machine tool operations. Prerequisites: MET101, MET150, or permission of instructor. Corequisites: DFT110, GTC/MET108, MET103 and QCT270.

MGT - Management

MGT101  3 Credits 3 Periods
Techniques of Supervision
Overview of the foundations of supervision and how to get things done within an organization through other people. The functions of planning, organizing, staffing, motivating and controlling presented. Prerequisites: None.

MGT147  3 Credits 3 Periods
Supply Chain Management
Supply chain management, including basic concepts and underlying principles of logistics and inventory management. Prerequisites: None.

MGT175  3 Credits 3 Periods
Business Organization and Management
Covers basic principles of managing quality and performance in organizations. Covers management functions: planning, organizing, leading, and controlling. Emphasizes continual improvement, ethics, and social responsibility. Prerequisites: None.

MGT229  3 Credits 3 Periods
Management And Leadership I
Covers management concepts and applications for business, industry, and government organizations. Prerequisites: None.

MGT230  3 Credits 3 Periods
Management and Leadership II
Includes practical applications of activities, issues, and problems related to current managerial and supervisory skills and talents. Prerequisites: MGT229 or departmental approval.

MGT242  2 Credits 2 Periods
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.
MGT243 2 Credits 2 Periods
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.

MGT244 2 Credits 2 Periods
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.

MGT245 2 Credits 2 Periods
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.

MGT246 3 Credits 3 Periods
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.

MGT251 3 Credits 3 Periods
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.

MGT253 3 Credits 3 Periods
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.

MGT270AC 3 Credits 3 Periods
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.

MGT276 3 Credits 3 Periods
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.

MHL - Music: History/Literature

MHL130 3 Credits 3 Periods
Herstory: Women in Popular Music
Overview of the contributions made by women in the evolution of popular music and its industry. Prerequisites: None.

MHL143 3 Credits 3 Periods
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.

MHL145 3 Credits 3 Periods
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.

MHL146 3 Credits 3 Periods
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.

MHL153 3 Credits 3 Periods
Rock Music and Culture
History of rock music and how cultural, social, political, and economic conditions have shaped its evolution. Prerequisites: None.

MHL155 3 Credits 3 Periods
Survey of American Music
History of the music of North America from the earliest American Indian music to the present. Introduction to the musical trends, composers, socioeconomic developments and trends, musical forms and styles that influence our modern American musical sense. Prerequisites: None.
# COURSE DESCRIPTIONS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
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</thead>
<tbody>
<tr>
<td>MHL241</td>
<td>3</td>
<td>3</td>
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<tr>
<td><strong>Music History and Literature to 1750</strong></td>
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<tr>
<td>In-depth study of music history from the primitive era through the Baroque period. Prerequisites or Corequisites: MTC155 and MTC156, or permission of Instructor.</td>
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<tr>
<td>MHL242</td>
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<tr>
<td><strong>Music History and Literature 1750 to Present</strong></td>
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<tr>
<td>In-depth study of music history from the Classical period through the Contemporary period. Prerequisites: MHL241 or permission of instructor.</td>
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**MIS - Military Science**

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<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
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</thead>
<tbody>
<tr>
<td>MIS101</td>
<td>3</td>
<td>5</td>
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<tr>
<td><strong>Introduction To The Military I</strong></td>
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<tr>
<td>Overview of mission, organization and structure of the Army and its role in national defense, discussion of current military issues. Prerequisites: None.</td>
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<tr>
<td>MIS102</td>
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<td>5</td>
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<tr>
<td><strong>Introduction To The Military II</strong></td>
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<tr>
<td>Introduces problem-solving methods, critical thinking, decision making, and group cohesion as applied in a military environment. Prerequisites: None.</td>
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<tr>
<td>MIS201</td>
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<tr>
<td><strong>Introduction To Leadership Dynamics I</strong></td>
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<tr>
<td>Introduces interpersonal dynamics involved in military team operations; theory and application of military leadership principles. Prerequisites: None.</td>
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<tr>
<td>MIS202</td>
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<tr>
<td><strong>Introduction To Leadership Dynamics II</strong></td>
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<tr>
<td>Introduction to interpersonal dynamics involved in military team operations; theory and application of military leadership principles. Prerequisites: None.</td>
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</table>

**MKT - Marketing**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MKT101</td>
<td>3</td>
<td>3</td>
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<tr>
<td><strong>Introduction to Public Relations</strong></td>
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<tr>
<td>Emphasizes public relations techniques used both within and outside the business organization, including operation of a PR counseling firm. Prerequisites: None.</td>
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<tr>
<td>MKT109</td>
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<tr>
<td><strong>Introduction to Fashion Merchandising</strong></td>
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<tr>
<td>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.</td>
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<tr>
<td>MKT110</td>
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<tr>
<td><strong>Marketing and Social Networking</strong></td>
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<tr>
<td>Theory and practice in the use of social media in marketing. Topics may include a history of social media, preparation for social marketing, the power of collective influence, and how to engage with social media. Reviews social mediums, social networks, platforms and other marketing tools used to create a social media campaigns. Prerequisites: None.</td>
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<tr>
<td>MKT151</td>
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<td>3</td>
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<tr>
<td><strong>Display and Visual Merchandising</strong></td>
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<tr>
<td>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.</td>
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<tr>
<td>MKT263</td>
<td>3</td>
<td>3</td>
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<tr>
<td><strong>Advertising Principles</strong></td>
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<tr>
<td>Introduces the advertising function within business, including media study, creative strategies, and advertising campaigns. Prerequisites: None. MKT271 suggested, but not required.</td>
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<tr>
<td>MKT268</td>
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<tr>
<td><strong>Merchandising</strong></td>
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<tr>
<td>Surveys structure and operation of retail organizations. Emphasizes merchandising to include price, location, time, promotion and quantity. Prerequisites: None. MKT271 suggested but not required.</td>
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<tr>
<td>MKT271</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Principles of Marketing</strong></td>
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<tr>
<td>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.</td>
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<tr>
<td>MKT273</td>
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<td>3</td>
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<tr>
<td><strong>Marketing Research</strong></td>
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<tr>
<td>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.</td>
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<tr>
<td>MKT280</td>
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<td>1-3</td>
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<tr>
<td><strong>Marketing Internship</strong></td>
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<tr>
<td>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.</td>
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<tr>
<td>MKT296</td>
<td>1-4</td>
<td>5-20</td>
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<tr>
<td><strong>Cooperative Education</strong></td>
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<tr>
<td>Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to</td>
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</table>
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

MSP - Mortuary Science

MSP101 1 Credit 1 Period 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.

MSP201 3 Credits 3 Periods 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.

MSP202 4 Credits 5 Periods 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.

MSP203 3 Credits 3 Periods 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.

MSP204 3 Credits 3 Periods 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.

MSP205 3 Credits 3 Periods 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.

MSP206 3 Credits 3 Periods Mortuary Administration II
Operation of the established funeral home and product knowledge in the area of funeral service merchandising. Prerequisites: MSP205.

MSP207 4 Credits 5 Periods 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.

MSP208 3 Credits 3 Periods 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.

MSP209 3 Credits 3 Periods 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.

MSP210 2 Credits 2 Periods 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.

MSP211 2 Credits 2 Periods Compendium for Funeral Service
Analysis of tasks performed on a more-or-less day-to-day basis by funeral service personnel. Capstone experience based on all previous course work. Prerequisites: Admission to the Mortuary Science Program.

MSP297 1-3 Credits 1-3 Periods Volunteерism 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.
## MST - Microsoft Technology

### MST150SV 3 Credits 4 Periods
**Microsoft Windows 7 Configuration**
Knowledge and skills necessary to perform installation and day-to-day administration and support of the Microsoft Windows 7 operating system. Preparation for the Microsoft certification examination. Prerequisites: None. CIs190, or CNT140AA, or MST140 suggested but not required.

### MST155DA 4 Credits 5 Periods
**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.

### MST157DA 4 Credits 5 Periods
**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.

### MST158DA 4 Credits 5 Periods
**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.

## MTC - Music: Theory/Composition

### MTC101 3 Credits 3 Periods
**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.

### MTC103 2 Credits 2 Periods
**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.

### MTC105 3 Credits 3 Periods
**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.

### MTC106 1 Credit 2 Periods
**Aural Perception I**
The development of listening and performing skills through dictation, sight singing and keyboard harmony. Prerequisites: None. Corequisites: MTC105.

### MTC111 1 Credit 1 Period
**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.

### MTC113 1 Credit 1 Period
**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.

### MTC122 3 Credits 3 Periods
**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.

### MTC130 2 Credits 2 Periods
**Jazz Theory**
Develop written and aural theory skills necessary in the jazz idiom MTC130 is recommended for students taking jazz improvisation, jazz composition and jazz combo. Prerequisites: (MTC101 and MTC103), or permission of instructor.
MTC155 3 Credits 3 Periods
Music Theory II
A continuation of Music Theory I with emphasis on harmony and part-writing procedures. Prerequisites: MTC105. Corequisites: MTC156.

MTC156 1 Credit 2 Periods
Aural Perception II
A continuation of Aural Perception I, including harmonic practices. Prerequisites: None. Corequisites: MTC155.

MTC180 3 Credits 4 Periods
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.

MTC191 3 Credits 4 Periods
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.

MTC192 3 Credits 4 Periods
Electronic Music II
Continued study of the production of music with Musical Instrument Digital Interface (MIDI) configurations consisting of more complex configurations and their applications in song arrangements. Prerequisites: MTC191.

MTC203 3 Credits 3 Periods
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.

MTC205 3 Credits 3 Periods
Music Theory III
The study of chromatic harmony and melody, modulation techniques and expanded chords. The analysis of formal structure. Prerequisites: MTC155. Corequisites: MTC206.

MTC206 1 Credit 2 Periods
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.

MTC240 3 Credits 0.60 Period
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.

MTC255 3 Credits 3 Periods
Music Theory IV
A continuation of Music Theory III, including 20th century theories and techniques. Prerequisites: MTC205. Corequisites: MTC256.

MTC256 1 Credit 2 Periods
Aural Perception IV
A continuation of Aural Perception III, including extended chords. Prerequisites: None. Corequisites: MTC255.

MUC - Music: Commercial/Business

MUC109 3 Credits 3 Periods
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.

MUC110 3 Credits 3 Periods
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.

MUC111 3 Credits 5 Periods
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.

MUC112 3 Credits 5 Periods
Digital Audio Workstation II (Daw II)
Introduction to Sound Design and Audio Post-Production for Multimedia. Includes creating and editing Sound Effects, ADR, Foley, Music, and Ambience, for multiple mediums such as Film, TV, Video Gaming, Theatre, and Dance.
### COURSE DESCRIPTIONS

Emphasis on computer assisted production using Digital Audio Workstations and sound design techniques using industry-standard equipment. Prerequisites: MUC111.

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<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MUC122</td>
<td>3</td>
<td>5</td>
<td>Sound Design I</td>
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<td>MUC135</td>
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<td>Introduction to Disc Jockey Techniques</td>
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<tr>
<td>MUC194</td>
<td>3</td>
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<td>Introduction To Audio Mixing Techniques</td>
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<tr>
<td>MUC195AA</td>
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<td>Studio Music Recording I</td>
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<tr>
<td>MUC196</td>
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<td>Studio Music Recording II</td>
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<td>MUC197</td>
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<td>Live Sound Reinforcement I</td>
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<td>Live Sound Reinforcement II</td>
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<tr>
<td>MUC209</td>
<td>3</td>
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<td>Music Industry Entrepreneurship</td>
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<tr>
<td>MUC210</td>
<td>3</td>
<td>3</td>
<td>Advanced Industry Topics: Concert Promotion and Touring</td>
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<tr>
<td>MUC211</td>
<td>3</td>
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<td>Advanced Industry Topics: Artist Management and Development</td>
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<tr>
<td>MUC222</td>
<td>3</td>
<td>5</td>
<td>Sound Design II</td>
</tr>
</tbody>
</table>

### Details

- **MUC122 Sound Design I**: Use of digital mixing and automation software in conjunction with editing and recording. Includes computer operation, troubleshooting, and file management. Prerequisites: MTC191. Prerequisites/Corequisites: MUC111 or permission of instructor.

- **MUC135 Introduction to Disc Jockey Techniques**: Development of beginning level live-performance disc jockey techniques. Emphasis on understanding the construction of industry-formatted dance songs, cueing, segueing/mixing methods, the relationship of beats per minute to segueing, and programming songs to entertain a live audience. Covers the history of the live performance DJ and strategies for soliciting employment in the field. Prerequisites: None.

- **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.

- **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.

- **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.

- **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.

- **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.

- **MUC209 Music Industry Entrepreneurship**: Operation, scope, and career opportunities in the music business. Focuses on music in the areas of entrepreneurship, visionary development and the collaboration process. Prerequisites: MUC109 and MUC110 or permission of Instructor.

- **MUC210 Advanced Industry Topics: Concert Promotion and Touring**: Operation, scope, and career opportunities in the music business. Focuses on advanced aspects of concert promotion, touring and festival production. Areas of focus include marketing, planning, operations, talent buying, and budgeting for profitable and successful music-performance stage shows. Prerequisites: MUC109 or permission of Instructor or department/division chair.

- **MUC211 Advanced Industry Topics: Artist Management and Development**: Operation, scope, and career opportunities in the music business. Focuses on advanced aspects of artist management and development. Include roles and responsibilities of an Artist Manager, the nature and structure of the relationship between an Artist and Artist Manager, and the development of business, and career management techniques for Artist Manager. Prerequisites: MUC109 or permission of Instructor or department/division chair.

- **MUC222 Sound Design II**: Intermediate level Sound Design and Audio Post-Production for Multimedia. Topics include: creating and editing Sound Effects, Automated Dialogue Replacement, Foley, Music, and Ambience for multiple mediums such as Film, TV, Video Gaming, Theatre, and Dance. Emphasis on computer assisted production using Digital Audio Workstations and acoustic forces. Prerequisites: (MUC122 and MTC/TCM120), or permission of Instructor.
MUC280  3 Credits 3 Periods
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.

MUC292  3 Credits 6 Periods
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.

MUC295  3 Credits 6 Periods
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.

MUC295AA  1 Credit 1 Period
Self-Promotion for Music
Career goal development. Includes self-presentation and communication skills, keeping files and records, and developing self-promotional materials. Prerequisites: None.

MUC297AA  1 Credit 1 Period
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.

MUC297AB  2 Credits 2 Periods
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.

MUC298  1-3 Credits See Page 292
Special Projects

MUE - Music: Education

MUE137  2 Credits 3 Periods
Class Brass I
Practical class with emphasis on techniques of playing and teaching brass instruments including embouchure, breath control, tone, and literature. Prerequisites: None.

MUE138  2 Credits 3 Periods
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.

MUE237  2 Credits 3 Periods
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.

MUE250  2 Credits 3 Periods
Vocal Pedagogy/Voice Methods
Study of the anatomy, physiology, and acoustics of singing as applied to healthy vocal function and the teaching of singing. Topics include: overview of techniques, materials, and literature used in teaching singing. Prerequisites: None.

MUE298  1-3 Credits See Page 292
Special Projects

MUP - Music: Performance

MUP101  2 Credits 1.2 Periods
Private Instruction
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.

MUP102  2 Credits 1.2 Periods
Private Instruction
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.

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<tr>
<th>Course</th>
<th>Credits</th>
<th>Periods</th>
<th>Description</th>
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<tbody>
<tr>
<td>MUP123AA</td>
<td>0.50</td>
<td>0.50</td>
<td>Studio Class/Piano&lt;br&gt;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.</td>
</tr>
<tr>
<td>MUP123AB</td>
<td>0.50</td>
<td>0.50</td>
<td>Studio Class/Voice&lt;br&gt;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.</td>
</tr>
<tr>
<td>MUP123AC</td>
<td>0.50</td>
<td>0.50</td>
<td>Studio Class/Guitar&lt;br&gt;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.</td>
</tr>
<tr>
<td>MUP123AD</td>
<td>0.50</td>
<td>0.50</td>
<td>Studio Class: Instrumental&lt;br&gt;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.</td>
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<tr>
<td>MUP123AE</td>
<td>0.50</td>
<td>0.50</td>
<td>Studio Class: Jazz Styles&lt;br&gt;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.</td>
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<tr>
<td>MUP130</td>
<td>2</td>
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<td>Beginning Group Piano&lt;br&gt;Basic introduction to playing piano through music reading, chords, rhythmic, and written activities. Designed for those with little or no piano experience. Prerequisites: None.</td>
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<tr>
<td>MUP131</td>
<td>2</td>
<td>3</td>
<td>Class Piano I&lt;br&gt;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 harmonization including the I, IV, V7 chords. Prerequisites: None.</td>
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<tr>
<td>MUP132</td>
<td>2</td>
<td>3</td>
<td>Class Piano II&lt;br&gt;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.</td>
</tr>
<tr>
<td>MUP133</td>
<td>2</td>
<td>3</td>
<td>Class Voice I&lt;br&gt;Introduction to the fundamentals of vocal production. Emphasis on breathing techniques, tone production and performances in class of solo vocal literature. Prerequisites: None.</td>
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<tr>
<td>MUP134</td>
<td>2</td>
<td>3</td>
<td>Class Voice II&lt;br&gt;Continuation of Class Voice I including the elements of stage presence and diction. Prerequisites: MUP133 or permission of instructor.</td>
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<tr>
<td>MUP140</td>
<td>2</td>
<td>2</td>
<td>Elementary Piano Pedagogy&lt;br&gt;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.</td>
</tr>
<tr>
<td>MUP141</td>
<td>2</td>
<td>2</td>
<td>Intermediate Piano Pedagogy&lt;br&gt;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.</td>
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<tr>
<td>MUP150</td>
<td>1</td>
<td>3</td>
<td>Community Chorus&lt;br&gt;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.</td>
</tr>
</tbody>
</table>
MUP151  1 Credit 0.60 Period  Private Instruction
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: MUP101.

MUP152  2 Credits 1.2 Periods  Private Instruction
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: MUP102.

MUP153  2 Credits 5 Periods  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.

MUP154AA  1 Credit 3 Periods  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.

MUP155  1 Credit 3 Periods  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.

MUP156  1 Credit 3 Periods  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.

MUP157  2 Credits 5 Periods  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.

MUP158  1 Credit 3 Periods  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.

MUP159  2 Credits 3 Periods  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.

MUP160  2 Credits 3 Periods  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.

MUP161  1 Credit 2 Periods  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.

MUP162  1 Credit 2 Periods  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.

MUP163  1 Credit 2 Periods  Chamber Music Ensembles
Practical and performance experience in instrumental, vocal, and mixed ensembles. May be repeated for credit. Prerequisites: None.

MUP164  1 Credit 3 Periods  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.
MUP185 1 Credit 3 Periods
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.

MUP190 1 Credit 3 Periods
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.

MUP201 2 Credits 1.2 Periods
Private Instruction
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: MUP151.

MUP202 2 Credits 1.2 Periods
Private Instruction
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: MUP152.

MUP209 2 Credits 2 Periods
Elements Of Conducting
Essentials of conducting techniques used in choral and instrumental ensembles including terminology, interpretation, and styles. Prerequisites: None.

MUP217 2 Credits 3 Periods
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.

MUP218 1 Credit 3 Periods
Audition Techniques: Music Theater
Practice in the techniques of auditioning for musical theater. Identification and illustration techniques of the vocal and acting music theater audition. Prerequisites: None.

MUP225 2 Credits 3 Periods
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.

MUP226 2 Credits 3 Periods
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.

MUP227 2 Credits 3 Periods
Class Guitar III
Additional fingerboard positions. Ensemble techniques and performance. Prerequisites: MUP226 or permission of instructor.

MUP228 2 Credits 3 Periods
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.

MUP231 2 Credits 3 Periods
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.

MUP232 2 Credits 3 Periods
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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUP233</td>
<td>2</td>
<td>3</td>
<td>Class Voice III</td>
<td>Interpretive singing through a closer examination of coloring, tone production, dynamics, and tempo indications. Prerequisites: MUP134.</td>
</tr>
<tr>
<td>MUP234</td>
<td>2</td>
<td>3</td>
<td>Class Voice IV</td>
<td>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.</td>
</tr>
<tr>
<td>MUP240</td>
<td>2</td>
<td>2</td>
<td>Piano Literature</td>
<td>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.</td>
</tr>
<tr>
<td>MUP241</td>
<td>2</td>
<td>2</td>
<td>Piano Artistry</td>
<td>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.</td>
</tr>
<tr>
<td>MUP250AB</td>
<td>1</td>
<td>2</td>
<td>Survey Of Diction For Singers (Italian/Latin)</td>
<td>Introduction to the use of phonetics in the study of Italian/Latin song literature. Prerequisites: None.</td>
</tr>
<tr>
<td>MUP250AC</td>
<td>1</td>
<td>2</td>
<td>Survey Of Diction For Singers (German)</td>
<td>Introduction to the use of phonetics in the study of German song literature. Prerequisites: None.</td>
</tr>
<tr>
<td>MUP252</td>
<td>2</td>
<td>1.2</td>
<td>Private Instruction</td>
<td>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: MUP202.</td>
</tr>
<tr>
<td>MUP252</td>
<td>2</td>
<td>1.2</td>
<td>Private Instruction</td>
<td>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: MUP202.</td>
</tr>
<tr>
<td>MUP258</td>
<td>2</td>
<td>1.2</td>
<td>Private Instruction</td>
<td>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: MUP202.</td>
</tr>
<tr>
<td>MUP270</td>
<td>2</td>
<td>5</td>
<td>Musical Theatre Workshop</td>
<td>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.</td>
</tr>
<tr>
<td>NAV101</td>
<td>4</td>
<td>4</td>
<td>Elementary Navajo I</td>
<td>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.</td>
</tr>
<tr>
<td>NAV115</td>
<td>3</td>
<td>3</td>
<td>Beginning Navajo Conversation I</td>
<td>Beginning conversational Navajo with emphasis on basic listening and speaking skills, including basic pronunciation, vocabulary, sentence structure, and cultural awareness. Prerequisites: None.</td>
</tr>
</tbody>
</table>
NCE - Nursing: Continuing Education

NCE203 .50 Credit .50 Period Interpretation of Laboratory Diagnostic Examinations
Utilization of laboratory diagnostic examination results for evaluation of patient conditions. Normal results for selected body fluids. Abnormal results related to pathophysiological conditions of adults. Incorporation of results of examinations to assess, modify, and evaluate therapy for patients with specific conditions. Prerequisites: Registered Nurse or Licensed Practical Nurse, Nursing students, or permission of instructor.

NCE212 .5 Credit .5 Period Patient Education
Current concepts relevant to planning and implementing a teaching plan, and the role the nurse has in patient education. Patient education instructional methods, educational theories, nursing process and case management in patient education. Focus on patient advocacy through education. Prerequisites: Current Arizona Registered Nurse (RN) or Licensed Practical Nurse (LPN) or Permission of Instructor.

NCE214CA 1 Credit 1 Period 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.

NCE214MO 0.50 Credit 0.50 Period 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.

NCE267 1 Credit 1 Period Medication Administration and Advanced Metrology
Knowledge and skills to safely prepare and administer intravenous medications and solutions. Includes advanced metrology to accurately calculate IV drug dosages and infusion rates. NCE267 may be repeated for a total of five (5) credits. Prerequisites: Registered Nurse (RN), Licensed Practical Nurse (LPN), or permission of Instructor.

NCE282 1-3 Credits 1-3 Periods Volunteering 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.

NCE290 1 Credit 1 Period Concepts of Aging
Examine several concepts of aging: physiological, cognitive, spirituality, health promotion, and pharmacology of the older adult. Focus will be placed on caring for the aging patient and their family. NCE290 may be repeated for five (5) credits. Prerequisites: Current nursing student, Licensed Practical Nurse (LPN) or Registered Nurse (RN), or permission of instructor.

NCE291 1 Credit 1 Period Nursing Skills and Patient Care in Simulation
Review of basic skills. Remediation, guided learning, and simulation performance. NCE291 may be repeated for five (5) credits. Prerequisites: Current nursing student, Licensed Practical Nurse (LPN) or Registered Nurse (RN), or permission of instructor.

NUR - Nursing

NUR102 4 Credits 4 Periods Nursing Process Transition
Transitions paramedics to scope and practice of nursing. Focuses on nursing concepts and theories to meet basic human needs across the lifespan throughout the wellness/illness continuum. Theoretical concepts focus on clients of all ages with selected physiological and psychological alterations. Emphasis on expanding the paramedic’s skills and experience to transition to the role of the nurse utilizing nursing process and critical thinking in acute care and community settings. Prerequisites: Arizona or National Paramedic Registry Certificate, and application and admission to Maricopa Nursing advanced placement. One year current healthcare work experience required or permission of Nursing Department Chairperson. Corequisites: NUR103.

NUR103 4 Credits 12 Periods Nursing Science Transition
Application of nursing concepts and theories of health promotion to nursing care to meet basic human needs. Provides opportunity for the paramedic to develop clinical competency
in selected nursing skills and care of clients across the lifespan experiencing altered physiologic functioning. Includes clinical experience with individuals, families, and small groups of clients in acute, long-term, and community settings to develop care plans, teaching plans, and discharge plans. Prerequisites: Arizona or National Paramedic Registry Certificate, and application and admission to Maricopa Nursing advanced placement. One year current healthcare work experience required or permission of Nursing Department Chairperson. Corequisites: NUR102.

**NUR104AB 1 Credit 1 Period**

**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.

**NUR151 10 Credits 15 Periods**

**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.

**NUR158 6 Credits 10 Periods**

**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.

**NUR171 8 Credits 16 Periods**

**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.

**NUR228 6 Credits 6 Periods**

**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.

**NUR229 4 Credits 12 Periods**

**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.

**NUR251 8 Credits 16 Periods**

**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.

NUR271 7 Credits 13 Periods
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.

NUR291 2 Credits 6 Periods
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.

NUR298 Special Projects
1-3 Credits See Page 292

NVH - Navajo Humanities

NVH245 3 Credits 3 Periods
Navajo Culture And Heritage
Survey of the Navajo people, including their history, culture/aesthetics, education, spirituality, and language. Prerequisites: None.

OAS - Office Automation Systems

OAS090 0.50 Credit 0.50 Period
Touch Keyboarding
Introduction to computer keybording skills for personal use. Emphasis on touch keybording of alphabetic and punctuation keys only. Prerequisites: None.

OAS101 3 Credits 5 Periods
Computer Typing I: Keyboarding And Formatting
Keyboard mastery; letters, tables, and reports; office production; and manuscripts. Prerequisites: None.

OAS101AA 1 Credit 1.7 Periods
Computer Typing I: Keyboard Mastery
Incorporates correct touch typing principles. Prerequisites: None.

OAS108 3 Credits 3 Periods
Business English
Comprehensive coverage of correct use of English grammar including spelling, punctuation, capitalization, and number style mechanics in a business context. Prerequisites: None.

OAS118 1 Credit 1.7 Periods
10-Key By Touch
Touch system of numeric keys on ten-key pads. Prerequisites: None.

PED - Physical Education Activities

PED101AD 1 Credit 2 Periods
Aerobic Dance
A cardiovascular workout through dance. Prerequisites: None. PED101AD may be repeated for credit.

PED101AK 1 Credit 2 Periods
Aikido
Covers the fundamentals of Aikido including rules, moves, and traditional discipline of the sport. Prerequisites: None. PED101AK may be repeated for credit.

PED101BB 1 Credit 2 Periods
Basketball
Basic skills and game strategy of basketball. Class emphasis on competition and drills. Prerequisites: None. PED101BB may be repeated for credit.

PED101BC 1 Credit 2 Periods
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.

PED101BD 1 Credit 2 Periods
Ballroom Dancing
Basic level instruction on ballroom dancing footwork, timing, techniques, and style. Partners rotate. Prerequisites: None. PED101BD may be repeated for credit.
PED101BE  1 Credit 2 Periods
Belly Dance
Practice and demonstration of basic belly dance skills and
movements. Basic posture and masculinity, 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.

PED101BL  1 Credit 2 Periods
Ballet
Basics of ballet incorporating steps, poses, and graceful
movements including leaps and spins. Prerequisites: None.
PEDI01BL may be repeated for credit.

PED101BP  1 Credit 2 Periods
Backpacking
Covers basic skills and techniques of backpacking and the
application of these to wilderness travel. Prerequisites: None.
PEDI01BP may be repeated for credit.

PED101BS  1 Credit 2 Periods
Body Sculpting
Stretch and strengthen. Emphasizes increasing fitness,
Prerequisites: None. PED101BS may be repeated for credit.

PED101BW  1 Credit 2 Periods
Bowling
Fundamental skills of bowling, including scoring and
competition. Prerequisites: None. PED101BW may be repeated for credit.

PED101CY  1 Credit 2 Periods
Cycling - Indoor
Basic skills for bike set up and proper body mechanics. Increase
leg strength, lung capacity, and metabolism. Prerequisites: None.
PEDI01CY may be repeated for credit.

PED101DF  1 Credit 2 Periods
Self-Defense
Basic self-defense, 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. PEDI01DF
may be repeated for credit.

PED101FB  1 Credit 2 Periods
Football
Basic skills and game strategy of football. Class emphasis on
competition and drills. Prerequisites: None. PED101FB may
be repeated for credit.

PED101FE  1 Credit 2 Periods
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.

PED101FL  1 Credit 2 Periods
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.

PED101FW  1 Credit 2 Periods
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.

PED101GO  1 Credit 2 Periods
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.

PED101HH  1 Credit 2 Periods
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.

PED101HK  1 Credit 2 Periods
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.
PEDI01HK may be repeated for credit.

PED101JR  1 Credit 2 Periods
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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Course Description</th>
</tr>
</thead>
</table>
| PED101JS    | 1       | 2       | Japanese Swordmanship  
Vigorous martial arts swordmanship training program utilizing historical principles that promotes the development of fitness, coordination, agility, balance, mindfulness/focus, and knowledge of strategy. Prerequisites: None. PED101JS may be repeated for credit. |
| PED101KA    | 1       | 2       | Karate  
Training emphasizes fundamentals, traditional form, and applied sparring that follows the theory of Karate. Prerequisites: None. PED101KA may be repeated for credit. |
| PED101KB    | 1       | 2       | 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. |
| PED101KF    | 1       | 2       | Kung Fu  
Techniques of one of the most comprehensive martial arts in China. Prerequisites: None. PED101KF may be repeated for credit. |
| PED101LD    | 1       | 2       | Latin Dancing  
Spicy, energetic style of dance. Cha Cha, Merengue, Salsa, Rumba, and Bolero. Partners rotate. Prerequisites: None. PED101LD may be repeated for credit. |
| PED101PC    | 1       | 2       | Physical Conditioning  
Exercise program with access to free weights, strength machines and cardio equipment. Prerequisites: None. PED101PC may be repeated for credit. |
| PED101PS    | 1       | 2       | 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. |
| PED1011     | 2       | 2       | QG Qi Gong  
Ancient Chinese Qi Gong breathing exercises for healing and opening channels of energy. Includes Power of Positive thought along with relaxation and meditation techniques. Prerequisites: None. PED101QG may be repeated for credit. |
| PED101RC    | 1       | 2       | 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. |
| PED101SA    | 1       | 2       | Salsa  
Basic moves for the popular, hot Latin dance Salsa. Partners rotate. Prerequisites: None. PED101SA may be repeated for credit. |
| PED101SB    | 1       | 2       | Softball  
Basic skills and game strategy of softball. Class emphasis on competition and drills. Prerequisites: None. PED101SB may be repeated for credit. |
| PED101SD    | 1       | 2       | Social Dance  
Introduction to various dances encountered in a social setting. Partners rotate. Prerequisites: None. PED101SD may be repeated for credit. |
| PED101SR    | 1       | 2       | 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. |
| PED101ST    | 1       | 2       | 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. |
| PED101SU    | 1.5     | 2.5     | 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. |
| PED101SW    | 1       | 2       | Swing Dancing  
Popular Swing dance moves and rhythms, including basic Lindy. All students will rotate. Prerequisites: None. PED101SW may be repeated for credit. |
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit Hours</th>
<th>Periods</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PED101TC</td>
<td>1 Credit</td>
<td>2 Periods</td>
<td><strong>Tai Chi</strong>&lt;br&gt;Fundamentals of Tai Chi including moves, breathing and meditation. Prerequisites: None. PED101TC may be repeated for credit.</td>
</tr>
<tr>
<td>PED101TE</td>
<td>1 Credit</td>
<td>2 Periods</td>
<td><strong>Tennis</strong>&lt;br&gt;Basic skills and game strategy of tennis. Class emphasis on competition and drills. Prerequisites: None. PED101TE may be repeated for credit.</td>
</tr>
<tr>
<td>PED101TF</td>
<td>1 Credit</td>
<td>2 Periods</td>
<td><strong>Track and Field</strong>&lt;br&gt;Instruction and practice in track and field events, running, throwing and jumping. Prerequisites: None. PED101TF may be repeated for credit.</td>
</tr>
<tr>
<td>PED101TK</td>
<td>1 Credit</td>
<td>2 Periods</td>
<td><strong>Taekwondo</strong>&lt;br&gt;Fundamentals of Taekwondo including the moves, rules, and traditional discipline of the sport. Prerequisites: None. PED101TK may be repeated for credit.</td>
</tr>
<tr>
<td>PED101VB</td>
<td>1 Credit</td>
<td>2 Periods</td>
<td><strong>Volleyball</strong>&lt;br&gt;Basic skills and game strategy of volleyball. Class emphasis on competition and drills. Prerequisites: None. PED101VB may be repeated for credit.</td>
</tr>
<tr>
<td>PED101WT</td>
<td>1 Credit</td>
<td>2 Periods</td>
<td><strong>Weight Training</strong>&lt;br&gt;Access to Olympic and free weights with a qualified instructor. Prerequisites: None. PED101WT may be repeated for credit.</td>
</tr>
<tr>
<td>PED101WW</td>
<td>1 Credit</td>
<td>2 Periods</td>
<td><strong>Weight Training For Women</strong>&lt;br&gt;Introduction for women to the use of free weights, strength machines and cardio equipment. Prerequisites: None. PED101WW may be repeated for credit.</td>
</tr>
<tr>
<td>PED101YG</td>
<td>1 Credits</td>
<td>2 Periods</td>
<td><strong>Gentle Yoga</strong>&lt;br&gt;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.</td>
</tr>
<tr>
<td>PED101YK</td>
<td>1 Credit</td>
<td>2 Periods</td>
<td><strong>Kundalini Yoga</strong>&lt;br&gt;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.</td>
</tr>
<tr>
<td>PED101YO</td>
<td>1 Credit</td>
<td>2 Periods</td>
<td><strong>Yoga</strong>&lt;br&gt;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.</td>
</tr>
<tr>
<td>PED101YR</td>
<td>1 Credit</td>
<td>1.5 Periods</td>
<td><strong>Restorative Yoga</strong>&lt;br&gt;Gentle form of Yoga poses utilizing props to create fully supported postures; focuses on relaxation and involves non-rigorous physical activity, providing rest and recovery and promoting the restoration of tranquility; suitable for all levels. Prerequisites: None. PED101YR may be repeated for credit.</td>
</tr>
<tr>
<td>PED101ZU</td>
<td>1 Credit</td>
<td>2 Periods</td>
<td><strong>Zumba Fitness</strong>&lt;br&gt;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.</td>
</tr>
<tr>
<td>PED102BA</td>
<td>1 Credit</td>
<td>2 Periods</td>
<td><strong>Baseball-Intermediate</strong>&lt;br&gt;To improve upon basic skills and game strategy of baseball at the intermediate level. Class emphasis on competition and drills. Prerequisites: None. PED102BA may be repeated for credit.</td>
</tr>
<tr>
<td>PED102BB</td>
<td>1 Credit</td>
<td>2 Periods</td>
<td><strong>Basketball - Intermediate</strong>&lt;br&gt;To improve upon basic skills and game strategy of basketball at the intermediate level. Class emphasis on completion and drills. Prerequisites: None. Prior experience recommended. PED102BB may be repeated for credit.</td>
</tr>
<tr>
<td>PED102BD</td>
<td>1 Credit</td>
<td>2 Periods</td>
<td><strong>Ballroom Dancing - Intermediate</strong>&lt;br&gt;Intermediate level instruction on ballroom dancing footwork, timing, techniques, and style. Partners rotate. Prerequisites: None. PED102BD may be repeated for credit.</td>
</tr>
</tbody>
</table>
| PED102BE     | 1 Credit     | 2 Periods | **Belly Dance - Intermediate**<br>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.

PED102BW 1 Credit 2 Periods
Bowling - Intermediate
To improve upon basic skills of bowling including scoring and completion. Prerequisites: None. Prior experience recommended. PED102BW may be repeated for credit.

PED102CH 1 Credit 2 Periods
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.

PED102FB 1 Credit 2 Periods
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.

PED102FE 1 Credit 2 Periods
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.

PED102GO 1 Credit 2 Periods
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.

PED102HH 1 Credit 2 Periods
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.

PED102JS 1 Credit 2 Periods
Japanese Swordsmanship - Intermediate
Intermediate level of 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. PED102JS may be repeated for credit.

PED102JZ 1 Credit 2 Periods
Jazz - Intermediate
Intermediate dance skills for dancing Jazz. Not recommended for beginners. Prerequisites: None. Prior experience recommended. PED102JZ may be repeated for credit.

PED102KA 1 Credit 2 Periods
Karate - Intermediate
Applied technique and theory of Karate at the intermediate level. Prerequisites: None. PED102KA may be repeated for credit.

PED102LD 1 Credit 2 Periods
Latin Dancing - Intermediate
Incorporate intermediate dance moves while performing Latin Dance. Prerequisites: None. Prior experience recommended. PED102LD may be repeated for credit.

PED102PC 1 Credit 2 Periods
Physical Conditioning - Intermediate
Intermediate level exercise program with access to free weights, strength machines and cardio equipment. Not recommended for the beginner. Prerequisites: None. Prior experience recommended. PED102PC may be repeated for credit.

PED102PS 1 Credit 2 Periods
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.

PED102RC 1 Credit 2 Periods
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.

PED102SA 1 Credit 2 Periods
Salsa - Intermediate
Learn the intermediate dance moves for Salsa. Not recommended for the beginning Salsa dancer. Prerequisites: None. PED102SA may be repeated for credit.
### COURSE DESCRIPTIONS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Course Name</th>
<th>Description</th>
<th>Prerequisites</th>
<th>Repeatable for credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>PED102SB</td>
<td>1</td>
<td>2</td>
<td>Softball - Intermediate</td>
<td>Improve upon basic skills and game strategy of softball at the intermediate level. Class emphasis on competition and drills. Prerequisites: None. PED102SB may be repeated for credit.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PED102ST</td>
<td>1</td>
<td>2</td>
<td>Strength Training - Intermediate</td>
<td>Intermediate techniques of strength training, concentrating on incorporating an exercise regimen for increased strength and endurance. Not recommended for the beginning weight lifter. Prerequisites: None. PED102ST may be repeated for credit.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PED102TC</td>
<td>1</td>
<td>2</td>
<td>Tai Chi - Intermediate</td>
<td>Intermediate level techniques of Tai Chi including moves, breathing and meditation. Prerequisites: None. Prior experience recommended. PED102TC may be repeated for credit.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PED102TD</td>
<td>1</td>
<td>2</td>
<td>Tap Dance - Intermediate</td>
<td>Tap dance steps at the intermediate level. Some experience welcomed. Prerequisites: None. Prior experience recommended.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PED102TE</td>
<td>1</td>
<td>2</td>
<td>Tennis - Intermediate</td>
<td>Improve upon basic skills and game strategy of tennis at the intermediate level. Class emphasis on competition and drills. Prerequisites: None. PED102TE may be repeated for credit.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PED102TF</td>
<td>1</td>
<td>2</td>
<td>Track And Field - Intermediate</td>
<td>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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PED102TK</td>
<td>1</td>
<td>2</td>
<td>Taekwondo - Intermediate</td>
<td>Intermediate level training in Taekwondo. Prerequisites: None. Prior experience recommended. PED102TK may be repeated for credit.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PED102VB</td>
<td>1</td>
<td>2</td>
<td>Volleyball - Intermediate</td>
<td>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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PED102WW</td>
<td>1</td>
<td>2</td>
<td>Weight Training for Women - Intermediate</td>
<td>Intermediate level instruction for women on the use of free weights, strength machines and cardio equipment. Prerequisites: None. Prior experience recommended. PED102WW may be repeated for credit.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PED102YO</td>
<td>1</td>
<td>1</td>
<td>Yoga - Intermediate</td>
<td>Yoga for the experienced practitioner. Prerequisites: None. PED102YO may be repeated for credit.</td>
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</tr>
<tr>
<td>PED103YO</td>
<td>0.50</td>
<td>1</td>
<td>Yoga</td>
<td>Promotion of overall health by strengthening muscles and simulating glands and organs. Basic postures, breathing and relaxation techniques. Prerequisites: None. PED103YO may be repeated for credit.</td>
<td></td>
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</tr>
<tr>
<td>PED115</td>
<td>2</td>
<td>4</td>
<td>Lifetime Fitness</td>
<td>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.</td>
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<tr>
<td>PED120AF</td>
<td>2</td>
<td>4</td>
<td>Special Emphasis Activities: Weight Training</td>
<td>Intensive experience in weight training. Prerequisites: None. PED120AF may be repeated for a total of 8 credits.</td>
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<tr>
<td>PED133</td>
<td>2</td>
<td>4</td>
<td>Olympic Style Weight Lifting</td>
<td>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.</td>
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<tr>
<td>PED201BA</td>
<td>1</td>
<td>2</td>
<td>Baseball - Advanced</td>
<td>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.</td>
<td></td>
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</tr>
<tr>
<td>PED201BB</td>
<td>1</td>
<td>2</td>
<td>Basketball - Advanced</td>
<td>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.</td>
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<tr>
<td>Course Code</td>
<td>Credits</td>
<td>Periods</td>
<td>Course Name</td>
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<tr>
<td>PED201CH</td>
<td>1</td>
<td>2</td>
<td>Cheerleaders - Advanced</td>
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<tr>
<td>PED201GO</td>
<td>1</td>
<td>2</td>
<td>Golf - Advanced</td>
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<tr>
<td>PED201PC</td>
<td>1</td>
<td>2</td>
<td>Physical Conditioning - Advanced</td>
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<tr>
<td>PED201SA</td>
<td>1</td>
<td>2</td>
<td>Salsa - Advanced</td>
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<tr>
<td>PED201SO</td>
<td>1</td>
<td>2</td>
<td>Softball - Advanced</td>
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<tr>
<td>PED201TD</td>
<td>1</td>
<td>2</td>
<td>Tap Dance - Advanced</td>
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<tr>
<td>PED201VB</td>
<td>1</td>
<td>2</td>
<td>Volleyball - Advanced</td>
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<tr>
<td>PED202BA</td>
<td>1</td>
<td>2</td>
<td>Baseball - Elite</td>
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<tr>
<td>PED202BB</td>
<td>1</td>
<td>2</td>
<td>Basketball - Elite</td>
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<tr>
<td>PED202GO</td>
<td>1</td>
<td>2</td>
<td>Golf - Elite</td>
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<tr>
<td>PED202TE</td>
<td>1</td>
<td>2</td>
<td>Tennis - Elite</td>
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<tr>
<td>PED202TF</td>
<td>1</td>
<td>2</td>
<td>Track and Field - Elite</td>
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<tr>
<td>PED287</td>
<td>2</td>
<td>2</td>
<td>Physical Education Of The Atypical</td>
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</tr>
</tbody>
</table>

**COURSE DESCRIPTIONS**

**PED201CH Cheerleaders - Advanced**
Advanced skills of cheerleading with instruction, practice, and performance including proper body mechanics, choreography, and behavioral competencies. Prerequisites: None. Prior experience at competitive level recommended. PED201CH may be repeated for credit.

**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.

**PED201PC Physical Conditioning - Advanced**
Advanced level training program with access to free weights, strength machines and cardio equipment. Prerequisites: None. PED102PC may be repeated for credit.

**PED201SA Salsa - Advanced**
Learn the advanced dance moves for Salsa. Prerequisites: None. Prior experience at competitive level recommended. PED102SA may be repeated for credit.

**PED201SO 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.

**PED201TD Tap Dance - Advanced**
Advanced Tap dance steps. Experience recommended. Prerequisites: None. Prior experience at competitive level recommended.

**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.

**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.

**PED201VB Volleyball - Advanced**
Improve upon intermediate skills and game strategy of volleyball at the advanced level. Class emphasis on competition and drills. Prerequisites: None. Prior experience at competitive level recommended. PED201VB may be repeated for credit.

**PED202BA Baseball - Elite**
Improve upon advanced skills and game strategy of baseball at the elite level. Class emphasis on competition and drills. Prerequisites: None. Prior experience at competitive level recommended. PED202BA may be repeated for credit.

**PED202BB Basketball - Elite**
Improve upon advanced skills and game strategy of basketball at the elite level. Class emphasis on competition and drills. Prerequisites: None. Prior experience at competitive level recommended. PED202BB may be repeated for credit.

**PED202GO Golf - Elite**
Improve upon advanced skills and game strategy of golf at the elite level. Class emphasis on competition and drills. Prerequisites: None. Prior experience at competitive level recommended. PED202GO may be repeated for credit.

**PED202TE Tennis - Elite**
Improve upon advanced skills and game strategy of tennis at the elite level. Class emphasis on competition and drills. Prerequisites: None. Prior experience at competitive level recommended. PED202TE may be repeated for credit.

**PED202TF Track and Field - Elite**
Improve upon advanced skills and game strategy of track and field at the elite level. Class emphasis on competition and drills. Prerequisites: None. Prior experience at competitive level recommended. PED202TF may be repeated for credit.

**PED287 Physical Education Of The Atypical**
Individualized activities programs for students with limited physical capacities. May be repeated for credit. Prerequisites: Permission of Instructor.
PHI - Philosophy

PHI101  3 Credits  3 Periods
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.

PHI103  3 Credits  3 Periods
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.

PHI105  3 Credits  3 Periods
Introduction to Ethics
Major theories of conduct. Emphasis on normative ethics, theories of good and evil from Plato to the present. Prerequisites: None.

PHI106  3 Credits  3 Periods
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.

PHI201  3 Credits  3 Periods
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.

PHI212  3 Credits  3 Periods
Contemporary Moral Issues
Philosophical consideration of such moral issues as civil disobedience, preferential treatment, abortion, privacy, sexual morality, and poverty and hunger. Prerequisites: None.

PHI213  3 Credits  3 Periods
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.

PHI216  3 Credits  3 Periods
Environmental Ethics
Philosophical consideration of diverse theories and perspectives on the environment, and application of these theories to global moral issues such as animal rights, preservation of wilderness and species, population, world hunger and poverty, and air and water pollution. Prerequisites: None.

PHI218  3 Credits  3 Periods
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: ENG101 or permission of instructor.

PHI244  3 Credits  3 Periods
Philosophy of Religion
Religious language, the existence of God, miracles, and human destiny. Prerequisites: None.

PHI245  3 Credits  3 Periods
Introduction to Eastern Philosophy
Fundamental theories of Indian and Chinese metaphysics, epistemology, ethics and aesthetics. Prerequisites: None.

PHI245  3 Credits  3 Periods
Introduction to Eastern Philosophy
Fundamental theories of Indian and Chinese metaphysics, epistemology, ethics and aesthetics. Prerequisites: None.

PHS - Physical Science

PHS110  4 Credits  6 Periods
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.

PHY - Physics

PHY101  4 Credits  6 Periods
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 PH101AA. Prerequisites: Grade of “C” or better in MAT090, or MAT091, or MAT092, or MAT093, or equivalent, or satisfactory score on Math placement exam.

PHY111  4 Credits  6 Periods
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.

PHY112  4 Credits  6 Periods
General Physics II
Includes electricity, electromagnetism, and modern physics. Prerequisites: PHY105 or PHY111.
## COURSE DESCRIPTIONS

<table>
<thead>
<tr>
<th>Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY121</td>
<td>4</td>
<td>6</td>
<td>University Physics I: Mechanics</td>
<td>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.</td>
</tr>
<tr>
<td>PHY131</td>
<td>4</td>
<td>6</td>
<td>University Physics II: Electricity and Magnetism</td>
<td>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.</td>
</tr>
<tr>
<td>PHY282</td>
<td>1</td>
<td>1-3</td>
<td>Volunteerism for Physical Science: A Service Learning Experience</td>
<td>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.</td>
</tr>
<tr>
<td>POR101</td>
<td>5</td>
<td>6</td>
<td>Elementary Portuguese I</td>
<td>Basic grammar, pronunciation, and vocabulary of the Portuguese language. Includes study of Lusophone culture. Practice in listening, speaking, reading, and writing skills. Prerequisites: None.</td>
</tr>
<tr>
<td>POR102</td>
<td>5</td>
<td>6</td>
<td>Elementary Portuguese II</td>
<td>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.</td>
</tr>
<tr>
<td>POR103</td>
<td>5</td>
<td>6</td>
<td>Elementary Portuguese III</td>
<td>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.</td>
</tr>
<tr>
<td>POR104</td>
<td>5</td>
<td>6</td>
<td>Elementary Portuguese IV</td>
<td>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.</td>
</tr>
<tr>
<td>POS110</td>
<td>3</td>
<td>3</td>
<td>American National Government</td>
<td>Study of the historical backgrounds, governing principles, and institutions of the national government of the United States. Prerequisites: None.</td>
</tr>
<tr>
<td>POS115</td>
<td>3</td>
<td>3</td>
<td>Issues in American Politics</td>
<td>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.</td>
</tr>
<tr>
<td>POS120</td>
<td>3</td>
<td>3</td>
<td>World Politics</td>
<td>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.</td>
</tr>
<tr>
<td>POS125</td>
<td>3</td>
<td>3</td>
<td>Issues in World Politics</td>
<td>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.</td>
</tr>
<tr>
<td>POS130</td>
<td>3</td>
<td>3</td>
<td>State and Local Government</td>
<td>Survey of state and local government in the United States. Special attention on Arizona State government. Prerequisites: None.</td>
</tr>
<tr>
<td>POS140</td>
<td>3</td>
<td>3</td>
<td>Comparative Government</td>
<td>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.</td>
</tr>
<tr>
<td>POS180</td>
<td>3</td>
<td>3</td>
<td>United Nations Studies</td>
<td>Historical origins, structural makeup, political and operational characteristics, and legal activities of the United Nations. Analysis of the overall institution’s ongoing utility, productivity and creativity. Prerequisites: None.</td>
</tr>
<tr>
<td>POS210</td>
<td>3</td>
<td>3</td>
<td>Political Ideologies</td>
<td>Survey of twentieth century nondemocratic ideologies and movements with emphasis on Marx, Lenin, Mussolini, Hitler, Stalin and Mao. Prerequisites: None.</td>
</tr>
</tbody>
</table>
COURSE DESCRIPTIONS

POS212 3 Credits 3 Periods
Political Dynamics in Contemporary Muslim Countries
An examination of contemporary governing structures and use of religion in governance in selected Muslim countries. Prerequisites: None.

POS220 3 Credits 3 Periods
U.S. and Arizona Constitution
Examination of the United States Constitution and the constitution and government of the State of Arizona. Prerequisites: None.

POS221 1 Credit 1 Period
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.

POS222 2 Credits 2 Periods
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.

POS223 3 Credits 3 Periods
Civil Rights
The historic background and current status of major civil rights issues in the United States. Prerequisites: None.

POS280 1 Credit 1 Period
Internship Orientation
Preparation for an internship experience and appropriate intern behavior. Prerequisites: Permission of Instructor.

POS281 2-4 Credits 2-4 Periods
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.

POS282 1-3 Credits 1-3 Periods
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.

PSY811 3 Credits 3 Periods
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.

PSY102 1 Credit 1 Period
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.

PSY123 3 Credits 3 Periods
Psychology of Parenting
The demonstration and application of psychological principles to the development and guidance of children and adolescents. Prerequisites: None.

PSY132 3 Credits 3 Periods
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.

PSY143 3 Credits 3 Periods
Lesbian, Gay, Bisexual and transgendered Studies
Introduction to the study of lesbian, gay, bisexual, and transgendered individuals. Includes psychological, developmental, social, biological, historical and cultural aspects. Review of research literature regarding the etiology and assessment of sexual orientation, prejudice, and discrimination, and family issues. Current issues in lesbian/gay/bisexual/transgendered studies. Prerequisites: None.

PSY156 3 Credits 3 Periods
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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Course Title</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY210</td>
<td>3</td>
<td>3</td>
<td>Educational Psychology</td>
<td>Scientific research and psychological principles as they apply to teaching and learning. The role of psychology in educational settings, human diversity, theories of learning, intelligence, memory, creativity, assessment, and factors influencing effective instruction and learning. Prerequisites: PSY101 with a grade of “C” or better or permission of instructor.</td>
</tr>
<tr>
<td>PSY215</td>
<td>3</td>
<td>3</td>
<td>Introduction to Sport Psychology</td>
<td>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.</td>
</tr>
<tr>
<td>PSY225</td>
<td>3</td>
<td>3</td>
<td>Psychology of Religion</td>
<td>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.</td>
</tr>
<tr>
<td>PSY230</td>
<td>3</td>
<td>3</td>
<td>Introduction to Statistics</td>
<td>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.</td>
</tr>
<tr>
<td>PSY231</td>
<td>1</td>
<td>2</td>
<td>Laboratory for Statistics</td>
<td>Applications of inferential and descriptive statistics to computers in the field of psychology. Prerequisites: None. Corequisites: PSY230.</td>
</tr>
<tr>
<td>PSY235</td>
<td>3</td>
<td>3</td>
<td>Psychology of Gender</td>
<td>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.</td>
</tr>
<tr>
<td>PSY240</td>
<td>3</td>
<td>3</td>
<td>Developmental Psychology</td>
<td>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.</td>
</tr>
<tr>
<td>PSY248</td>
<td>3</td>
<td>3</td>
<td>Psychology of Adolescent Development</td>
<td>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.</td>
</tr>
<tr>
<td>PSY250</td>
<td>3</td>
<td>3</td>
<td>Social Psychology</td>
<td>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.</td>
</tr>
<tr>
<td>PSY262</td>
<td>3</td>
<td>3</td>
<td>Positive Psychology</td>
<td>Overview and application of psychological principles based on strengths and resilience of human beings as opposed to dysfunction and symptoms of mental disorders. Topics include happiness, relationships, resilience, optimism, well-being, and brain research explaining positive emotions. Prerequisites: PSY101 with a grade of “C” or better, or permission of Instructor.</td>
</tr>
<tr>
<td>PSY266</td>
<td>3</td>
<td>3</td>
<td>Abnormal Psychology</td>
<td>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.</td>
</tr>
</tbody>
</table>
PSY267  3 Credits 3 Periods
**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.

PSY275  4 Credits 5 Periods
**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.

PSY277  3 Credits 3 Periods
**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.

PSY282  1-3 Credits 1-3 Periods
**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.

PSY290AC  4 Credits 5 Periods
**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.

PSY298  Special Projects
1-3 Credits See Page 292

RDG - Reading

RDG008  3 Credits 3 Periods
**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).

RDG010  3 Credits 3 Periods
**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.

RDG020  3 Credits 3 Periods
**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.

RDG030  3 Credits 3 Periods
**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.

RDG040  3 Credits 3 Periods
**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.

RDG081  3 Credits 3 Periods
**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.

RDG091  3 Credits 3 Periods
**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 instructions. Prerequisites: Appropriate reading placement test score, or grade of “C” or better in RDG081.

REA - Real Estate

**REA179 3 Credits 3 Periods**
**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.

**REA180 3 Credits 3 Periods**
**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.

**REA270 2 Credits 2 Periods**
**Basic Appraisal Principles**
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.

**REA271 2 Credits 2 Periods**
**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: REA179 or permission of Instructor.

**REA273 1 Credit 1 Period**
**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.

**REA274 1 Credit 1 Period**
**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.

**REA275 2 Credits 2 Periods**
**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.

**REA276AA 1 Credit 1 Period**
**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.

**REA277 3 Credits 3 Periods**
**Principles of Real Estate Law**
Incidents of ownership and use of real estate, legal principles, procedures, and methods of acquisition and disposition of real estate. Prerequisites: REA179 or departmental approval.

**REA278 3 Credits 3 Periods**
**Real Estate Finance**
Study of lending institutions, including banks, savings and loans, conventional loans, Federal Housing Administration (FHA), Veterans Administration (VA) for residential, commercial and industrial property. Prerequisites: REA179 or departmental approval.

**REA281 3 Credits 3 Periods**
**Principles of Real Estate Law**
Incidents of ownership and use of real estate, legal principles, procedures, and methods of acquisition and disposition of real estate. Prerequisites: REA179 or departmental approval.

**REA282 3 Credits 3 Periods**
**Real Estate Selling**
Covers obtaining listings, buyer behavior, markets, competition and psychology of sales techniques. Prerequisites: REA179 or permission of Instructor.

**REA285 3 Credits 3 Periods**
**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.
REC - Recreation

REC120 3 Credits 3 Periods
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.

REC150AA 1 Credit 2 Periods
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.

REC150AB 3 Credits 3 Periods
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.

REC155AA 1 Credit 2 Periods
Canyoneering
Basic canyoneering skills. Includes hydrology, navigation, safety systems, climbing and hiking skills, wading/swimming techniques and flood/weather identification. Prerequisites: None.

REC155AB 1 Credit 2 Periods
Caving
Basic caving skills. Includes cave ecology, navigation, safety systems, lighting systems and equipment selection. Prerequisites: None.

REC210 3 Credits 3 Periods
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.

REC230 3 Credits 3 Periods
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.

REC250 3 Credits 3 Periods
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.

REC282 1-3 Credits 1-3 Periods
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.

REL - Religious Studies

REL200 3 Credits 3 Periods
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.

REL203 3 Credits 3 Periods
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.

REL205 3 Credits 3 Periods
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.

REL206 3 Credits 3 Periods
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.
### REL207  3 Credits 3 Periods
**Ritual, Symbol, and Myth**
Introduction to the academic study of religion through the study of myths, symbols, and rituals. Includes methods and theories used by scholars to study the complex subject of religion. Attention to literate and non-literate cultures. Prerequisites: Grade of C or better in ENG101, or ENG107, or permission of Department or Division.

### REL243  3 Credits 3 Periods
**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.

### REL270  3 Credits 3 Periods
**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.

### REL290  3 Credits 3 Periods
**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.

### REL291  3 Credits 3 Periods
**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.

### SBS - Small Business Management

#### SBS204  2 Credits 2 Periods
**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.

#### SBS213  1 Credit 1 Period
**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.

#### SBS214  1 Credit1 Period
**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.

#### SBS216  2 Credits 2 Periods
**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.

#### SBS230  2 Credits 2 Periods
**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.

### RUS - Russian

#### RUS101  4 Credits 4 Periods
**Elementary Russian I**
Basic grammar, pronunciation, and vocabulary of the Russian language. Practice of listening, speaking, reading, and writing skills. Prerequisites: None.

#### RUS102  4 Credits 4 Periods
**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.
SBU - Society and Business

SBU200 3 Credits 3 Periods
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.

SCT – Sustainability/Career and Technical

SCT100 3 Credits 3 Periods
Introduction to Sustainable Built Environments

SLC - Studies in Language and Culture

SLC201 3 Credits 3 Periods
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.

SLG - Sign Language

SLG101 4 Credits 4 Periods
American Sign Language I

SLG102 4 Credits 4 Periods
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.

SLG201 4 Credits 4 Periods
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)).

SLG202 4 Credits 4 Periods
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.

SOC - Sociology

SOC101 3 Credits 3 Periods
Introduction to Sociology
Fundamental concepts of social organization, culture, socialization, social institutions and social change. Prerequisites: None.

SOC130 3 Credits 3 Periods
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.

SOC140 3 Credits 3 Periods
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.

SLG298 Special Projects 1-3 Credits See Page 292
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Title</th>
<th>Description</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC157</td>
<td>3</td>
<td>3</td>
<td>Sociology of Marriage and Family</td>
<td>The study of courtship, marriage, and family patterns, their historical development, their adaptation to a changing culture, and their impact on individuals. Prerequisites: None.</td>
<td></td>
</tr>
<tr>
<td>SOC180</td>
<td>3</td>
<td>3</td>
<td>Social Implications of Technology</td>
<td>Effects of development and implementation of technology on society. Historical and multi-cultural comparisons of this process, current concerns address, and prospects for the future analyzed. Prerequisites: None.</td>
<td></td>
</tr>
<tr>
<td>SOC212</td>
<td>3</td>
<td>3</td>
<td>Gender and Society</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>SOC220</td>
<td>3</td>
<td>3</td>
<td>Sport and Society</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>SOC240</td>
<td>3</td>
<td>3</td>
<td>Race and Ethnic Relations: American and Global Perspectives</td>
<td>Analyzes race and ethnic relations from an American and global perspective. Emphasis on racial/ethnic prejudice and discrimination – origins, maintenance and dynamics. Specific international cases explored. Prerequisites: SOC101.</td>
<td></td>
</tr>
<tr>
<td>SOC266</td>
<td>3</td>
<td>3</td>
<td>Sociology Through Film</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>SOC270</td>
<td>3</td>
<td>3</td>
<td>The Sociology of Health and Illness</td>
<td>Roles of health care providers and patients, various modalities of treatment and prevention, and the history, current status, and future trends in medicine and medical technology, from cross-cultural sociological perspective. Prerequisites: None.</td>
<td></td>
</tr>
<tr>
<td>SOC282</td>
<td>1-3</td>
<td>1-3</td>
<td>Volunteerism for Sociology: A Service-Learning Experience</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>SPA055</td>
<td>1</td>
<td>1</td>
<td>Fundamentals of Spanish Grammar</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>SPA101</td>
<td>4</td>
<td>4</td>
<td>Elementary Spanish I</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>SPA102</td>
<td>4</td>
<td>4</td>
<td>Elementary Spanish II</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>SPA117</td>
<td>3</td>
<td>3</td>
<td>Health Care Spanish I</td>
<td>Basic conversational Spanish for health care workers or students. Emphasis on basic sentence structure, pronunciation and vocabulary used in health care settings. Prerequisites: None.</td>
<td></td>
</tr>
</tbody>
</table>
**COURSE DESCRIPTIONS**

<table>
<thead>
<tr>
<th>Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPA201</td>
<td>4</td>
<td>4</td>
<td>Intermediate Spanish I</td>
<td>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.</td>
</tr>
<tr>
<td>SPA202</td>
<td>4</td>
<td>4</td>
<td>Intermediate Spanish II</td>
<td>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.</td>
</tr>
<tr>
<td>SPA225</td>
<td>3</td>
<td>3</td>
<td>Intermediate Spanish Conversation I</td>
<td>Continued study of vocabulary, sentence structures, and cultural awareness necessary to improve speaking and listening skills in Spanish. Emphasis on fluency and accuracy in spoken Spanish. Prerequisites: SPA116, or SPA102 or permission of Department or Division.</td>
</tr>
<tr>
<td>SPA235</td>
<td>3</td>
<td>3</td>
<td>Advanced Spanish Conversation I</td>
<td>Continued development of skills in conversational fluency. Class conducted completely in Spanish. Prerequisites: SPA226, or permission of Department or Division.</td>
</tr>
<tr>
<td>SPA282</td>
<td>1-3</td>
<td>1-3</td>
<td>Volunteerism for Spanish: A Service-Learning Experience</td>
<td>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.</td>
</tr>
</tbody>
</table>

**Special Projects**

The following course is available under any prefix listed in this catalog. Interested students should consult with the appropriate faculty member.

* Prefix will be determined by departmental designation.

**SSH – Sustainability/ Social Sciences and Humanities**

<table>
<thead>
<tr>
<th>Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSH111</td>
<td>3</td>
<td>3</td>
<td>Sustainable Cities</td>
<td>Introduction to the field of sustainability and exploration of the practices leading to the development of sustainable cities. Explores the concept of sustainable development of cities within local, regional, and global contexts. Prerequisites: None.</td>
</tr>
</tbody>
</table>

**SUS – Sustainability/ Natural Sciences**

<table>
<thead>
<tr>
<th>Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUS110</td>
<td>3</td>
<td>3</td>
<td>Sustainable World</td>
<td>Introduction to the field of sustainability and exploration of the interaction between human and natural global systems. Framework for analyzing and investigating the global challenges such as land use change, competition for water and other natural resources, and renewable energy concerns and crises. Prerequisites: None.</td>
</tr>
</tbody>
</table>

**SWU - Social Work**

<table>
<thead>
<tr>
<th>Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWU130</td>
<td>3</td>
<td>3</td>
<td>Chemical Dependency</td>
<td>Sociological, psychological and physiological aspects of chemical abuse. Consideration of a variety of treatment programs offered in community agencies. Prerequisites: None.</td>
</tr>
<tr>
<td>SWU171</td>
<td>3</td>
<td>3</td>
<td>Introduction to Social Welfare</td>
<td>Analysis of contemporary social welfare services and professional social work. Prerequisites: None.</td>
</tr>
<tr>
<td>SWU225</td>
<td>3</td>
<td>3</td>
<td>Statistics for Social Research/Justice and Government</td>
<td>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.</td>
</tr>
</tbody>
</table>
SWU258  3 Credits 3 Periods
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.

SWU282  1-3 Credits 1-3 Periods
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.

SWU291  3 Credits 3 Periods
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.

SWU292  3 Credits 3 Periods
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.

TEC - Clothing & Textiles

TEC101  1 Credit 1 Period
Analyzing Fashion Products and Markets
Understanding the profile of the fashion entrepreneur and the products and marketplace in which they compete. Emphasis on fashion merchandise and successful fashion business development. Prerequisites: None.

TEC102  2 Credits 2 Periods
Strategic Fashion Business Planning
Developing a strategy for a fashion business or fashion service. Merchandise and management planning for a fashion business entity. Emphasis on fashion merchandise and successful fashion business development. Prerequisites: None.

TEC103  2 Credits 2 Periods
Developing Your Fashion Business
Creating and understanding a financial plan, developing operating and control systems, planning growth strategies and a business plan for the Fashion entrepreneur. Emphasis on fashion merchandise and successful fashion business development. Prerequisites: None.

TEC105  3 Credits 3 Periods
Cultural Aspects of Clothing
Psychological, aesthetic, and economic factors applied to the selection of clothing in relation to personality and figure type. Prerequisites: None.

TEC106  3 Credits 3 Periods
History of Fashion
Consideration of historic factors influencing fashion and fashion change with special emphasis on historic costume. Prerequisites: None.

TEC109  3 Credits 3 Periods
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.
<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Description</th>
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</tr>
</thead>
<tbody>
<tr>
<td>TEC113</td>
<td>1</td>
<td>1.5</td>
<td>Textiles: Dyeing</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>TEC114</td>
<td>1</td>
<td>2</td>
<td>Textiles: Block Printing/Silk Screening</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>TEC115</td>
<td>1</td>
<td>1.5</td>
<td>Textiles: Hand Painting</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>TEC116</td>
<td>1</td>
<td>1.5</td>
<td>Textiles: Stitchery and Embellishment</td>
<td>Materials and techniques used for stitchery and embellishment on textiles. Includes color schemes and design development. Prerequisites: None.</td>
<td></td>
</tr>
<tr>
<td>TEC120</td>
<td>2</td>
<td>4</td>
<td>Intermediate Clothing Construction</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>TEC122</td>
<td>3</td>
<td>3</td>
<td>Sewing with Knits</td>
<td>Skills and techniques used in the construction of garments made from knit fabrics. Prerequisites: None.</td>
<td></td>
</tr>
<tr>
<td>TEC124</td>
<td>3</td>
<td>5</td>
<td>Advanced Clothing Construction</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>TEC125</td>
<td>3</td>
<td>3</td>
<td>Fashion Design</td>
<td>Practical techniques of fashion sketching, pattern drafting and draping. Design apparel. Prerequisites: None. TEC106 and TEC111 suggested but not required.</td>
<td></td>
</tr>
<tr>
<td>TEC129</td>
<td>2</td>
<td>2</td>
<td>Sewing with a Serger</td>
<td>Operation of a home serger. Use in constructing, finishing, and decorating garments and home decorations. Home serger required. Prerequisites: None.</td>
<td></td>
</tr>
<tr>
<td>TEC134</td>
<td>3</td>
<td>5</td>
<td>Fashion Illustration I</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>TEC135</td>
<td>3</td>
<td>5</td>
<td>Fashion Illustration II</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>TEC136</td>
<td>3</td>
<td>5</td>
<td>Fashion Illustration III</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>TEC141</td>
<td>2</td>
<td>2</td>
<td>Fashion Design: CAD</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>TEC150</td>
<td>2</td>
<td>3</td>
<td>Fashion Show Production</td>
<td>Planning and producing a fashion show. Includes developing a budget, listing and delegating tasks, publicizing show, developing the lineup, selecting and fitting models, selecting and training dressers, writing commentary and selecting commentator, selecting the music and staging the show, rehearsing and evaluating the show. Choreography and rehearsal also covered. Prerequisites: Permission of instructor.</td>
<td></td>
</tr>
<tr>
<td>TEC151</td>
<td>3</td>
<td>4</td>
<td>Display and Visual Merchandising</td>
<td>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.</td>
<td></td>
</tr>
</tbody>
</table>
COURSE DESCRIPTIONS

TEC161  1 Credit 2 Periods  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.

TEC162  1 Credit 1 Period  Product Development Laboratory
Focus on current trends in fashion product development;
methods and techniques to translate design ideas into a realistic
production product. Prerequisites: TEC125 or permission of
instructor.

TEC200  3 Credits 3 Periods  Retail Buying
Examines management/buyer role in investment, pricing,
planning, controlling sales and inventories. Prerequisites:
None. Any BPC/CIS spreadsheet course recommended.

TEC221  3 Credits 5 Periods  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.

TEC222  3 Credits 3 Periods  Textiles
Study of textile fibers and fabrics, their properties, identification,
selection, use and care. Prerequisites: None.

TEC223  3 Credits 6 Periods  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.

TEC225  3 Credits 5 Periods  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.

TEC226  3 Credits 5 Periods  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.

TEC227  3 Credits 5 Periods  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.

TEC228  3 Credits 5 Periods  Advanced Draping for Fashion Design
Advanced draping techniques for fashion design. Includes
draping jackets, coats, slacks, and trousers in wool 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.

TEC229  2 Credits 2 Periods  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.

TEC230  3 Credits 5 Periods  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.

TEC231  3 Credits 5 Periods  Pattern Grading
Grading patterns to change sizes. Includes grading terminology,
grading methods, types of grade, uneven grade, figure types,
grading charts, blending, and grading basic and intermediate
designs. Prerequisites: TEC111 or permission of instructor.

TEC233  3 Credits 5 Periods  Computer-Assisted Pattern Making
Pattern making using the computer and various software
programs. Includes measuring, block patterns, pattern
development, production patterns, modifications for size and
fit, and markers. Prerequisites: TEC225 or permission of
instructor.
TEC236 1 Credit 1.5 Periods
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.

TEC241 3 Credits 5 Periods
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.

TEC245 3 Credits 3 Periods
Wardrobe Strategies
Methods of clothing selection, coordination, evaluation, and planning to meet men’s and women’s wardrobe needs. Prerequisites: None.

TEC250 3 Credits 3 Periods
Apparel Quality Analysis
Quality analysis of construction components that affect the appearance, function, and cost of ready-to-wear apparel. Prerequisites: None.

TEC255 3 Credits 3 Periods
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.

TEC260 3 Credits 3 Periods
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.

TEC272 1-3 Credits 1-3 Periods
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.

THE111 3 Credits 3 Periods
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.

THE118 3 Credits 3 Periods
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.
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.

THE210
Contemporary Cinema
A study of contemporary films, directors and critics with emphasis on evaluating film as an art form. Prerequisites: None.

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.

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.

THP100
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.

THP115
Theatre Makeup
Purposes, materials, and techniques of theatrical makeup. Prerequisites: None.

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.

THP120AB
Audition Techniques: Cold Readings
Practice in the techniques of auditioning for the stage. Identifies and illustrates techniques of the cold reading audition. Prerequisites: None.

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.

THP131
Stage Movement
Movement skills for the actor to develop a flexible, expressive physical instrument. Includes pantomime, physical isolation, and awareness exercises. Prerequisites: None.

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.

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.

THP203
Technical Theatre Production
Designed to give college credit to the technical production crews of college theatre productions. Prerequisites: None.

THP210
Acting: TV/Film
Special technical aspects of acting before a camera. Prerequisites: THP112 or permission of Instructor.

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.

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.
THP212 3 Credits 4 Periods
Acting II
Fundamental techniques of acting through script analysis, rehearsal, and performance. Prerequisites: THP112 or permission of Department or Division.

THP213 3 Credits 5 Periods
Introduction To Technical Theatre
Procedures of technical theatre production and demonstration. Topics include design and construction of scenery; lighting and properties. Prerequisites: None.

THP214 3 Credits 3 Periods
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.

THP215 3 Credits 4 Periods
Advanced Makeup Techniques
Advanced character analysis and makeup design. Technical application of makeup. Prerequisites: THP115.

THP217 3 Credits 4 Periods
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.

THP271 3 Credits 3 Periods
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.

THP281 3 Credits 4 Periods
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.

THP282 3 Credits 4 Periods
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.

TQM101 3 Credits 3 Periods
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.

TQM220 2 Credits 2 Periods
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.

TQM230 2 Credits 2 Periods
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.

TQM235 2 Credits 2 Periods
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.

TQM240 3 Credits 3 Periods
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.

TQM290AA 1 Credit 1 Period
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.
### 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.

### WED - Wellness Education

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>WED100</td>
<td>2 Credits</td>
<td>2 Periods</td>
<td>Personal Wellness</td>
</tr>
<tr>
<td>WED110</td>
<td>3 Credits</td>
<td>3 Periods</td>
<td>Principles Of Physical Fitness And Wellness</td>
</tr>
<tr>
<td>WED144</td>
<td>3 Credits</td>
<td>5 Periods</td>
<td>Strategies In Diabetes Management</td>
</tr>
<tr>
<td>WED151</td>
<td>3 Credits</td>
<td>3 Periods</td>
<td>Introduction To Alternative Medicine</td>
</tr>
<tr>
<td>WED152</td>
<td>3 Credits</td>
<td>3 Periods</td>
<td>Comparative Healing Techniques</td>
</tr>
<tr>
<td>WED155</td>
<td>3 Credits</td>
<td>3 Periods</td>
<td>Introduction to Chinese Medicine</td>
</tr>
<tr>
<td>WED162</td>
<td>1 Credit</td>
<td>1 Period</td>
<td>Meditation And Wellness</td>
</tr>
<tr>
<td>WED165</td>
<td>2 Credits</td>
<td>2 Periods</td>
<td>Overview of Massage Therapy</td>
</tr>
<tr>
<td>WED170</td>
<td>1 Credit</td>
<td>1 Period</td>
<td>Principles Of Homeopathy</td>
</tr>
<tr>
<td>WED172</td>
<td>1 Credit</td>
<td>1 Period</td>
<td>Overview Of Herbal Remedies</td>
</tr>
<tr>
<td>WLD101</td>
<td>3 Credits</td>
<td>6 Periods</td>
<td>Welding I</td>
</tr>
</tbody>
</table>

### WLD - Welding

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>WLD101</td>
<td>3 Credits</td>
<td>6 Periods</td>
<td>Welding I</td>
</tr>
</tbody>
</table>

Explanations for causation of disease, diagnostic procedures and healing methodology. Prerequisites: None.

Basic theories, principles and methods that constitute the backbone of Chinese Medicine. Explores concepts of Yin, Yang, the Five Elements (Wood, Fire Earth, Metal, and Water), and the Five Vital substances (Qi, Blood, Body Fluids, Jing and Shen). Overview of the physiology of the major internal organs (Five Zang and Six Fu) with a focus on their various interrelationships. Prerequisites: None.

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.

History of massage; overview of bodywork systems; benefits and indications of massage; legal requirements for practice in Arizona. Prerequisites: None.

Origins of homeopathy; key concepts; perceptions of disease; schools of homeopathy; scientific studies; preparation of remedies; case taking. Prerequisites: None.

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.

Physiology of aromatherapy; methods of use; preparation of oils; uses in sports, beauty care, massage, child care, health care, at work, and in the home. Prerequisites: None.
### WLD102 3 Credits 6 Periods
**Basic Welding Metal Sculpture**  
Practical training for welders in artistic welding and metal sculpting with emphasis on oxy-acetylene welding, arc welding, and metal inert gas (MIG) welding. Prerequisites: None.

### WLD103 3 Credits 8 Periods
**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.

### WLD106 5 Credits 8 Periods
**Arc Welding**  
Electric welding with emphasis on metallic arc welding in out-of-position practice and procedures. Prerequisites: None.

### WLD206 5 Credits 8 Periods
**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.

### WLD208 5 Credits 8 Periods
**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.

### WLD225 3 Credits 3 Periods
**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.

### WLD296 1-4 Credits 5-20 Periods
**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.

### WST - Women’s Studies

#### WST100 3 Credits 3 Periods
**Introduction to Women’s and Gender Studies**  
Introduction to critical issues in women’s studies. Prerequisites: None.

#### WST161 3 Credits 3 Periods
**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.

#### WST206 3 Credits 3 Periods
**La Mujer**  
Analysis and discussion of critical issues for Latinas in America today. Prerequisites: None.

#### WST209 3 Credits 3 Periods
**Women and Films**  
Analysis of images of women in films from both historical and contemporary perspectives. Prerequisites: None.

#### WST261 3 Credits 3 Periods
**Native Women’s Literature: The Americas**  
Explores contemporary native women’s (indigenous to the Americas) literature. Selected literature (oral tradition, poetry, fiction, nonfiction, and drama) focuses on themes relevant to native women Examines the trends and movements within American Indian and women’s literary history. Prerequisites: ENG101.

#### WST282 1-3 Credits 1-3 Periods
**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.

#### WST284 3 Credits 3 Periods
**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.
WST285 3 Credits 3 Periods
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.

WST286 3 Credits 3 Periods
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.

WST290 3 Credits 3 Periods
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.
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.

**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.

**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 in employment or education, against any applicant, employee, or student because of race, color, religion, sex, sexual orientation, gender identity, national origin, citizenship status (including document abuse), age, disability, veteran status, or genetic information. Additionally, it is the policy of the Maricopa Community Colleges to provide an environment for each job applicant, employee, and student that is free from sexual harassment, as well as harassment and intimidation on account of an individual’s race, color, religion, sex, sexual orientation, gender identity, national origin, citizenship status (including document abuse), age, disability, veteran status, or genetic information.

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.

**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 in employment or education, against any applicant, employee, or student because of race, color, religion, sex, sexual orientation, gender identity, national origin, citizenship status (including document abuse), age, disability, veteran status, or genetic information. Additionally, it is the policy of the Maricopa Community Colleges to provide an environment for each job applicant, employee, and student that is free from sexual harassment, as well as harassment and intimidation on account of an individual’s race, color, religion, sex, sexual orientation, gender identity, national origin, citizenship status (including document abuse), age, disability, veteran status, or genetic information.

**Affirmative Action Statements**

**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, sex, sexual orientation, gender identity, national origin, citizenship status (including document abuse), age, disability, veteran status, or genetic information.
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.

**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, sex, sexual orientation, gender identity, national origin, citizenship status (including document abuse), age, disability, veteran status, or genetic information. 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.

**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**

**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, genero, sexo, orientación sexual, nacional, ciudadania, edad, incapacidad,estado de veteran/a o informacion genesica. Así 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, genero, orientación sexual, nacional, ciudadania, edad, incapacidad, estado de veteran/a o informacion genesica. 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, promocion/ascensos, evaluación y despido de empleados.

**Declaración de Igualeidad 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, genero, orientación sexual, origin nacional, ciudadania, edad, incapacidad, estado de veteran/a o informacion genesica. 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, genero, orientación sexual, origen...
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 discriminación en contra ningún solicitante o empleado debido a su desabilidad/incapacitación física o mental referente a cualquier posición para la cual el solicitante o empleado ha calificado. Maricopa promete tomar acción afirmativa para emplear, dar ascenso en empleo y tratar a dichos individuos con incapacidades sin hacer incapié en sus incapacidades físicas o mentales en la selección de recursos humanos y prácticas decisivas como son las siguientes: anuncios, beneficios, compensación, disciplina (incluyendo periodo de prueba, suspensión, y/o terminación de empleo por causa de paro forzoso), facilidades para empleados, evaluación de trabajo, reclutamiento, programas sociales/recreacionales, y entrenamiento. Maricopa continuará llevando a cabo éstas prácticas sin descartar por razones de raza, color, religión, sexo, orientación sexual, origen nacional, ciudadanía, edad, incapacidad estado de veteran/a o información genealógica. Asimismo, todo los solicitantes y empleados están protegidos en contra de coacción, intimidación, interferencia o discriminación por quejas o por ayudan en una investigación cubierta sobre este Acto.

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 según el género.

Estudiantes incapacitados pueden solicitar información de catálogo en una forma diferente por medio del Coordinador designado por ADA/504 en cada colegio.
OUR 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.

OUR 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

OUR 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)
A. 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 stated in the college catalog, class schedule, and/or student handbook. Documents are available on each college’s website.

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.

B. 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
A. 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:
1. 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.
2. Has a high school certificate of equivalency.
3. Is at least 18 years of age and demonstrates evidence of potential success in the community college.
4. Is a transfer student in good standing from another college or university.

B. Admission of Students Under 18 Years of Age
1. 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:
   a. A composite score of 93 or more on the Preliminary Scholastic Aptitude Test (PSAT).
   b. A composite score of 930 or more on the Scholastic Aptitude Test (SAT).
   c. A composite score of twenty-two or more on the American College Test (ACT).
   d. A passing score on the relevant portions of the Arizona Instrument to Measure Standards test (AIMS).
   e. 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.
   f. Is a graduate of a private or public high school or has a high school certificate of equivalency.
2. A community college may limit the number of semester hours in which the student may enroll to not more than six (6) credit hours.
3. Home-schooled students are exempt from this subsection.
4. 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.

C. 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.

D. 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.

E. 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.

1. 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.

2. 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 one or more of the following criteria:

a) At least six years of English language instruction as shown by the applicant’s school transcript(s);

b) A minimum TOEFL score of 400 (on the paper based TOEFL) or 23 (on the Internet-based test);

c) 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;

d) 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.

e) Foreign students under certain types of visas may need special permission to enroll and should contact the appropriate college official.

3. 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:

<table>
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<tr>
<td>Tuition and Fees</td>
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<tr>
<td>Living Expenses</td>
<td>10,140</td>
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<tr>
<td>Books</td>
<td>1,200</td>
</tr>
<tr>
<td>Health Insurance</td>
<td>1,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$ 20,030</strong></td>
</tr>
</tbody>
</table>

4. 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.
5. 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 2011-2012 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.

A. Student Status

1. Freshman - A student who has completed fewer than 30 credit hours in 100-level courses and above.
2. Sophomore - A student who has completed 30 credit hours or more in 100-level courses and above.
3. Unclassified - A student who has an associate degree or higher.

B. 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.

C. Residency for Tuition Purposes (Appendix S-1)

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.

Implementation

1. 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.
2. 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.
3. 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.

Definitions

“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.

“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.

“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.

“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.

“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.

“Full-time student” means one who registers for at least twelve (12) credit hours per semester.

“Part-time student” means one who registers for fewer than twelve (12) credit hours per semester.

“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.

Criteria for Determining Residency

In-State Student Status

A. 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.

B. 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:

1. 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.
2. 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.

3. 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.

4. 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.

C. The domicile of an unemancipated person is that of such person’s parent.

D. 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.

E. 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.

F. 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.

G. Beginning in the fall of 2011, a person who is honorably discharged from the armed forces of the United States on either active duty or reserve or national guard status, or who has retired from active duty or reserve or national guard status, 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 the following requirements:
   a. Registered to vote in this state.
   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. Transfer of major banking services to Arizona
      5. Change of permanent address on all pertinent records
      6. Other materials of whatever kind or source relevant to domicile or residency status

H. 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.

Alien In-State Student Status

A. An alien is entitled to classification as an in-state resident 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.

B. 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. A student will be assessed out-of-state tuition until such time that documentation of status is received in the office of admissions and records.

Alien In-State Student Status

A. 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.

B. 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. A student will be assessed out-of-state tuition until such time that documentation of status is received in the office of admissions and records.

C. Students who hold a current visa 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 application for 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.

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:

A. 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.

B. Once established, a domicile is not lost by mere absence unaccompanied by intention to establish a new domicile.

C. 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.

Proof of Residency

When a student’s residency is questioned, the following proof will be required.

A. In-State Residency

1. An affidavit signed by the student must be filed with the person responsible for verifying residency.

2. Any of the following may be used in determining a student’s domicile in Arizona:
   a) Arizona income tax return
   b) Arizona voter registration
   c) Arizona motor vehicle registration
   d) Arizona driver’s license
   e) Employment history in Arizona
   f) Place of graduation from high school
   g) Source of financial support
   h) Dependency as indicated on federal income tax return
   i) Notarized statement of landlord and/or employer
   k) Transfer of major banking services to Arizona
   l) Change of permanent address on all pertinent records
   m) Other relevant information

B. County Residency

1. 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

2. Any of the following may be used to determine a student’s county residency:
   a) Notarized statements of landlord and/or employer
   b) Source of financial support
   c) Place of graduation from high school
   d) Ownership of real property
   e) Bank accounts
   f) Arizona income tax return
   g) Dependency as indicated on a Federal income tax return
   h) Other relevant information

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)

A. 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)

B. Ability to Benefit - Classifications

1. Federal guidelines require that students who are applying for financial aid demonstrate the ability to benefit. Under federal law, a student who enrolls after June 30, 2012, must be a high school graduate, have a GED certificate, or have completed a secondary school education in a home school setting that is treated as a home school or private school under state law, be admitted as a regular student, and be pursuing an eligible degree or certificate to quality for federal financial assistance under Title IV or the Higher Education Act.

2. For student enrolled prior to July 1, 2012, an evaluation during the admission process resulted in the student being admitted to the college with status of Regular, Regular with Provisional requirements, or Special.
“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.

“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.

“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.

C. 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.

D. 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.

A. 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.

1. 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:
   a. Training parallels a discipline area offered through the Maricopa Community Colleges, and
   b. 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.

2. 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:
- training parallels a discipline area offered through the Maricopa Community Colleges, and
- credit meets a program requirement or is used as elective credit.

3. 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:
- The evaluation of a course a second time;
- The evaluation of a course while currently enrolled in the course;
- To establish credit in a previously completed course; and
- 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.

B. 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.

1. 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:**

<table>
<thead>
<tr>
<th>EXAM</th>
<th>SCORE</th>
<th>CREDIT HOURS/EQUIVAENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>English-Language</td>
<td>5 or 4</td>
<td>6 credit hrs. Engl101,</td>
</tr>
<tr>
<td>and Composition</td>
<td></td>
<td>Eng100, AA, AC, AD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>eligible for Honors Eng102</td>
</tr>
<tr>
<td>English-Literature</td>
<td>5 or 4</td>
<td>6 credit hrs. Engl101 Engl110</td>
</tr>
<tr>
<td>and Composition</td>
<td></td>
<td>eligible for Honors Eng101</td>
</tr>
</tbody>
</table>

**Math AP Recommendation:**

<table>
<thead>
<tr>
<th>EXAM</th>
<th>SCORE</th>
<th>CREDIT HOURS/EQUIVAENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math-Calculus AB</td>
<td>5, 4 or 3</td>
<td>MAT220 or MAT221</td>
</tr>
<tr>
<td>Math-Calculus BC</td>
<td>5, 4</td>
<td>3 credit hrs/MAT220 or</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MAT 221, and MAT 230</td>
</tr>
<tr>
<td></td>
<td></td>
<td>or MAT 231, upon completion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>of MAT 241, MAT220 or</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MAT221</td>
</tr>
<tr>
<td>Computer Science</td>
<td>4 or 5</td>
<td>CSC100</td>
</tr>
<tr>
<td>A and AB</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. 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:

<table>
<thead>
<tr>
<th>COURSE</th>
<th>SPANISH</th>
<th>FRENCH</th>
<th>GERMAN</th>
<th>CREDIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>102</td>
<td>50-54</td>
<td>49-53</td>
<td>46-50</td>
<td>8 (101, 102)</td>
</tr>
<tr>
<td>201</td>
<td>55-61</td>
<td>54-62</td>
<td>51-59</td>
<td>12 (101, 102, 201)</td>
</tr>
<tr>
<td>202</td>
<td>62-80</td>
<td>63-80</td>
<td>60-80</td>
<td>16 (101, 102, 201, 202)</td>
</tr>
</tbody>
</table>

At the discretion of the individual college, an oral exam at the 202 level may be administered.

3. 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.

4. 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.

5. 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:
- To challenge a course a second time;
- To challenge a course while currently enrolled in the course;
- To establish credit in a previously completed course; and
- 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

<table>
<thead>
<tr>
<th>Subject</th>
<th>ACE Score</th>
<th>MCCCDD</th>
<th>Sem. Hrs.</th>
<th>Equivalency</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td></td>
<td>MCCCD</td>
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<td></td>
</tr>
<tr>
<td>College Composition</td>
<td>50</td>
<td>600 (1986 version)</td>
<td>4</td>
<td>ENG101 &amp; ENG297</td>
</tr>
<tr>
<td>College Composition-Modular</td>
<td>0</td>
<td>No credit</td>
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<td></td>
</tr>
<tr>
<td>Humanities</td>
<td>50</td>
<td>6</td>
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<td>Elective Credit</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>50</td>
<td>6</td>
<td></td>
<td>Elective Credit*</td>
</tr>
<tr>
<td>Social Sciences &amp; History</td>
<td>50</td>
<td>6</td>
<td></td>
<td>Elective Credit</td>
</tr>
<tr>
<td>Subject</td>
<td></td>
<td>MCCCD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Government</td>
<td></td>
<td>POS110</td>
<td></td>
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<tr>
<td>American Literature</td>
<td></td>
<td>ENH241, 242</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analyzing &amp; Interpreting Literature</td>
<td></td>
<td>Elective Credit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biology</td>
<td></td>
<td>BIO Elective Credit</td>
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<td></td>
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<tr>
<td>Calculus (Previously Calculus with Elem Functions)</td>
<td>4</td>
<td>MAT221</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemistry</td>
<td></td>
<td>CHM151/CHM151LL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>College Composition</td>
<td></td>
<td>With essay</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English Literature</td>
<td></td>
<td>Elective Credit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Accounting</td>
<td>50</td>
<td>3</td>
<td>4</td>
<td>for ENG101, ENG297</td>
</tr>
<tr>
<td>French Language, Level I</td>
<td>50-54</td>
<td>FRE101</td>
<td>8</td>
<td>FRE101, 102</td>
</tr>
<tr>
<td>French Language, Level II</td>
<td>62-65</td>
<td>FRE101, 102, 201</td>
<td>12</td>
<td>FRE101, 102, 201, 202</td>
</tr>
<tr>
<td>German Language, Level I</td>
<td>39-45</td>
<td>GER101</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>German Language, Level II</td>
<td>46-50</td>
<td>GER101, 102</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Human Growth &amp; Development</td>
<td></td>
<td>GER101, 102, 201, 202</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Information Systems &amp; Computer Applications</td>
<td>3</td>
<td>CIS Elective Credit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intro to Educational Psychology</td>
<td>3</td>
<td>Edu Elective Credit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introductory Business Law</td>
<td>50</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Introductory Psychology</td>
<td>3</td>
<td>PSY101</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introductory Sociology</td>
<td>50 or higher</td>
<td>3</td>
<td>SOC101</td>
<td></td>
</tr>
<tr>
<td>Macroeconomics, Principles of</td>
<td>3</td>
<td>ECN211</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management, Principles of</td>
<td>50</td>
<td>0</td>
<td>0</td>
<td>No Credit</td>
</tr>
<tr>
<td>Marketing, Principles of</td>
<td>50</td>
<td>0</td>
<td>0</td>
<td>No Credit</td>
</tr>
<tr>
<td>Mathematics, College</td>
<td>3</td>
<td>MAT142</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Microeconomics, Principles of</td>
<td>3</td>
<td>ECN212</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spanish Language, Level I</td>
<td>50-54</td>
<td>SPA101</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Spanish Language, Level II</td>
<td>66-67</td>
<td>SPA101, 102, 201</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Precalculus</td>
<td>50 or higher</td>
<td>5</td>
<td>MAT187</td>
<td></td>
</tr>
<tr>
<td>Trigonometry</td>
<td>3</td>
<td>MAT182</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. History I – Early Colonization to 1877</td>
<td>3</td>
<td>HIS103</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. History II – 1865 to the Present</td>
<td>3</td>
<td>HIS104</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Western Civilization I – Ancient Near East to 1648</td>
<td>6</td>
<td>HIS100, 101</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Western Civilization II – 1648 to the Present</td>
<td>3</td>
<td>HIS102</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*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.

<table>
<thead>
<tr>
<th>Examination</th>
<th>Score</th>
<th>MCCCD</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art-History</td>
<td>5 or 4</td>
<td>ARH101, 102</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>ARH101, 102</td>
<td>3</td>
</tr>
<tr>
<td>Art–Studio Art-(2-D Design)</td>
<td>5</td>
<td>ART111, 112</td>
<td>6</td>
</tr>
<tr>
<td>(Previously Art–Studio–General)</td>
<td>4</td>
<td>ART112</td>
<td>3</td>
</tr>
<tr>
<td>Art–Studio Art (Drawing)</td>
<td>5</td>
<td>ART111, 112</td>
<td>6</td>
</tr>
<tr>
<td>(Previously Art–Studio–Drawing)</td>
<td>4</td>
<td>ART111</td>
<td>3</td>
</tr>
<tr>
<td>Biology</td>
<td>5 or 4</td>
<td>BIO181, 182</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>BIO100 or Equivalent</td>
<td>4</td>
</tr>
<tr>
<td>Chemistry</td>
<td>5 or 4</td>
<td>CHM151/151LL</td>
<td>4</td>
</tr>
<tr>
<td>Calculus AB</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Previously Mathematics-Calculus AB)</td>
<td>5, 4, 3</td>
<td>MAT221</td>
<td>4</td>
</tr>
<tr>
<td>Calculus BC</td>
<td>5 or 4</td>
<td>MAT221 or MAT231</td>
<td>8</td>
</tr>
<tr>
<td>(Previously Mathematics-Calculus BC)</td>
<td></td>
<td>MAT221</td>
<td>4</td>
</tr>
<tr>
<td>Comparative Government and Politics</td>
<td>5 or 4</td>
<td>POS140</td>
<td>3</td>
</tr>
<tr>
<td>(Previously Political Science-Comparative Government and Politics)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer Science A</td>
<td>5 or 4</td>
<td>CSC100</td>
<td>3</td>
</tr>
<tr>
<td>Computer Science AB</td>
<td>5 or 4</td>
<td>CSC100</td>
<td>3</td>
</tr>
<tr>
<td>Economics –Macroeconomics</td>
<td>5 or 4</td>
<td>ECN211</td>
<td>3</td>
</tr>
<tr>
<td>Economics –Microeconomics</td>
<td>5 or 4</td>
<td>ECN212</td>
<td>3</td>
</tr>
<tr>
<td>English – Language &amp; Composition</td>
<td>5 or 4</td>
<td>ENG100AA, AC, AD and ENG101</td>
<td>6</td>
</tr>
<tr>
<td>English – Literature &amp; Composition</td>
<td>5 or 4</td>
<td>ENG101 and ENH110</td>
<td>6</td>
</tr>
<tr>
<td>Environmental Science</td>
<td>5 or 4</td>
<td>No credit</td>
<td>3</td>
</tr>
<tr>
<td>European History</td>
<td>5 or 4</td>
<td>HIS101, HIS102</td>
<td>6</td>
</tr>
<tr>
<td>French–Language</td>
<td>5, 4, or 3</td>
<td>FRE101, 102, 201, 202</td>
<td>16</td>
</tr>
<tr>
<td>French–Literature</td>
<td>5, 4, or 3</td>
<td>FRE101, 102, 201, 202</td>
<td>16</td>
</tr>
<tr>
<td>German–Language</td>
<td>5, 4, or 3</td>
<td>GER101, 102, 201, 202</td>
<td>16</td>
</tr>
<tr>
<td>German–Literature</td>
<td>5, 4, or 3</td>
<td>GER101, 102, 201, 202</td>
<td>16</td>
</tr>
<tr>
<td>Japanese Language and Culture</td>
<td>5</td>
<td>JPN101, 102, 201, and 202</td>
<td>20</td>
</tr>
<tr>
<td>(Previously Japanese-Language)</td>
<td>4</td>
<td>JPN101, 102 and 201</td>
<td>15</td>
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<tr>
<td></td>
<td>3</td>
<td>JPN101 and 201</td>
<td>10</td>
</tr>
<tr>
<td>Latin: Vergil (Previously Latin Language)</td>
<td>5</td>
<td>LAT101, 102, 201, 202</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>LAT101, 102, 201</td>
<td>12</td>
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<tr>
<td></td>
<td>3</td>
<td>LAT101, 102</td>
<td>8</td>
</tr>
<tr>
<td>Mathematics–Calculus AB</td>
<td>5, 4, or 3</td>
<td>MAT220 or MAT221</td>
<td>4 or 5</td>
</tr>
<tr>
<td>Mathematics–Calculus BC</td>
<td>5 or 4</td>
<td>MAT220 or MAT221 and MAT230 or MAT231 upon completion of MAT241</td>
<td>8 to 10</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>MAT220 or MAT221</td>
<td>4 or 5</td>
</tr>
<tr>
<td>Music</td>
<td>5 or 4</td>
<td>MTC105</td>
<td>3</td>
</tr>
<tr>
<td>Physics B</td>
<td>5 or 4</td>
<td>PHY111, PHY112</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>PHY111</td>
<td>4</td>
</tr>
<tr>
<td>Physics C – Electricity &amp; Magnetism</td>
<td>5, 4, or 3</td>
<td>PHY112 with laboratory coursework</td>
<td>4</td>
</tr>
<tr>
<td>Physics C – Mechanics</td>
<td>5, 4, or 3</td>
<td>PHY111 with laboratory coursework</td>
<td>4</td>
</tr>
<tr>
<td>Psychology</td>
<td>5 or 4</td>
<td>PSY101</td>
<td>3</td>
</tr>
<tr>
<td>Spanish–Language</td>
<td>5, 4, or 3</td>
<td>SPA101, 102, 201, 202</td>
<td>16</td>
</tr>
<tr>
<td>Spanish–Literature</td>
<td>5, 4, or 3</td>
<td>SPA101, 102, 201, 202</td>
<td>16</td>
</tr>
<tr>
<td>Statistics</td>
<td>5, 4, or 3</td>
<td>MAT206</td>
<td>3</td>
</tr>
<tr>
<td>U.S. Government and Politics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Previously Political Science – American Government)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. History</td>
<td>5 or 4</td>
<td>POS110</td>
<td>3</td>
</tr>
<tr>
<td>(Previously History–American)</td>
<td>5 or 4</td>
<td>HIS103, HIS104</td>
<td>6</td>
</tr>
</tbody>
</table>
F. International Baccalaureate Diploma/Certificate

Students who present an International Baccalaureate Diploma/Certificate may qualify for college credit. MCCCD grants credit for college-level courses only. Credit is awarded according to the “International Baccalaureate Diploma/Certificate Credit” table.

<table>
<thead>
<tr>
<th>Examination</th>
<th>Score</th>
<th>Sem. Hrs.</th>
<th>Equivalency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>7, 6 or 5</td>
<td>8</td>
<td>BIO181, 182</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>4</td>
<td>BIO100 or equivalent</td>
</tr>
<tr>
<td>Business &amp; Management</td>
<td>5 or higher</td>
<td>3</td>
<td>Elective Credit</td>
</tr>
<tr>
<td>Chemistry</td>
<td>7, 6 or 5</td>
<td>9</td>
<td>CHM151, 152</td>
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<td></td>
<td>4</td>
<td>4</td>
<td>CHM151</td>
</tr>
<tr>
<td>Economics</td>
<td>7, 6 or 5</td>
<td>6</td>
<td>ECN111, 212</td>
</tr>
<tr>
<td>English A</td>
<td>7, 6 or 5</td>
<td>6</td>
<td>ENG101, ENG100AB, AC, AD</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>3</td>
<td>ENG100AB, AC, AD</td>
</tr>
<tr>
<td>Foreign Language A or B</td>
<td>7, 6 or 5</td>
<td>8</td>
<td>Foreign Language 201, 202</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>8</td>
<td>Foreign Language 101, 102</td>
</tr>
<tr>
<td>Geography</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geography (Previously History-</td>
<td>5, 4, or 3</td>
<td>3</td>
<td>GCU102</td>
</tr>
<tr>
<td>American)</td>
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<td></td>
<td></td>
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<tr>
<td>History</td>
<td>7, 6, or 5</td>
<td>6</td>
<td>HIS10, 104</td>
</tr>
<tr>
<td>Geography (Previously History-</td>
<td>4</td>
<td>3</td>
<td>HIS103</td>
</tr>
<tr>
<td>American)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>History</td>
<td>7, 6, or 5</td>
<td>6</td>
<td>HIS101, 102</td>
</tr>
<tr>
<td>Geography (Previously History-</td>
<td>4</td>
<td>3</td>
<td>HIS101</td>
</tr>
<tr>
<td>European)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics HL</td>
<td></td>
<td></td>
<td>MAT221</td>
</tr>
<tr>
<td>Mathematics SL</td>
<td>7, 6, or 5</td>
<td>4</td>
<td>MAT221</td>
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<tr>
<td>Further Mathematics SL</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>(Previously Mathematics)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physics</td>
<td>7 or 6</td>
<td>8</td>
<td>PHY111, 112</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>3</td>
<td>PHY111</td>
</tr>
<tr>
<td>Social and Cultural Anthropology</td>
<td>7, 6, 5, or 4</td>
<td>3</td>
<td>ASB102</td>
</tr>
<tr>
<td>Visual Arts</td>
<td>7, 6, or 5</td>
<td>6</td>
<td>ART111, 112</td>
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<tr>
<td>(Previously Art/Design)</td>
<td>4</td>
<td>3</td>
<td>ART112</td>
</tr>
</tbody>
</table>

C. Health Care Integrated Educational System (HCIES) Credit for Prior Learning

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.

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 at 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:

a. To challenge a course a second time;
b. To challenge a course while currently enrolled in the course;
c. To establish credit in a previously completed course; or
d. To establish credit for a lower level of a course in which credit has been received.

Certain healthcare 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. Transferring to the Maricopa Community Colleges

A student enrolling into one of the Maricopa Community Colleges after having attended other post-secondary institution can have coursework evaluated for transfer credit. To be eligible for evaluation, coursework must appear on an official transcript from the source institutions. The official transcript must be mailed directly from the source institutions to the Admissions and Records/Enrollment Services Offices of the receiving institutions. The Admissions and Records/Enrollment Services Office at the receiving institution will complete a course-by-course evaluation for all submitted transcripts upon student request.

The Maricopa Community Colleges may transfer in coursework if:

- The coursework was completed at colleges and universities accredited by the following regional accrediting agencies: New England Association of Schools and Colleges, Middle 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. The Maricopa Community Colleges will not award credit for courses completed at institutions not regionally accredited.
- The coursework was earned with a grade of C or better.
- The coursework was taken at another Arizona community college to fulfill general education requirements for the Arizona General Education Curriculum (AGEC)

Conditions of Transfer Credit

- Acceptance and applicability of courses from another Maricopa Community College that fulfill requirements other than general education is determined by individual Maricopa Community Colleges.
- 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.
- Developmental coursework (below 100-level) is accepted for the purpose of fulfilling course prerequisites. The credit does not apply toward a degree or certificate.
- Courses with different credit systems (quarter hours, units) are converted to semester hours of credit. The semester conversion of quarter credits is at a rate of .67 semester credit hours for each quarter hour.

- The age of credit may be considered in applying credit toward degrees and certificate programs.
- College-level courses completed outside the United States and recorded on official transcripts will be evaluated for transfer credit, provided that the institution where the course were taken is accredited by the ministry of education in that country. It is the student’s responsibility to submit all foreign and international transcripts tone of the international credential evaluation to be translated into English, evaluated on a course-by-course-basis, and sent directly to the receiving colleges. Contact your college admissions and records/enrollment services office to obtain a list of approved agencies.

- For military credit, credit by examination, credit by evaluation, and CLEP/AP/IB see the section for Credit For Prior Learning.

A. Transfer Credit from MCCCD and Established Articulation Agreements

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.

B. Articulation and Transfer Agreements:

- Maricopa Skill Center and Southwest Skill Center: The Maricopa Community Colleges have articulation 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 information related to these agreements.
• Arizona Public Community Colleges and Universities: Maricopa is a participant in the Arizona statewide transfer system. The azttransfer.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 azttransfer.com is the course equivalency guide (CEG), which shows how institutions have agreed to transfer coursework 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 directly how the course will apply to meet requirements for specific bachelor’s degrees. www.aztransfer.com/cgi-bin/WebObjects/Admin_CEG

• Domestic (U.S.) and International Institutions: The Maricopa Community Colleges have transfer agreements with U.S. universities and colleges that are regionally accredited as well as international institutions that have been approved by the Ministry of Education. These partnerships are formalized through district-wide articulation agreements and are designed to help students maximize their transfer credit toward a bachelor’s degree.

To access a list of institutions with which Maricopa has established articulation agreements, visit: www.maricopa.edu/academic/cta/artic/partner_list.php

C. Limitations on the Transfer of Credit:
Generally, the following types of courses are not intended for transfer. Contact the Admissions and Records office at your college 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

D. Time Limit for Transfer Coursework: Students should be aware other colleges and universities may have age of credit limits on certain coursework to be used in transfer. Students should refer to the policy of their intended transfer institution regarding time limits for transfer coursework.

E. Shared Unique Number (SUN) System Course Information: Senate Bill 1186, which passed into law in 2010, mandated the creation of a shared numbering system for public college and university courses in Arizona to identify courses that transfer from community colleges to universities toward a baccalaureate degree. The shared unique number (SUN) system is a college course numbering system designed to help students locate and enroll in courses that have direct equivalents for transfer among Arizona’s public community colleges and three state universities. However, even if a course at the Maricopa Community Colleges is not designated as a SUN course, it could still transfer to other Arizona public institutions with a direct equivalent as per the course equivalency guide on azttransfer.com. The SUN system does not address the applicability of courses. Students are encouraged to work with an academic advisor on course selections. To access a list of SUN courses, visit www.azsunsystem.com.

E. 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.

I. 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 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.)

A. 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.

B. Tuition and Fees Schedule (Effective July 1, 2012 for Fall, Spring and Summer Sessions)

Current information can be found at www.maricopa.edu/publicstewardship/governance/adminregs/appendices/S-4.htm
The following is the tuition and fees schedule for 2012-2013 and is provided for reference. These tuition and fees are subject to change. Consult the college’s Admissions and Records Office/Office of Student Enrollment Services for course fees in effect during the semester/term in which you intend to register. See Appendix S-4

Appendix S4: Tuition and Fees

Student Status

<table>
<thead>
<tr>
<th>2012-2013</th>
<th>Maricopa County Resident (In County)</th>
<th>Out of County Resident</th>
<th>Non-Resident Living in Arizona</th>
<th>Non-Resident Study Abroad Program</th>
<th>Non-Resident Distance Learning</th>
<th>Western Undergraduate Exchange (WUE)</th>
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<tbody>
<tr>
<td></td>
<td>IN-STATE</td>
<td>OUT-OF-STATE</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Credit Hours</td>
<td>A</td>
<td>B*</td>
<td>C**</td>
<td>D</td>
<td>E***/+</td>
<td>F</td>
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<td>3,528.00</td>
<td>3,870.00</td>
<td>2,052.00</td>
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</table>

* Students from any other county in Arizona are considered Maricopa County Residents (in county) due to a reciprocal arrangement with that county. Reciprocal agreements allow for in-county tuition rates for residents of all Arizona counties *except* Apache and Greenlee counties without an Out-of-County Residence Affidavit.

** According to ARS §15-1802F, "A person who is a member of an Indian tribe recognized by the US Department of the Interior whose reservation lies in this state and extends into another state and who is a resident of the reservation is entitled to classification as an in-state student." Therefore, unclassified and out-of-state surcharges do not apply to such students.

*** According to ARS §15-1470, community college districts may offer credit and noncredit courses and services outside of this state. A district is not entitled to state aid payments for students who are provided courses and services outside of this state.

† This rate applies to out-of-state students who are taking distance learning courses or students who are taking classroom-based credit courses through a contract agreement between MCCCD and the company they work for. This rate does not apply to Study Abroad Programs as there is a separately calculated rate for those students.
1. 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.

2. 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.

3. Add Any Additional Fees
   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.
   There may also be additional course fees for classes; please refer to the college schedule for course fees.
   If you choose to audit a class, add an additional fee of $25 per credit hour.
   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.

4. 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.

Skill Center Tuition Rates
   Regular $5.00 per contact hour
   Nursing Assistant $5.60 per contact hour
   Practical Nursing $5.60 per contact hour

Credit by Examination & Credit by Evaluation (exclude Allied Health courses)
   Regular Rate $74.00 per credit hour
   Contract Rate $37.00 per credit hour

C. 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:
1. The designated college official or fiscal officer is responsible for:
   a. Verifying the student’s district wide debt,
   b. Attempting to notify the student of the debt, and
   c. Attempting to collect the debt.

2. All Maricopa Community College services will be withheld pending payment of debt (at designated college office) with certified check or money order or online with debit or credit card or in person with credit card. Student may be withdrawn from classes.

3. If other collection attempts fail, the Maricopa Community Colleges District Office will either collect or use other means available, including:
   a. Collection agency, requiring payment of collection fees by the student;
   b. The Tax Refund Setoff Programs as stated in A.R.S. §42-1122;
   c. Litigation, requiring payment of court costs and legal fees by the student.

4. 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:
   a. MCCCD staff verify that full payment has been made to another College;

   b. 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);

   c. A third party not related to the student, such as an employer or state agency, makes a verified payment directly to the College;

   d. 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.

D. Discounted Fees and Waivers
1. 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.

2. 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 Interest Community Services courses are not waived.

3. 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)

A. 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. Never attending is not an allowable refund exemption or an excuse of the debt incurred through registration.

<table>
<thead>
<tr>
<th>LENGTH OF CLASS</th>
<th>OFFICIAL WITHDRAWAL DEADLINES FOR 100% REFUND*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-9 calendar days</td>
<td>Prior to the class start date</td>
</tr>
<tr>
<td>10-19 calendar days</td>
<td>1 calendar day including the class start date</td>
</tr>
<tr>
<td>20-29 calendar days</td>
<td>2 calendar days including the class start date</td>
</tr>
<tr>
<td>30-39 calendar days</td>
<td>3 calendar days including the class start date</td>
</tr>
<tr>
<td>40-49 calendar days</td>
<td>4 calendar days including the class start date</td>
</tr>
<tr>
<td>50-59 calendar days</td>
<td>5 calendar days including the class start date</td>
</tr>
<tr>
<td>60-69 calendar days</td>
<td>6 calendar days including the class start date</td>
</tr>
<tr>
<td>70+ calendar days</td>
<td>7 calendar days including the class start date</td>
</tr>
</tbody>
</table>

* 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.

B. 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.

C. Canceled Classes

When a class is canceled by the college, a 100% refund will be made.

D. 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 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.

- 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.

- Death of a student. Appropriate documentation must be provided before a refund can be given.

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.

Request 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. All decisions made at the college are final.

Limitation: Never attending is not an allowable refund exception or an excuse of the debt incurred through registration.

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...
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. Only those with a lawful presence in the United States may qualify for federal financial aid or Maricopa County Community College District (MCCCD) scholarships. Under Arizona Law, any information the student provides about his or her legal status when applying for financial aid or publicly funded scholarships may be subject to mandatory reporting to federal immigration authorities. This does not apply to applications for the private scholarship funds held in and distributed by the Maricopa Community Colleges Foundation.

The office of financial aid may request to have the validity of a student’s high school completion evaluated if either the college or the United States Department of Education has reason to believe that the high school diploma is not valid or was not obtained from an entity that provides secondary school education. An evaluation may be conducted on the basis of any of the following:

- Alerts, bulletins, or similar communications provided by any state, federal, or other governmental agency, another institution, a professional or similar organization, or any other resource that might provide information helpful to the evaluation;
- A transcript or other record received from another institution the student may have attended;
- The contents of the student’s Free Application for Federal Aid, student information form, or any other information the student provides to the college;
- The independent professional judgment by any official of the office of student financial aid.

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 opportunities. 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.

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.

Verification of Information

1. A Free Application for Federal Student Aid (FAFSA) or a change to that FAFSA may be selected for verification. If a student’s FAFSA is selected for verification, the student will be notified via the Student Center in my.maricopa.edu. In most cases, the student will be required to submit documentation as part of the verification process. The earlier the Financial Aid Office receives the required documentation as part of the verification process. The earlier the Financial Aid Office receives the required documentation, the earlier the student’s eligibility for financial aid can be determined. The verification
process must be completed no later than 120 days after the last
date of enrollment or August 31, whichever comes first. In
addition, the Financial Aid Office must receive a final and valid
electronic SAR by the student’s last day of enrollment or June
30 of the award year, whichever comes first. The verification
process must be completed before the Financial Aid Office can
award any federal aid.

2. If an award has already been made and a FAFSA is selected for
verification, the student must provide required documentation
within thirty days after it has been requested of the student
or on June 30, whichever comes first. If documentation is
not received within this deadline, the student’s award may be
adjusted or canceled.

3. The required forms and documents a student submits for
verification will be compared to the information reported
on the student’s FAFSA. If the information provided does
not match what is shown on the FAFSA, the Financial
Aid Office will submit changes to the US Department of
Education FAFSA processor. After all changes are made to the
FAFSA data, the student’s eligibility for financial aid will be
reviewed. If there are any changes to the student’s financial
aid eligibility as a result of verification, the student will be
notified by means of the Student Center in my.maricopa.edu.
If, following verification, the institution discovers evidence
of student aid fraud (including identity theft), waste or abuse
of US Department of Education funds such evidence may be
referred to the Office Inspector General of the US Department
of Education.

Maricopa Community Colleges Standards
of Satisfactory Academic Progress (SAP) for
Financial Aid Eligibility

Federal regulations (cfr 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. Students will be evaluated
using the standards described below. Failure to meet any of
these minimum standards will result in loss of title iv, hea
program (federal financial aid) eligibility.

Evaluation period

Standards of satisfactory academic progress (sap) will be
evaluated at the end of each semester; fall, spring and summer.
Programs less than one year in length will be evaluated at
the midpoint of the program. Non-standard sessions will be
evaluated at the completion of the session.

Standards of satisfactory academic progress

Standards of satisfactory academic progress (sap) are evaluated
on each of the three measurements outlined below. Failure
to meet any of these standards will result in suspension of
eligibility for financial aid.

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.

- Grade point measurement
  Students must meet the following credit hour/cumulative
  grade point average (cgpa).

  TOTAL CREDITS ATTEMPTED*   MIN CGPA
  <15.75        1.60
  16-30.75      1.75
  31-45.75      1.90
  46+          2.00

  *for which grade points are computed

- Pace of Progression Measurement
  Students must successfully complete 2/3 (66.67%) of all
  attempted course work.

- Maximum Time Frame Measurement
  Students who have attempted more than 150% of the
  published credits required for their program of study are
  considered not meeting SAP

Coursework treatment in SAP calculation. Course work taken
during the semester also included in the evaluation:
Courses funded through a consortium agreement
• All attempted remedial credits
• Repeated course work

Course work included in the maximum time frame evaluation:
• All of those included in the semester evaluation
• All evaluated transfer credits
• Any associates degree or higher earned will be considered to have exhausted maximum timeframe eligibility

Course work not included in SAP evaluation:
• Audited courses
• Non-credit courses
• Credit by examination
• Credit for prior learning option (as outlined in the college general catalog)

Notification
Students that have applied for federal assistance, but who do not meet the standards, will be notified. This notification will direct students to information regarding the appeal process.

Ineligibility determination appeal
Any student who has lost financial aid eligibility due to extenuating circumstances may appeal. Appeal must:
• Be in writing and submitted to the financial aid office where the student is applying for aid.
• Include the extenuating circumstances that caused the student not to meet sap standards.
• Include appropriate supporting documentation.
• Include how that condition or situation has been resolved thus allowing the student the ability to meet sap standards.

Students will be notified of the results of their appeal and any restrictions or conditions pertaining to their appeal. The outcome of an appeal may include a probationary term or denial.

Failure to successfully complete all conditions during the probationary period (as defined in the academic plan) will result in loss of financial aid eligibility.

Regaining eligibility
A student who has lost financial aid eligibility may only regain eligibility by meeting the minimum sap standards. Course work taken at other colleges will not be considered for reinstatement purposes.

Terminology and information pertaining to this policy
• Summer sessions - enrollment in any or all summer sessions within the same calendar year will be considered one term.
• Non-standard session - sessions that do not follow the traditional start and end dates for the semester.
• Attempted credit – any credit for which a grade of a, b, c, d, f, i, ip, p, w, x, y, or z is received.

Appeal – “a process by which a student who is not meeting the institution’s satisfactory academic progress standards petitions the institution for reconsideration of the student’s eligibility for title iv, hea program assistance.”

Extenuating circumstance – examples are: personal injury or illness, serious illness or death within the immediate family, or other circumstance beyond the reasonable control of the student.

Supporting documentation – examples could include: an obituary notice, divorce decree, an accident report, or a letter from a physician, attorney, social services agency, etc.

Financial aid probation - “a status assigned by an institution to a student who fails to make satisfactory academic progress and who has appealed and has had eligibility for aid reinstated.” A student in this status “may not receive title iv, hea program funds for the subsequent payment period unless the student makes satisfactory academic progress or the institution determines that the student met the requirements specified by the institution in the academic plan for the student.”

Academic plan – a plan developed through the sap appeal process which will lead a student to qualify for further title iv, hea program funds.

Financial aid suspension – the status assigned upon failing to meet the minimum sap standards or the terms of a probationary status. Students in this status are not eligible to receive title iv, hea assistance.

For more information, please contact the college Financial Aid Office.

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 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
- Chapter 1607 - REAP Reserve Educational Assistance Program

It is the student’s responsibility to notify the office that serves veterans at his/her 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 Point 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+ 2.0

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)
A credit hour is defined as an amount of work represented in course competencies and verified by evidence of student achievement that reasonably approximates not less than one hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work each week for approximately fifteen weeks for one semester hour of credit, or the equivalent amount of work over a different amount of time, or at least an equivalent amount of work for other academic activities, including laboratory work, internships, practicum, studio work, and other academic work leading to the award of credit hours. In accordance with common practice in higher education, instruction representing a credit hour is typically delivered in a fifty-minute class period.

Students carrying at least twelve (12) credit hours will be considered full-time students for the fall and spring semesters. Three-quarter-time is 9–11.9 credit hours. Halftime 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.

A. Official Absences
- 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.

- 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.

- In the event of military commitments. Absences for periods of up to one week will not be counted against the number of absences allowed by an instructor or department. The student is required to provide appropriate documentation of the specific orders, length of assignment and location. Prior notification must be initiated with each instructor to discuss make-up work. If the length of the absence will be longer than one week, the instructor and the student will determine whether there is sufficient opportunity for the student to make up the work. If it is determined that the length of absence for the military commitment provides an undue hardship on the student’s ability to make up the assignments, he or she will be provided an opportunity to request an incomplete grade or drop the class or, in the case of open-entry classes, the opportunity to request an extension.

- 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.

B. 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)**

A. 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**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Points Per Credit Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Excellent</td>
<td>4</td>
</tr>
<tr>
<td>B Above Average</td>
<td>3</td>
</tr>
<tr>
<td>C Average</td>
<td>2</td>
</tr>
<tr>
<td>D Passing</td>
<td>1</td>
</tr>
<tr>
<td>F Failure</td>
<td>0</td>
</tr>
<tr>
<td>I Incomplete</td>
<td>Not computed in grade point average</td>
</tr>
<tr>
<td>IP Course In Progress</td>
<td>Not computed in grade point average</td>
</tr>
<tr>
<td>N Audit</td>
<td>Not computed in grade point average</td>
</tr>
<tr>
<td>P Credit</td>
<td>Not computed in grade point average</td>
</tr>
<tr>
<td>W Withdrawn, passing</td>
<td>Not computed in grade point average</td>
</tr>
<tr>
<td>Y Withdrawn, failing</td>
<td>0 grade point per credit hour</td>
</tr>
<tr>
<td>Z No Credit</td>
<td>Not computed in grade point average</td>
</tr>
</tbody>
</table>

* A “P” is judged to be equivalent to a grade of C or higher.

B. Incomplete Grade
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.

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.
C. 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.

D. Credit/No Credit Courses (P/Z)
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).

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”.

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.

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.

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.

E. Audit Courses
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.

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”.
<table>
<thead>
<tr>
<th>Class Length</th>
<th>Deadline for Students to Withdraw with Guaranteed Grade of W</th>
<th>Deadline for Students to Withdraw From a Course (Instructor Signature Required)</th>
<th>Deadline for Students to Request Complete Withdrawal</th>
<th>Deadline to Change Type of Grading (A-F to P/Z, or P/Z to A-F)</th>
<th>Deadline to Change from Audit Grade to Credit Grade</th>
<th>Deadline to Change from Credit Grade to Audit Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Week or less (1 to 7 days)</td>
<td>1st Day of Class</td>
<td>1st Day of Class or Prior to the Last Day of Class</td>
<td>1st Day of Class or Prior to the Last Day of Class</td>
<td>1st Day of Class</td>
<td>1st Day of Class</td>
<td>1st Day of Class</td>
</tr>
<tr>
<td>Two Weeks (8 to 14 days)</td>
<td>3rd Calendar Day</td>
<td>6th Calendar Day</td>
<td>6th Calendar Day</td>
<td>1st Day of Class</td>
<td>1st Day of Class</td>
<td>3rd Calendar Day</td>
</tr>
<tr>
<td>Three Weeks (15 to 21 Days)</td>
<td>6th Calendar Day</td>
<td>12th Calendar Day</td>
<td>2nd Calendar Day</td>
<td>1st Day of Class</td>
<td>5th Calendar Day</td>
<td></td>
</tr>
<tr>
<td>Four Weeks (22 to 28 days)</td>
<td>9th Calendar Day</td>
<td>17th Calendar Day</td>
<td>3rd Calendar Day</td>
<td>2nd Calendar Day</td>
<td>7th Calendar Day</td>
<td></td>
</tr>
<tr>
<td>Five Weeks (29 to 35 days)</td>
<td>12th Calendar Day</td>
<td>23rd Calendar Day</td>
<td>4th Calendar Day</td>
<td>2nd Calendar Day</td>
<td>9th Calendar Day</td>
<td></td>
</tr>
<tr>
<td>Six Weeks (36 to 42 days)</td>
<td>14th Calendar Day</td>
<td>29th Calendar Day</td>
<td>9th Calendar Day</td>
<td>3rd Calendar Day</td>
<td>11th Calendar Day</td>
<td></td>
</tr>
<tr>
<td>Seven Weeks (43 to 49 days)</td>
<td>17th Calendar Day</td>
<td>35th Calendar Day</td>
<td>5th Calendar Day</td>
<td>3rd Calendar Day</td>
<td>12th Calendar Day</td>
<td></td>
</tr>
<tr>
<td>Eight Weeks (50 to 56 days)</td>
<td>20th Calendar Day</td>
<td>41st Calendar Day</td>
<td>6th Calendar Day</td>
<td>3rd Calendar Day</td>
<td>15th Calendar Day</td>
<td></td>
</tr>
<tr>
<td>Nine Weeks (57 to 63 days)</td>
<td>23rd Calendar Day</td>
<td>46th Calendar Day</td>
<td>7th Calendar Day</td>
<td>4th Calendar Day</td>
<td>17th Calendar Day</td>
<td></td>
</tr>
<tr>
<td>Ten Weeks (64 to 70 days)</td>
<td>26th Calendar Day</td>
<td>52nd Calendar Day</td>
<td>8th Calendar Day</td>
<td>4th Calendar Day</td>
<td>19th Calendar Day</td>
<td></td>
</tr>
<tr>
<td>Eleven Weeks (71 to 77 days)</td>
<td>29th Calendar Day</td>
<td>58th Calendar Day</td>
<td>9th Calendar Day</td>
<td>5th Calendar Day</td>
<td>21st Calendar Day</td>
<td></td>
</tr>
<tr>
<td>Twelve Weeks (78 to 84 days)</td>
<td>32nd Calendar Day</td>
<td>63rd Calendar Day</td>
<td>10th Calendar Day</td>
<td>5th Calendar Day</td>
<td>23rd Calendar Day</td>
<td></td>
</tr>
<tr>
<td>Thirteen Weeks (85 to 91 days)</td>
<td>35th Calendar Day</td>
<td>70th Calendar Day</td>
<td>10th Calendar Day</td>
<td>5th Calendar Day</td>
<td>25th Calendar Day</td>
<td></td>
</tr>
<tr>
<td>Fourteen Weeks (92 to 98 days)</td>
<td>38th Calendar Day</td>
<td>76th Calendar Day</td>
<td>11th Calendar Day</td>
<td>6th Calendar Day</td>
<td>27th Calendar Day</td>
<td></td>
</tr>
<tr>
<td>Fifteen Weeks (99 to 105 days)</td>
<td>41st Calendar Day</td>
<td>82nd Calendar Day</td>
<td>12th Calendar Day</td>
<td>6th Calendar Day</td>
<td>28th Calendar Day</td>
<td></td>
</tr>
<tr>
<td>Sixteen Weeks or more (106 or more days)</td>
<td>End of the seventh week</td>
<td>Two weeks before the last class period</td>
<td>Two weeks before the last class period</td>
<td>Within 14 days including the first class period</td>
<td>Within first week of class</td>
<td>Within first five weeks</td>
</tr>
</tbody>
</table>

Deadlines are based on calendar days and begin with the first day of class. Deadlines that fall on a weekend or holiday advance to the next college work day.
ACADEMIC PROBATION (PROGRESS) (AR 2.3.4)

A. Probation

A student will be placed on academic probation after completion of twelve (12) or more credit hours if the student’s cumulative grade point average is less than:

<table>
<thead>
<tr>
<th>Credit Hours for which Grade Points are Computed at Resident Maricopa Community College (A, B, C, D, F, and Y)</th>
<th>Minimum Grade Point Average</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-15</td>
<td>1.60</td>
<td>1.60</td>
</tr>
<tr>
<td>16-30</td>
<td>1.75</td>
<td>1.75</td>
</tr>
<tr>
<td>31-45</td>
<td>1.90</td>
<td>1.90</td>
</tr>
<tr>
<td>46 +</td>
<td>2.00</td>
<td>2.00</td>
</tr>
</tbody>
</table>

(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.

B. 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 the 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.
Non-Instructional Complaint Resolution Process (AR 2.3.12 and Appendix S-8)

A student who feels that he or she has been treated unfairly or unjustly by any employee with regard to a non-instructional process such as a student or administrative services has the right to file a formal and written complaint according to the approved procedures. See Appendix S-8

Steps for students to follow:

1. Discuss the issue with the employee involved. The student should request this conference within fifteen (15) working days from the time the student knew or reasonably should have known about the unfair or unjust treatment.

2. If, within ten (10) working days of the request for the conference with the employee, the problem is not resolved or the employee has been unable to meet with the student, the student may continue the process by filing a written complaint with the appropriate supervisor of the employee where authority exists to take corrective action. This written complaint must be filed within ten (10) working days following the previous deadline. The written complaint will be given to the employee five (5) working days before any official meetings are convened.

3. Upon receipt of a written complaint, the appropriate supervisor will work with the parties in an attempt to resolve the conflict. Every attempt will be made to maintain confidentiality during this process. An employee will not be required to respond to a complaint which is not in writing and which, when appropriate, does not have specific documentation including dates, times, actions, supporting documents, etc. The written complaint will be made available to the employee.

4. If the complaint is not resolved at this level within ten (10) working days, the student should forward to the or appropriate college/center dean and/or associate dean, a copy of the original written complaint with an explanation regarding action taken at each prior level. The dean and/or associate dean will meet with the student, the employee, and the relevant supervisor and attempt to resolve the issues.

5. If the associate dean and/or dean do not resolve the complaint, the student may forward it in writing to the college president for final resolution. The college president or designee will issue a final written determination in the complaint process.

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)

A. Withdrawal from Specific Courses

A student may officially withdraw from specific courses in the following ways:

1. 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.

2. 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, failing—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.

3. 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.

**B. 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*. 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.

**C. 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.

A. 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.

B. 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.

C. All course work will remain on the student’s permanent academic record, ensuring a true and accurate academic history.

D. The academic renewal policy may be used only once at each college and cannot be revoked once approved.

E. 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.

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)

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.

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.

Each college has designated its vice president for student affairs as Title IX Coordinator, and student complaints of sexual harassment must be reported to him or her. Sexual violence against employees is prohibited by Title VII of the Civil Rights Act of 1964. Employee complaints of sexual harassment must be reported to the District Office of Equity, Opportunity, and Engagement.

Sexual harassments is unwelcome, verbal, or physical conduct of a sexual nature that is sufficiently severe, persistent, or pervasive that it alters working conditions and creates a hostile environment for employees, or that it unreasonably interferes with, limits, or deprives a student of the ability to participate in or benefit from any MCCCD educational program or activity. The unwelcome behavior may be based on power differentials, the creation of a hostile environment, or retaliation for sexual harassment complaints. Sexual harassment by and between, employees; students; employees and students; and campus visitors and students or employees, is prohibited by this policy.

Due process is afforded any employee, student, or visitor accused of sexual harassment. On receipt of a complaint, an immediate preliminary investigation will be conducted to determine if there is reasonable cause to believe the nondiscrimination policy has been violated. If so, then a prompt, thorough, impartial investigation will be conducted by the authorized administrator. If the final decision is that sexual harassment occurred, the college will take immediate action to eliminate the hostile environment, prevent its recurrence, and address its effects. Remedies for the complainant will also be sought. 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. Other sexual misconduct may include sexual exploitation, stalking, and gender-based bullying.

8. Treat a complainant or witness of sexual harassment in a manner that could dissuade a reasonable person from pursuing or participating in the complaint and investigation.

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.

USE OF COLLEGE GROUNDS BY NON-MCCCD-AFFILIATED USERS (AR 2.4.9)

In contrast to traditional public forums such as a public square, park, or right of way, Maricopa’s campuses are dedicated by law to the purpose of formal education. They are, and have been since their creation, for the use and benefit of prospective and enrolled students, the Maricopa employees who serve them, and those who are invited to campus by members of the College community to attend or participate in sponsored events. The Maricopa County Community College District (MCCCD) has a long history of regulating the time, place, and manner in which expressive activities are conducted on campuses, for the purposes of avoiding disruption or interference with its educational activities, and protecting the rights of the members of the campus community and their invited guests to express themselves and access information. While members of the general community always have been welcome to share their ideas with the campus community, they are subject to reasonable, content-neutral regulation of the time, place and manner of the event and to the institution’s mission-based priorities – including but not limited to the need to provide an environment conducive to teaching and learning.

Policy

This administrative regulation governs use of the campus grounds, defined as the open areas and walkways of the campus by non-MCCCD-affiliated users. Use of campus buildings is governed by a separate administrative regulation. Parking lots are not available for events and activities other than those sponsored and authorized by the College president.

Camping is not permitted anywhere on the campuses. Camping is defined as the use of campus grounds or facilities for living accommodations or housing purposes such as overnight sleeping or making preparations for overnight sleeping (including the laying down of bedding for the purpose of sleeping), the making of any fire for cooking, lighting or warmth, or the erection or use of tents, motor vehicles, or other structures for living or shelter. These activities constitute camping when it reasonably appears, in light of all the circumstances, the participants conducting these activities intend to use or are using the facilities or grounds for living accommodations or housing, regardless of the duration or other purpose of the use.

Lawful use of college grounds for events or expressive activities by individuals, groups, and organizations may be authorized by college officials when the events and activities are lawful and consistent with the non-profit, educational nature of the campus, authorized and conducted in accordance with MCCCD policies, administrative regulations and priorities, and compliant with reasonable restrictions as to time, place, and manner. The content of the expression will not be a factor in authorizing, locating, or scheduling decisions. However, events and activities will not be permitted to disrupt or obstruct the teaching, research, or administrative functioning of the College by means of physical obstacles and crowds, by the creation of sound or noise that would interfere with teaching, learning, and the conduct of College business, or by any other means. Each College president will designate a Responsible Campus Official with delegable authority to approve, locate, and schedule use of college grounds.

Permit Application: Any non-MCCCD-affiliated organization, group, or individual desiring to use campus grounds for an event or activity must submit a request form to the Responsible Campus Official in advance of the use date.

If the activities proposed in the application are limited to low-impact, non-commercial activities the request form shall be submitted at least two business days in advance of the expected use date. For purposes of this administrative regulation, “low-impact, non-commercial activities” are defined as: (1) activities that do not seek to sell or promote a product or service for direct or indirect financial gain; (2) activities that are limited to gatherings of five people or less at any given time; and (3)
activities that do not involve machinery, temporary structures, tables, chairs, displays or electronic equipment, including amplifiers, or the distribution of food products.

For events that are not low-impact, non-commercial activities, the request form shall be submitted at least seven business days before the expected use. The additional advance time is required to allow the College to prepare for conditions that may affect the flow of foot traffic, involve signs and displays, create crowds, involve significant numbers of participants, or require the use of significant amounts of space and/or use of equipment and resources.

Designated Areas: Because each College has a limited amount of outdoor space, activities and events sponsored by non-MCCCD-affiliated users, including speech and literature distribution, shall be restricted to designated areas. For each College, the Responsible Campus Official shall establish specific designated areas for such activities. A written description of these areas shall be maintained at the office of Student Life and Leadership for each College. Consistent with the goal of providing a healthy, comfortable, and educationally productive environment, the Responsible Campus Official should attempt to locate the designated areas in prominent locations on campus where there is a likelihood of significant pedestrian traffic. The designated areas shall not be located in building stairways and entryways, parking lots, or congested areas. The Responsible Campus Official will make every effort to assign users to their requested space when a specific space is desired. However, in order to ensure the potential success of all scheduled events, the College reserves the right to assign an event or activity to the area the College deems most appropriate in light of the campus capacity, other activities scheduled, and the type of event or activity being planned.

Use Fees and Proof of Insurance: To offset the costs associated with the use of campus grounds, non-MCCCD-affiliated users shall be required to pay a fee of $50 per day or $125 per week. In order to protect the health and safety of College students, faculty and staff and to protect MCCCD resources, non-MCCCD-affiliated users shall also be required to provide proof of insurance that indicates at least $1 million in general liability coverage and names MCCCD as an additional insured for the anticipated use date.

The fee and proof-of-insurance provisions of this administrative regulation shall not be applied to low-impact, non-commercial users. A user may request designation as a low-impact, non-commercial user from the applicable College’s Responsible Campus Official. Any questions or comments about the criteria for approval or denial of such request shall be directed to the District Ombudsman.

Permits: The approved request form will describe the location of the authorized activity and any other restrictions specific to the event. Violation of the terms of the approved request form, District policy, administrative regulation or law shall be grounds for immediate revocation of the permit, and the individual violators and their organizations may be banned from the campus.

Priorities and Criteria for Approval of Permits: The content or subject of the proposed expressive activity or event will not affect approval of the application. Availability of space is not guaranteed. Reservations shall be approved on a space-available basis and will be addressed on a first-come-first served basis, subject to the following priorities and criteria for the use and scheduling of space on campus grounds:

Scheduling Priorities (in order):
A. The use of facilities and grounds for the operations of the College. For example, there are times when the campus is unusually crowded by members of the campus community, such as registration and orientation at the beginning of the semester. Other uses may reasonably be precluded during those times.
B. Activities and events sponsored by the College administration.
C. Activities and events sponsored by MCCCD student organizations or employee groups.
D. Activities of non-MCCCD-affiliated individuals and organizations.
E. Commercial advertising or activities.

Criteria:
Capacity of campus grounds to accommodate the number of participants at the scheduled time and proposed location.
Capacity of Campus Safety staff to provide security for all events and activities scheduled at the time.
Possible interference or conflict with College operations or other scheduled activities and events on the grounds.
General feasibility of hosting the event as proposed.

Other Policies: This administrative regulation will be applied in conjunction and coordination with all other MCCCD policies and administrative regulations and College processes and procedures, including but not limited to regulations on facilities use, signage, sales of alcohol and/or food, and solicitation of donations.

Specific procedures on how to implement the Use of Campus Grounds regulation can be found in Appendix S-15
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)**

The Maricopa County Community College District (MCCCD) provides its students, employees, Governing Board members and the public with access to information resources and technologies. MCCCD 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.

Arizona constitutional and statutory mandates require that MCCCD resources, including technology, be used only for the public’s business, and not for private purposes. Those mandates apply to all MCCCD public officials–employees of every kind and the Governing Board. The aim of those laws is to safeguard the use of resources, including technology resources, acquired and maintained with public funds. Compliance with other laws–both federal and state–also dictates the need for standards for the use of MCCCD technology resources. In some cases, the Governing Board policies emphasize the importance of compliance with the law such as the requirement to adhere to copyright laws. Governing Board policies also establish MCCCD’s own standards, such as the directive that all persons within the MCCCD community be treated in a manner that is humane, fair, and dignified.

This administrative regulation establishes standards for the use of MCCCD technology resources. They should be seen as supplementing, and not in lieu of, Governing Board policy, applicable law and other applicable administrative regulations such as Administrative Regulation 4.3, “Electronic Communications.”

**General Responsibilities**

Technology resources (including, but not limited to, desktop and laptop systems, printers, central computing facilities, MCCCD-wide or college-wide networks, local-area networks, telephones, facsimile machines, scanners, access to the Internet, electronic mail and similar electronic devices and information of MCCCD are available to MCCCD Governing Board members, employees, students and, in a limited number of cases, MCCCD contractors and the public. Use of all those resources is subject to the standards set forth in this regulation (Standards).

The first screen that each MCCCD computer exhibits on starting up advises users of these Standards and requires an acknowledgment before the user may proceed to the next screen. Additionally, all MCCCD employees are responsible for annually acknowledging receipt of the Blue Book, which contains this regulation. So, all users of MCCCD technology resources are presumed to have read and understood the Standards. While the Standards govern use of technology resources MCCCD-wide, an individual community college or center may establish guidelines for technology resource usage that supplement, but do not replace or waive, these Standards.
Use of Non-MCCCD Technology

Under Arizona’s public records law, MCCCD is required to transact business so that its records are accessible and retrievable. The policy underlying the law is that work done in the name of the public be transparent, thus, any member of the public may request public records and, except in a few specific instances, are entitled to get copies of them.

Each individual employee or Governing Board member is responsible for ensuring that MCCCD records that he or she initiates or receives are retained for the period of time required by and disposed of according to mandates established by Arizona State Library, Archives and Public Records – the state agency tasked with setting standards for record retention. Therefore, an employee’s or Governing Board member’s use of non-MCCCD technology resources for communication of any type of MCCCD business is heavily discouraged because those records are less capable of being managed according to MCCCD’s process for ensuring retention, retrieval and disclosure set forth in Administrative Regulation 4.15, “Retrieval, Disclosure and Retention of Records.”

Additionally, an MCCCD employee who receives a communication allegedly from another MCCCD employee using a non-MCCCD e-mail address is not required to respond substantively to that e-mail. The employee receiving the e-mail is entitled to verify that the sender is whom he or she says that he or she is. The employee receiving the e-mail may request that the sender provide the information or inquiry set forth in the e-mail via hard-copy form.

Acceptable Use

Use of MCCCD’s technology resources, including websites created by MCCCD employees and students, is limited to educational, research, service, operational, and management purposes of MCCCD and its member institutions. Likewise, data, voice, images and links to external sites posted on or transmitted via MCCCD’s technology resources are limited to the same purposes.

Frequently, access to Maricopa’s technology resources can be obtained only through use of a password known exclusively to the MCCCD employees, Governing Board members, or students. It is those users’ responsibility to keep a password confidential. While MCCCD takes reasonable measures to ensure network security, it cannot be held accountable for unauthorized access to its technology resources by other persons, both within and outside the MCCCD community. Moreover, it cannot guarantee employees, Governing Board members, and students protection against reasonable failures. Finally, under certain limited circumstances defined in Administrative Regulation 4.15, “Retrieval, Disclosure and Retention of Records,” certain MCCCD employees are authorized to access information on an MCCCD technology device.

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.

Prohibited Conduct

Limited incidental personal use of MCCCD technology resources including through use of personal e-mail systems is permitted, except as described in item 16 under “prohibited conduct.” MCCCD employees are responsible for exercising good judgment about personal use in accordance with this regulation, local Colleges’ consistent local guidelines and MCCCD ethical standards. Personal use refers to activities which only affect the individual and that are not related to an employee’s outside business. MCCCD employees are required to conduct themselves in a manner which will not raise concern that they are or might be engaged in acts in violations of the public trust. Refer to the Guidelines for Incidental Computer Usage for the Maricopa Community Colleges (Appendix AS-8) and Guidelines for Incidental Telephone Usage for the Maricopa Community Colleges (AS-9).

Prohibited Conduct

The following is prohibited conduct in the use of MCCCD’s technology resources:

1. Posting to the network, downloading or transporting any material that would constitute a violation of MCCCD 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 resource 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.
15. Making personal long distance or other toll calls, except where the charges for the calls are incurred directly by the caller or arrangements are otherwise made at the time of the call to directly bill the caller.
16. Intermittent use of technology resources that interferes with the performance of an employee’s main responsibilities.
17. Use of technology resources to market or conduct other activities on behalf of a third party regarding the "hosting" of an event that is prohibited under MCCCD’s Use of College Facilities administrative regulation.
18. Conducting District or college-related business using any electronic mail account other than one hosted or provided by MCCCD, and approved by the Vice Chancellor of Information Technology Services, even when the email account copies all outgoing and incoming messages to the MCCCD hosted account.
19. Deleting or altering a technology public record in violation of public records retention requirements, or in anticipation of receiving or after receipt of a public records request, subpoena, or a complaint filed as part of an MCCCD grievance, investigation or review or other lawful request for the record.
20. Deleting or altering a technology record on an MCCCD device in anticipation or after receipt of a public records request, subpoena, or a complaint filed as part of an MCCCD grievance, investigation or review, or other lawful request for the record where the record may demonstrate a misuse of technology resources under this regulation.

Review and Approval of Alternate E-Mail Account Systems

The prior review and approval by the Vice Chancellor of Information Technology Services is required for the implementation of alternate college electronic mail account systems. Requests will be evaluated based upon the following considerations:

1. The system must be compatible and interoperable with the MCCCD e-mail system. All information within the e-mail system must meet the standards and authorize District Office access as specified in Administrative Regulation 4.15, “Retrieval, Disclosure and Retention of Records.”
2. Any proposed changes to an MCCCD’s entity’s e-mail system with e-discovery implications must be approved in advance during the planning stages as specified in Administrative Regulation 4.15, “Retrieval, Disclosure and Retention of Records.”

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.
Information Accuracy and Marketing Standards

In order to help ensure that the most accurate information sources are reflected on web pages, information should be cited, sourced or linked from the website of the official District or college custodian responsible for the particular subject. In addition, the design of web pages shall reflect established marketing standards with respect to the imaging and using of MCCCD marks as outlined in the marketing standards handbook and Use of Marks administrative regulation.

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 others, 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)

4. 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.

A. 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.

B. 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.

C. 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 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 of 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.

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.

Any issues that are not specifically addressed within this regulation require the review and determination by the Chancellor or Executive Vice Chancellor and Provost on matters related to culinary programs, academic or student affairs.

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 no 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 a 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.

SMOKE-FREE/Tobacco-Free Environment (AR 4.12)
The Maricopa County Community College District is dedicated to providing a healthy, comfortable, and educationally productive environment for students, employees, and visitors. In order to promote a healthy learning and work environment, the Chancellor has directed that the Maricopa County Community College District serve as a total smoke free and tobacco free environment, effective July 1, 2012. Smoking (including the use of “e-cigs”) and all uses of tobacco shall be prohibited from all District owned and leased property and facilities, including but not limited to parking lots, rooftops, courtyards, plazas, entrance and exit ways, vehicles, sidewalks, common areas, grounds, athletic facilities, and libraries.

Support signage prohibiting the use of smoking instruments and tobacco shall be placed throughout all college and District locations.

Continued violations by and employee or student shall be handled through the respective conduct procedures established for employees and students.

STATEMENT ON THE ARIZONA MEDICAL MARIJUANA ACT (PROPOSITION 203) (APPENDIX S-16)
In 2010, Arizona voters approved the Arizona Medical Marijuana Act (Propositions 203), a state law permitting individuals to possess and use limited quantities of marijuana for medical purposes. Because of its obligations under federal law, however, the Maricopa Community Colleges will continue to prohibit marijuana possession and use on campus for any purpose.

Under the Drug Free Workplace Act of 1988, and the Drug Free Schools and Communities Act of 1989, “…no institution of higher education shall be eligible to receive funds or any other form of financial assistance under any federal program, including participation in any federally funded or guaranteed student loan program, unless it has adopted and
has implemented a program to prevent the use of illicit drugs and abuse of alcohol by students and employees.” Another federal law, the Controlled Substances Act, prohibits the possession, use, production, and distribution of marijuana for any and all uses, including medicinal use. This law is not affected by the passage of the Arizona Medical Marijuana Act. Because Maricopa Community Colleges could lose its eligibility for federal funds if it fails to prohibit marijuana, it is exempt from the requirements of the Arizona Medical Marijuana Act. Therefore, Maricopa Community Colleges will continue to enforce its current policies prohibiting the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance on its property or as part of any of its activities.

Employees and students who violate Maricopa Community Colleges policy prohibiting the use or possession of illegal drugs on campus will continue to be subject to disciplinary action, up to and including expulsion from school and termination of employment.

**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 Resources and Services (DRS) office or designated professional.

**GENERAL ELIGIBILITY REQUIREMENTS**
DRS applicants must be admitted or enrolled as an MCCCD student, and must provide the Disability Resources and Services (DRS) office with qualifying disability documentation, verifying the nature and extent of the disability prior to receiving any accommodation.

**WHO IS ELIGIBLE FOR SERVICES?**
To be eligible for DRS support services, a student must have a disability as it is defined by federal LAW (section 504 of the 1973 Rehabilitation Act, the Americans with Disabilities Act OF 1990 (ADA), and the Americans with disabilities act amendments ACT of 2008 (ADAAA)).

Definitions:

- Disability: A disability is any physical or mental condition WHICH causes substantial limitation to the ability to perform one or more major life activities.

- Reasonable accommodation: Reasonable accommodation is the provision of an auxiliary aid or modification to the course or program which will allow access to the job duties, the educational process, program and degree, or activity. The ADA requires an institution of higher education to provide reasonable accommodations to a qualified individual with a disability provided that accommodation does not:
  - Fundamentally alter the basic nature or essential elements of a course, program, or activity
  - Pose a health or safety RISK TO others; the student may choose to assume risk to self
  - SUBSTANTIALLY ADVERSELY affect the manner in which the course is taught
  - Create an undue financial or administrative burden on the institution

**Documentation can be transferred within MCCCD for current consideration for eligibility.**
**DETERMINATION MADE by another institution or organization does not guarantee eligibility.**

**Special Considerations**
The DRS Office is responsible for evaluating documentation and determining accommodation eligibility. All situations shall be considered on an individual, case-by-case basis. DRS may exercise its right to require additional documentation.

Reasonable accommodation is required for students with known disabilities. MCCCD is not required to provide “best” or “most desired” accommodations but rather a reasonable accommodation sufficient to meet accessibility needs. Ideally, the reasonable accommodations should be the product of an interactive exchange with the student, doctors office, and instructors.

**Documentation Guidelines**
Students requesting accommodations must provide documentation of their disability. Documentation consists of an evaluation prepared by a trained and qualified professional that identifies:

- current level of functioning
- current documentation
- all standardized testing must use adult-normed instruments
- age of the documentation may vary for some disabilities, provided the presence of a substantial limitation(s) is adequately established
- how the disability impacts the student’s learning
- contain information supportive of the student’s request for specific academic support, auxiliary aids, and accommodations
SPECIFIC ELIGIBILITY REQUIREMENTS

1. Physical Learning Disabilities
   A. Required Documentation
      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, BUT NOT LIMITED TO:
      i. Orthopedic Disability
      ii. Blind or Visual Impairment
      iii. Deaf or Hard-of-Hearing
      iv. Traumatic Brain Injury
      v. Other Health-Related/Systemic Disabilities
   B. Diagnostic Report
      The Written Diagnostic Report Must Include:
      i. A clear disability diagnosis, history AND the date of diagnosis.
      ii. A description of any medical and/or behavioral symptoms associated with the disability.
      iii. Medications, dosage, frequency, and any adverse side effects attributable to use.
      v. A recommendation for accommodation(s).

2. Specific Learning Disabilities
   A. Required Documentation
      Submit a written diagnostic report of specific learning disabilities that is based on AGE 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:
      i. Aptitude evaluation must contain a complete intellectual assessment, with all sub-tests and standard scores reported.
      Examples of Measures (INCLUDING BUT NOT LIMITED TO):
         1. Wechsler Adult Intelligence Scale (WAIS-R)
         2. Stanford Binet Intelligence Scale
         3. Woodcock-Johnson Psycho-Educational Battery
         4. Kaufman Adolescent And Adult Intelligence Test
      ii. Academic Achievement: 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 area(s)
         EXAMPLES OF Achievement (INCLUDING BUT NOT LIMITED TO):
         1. Wechsler Individual Achievement Tests (WIAT)
         2. Woodcock-Johnson Psycho-Educational Battery
         3. Stanford Test of Academic Skills (TASK)
         4. Scholastic Abilities Test for Adults (SATA)
      iii. Information Processing: 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 Achievement (INCLUDING BUT NOT LIMITED TO):
         1. Wechsler Individual Achievement Tests (WIAT)
         2. Woodcock-Johnson Psycho-Educational Battery
         3. Stanford Test of Academic Skills (TASK)
         4. Scholastic Abilities Test for Adults (SATA)
   B. Diagnostic Report
      The diagnostic report must include the following information:
      i. 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.
      ii. A list of all instruments used in the test battery.
      iii. Discussion of test behavior and specific test results.
      iv. A diagnostic summary OR statement with the following information:
         1. DSM-IV, INCLUDING ALL FIVE AXES.
         2. 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.
         3. A clear statement specifying the substantial limitations to one or more major life activities.
         4. A psychometric summary of scores.
         5. A recommendation for accommodations, including rationale.
      Diagnosis of specific learning disabilities that do not contain psycho-educational measures may not be SUFFICIENT for determining eligibility for academic accommodations.
For example, school plans such as individualized education plans (IEPS) or 504 plans MAY NOT BE SUFFICIENT documentation. DRS reserves the right to request reassessment when questions regarding previous assessment or previous service provision arise.

3. Attention Deficit Hyperactivity Disorder (ADHD) / Attention Deficit Disorder (ADD)

A. Required Documentation
Submit a current diagnosis of Attention Deficit Hyperactivity Disorder (ADHD)/Attention Deficit Disorder (ADD) that is based on appropriate diagnostic evaluations.

B. Diagnostic Report
Acceptable documentation must include:

i. DSM-IV diagnosis (including all five axes)
ii. A summary or statement WHICH includes the following information:
iii. A clear summary or statement specifying evidence of behavior that significantly impairs functioning including degree of severity.
iv. A recommendation for accommodations, including rationale

4. Psychological/Psychiatric Disabilities

A. Required Documentation
Disability diagnosis categories may include, but are not limited to:

i. Depression and/or Bipolar disorder
ii. Generalized Anxiety Disorders
iii. Post Traumatic Stress Disorder
iv. Psychotic Disorders
v. Autism spectrum Disorder

B. Diagnostic Report
If the diagnostic report is not current, a letter from a qualified professional that provides an update of the diagnosis may be requested. Diagnostic Report Must Include The Following:

i. A diagnostic summary or statement that includes the following:
ii. A clear summary of statement that a disability does or does not exist.
iii. A clear summary or statement specifying evidence of behavior that significantly impairs functioning including degree of severity.
iv. A discussion of medications and their possible impact on academic functioning

5. Neurological Disorders

A. Required Documentation
Disorders of the central and peripheral nervous system, including but not limited to:

6. Temporary Disabling Conditions

i. Acquired Brain Injury/Traumatic Brain Injury
ii. Epilepsy/Seizure Disorder
iii. Stroke

B. Diagnostic Report
Written statement of diagnosis:

i. Current functional limitations
ii. Information regarding current symptoms
iii. Information regarding prescribed medication(s) and possible side effect and impact on student academic performance
iv. Restrictions on activities imposed by the condition
v. Where learning has been affected, a recent neuropsychological evaluation is requested

6. Temporary Disabling Conditions

i. Required Documentation
Temporary disabling conditions as a result of surgery, accident, or serious illness may require accommodations for a limited time. Acceptable documentation must include is required:

ii. Written statement of diagnosis
iii. List of current symptoms and degree of severity
iv. Information regarding functional limitations and impact within an academic environment
v. Medications and possible side effects
vi. Duration of symptoms and estimated length of time services will be needed

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 offered 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 credit 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 his/her 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 Resource 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 regard 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.)

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 student” 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 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.
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 or 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 the 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 at 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,

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 college’s 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. Records Request
Official verification of educational records is issued by the Admissions and Records Office/Office of Student Enrollment Services.

3. 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.

4. 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

5. 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.

6. 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.

7. 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.
Faculty and Administrators

Residential Faculty and Administrators ........ 388
Emeritus Faculty and Administrators .......... 398
Retired Faculty and Administrators .......... 404
## Residential Faculty and Administrators

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Degree Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACHS, Carol J. (1975)</td>
<td>Dean of Instruction</td>
<td>B.S., M.A., Central Michigan University</td>
</tr>
<tr>
<td>ADAMS, Heidi-Christa (1992)</td>
<td>Counseling</td>
<td>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</td>
</tr>
<tr>
<td>AHN, Emi Ochiai (2000)</td>
<td>World Language</td>
<td>B.A., Japan Women’s University; M.A., Michigan State University</td>
</tr>
<tr>
<td>AL-HASHIMI, Basil (2000)</td>
<td>Social Science/Economics</td>
<td>M.A., University of Wisconsin</td>
</tr>
<tr>
<td>AL-SALEH, Mary (2004)</td>
<td>Nursing</td>
<td>B.S.N., Arizona State University; M.S.N., University of Portland; D.N.Sc., Widener University (MCCCD 1991)</td>
</tr>
<tr>
<td>ALDRIDGE, Mary E. (2002)</td>
<td>English</td>
<td>B.A., B.A., M.A., University of New Orleans; Ph.D., University of Tulsa</td>
</tr>
<tr>
<td>ARENSON, Barron R. (1970)</td>
<td>Physical Science/Physics</td>
<td>B.A., St. Olaf College, Minnesota; M.S., Rensselaer Polytechnic Institute Graduate Study: University of Oklahoma, Texas A&amp;M University, Arizona State University</td>
</tr>
<tr>
<td>AVILA, Alex L. (1990)</td>
<td>Social Science/Political Science</td>
<td>A.B., Occidental College; M.A., Claremont Graduate University; M.A., Ph.D., University of California at Los Angeles</td>
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<tr>
<td>AVILEZ, Adam C. (2002)</td>
<td>Mathematics</td>
<td>B.S., University of Southern California; M.S., Ohio State University</td>
</tr>
<tr>
<td>BALDWIN, Andrew S. (2003)</td>
<td>Chairperson, Life Science</td>
<td>B.S., University of North Carolina at Charlotte; M.S., Appalachian State University; Ph.D., University of Texas at Arlington</td>
</tr>
<tr>
<td>BASS, Steve (1994)</td>
<td>Cultural Science/Geography</td>
<td>B.S., Arizona State University; M.A., Michigan State University</td>
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<tr>
<td>BAYER, Glenna J. (2006)</td>
<td>Nursing</td>
<td>A.S.N., Harper College; B.S.N., California State University, Hayward; M.P.A., University of San Francisco</td>
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<tr>
<td>BECKMAN, Christine M. (2000)</td>
<td>Communication</td>
<td>B.S., Northern Arizona University; M.A., University of California, Davis; Ed.D., Northern Arizona University</td>
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<td>BENSON, Donna (1996)</td>
<td>Physical Science/Geology</td>
<td>B.S.E., M.S., Arizona State University</td>
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<td>BENSON, Philip (1990)</td>
<td>Social Science/Economics</td>
<td>B.A., M.A., Mankato State University; Graduate Study: Arizona State University</td>
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<td>BERNING, Gretchen Mary</td>
<td>English/Journalism</td>
<td>B.J., University of Missouri; M.B.A., University of Phoenix</td>
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<td>BESHK, John M.</td>
<td>Business</td>
<td>M.A., University of Phoenix</td>
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<td>Chairperson, Nursing</td>
<td>B.S., M.S.N., Arizona State University</td>
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<td>BLACK, Bonnie S.</td>
<td>Social Science/Justice Studies</td>
<td>B.S., M.P.A., Arizona State University</td>
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<td>BLEVINS, Karen Evonne</td>
<td>Cultural Science/Geography</td>
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<td>Dean of Instruction</td>
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<td>Co-Chairperson, Applied Sciences</td>
<td>A.A.S., GateWay Community College (MCCCD 1999)</td>
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<td>BORLONGAN, Burton B.</td>
<td>Business &amp; Information Systems</td>
<td>B.A., M.A., Arizona State University</td>
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<td>BORMAN, Derek G.</td>
<td>Psychological Science</td>
<td>B.S., Brigham Young University; M.A., Humboldt State University; Ph.D., Utah State University</td>
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<td>BOROS, Barbara</td>
<td>Dean, Enrollment Services</td>
<td>B.A., Ursuline College; M.A., John Carroll University; Ph.D., Argosy University</td>
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<td>BOWLING, Evonne M.</td>
<td>Fashion Merchandising/Design</td>
<td>B.S., California State University, Chico; M.S., Oklahoma State University</td>
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<td>BREED-WILLIAMS, Diana E.</td>
<td>Nursing</td>
<td>B.S.N., Arizona State University; M.S.N., University of Phoenix</td>
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<td>BRENNERMAN, Mark S.</td>
<td>Mathematics</td>
<td>B.S., University of Wyoming; M.Ed., M.B.A., Arizona State University</td>
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<td>BROWN, Marie C.</td>
<td>Libary B.A., Richmond College, England; M.S.L.I.S., Simmons College</td>
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<td>BROWN, Peter</td>
<td>Life Science</td>
<td>B.S., University of Maine; M.S., Ph.D., Penn State</td>
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<td>Fashion Merchandising/Design</td>
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<td>BUDGE, Steven T.</td>
<td>Chairperson, World Language</td>
<td>B.A., M.A., Arizona State University</td>
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<td>Chemistry</td>
<td>B.S., B.Ed., M.S., Ph.D., Nagpur University, India</td>
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<td>Business &amp; Information Systems</td>
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<td>Mathematics</td>
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<td>Psychological Science</td>
<td>B.S., Utah State University; M.Ed., Brigham Young University; Ph.D., Arizona State University</td>
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<td>CALLAWAY, Micheal A.</td>
<td>English</td>
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<td>Business &amp; Information Systems</td>
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<td>Chairperson, Philosophy/Religious Studies</td>
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<td>B.A., Moravian College; M.F.A., Arizona State University</td>
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<td>World Language</td>
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<td>Computer Science/Electrical Engineering</td>
<td>B.S.E.E., Ohio State University; M.S.E.E., Arizona State University; M.B.A., University of Phoenix</td>
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<td>Psychology</td>
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<td>Biology</td>
<td>B.A., University of California, Santa Barbara; M.S., San Diego State University; Ph.D., University of Maryland</td>
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B.S., M.S., Texas A&M University (MCCCD 1995)

B.S., Towson State University; M.S., Michigan State University; Ph.D., Arizona State University

COLLINS, Alicia (2005)  Mathematics
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D'AMBROSIO, Jon M. (2001)  Technology/Automotive
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GANESH, Annapurna (2007)  Early Childhood Education
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GARZON-FORERO, Jorge (1999)  World Language
B.A., Universidad Jorge Tadeo Lozano, Bogota; M.A., Ed.D., Arizona State University; Ph.D., Argosy University

GAWRONSKI, Donald (1989)  Social Science/History
B.S., M.A., Ph.D., St. Louis University
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<td>Physics</td>
<td>B.S., East Texas State University; M.S., Ph.D., Oregon State University</td>
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<td>HARDIN, Karen (1990)</td>
<td>Chairperson, Counseling</td>
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<td>Life Science</td>
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<td>HEFTER, Mary (2001)</td>
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<td>Business &amp; Information Systems</td>
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<td>HERRELLA, Jaime H. (1992)</td>
<td>English</td>
<td>B.S., University of Texas, El Paso; M.A., University of Texas, Austin (MCCCD 1991)</td>
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<td>HERTZLER, Betsy (1984)</td>
<td>Social Science/History</td>
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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)

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HORTON, Mary Susan (1997)  Psychology  
B.S., College of St. Teresa; M.A., Rockford College; Ph.D., Arizona State University

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JACOBS, 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  
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B.S., Iowa State University; M.Ed., Northern Arizona University

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JORDAN, Barbara (2000)  English/ESL  
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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

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KHORSANDI, Mehrzad (2002)  Technology/Drafting  
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KISSELL, Loretta L. (1997)  Communication  
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LEER, Amy (2012)  Sociology  
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English  
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MORGAN, Janet (2001)  
Mathematics  
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<td>Administration of Justice</td>
<td>B.S., Northwestern University; LL.M., University of San Diego School of Law; J.D., Indiana University School of Law</td>
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<td>A.S., Mercer County Community College; B.A., Rutgers College; Ph.D., Arizona State University (MCCCD 1990)</td>
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<td>Philosophy/Religious Studies</td>
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<td>NEDELKOVA, Valentina</td>
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<td>Technology</td>
<td>B.S.E.E., University of Pennsylvania; M.B.A., Arizona State University; Graduate Study: Arizona State University</td>
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<td>Educational Support</td>
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<td>OBERMILLER, Lewis E.</td>
<td>Life Science</td>
<td>B.S., M.S., East Carolina University, Greenville; Ph.D., Arizona State University</td>
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<td>O'BRIEN, Patrick</td>
<td>Mathematics</td>
<td>B.S., B.S.Ed., University of Wisconsin; M.A.T., Aurora University</td>
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<td>OLSON, Susan K.</td>
<td>Chairperson, Communication, Theatre Arts &amp; Film</td>
<td>B.A., Ph.D., University of Arizona; M.A., University of Northern Colorado</td>
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<td>ORMISTON, Aileen</td>
<td>Business &amp; Information Systems</td>
<td>B.A., Michigan State University; M.S., Texas A&amp;M University; Certified Public Accountant, Maryland</td>
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<td>Mathematics</td>
<td>B.S., Michigan State University; M.Ed., Arizona State University</td>
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<td>Early Childhood Education</td>
<td>B.S., M.Ed., Pennsylvania State University; Ph.D., Iowa State University</td>
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<td>B.S., Park University</td>
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<td>PAN, Shouan</td>
<td>President</td>
<td>B.A., Hefei Polytechnic University, People’s Republic of China; M.Ed., Colorado State University; Ph.D., Iowa State University</td>
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<td>PARISEK, Betty M.</td>
<td>Nursing</td>
<td>A.A., Phoenix College; A.A., Mesa Community College; B.S.N., Grand Canyon University; M.S.N., University of Phoenix</td>
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<td>PAYNE, John T.</td>
<td>Mathematics</td>
<td>A.S., Kansas City Junior College; B.S., M.S.T., University of Missouri, Columbia; Ed.D., Arizona State University</td>
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<td>PEARSON, Sonya D.</td>
<td>Vice President of Student Affairs</td>
<td>B.A., Stanford University; M.A., Arizona State University</td>
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<td>PERDUE, Alexandra</td>
<td>Music</td>
<td>B.A., University of Michigan, Ann Arbor; M.F.A., School of the Art Institute of Chicago</td>
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<td>PERKINS, Vanessa</td>
<td>Cultural Science/Sociology</td>
<td>B.S., Winston Salem State University; M.S.W., Ph.D., Ohio State University</td>
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<td>PETERSON, Bruce A.</td>
<td>Communication</td>
<td>B.A., M.A., Speech; M.A., University of Texas, Pan American</td>
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<td>PETERSON, Craig C.</td>
<td>Music</td>
<td>B.M., Concordia College; M.M., D.M.A., Arizona State University</td>
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<td>PETERSON, Jack H.</td>
<td>Cultural Science/Sociology</td>
<td>B.S., M.S., Brigham Young University; Graduate Study: University of Utah, Arizona State University</td>
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<td>Mathematics</td>
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<td>Library</td>
<td>A.A., Long Beach City College; B.A., University of California, Riverside; M.L.S., University of Arizona</td>
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<td>(2002)</td>
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<td>PONDER, Terry L.</td>
<td>(1994)</td>
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<td>(2012)</td>
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<td>Business &amp; Information Systems</td>
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<td>SCHINELLER, Fred (2000)</td>
<td>Mathematics</td>
<td>B.S., University of California, Santa Barbara; M.S., Arizona State University</td>
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<td>SCHMIDT, Thomas (2011)</td>
<td>Psychology</td>
<td>B.S., University of Iowa; M.Ed., Boston University; Ph.D., University of Connecticut</td>
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<td>SCOTT, Michael (2005)</td>
<td>Physical Science</td>
<td>B.S., Northern Arizona University; M.A., University of California, Santa Barbara</td>
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<td>SEIMS, John P. (1996)</td>
<td>Mathematics</td>
<td>A.A., St. Petersburg; B.S., University of Florida; M.A., University of South Florida</td>
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<td>SHAW, Scott D. (1997)</td>
<td>Technology</td>
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<td>Technology/Vet Tech</td>
<td>B.S., Stanford University; D.V.M., Colorado State University</td>
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<td>SILBERSCHLAG, Hans (2005)</td>
<td>Fire Science/EMT</td>
<td>A.A.S., Mesa Community College; M.A., Northern Arizona University</td>
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<td>SIMMS, Robert D. (1994)</td>
<td>Mathematics/Computer Science</td>
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<td>SIMS, Michael J. (1989)</td>
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<td>SOMERS, Mark D. (2005)</td>
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<td>SOZA, Robert A. (2008)</td>
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<td>B.S., Arizona State University; M.A., University of California, Berkeley</td>
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<td>ST. PETER, Carolyn J. (2003)</td>
<td>Psychological Science</td>
<td>B.A., University of Kansas; M.A., Wichita State University; Ph.D., Arizona State University</td>
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<td>STINE, Katherine Ann (1985)</td>
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<td>STRICKLAND, Jennifer S. (2008)</td>
<td>Educational Support</td>
<td>A.A., Mohawk Valley Community College; B.A., Arizona State University; M.Ed., Lesley University; Ph.D., Ohio State University (MCCCD 2004)</td>
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<td>Business &amp; Information Systems</td>
<td>A.A.S., Mesa Community College; B.S., University of Maryland; M.A., University of Phoenix</td>
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<td>TABAR-GAUL, Lo-An N. (1989)</td>
<td>Business &amp; Information Systems</td>
<td>A.A.S., Cochise College; B.A.M., University of Phoenix; Ph.D., Northcentral University; Graduate Study: Arizona State University</td>
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<td>Mortuary Science</td>
<td>B.S., Aurora University; M.S., Northern Illinois University; Ed.D., Ed.S., University of Mississippi State University</td>
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<td>THOMSON, Kara E.</td>
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<td>TIWALD, Catherine G.</td>
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<td>URSIC, Elizabeth M.</td>
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<td>World Language</td>
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<td>Physical Science/Chemistry</td>
<td>B.S., M.S., Pittsburgh State University; Ph.D., Arizona State University (MCCCD 1973)</td>
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<td>Life Science</td>
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<td>B.A., University of Dubuque; M.Div., University of Dubuque Theological Seminary</td>
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<td>Music</td>
<td>B.A., Silliman University; B.M., Philippine Women’s University; M.M., Western Michigan University</td>
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<td>YOHE, Roger L.</td>
<td>Dean of Instruction</td>
<td>B.A. University of Northern Iowa; M.Ed., Ph.D., Arizona State University; (MCCCD 1989)</td>
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<td>YOSHIMURA, Mark T.</td>
<td>Administration of Justice</td>
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<td>ZERANGUE, Karl</td>
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<td>Nutrition</td>
<td>B.S., M.S., Kansas State University; Ed.D., Northern Arizona University</td>
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<td>BROWN, Donald R.</td>
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<td>(1965-1989)</td>
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<td>BURKE, Doyle</td>
<td>(1969-2002)</td>
<td>Chairperson, English, Humanities, Journalism</td>
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<td>CAMPBELL, Marilyn*</td>
<td>(1972-1994)</td>
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COHEN, Roy (1988-2007) Psychology
B.A., Hofstra University; M.S., University of Pittsburgh; Ph.D.,
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CONWAY, Douglas (1990-2010) Social Science/Economics
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FALK, Edwin (1967-1987) English
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New England Deaconess Hospital School of Nursing; B.S.N., University of New Hampshire; M.S., Arizona State University
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<td>Chairperson, Social Science</td>
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<td>KILPATRICK, Barbara L.</td>
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<td>LYON, Gary F.</td>
<td>Chairperson, Agriculture/Technology</td>
<td>B.S.E.E.E., M.S.E.E.E., Arizona State University; Graduate Study: Arizona State University</td>
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<td>MAHONEY, Ann M.</td>
<td>Philosophy/Religious Studies</td>
<td>B.A., English, M.A., Humanities, M.A., Philosophy, Ph.D., Arizona State University</td>
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<td>MAHONEY, Kurt</td>
<td>Psychology</td>
<td>B.S., M.A., Ph.D., Arizona State University</td>
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<td>MAINIERI, John V.</td>
<td>Business</td>
<td>B.S., Rutgers University; M.B.A., Columbia University; Certified Public Accountant, Arizona</td>
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<td>MANCUSO, James B.</td>
<td>Communication</td>
<td>B.A., M.A., Arizona State University; Graduate Study: Arizona State University (MCCCD 1967)</td>
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<td>MARTIN, Martha C.</td>
<td>Design, Family and Consumer Sciences</td>
<td>B.S., California Polytechnical State University; M.S., Arizona State University; Ed.D., University of California, Los Angeles</td>
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<td>MARTIN, Maunelle W.</td>
<td>Cultural Science</td>
<td>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</td>
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<td>MAST, Nancy</td>
<td>Chairperson, Home Economics</td>
<td>B.S., University of Arizona; M.S., Arizona State University</td>
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<td>Dean of Student Services</td>
<td>B.S., University of Utah; M.S., University of Colorado; Ed.D., Arizona State University; Graduate Study: University of Illinois, Northern Illinois University</td>
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<td>McEOWEN, Bill</td>
<td>Chairperson, Life Science</td>
<td>B.S., M.A., University of Arizona; M.N.S., University of Idaho Graduate Study: Arizona State University, Colorado State University, University of Hawaii</td>
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<td>Chairperson, Social Science</td>
<td>B.S., Southern Illinois University; M.A., Arizona State University</td>
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<td>Library</td>
<td>B.A., University of Montana; M.L.S., University of Arizona; M.A., University College of Wales</td>
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<td>Foreign Language</td>
<td>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</td>
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<td>MEYER, Eva</td>
<td>Nursing</td>
<td>B.S.N., Wheaton College, West Suburban Hospital; School of Nursing; M.S., Arizona State University; Graduate Study: Northern Arizona University</td>
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<td>Mathematics</td>
<td>B.S., M.A., Arizona State University; Graduate Study: Arizona State University (MCCCD 1979)</td>
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<td>MINCKLEY, Saundra</td>
<td>Life Science</td>
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<td>NEAL, David N.</td>
<td>Physical Science</td>
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<td>Technology</td>
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<td>Social Science/History</td>
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<td>Business</td>
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<td>OLSON, Selmer</td>
<td>Exercise Science</td>
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<td>Counseling</td>
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<td>PERLINE, Irvin H.</td>
<td>Psychology</td>
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<td>Philosophy</td>
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<td>ROECEKELIN, Jon E.</td>
<td>Psychology</td>
<td>1968-1997</td>
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B.S., M.S., Brigham Young University; Ph.D., Arizona State University

B.S., M.S., Emporia State University; Graduate Study: Arizona State University

B.S., M.S., University of Utah; Graduate Study: University of Hawaii, Arizona State University

SKOUSSEN, 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

A.B., Ohio University; M.A., Arizona State University; Graduate Study: University of San Diego

A.A., Phoenix College; B.A., M.A., Arizona State University

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

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

B.S., M.A., Arizona State University; Graduate Study: University of Florida, Claremont Graduate School, University of Colorado

A.B., College of Emporia; M.L., Emporia State University

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
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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

B.A., M.S., Northern Arizona University

A.A.S., B.S., M.S., Bradley University; Graduate Study: Arizona State University (MCCCD 1977)

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

WILSON, Jo Anne (1970-2012) Provost, Interim
B.S., University of Arizona; M.A., Arizona State University

WITGOTT, 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

B.S., M.A., Northern Arizona University

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YATES, Ronald D. (1964-1991) Chairperson, English/Humanities/Journalism/Philosophy
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B.S., Lock Haven State College; M.Ed., Ed.D., Pennsylvania State University; Graduate Study: Arizona State University

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

ARGERSINGER, Gwen (1990-2011) English
B.A., M.Phil., University of Kansas; Graduate Study: University of Kansas, University of New Mexico

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

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BENSON, Gordon (1988-1998) Senior Associate Dean of Student Services
B.A., B.S., Northwest State University; M.S., Southern Illinois University

BENTLEY, John (1990-2012) Technology/Electronics
A.S., Mesa Community College; B.S., M.A., Columbia Pacific University

B.S., University of Arizona; M.A.L., University of Denver; Graduate Study: Arizona State University, University of Arizona

BOTHWEL, Donald (1968-1987) Music
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BRADSHAW, Donald R. (1979-1992) Dean of Administrative Services
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BRAMOWETH, Ellen (1990-2005) Nursing
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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

B.A., University of Washington; M.F.A., University of Iowa

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B.S., M.S., Illinois State University (MCCCD 1989)

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Corno, Gene (1966-1984) Art
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CREWS, Terri (1987-2006) Nursing
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DAANE, Jeanette (1973-1989) Library
B.A., Rockford College; M.S., Indiana University; M.L.S., University of Hawaii; M.A., Arizona State University

A.A., Mesa College; B.S., M.B.A., Arizona State University; C.L.U., American College; Graduate Study: Arizona State University

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  

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  

FAY, Carolyn (1992-2012)  Communication  
B.A., M.A., Western Michigan University; Ph.D., Kent State University  

FIERRO, Marcella (1994-2011)  World Language  
B.A., M.A., New Mexico State University (MCCCD 1992)  

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  

B.A., Augsburg College; M.C., Arizona State University  

B.S., M.A., Central Michigan University  

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  

B.S., Bennett College; M.A.T.M., University of Detroit  

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  

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)  

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
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<td>KINCAID, William</td>
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<td>A.A., Big Bend Community College; B.S., Western Washington University; M.S., PhD., University of Houston; Graduate Study: Arizona State University</td>
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<td>KYLE, Marjorie</td>
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<td>English</td>
<td>B.S., Oklahoma State University; M.A., Ph.D., Arizona State University</td>
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<td>LANDERS, Rosalie</td>
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<td>Business</td>
<td>B.S., Northeastern Missouri Teachers College; M.B.A., University of Denver; Graduate Study: Arizona State University</td>
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<td>LANDOM, Florence P.</td>
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<td>Library</td>
<td>B.A., Elmira College; M.S., Bank Street College of Education; M.L.S., State University of New York, Albany</td>
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<td>LeROUX, Donna S.</td>
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<td>Nursing</td>
<td>B.Th., Northwestern Christian College; M.Ed., Phillips University; M.S.N., University of Texas</td>
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<td>Physical Science/Geology</td>
<td>B.S., M.A., Arizona State University</td>
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<td>Social Science/Economics</td>
<td>B.S., M.S., Arizona State University; M.I.M., Thunderbird, The Garvin School of International Management</td>
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<td>English</td>
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<td>MAY-UPDIKE, Katherine</td>
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<td>Communication</td>
<td>B.A., Arizona State University; M.A., University of Phoenix (MCCCD 1987)</td>
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<td>McFALL, Sharon</td>
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<td>McIntosh, Billie Jane</td>
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<td>Counseling</td>
<td>B.S., University of Tulsa, University of Arizona; M.A., Northern Arizona University; Graduate Study: University of Colorado, Arizona State University</td>
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<td>McINTYRE, Ron L.</td>
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<td>Speech Communication/Telecommunication</td>
<td>A.A., Southern Utah State College; B.A., M.A., Brigham Young University; Ph.D., Ohio State University</td>
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<td>NESS, Ellyn K.</td>
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<td>Chairperson, Administration of Justice</td>
<td>B.S., Northern Illinois University; M.S., Fort Hays State University</td>
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<td>NIELSEN, Leroy</td>
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<td>Technology</td>
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<td>OREN, Mary Ann</td>
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<td>Nursing</td>
<td>Harper Hospital School of Nursing; B.S.N., M.S., Arizona State University</td>
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<td>ORRANTIA, Gilbert D.</td>
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<td>Foreign Language</td>
<td>B.A., M.A., Arizona State University; Graduate Study: Arizona State University, University of Valladolid</td>
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<td>OWENS, Ross A.</td>
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<td>Business</td>
<td>B.A., M.A., Arizona State University; Graduate Study: University of California at Los Angeles, Arizona State University</td>
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<td>PAINTER, Nathan E.</td>
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<td>Reading</td>
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<td>PAYNE, Gerald L.</td>
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<td>Mathematics</td>
<td>B.S., M.S., Michigan State University; Ph.D., Arizona State University</td>
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<td>PERALTA, Jesus</td>
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<td>Social Science/History</td>
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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

B.A., Arizona State University

POLLOCK, Susan K. (1997-2011) Psychological Science
B.Ed., M.A., Ph.D., University of Miami

PRICE, Donis (1971-1986) Psychology
B.A., M.A., Wichita State University; Ph.D., Arizona State University

B.S., M.A., University of Wyoming; Graduate Study: Brigham Young University, Arizona State University (MCCCD 1967)

RUSH, Raye (2000-2012) Mathematics
B.A., CUNY Hunter; M.S., CUNY Stony Brook

SALAZAR, David (1989-2008) English
B.A., M.A., Arizona State University; Ph.D., Washington State University; Graduate Study: University of California, San Diego

B.S., M.A., George Peabody College; Graduate Study: University of Texas, Austin, Arizona State University, New Mexico Highlands University

SCHMUCK, Roger (1987-2011) Exercise Science
B.A., M.A., Arizona State University

SEEK, Steven A. (1990-2009) Reading
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SHEFFIELD, Alan (1982-2010) Mathematics
B.S., Columbia University; M.S., Stanford University; M.S., S.U.N.Y.; M.S., Hofstra 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

B.A., M.A., San Jose State University

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

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

B.S., M.S., Kansas State University; Graduate Study: Kansas State University, Arizona State University, University of Arizona

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

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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

B.A., Spelman College; M.L.S., University of Denver (MCCCD 1988)

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B.A., M.A., Arizona State University; Graduate Study: Arizona State University

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
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B.S., M.A., Northern Arizona University; Graduate Study: Arizona State University
MCC Maps

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LOCATIONS
Students pursue coursework at two comprehensive campuses, MCC at Southern and Dobson and MCC at Red Mountain. Additional learning sites in the East Valley as well as Internet classes offer easy accessibility to meet our community’s diverse needs.

SOUTHERN AND DOBSON CAMPUS
MCC has provided outstanding transfer, career, and service programs to the East Valley of the Phoenix Metro area for over 40 years. Built in 1965, our Southern & Dobson location is a focus for education and community involvement. MCC is the largest of the 10 Maricopa Community Colleges with over 29,000 students.

Location
1833 West South Avenue
Mesa, AZ 85202
480-461-7000

RED MOUNTAIN CAMPUS
MCC Red Mountain campus occupies 100 acres of beautiful Sonoran Desert in northeast Mesa. Opened in 2001, this comprehensive campus offers an intimate college environment with advanced classrooms, wireless technology, and outdoor teaching spaces. Course offerings at Red Mountain focus on university transfer programs.

Location
7110 East McKellips Road
Mesa, AZ 85207
480-654-7000

DOWNTOWN CENTER
The Downtown Center is home to Continuing & Community Education, Mesa Community Outreach Center, Virtual Incident Command Center (VICC), MCC/NAU Connection, Center for Workforce & Community Partnerships, and New Frontiers for Lifelong Learning.

Location
145 North Centennial Way
Mesa, AZ 85201
Main: 480-461-6220
Public Safety: 480-461-6116

MCC eLEARNING
The MCC eLearning represents the college’s dedication to serving students through distance learning programs and online learning.

Location
1833 W. Southern Avenue
Mesa, AZ 85202
480-461-7217

PHOENIX-MESA GATEWAY CENTER
Phoenix-Mesa Gateway Center is home to the Mortuary Science program. This campus was formerly known as the Williams Campus and a joint-use facility we share with Chandler-Gilbert Community College.

Location
7440 East Tahoe Avenue
Mesa, AZ 85212
480-988-8501
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</tr>
<tr>
<td>MSP</td>
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<tr>
<td>MST</td>
<td>Microsoft Technology</td>
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<tr>
<td>MTC</td>
<td>Music: Theory/Composition</td>
</tr>
<tr>
<td>MUC</td>
<td>Music: Commercial/Business</td>
</tr>
<tr>
<td>MUE</td>
<td>Music: Education</td>
</tr>
<tr>
<td>MUP</td>
<td>Music: Performance</td>
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<tr>
<td>NAV</td>
<td>Navajo</td>
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<tr>
<td>NCE</td>
<td>Nursing: Continuing Education</td>
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<tr>
<td>NUR</td>
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<tr>
<td>NVH</td>
<td>Navajo Humanities</td>
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<tr>
<td>OAS</td>
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<tr>
<td>PED</td>
<td>Physical Education Activities</td>
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<tr>
<td>POS</td>
<td>Political Science</td>
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<tr>
<td>PSY</td>
<td>Psychology</td>
</tr>
<tr>
<td>RDG</td>
<td>Reading</td>
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<td>REA</td>
<td>Real Estate</td>
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<tr>
<td>REC</td>
<td>Recreation</td>
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<tr>
<td>REL</td>
<td>Religious Studies</td>
</tr>
<tr>
<td>RUS</td>
<td>Russian</td>
</tr>
<tr>
<td>SBS</td>
<td>Small Business Management</td>
</tr>
<tr>
<td>SBU</td>
<td>Society and Business</td>
</tr>
<tr>
<td>SCT</td>
<td>Sustainability/Career and Technical</td>
</tr>
<tr>
<td>SLG</td>
<td>Sustainability/Science and Culture</td>
</tr>
<tr>
<td>SLG</td>
<td>Studies in Language and Culture</td>
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<tr>
<td>SOC</td>
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<td>Special Projects</td>
<td>310</td>
</tr>
<tr>
<td>SSH</td>
<td>Sustainability/Social Sciences and Humanities</td>
</tr>
<tr>
<td>SUS</td>
<td>Sustainability/ Natural Sciences</td>
</tr>
<tr>
<td>SWU</td>
<td>Social Work</td>
</tr>
<tr>
<td>TEC</td>
<td>Clothing &amp; Textiles</td>
</tr>
<tr>
<td>THE</td>
<td>Theatre</td>
</tr>
<tr>
<td>TPH</td>
<td>Theatre Performance/Production</td>
</tr>
<tr>
<td>TQM</td>
<td>Total Quality Management</td>
</tr>
<tr>
<td>WED</td>
<td>Wellness Education</td>
</tr>
<tr>
<td>WLD</td>
<td>Welding</td>
</tr>
<tr>
<td>WST</td>
<td>Women's Studies</td>
</tr>
</tbody>
</table>
2012-2013 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.

2012 Summer Semester

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tues May 29</td>
<td>First 5-Week/8-Week Sessions Begin</td>
</tr>
<tr>
<td>Thur Jun 28</td>
<td>First 5-Week Session Ends</td>
</tr>
<tr>
<td>Mon Jul 2</td>
<td>Second 5-Week Session Begins</td>
</tr>
<tr>
<td>Wed Jul 4</td>
<td>Observance of Independence Day</td>
</tr>
<tr>
<td>Thur Jul 19</td>
<td>8-Week Session Ends</td>
</tr>
<tr>
<td>Thur Aug 2</td>
<td>Second 5-Week Session Ends</td>
</tr>
</tbody>
</table>

2012 Fall Semester

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Sat Aug 18</td>
<td>Classes Begin Thur</td>
</tr>
<tr>
<td>* Mon Sept 3</td>
<td>Observance of Labor Day</td>
</tr>
<tr>
<td>* Mon Nov 12</td>
<td>Observance of Veterans' Day</td>
</tr>
<tr>
<td>Thur-Sun Nov 22-25</td>
<td>Thanksgiving Holiday</td>
</tr>
<tr>
<td>+ Sun Dec 9</td>
<td>Last Day of Regular Classes</td>
</tr>
<tr>
<td>Sun Dec 9</td>
<td>Last Day Student Initiated Withdrawal Accepted</td>
</tr>
<tr>
<td>Mon-Thu Dec 10-13</td>
<td>**Final Exams</td>
</tr>
<tr>
<td>Fri Dec 14</td>
<td>Mid-Year Recess Begins for Students</td>
</tr>
<tr>
<td>Fri Dec 14</td>
<td>Fall Semester Ends</td>
</tr>
</tbody>
</table>

Winter Break (Campus Closed) Dec 25 through Jan 1

2013 Spring Semester

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>* Sat Jan 12</td>
<td>Classes Begin Mon</td>
</tr>
<tr>
<td>Mon Jan 21</td>
<td>Observance of Martin Luther King Day</td>
</tr>
<tr>
<td>Mon Feb 18</td>
<td>Observance of Presidents' Day</td>
</tr>
<tr>
<td>* Mon-Sun Mar 11-17</td>
<td>Spring Break</td>
</tr>
<tr>
<td>+ Sun May 5</td>
<td>Last Day of Regular Classes</td>
</tr>
<tr>
<td>Mon-Thu May 6-9</td>
<td>**Final Exams</td>
</tr>
<tr>
<td>Fri May 10</td>
<td>Commencement</td>
</tr>
<tr>
<td>Fri May 10</td>
<td>Spring Semester Ends</td>
</tr>
<tr>
<td>Mon May 27</td>
<td>Observance of Memorial Day</td>
</tr>
</tbody>
</table>

2013 Summer Semester

<table>
<thead>
<tr>
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<tr>
<td>Mon Jul 1</td>
<td>Second 5-Week Session Begins</td>
</tr>
<tr>
<td>Thur Jul 4</td>
<td>Observance of Independence Day</td>
</tr>
<tr>
<td>Thur Jul 18</td>
<td>8-Week Session Ends</td>
</tr>
<tr>
<td>Thur Aug 1</td>
<td>Second 5-Week Session Ends</td>
</tr>
</tbody>
</table>

* 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.
+ See your student schedule in my.maricopa.edu for the Last Day to Withdraw without an Instructor Signature for each class in which you are enrolled.
++ Refer to the Important Deadlines for Students to determine the Last Day Student Initiated Withdrawal will be accepted.
Enrollment Information

Southern and Dobson Campus
By Phone: 480-461-7700
In Person: Admissions Office – Bldg 38

Red Mountain Campus
By Phone: 480-654-7600
In Person: Enrollment Services – Mesquite Bldg

Online
mesacc.edu/enroll

MCC Locations

Southern and Dobson Campus
1833 West Southern Ave
Mesa, AZ 85202
480-461-7000

Red Mountain Campus
7110 East McKellips Rd
Mesa, AZ 85207
480-654-7200

Downtown Center
165 North Centennial Way
Mesa, AZ 85201
480-461-6200

Phoenix-Mesa Gateway Center
7440 East Tahoe Ave
Mesa, AZ 85212
480-988-8501

MCC eLearning
mesacc.edu/elearning
480-461-7928

mesacc.edu    480-461-7000    1-866-532-4983