Job Readiness.

Career Building.

2013-14 Catalog
It’s all at MCC.
Welcome to MCC

At MCC, we are dedicated to your success. The college offers a multitude of services to support your education. Among those services are on-line student support, tutoring, counseling, financial aid and career advisement.

Each year we initiate new projects designed to support and enhance your experience at MCC.

Online degrees – MCC received formal notification in March 2013 to begin offering online degrees and certificates allowing the college to expand distance learning education to include 100% total degree programs. The College will offer more than 20 different online degrees and certificates, providing students convenient and flexible options to advance their education.

Computing Commons – A new Computing Commons offers students broad access to a long list of “in-demand” academic applications for a variety of courses across MCC. Over 300 computers at the Southern and Dobson Library and 74 computers at the Red Mountain campus were loaded with various software including: Microsoft Office, Adobe Creative Suite, SPSS, MATLAB, Maple, ArcView, Solid Works, AutoCAD and more. In addition, dual-boot Macintosh computers have been added to the Computing Commons at both campuses. These new 27-inch Apple iMac systems are capable of running both the Macintosh and Windows operating system.

Campus Construction – Several construction projects are currently taking place at MCC. Upon completion, a new Student Enrollment Center, Performing Arts Center and Art Gallery will create improved learning environments.

Whether you are taking general education courses, seeking to transfer to a four year college or University, plan to earn a certificate or associates degree through one of our Career and Technical Education programs or are taking online classes to earn a degree or enhance your current career, we are dedicated to helping you achieve your goals.

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!

I wish you all the best in your academic endeavors.

Shouan Pan, Ph.D.
President, Mesa Community College
Enrollment Success Steps

1. Set-up Online Student Account. Go to
   my.maricopa.edu

   1. Create Your Student Center
      (This can be done online from anywhere.)
      Go to my.Maricopa.Edu and click on “first time users start here.”
      Follow instructions provided to obtain your maricopa enterprise ID
      (meid) and password, student id, and official student email account.
      (Students who do not wish to use their social security number must
      complete a student information form in person at admissions and
      records.)

   2. Be Admitted To Mcc And Apply For Financial Aid
      • Go To My.Maricopa.Edu
      • Click Login
      • Enter Your User Id (Meid)
      • Enter Your Password
      • Click Sign In To Go To Your Student Center
      • In Your Student Center, Click Mecc Admissions Under
        Admissions
      • Select Mesa Community College As College Of Choice
      • Select Type Of Program (Degree And Certificates Or Credit/Non-
        Credit)
      • Select Term And Continue With Steps To Complete Admissions
        Form

   Note: According To MCCCDD Policy And The Americans With
         Disabilities Act (ADA) Amendments Act Of 2008, Students Are
         Encouraged To Self-Identify With The Disabilities Resource Services
         Office At 480.461.7447 Or Visit www.Mesacc.Edu/Disability

   Financial Aid
   Apply For Financial Aid, Scholarships And/Or Veterans Education
   Assistance At www.Mesacc.Edu/Students/Financialaid. For More
   Information Call The Financial Aid Office: Southern & Dobson
   Campus, 480.461.7441; And Red Mountain Campus, 480.654.7733.

   3. Activate Your Official Student Email Account
      • Go To www.Maricopa.Edu/Google
      • Enter Your Meid And Password
      • This Email Will Be Used For All College Communications
        And Can Be Forwarded To Your Personal Email Account.

   4. Take The Placement Tests
      (Allow Three Hours On Campus)
      Preview Sample Test Questions And Recommended Course
      Placement
      Information About Placement Testing Can Be Found At
      Photo ID At Time Of Testing And Have Their Student Id Number.

   5. Meet With An Academic Advisor
      (Required For All New Students)
      • Meet With An Academic Advisor To Create An Individual Plan.
        Bring Your Placement Scores, Student Id Number, Academic
        Call 480.461.7222 (Southern & Dobson Campus) Or 480.654.7600
        (Red Mountain Campus) For More Information.

      • Students Who Are Undecided On A Major Should Meet With A
        Career Advisor And Take A Career Assessment Prior To Meeting
        Career Or Call 480.461.7592 For More Information.

   6. Register For Classes And New student orientation (Required For All
      New Students)
      After Meeting With Your Academic Advisor And Completing Your
      Individual Education Completion Plan, Register For Classes And New
      Student Orientation:
      • Go To My.Maricopa.Edu
      • Click Login
      • Enter Your User Id (Meid) And Password
      • Click Sign In To Go To Your Student Center
      • Click Add A Class Under Academics
      • Select Term (Semester), Career (Credit/Non-Credit), And Mcc,
        Then Click Continue
      • Click Search
      • Find Your Classes By Course Subject, Enter Course Number
        As Listed On Your Individual Education Completion Plan. For
        Example, Course Subject: CPD, Course Number: 150.
      • Click Search And Continue As Prompted
      • Proceed With Prompts As Appropriate
      • Click Next Button
      • Continue Enrollment Process Until Prompted With Message
        Saying Success: This Class Has Been Added To Your Schedule.
      • If You Are Not Sure Your Class Has Been Added Successfully,
        Please Call 480.461.7700 For Assistance.

   7. Pay Tuition And Fees
      • Online: Go To My.Maricopa.Edu And Log In To Your Student
        Center Under Finances, Click Make A Payment
        Select Pay By Credit Card, Echeck Or Pay By Payment Plan
      • In Person: At The Southern & Dobson Campus Or Red Mountain
        Campus Cashier Services.
      • By Phone: To Pay By Credit Card, Call The Southern & Dobson
        Campus At 480.461.7000 And The Red Mountain Campus At
        480.654.7200.
      • Bymail: Cashier Services, Southern & Dobson Campus, 1833 W.
        Southern Ave., Mesa, AZ 85202.
      • For More Payment Information, Call Cashier Services:
        Southern & Dobson Campus, 480.461.7400
        Red Mountain Campus, 480.654.7755

   8. Buy Or Rent Textbooks
      Purchase Or Rent Textbooks At The Southern & Dobson Campus
      Bookstore,
      480.461.7225; Or Go Online At www.Mesacc.Edu/Students/Bookstore

   9. Obtain Your Student Photoid Card And Parking Permit
      Obtain Your Free Student Photo Id Card And Parking Decal, Required
      For All Students. For Southern & Dobson Campus
      Visit Student Life, Located In The Kirk Student Center. For Red
      Mountain Campus Visit The Mesquite Building, Enrollment
      Services (1st Floor).

   10. Attend All Of Your Classes
      MCC Supports And Encourages Student Success And Program/ Degree
      Completion. Our “Success From Day One” Agenda Encourages All Students To Be Prepared For And Attend The First
      Day Of Class. Students Who Attend The First Day Of Classes Are Often Most Successful.
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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.ncahighered.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 Associate in Applied Science in Mortuary Science Program is accredited by the American Board of Funeral Service Education (ABFSE), 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 accredited by the American Veterinary Medical Association

The Dental Hygiene and Dental Assisting Programs have 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, eight areas are assessed: Written and Oral Communication, Arts and Humanities, Cultural Diversity, Information Literacy, Scientific Inquiry, Numeracy, Problem Solving/Critical Thinking, and Global Awareness. 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 problem solving meeting.
4. Maintain an interpersonally effective climate within a one-to-one dyadic 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. Determine the extent of information needed.
2. Access the needed information effectively and efficiently.
3. Evaluate information and its sources critically.
4. Incorporate selected information into one’s knowledge base.
5. Use information effectively to accomplish a specific purpose.
6. Understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally.

**Cultural Diversity**
1. Define culture and subculture.
2. Identify historical, geographic, and social forces that shape culture.
3. Identify how bias, assumptions, prejudice, and stereotypes shape perception.
4. Examine and analyze the relationship between perception and behavior and how that relationship affects interactions with others.

**Global Awareness**
1. Identify world economic and political systems, events, cultures, and geography.
2. Explain the impact of globalization on world societies and the natural environment.
3. Identify how historical events, perspectives, and cultures have shaped the nature of current global issues.
4. Analyze local, regional, and global implications of a current event.
5. Explain the impact of culture and experiences on one’s world view and behavior.

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 18 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
Vision
Our vision is to prepare students to become civically engaged citizens

Mission
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.

Goals
To promote and build Civic Engagement opportunities across the campus
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 while developing reciprocal service-learning opportunities for our students and faculty.

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, Fast Tracking the Dream to College Completion 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.mesacc.edu/service-learning

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-three 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.

There are a variety of ways for donors to make gifts to MCC. Visit the website: www.mesacc.edu/development, where you will find helpful links for giving via cash, check, or credit card.

Donors can make gifts of cash, stock, property or bequests. MCC’s generous supporters ensure the future of the College, make student scholarships possible, and facilitate the growth of the campuses.

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/mconline/orientation.html and will assist you in getting started.
Register Early:
You are encouraged to register early for online classes as they often fill quickly. This will give you time to gather the information needed to start the class and connect with your instructor. For more information about e-learning at MCC, go to the MCC Online web site at www.mesacc.edu/mcconline/ or call 480-461-7928.
Students registered for online classes should go to www.mc.maricopa.edu/mcconline/current.html for important “getting started” information, including how to find your class.

NEW FRONTIERS FOR LIFELONG LEARNING
New Frontiers for Lifelong Learning (NFLL) is a peer led membership organization for older adults that offers opportunity for lifelong learning in a variety of settings. Members participate in interactive study groups as well as travel, social, and volunteer activities.
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 and 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 & Storm chasing
- 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.mesacc.edu/students/early-college-programs/youth-college.
Or call the Center for Community Education at 480-461-7493.

- Computer Technology Courses
- Community Service Projects
- Studio Art Groups
- And much more!
- Hiking Adventures
- Literary Discussions
- Theater Parties
- Leadership 101
- Future Leaders’ Academy for the Gifted
- Kickstart for Kindergarten and First Grade
- Action Math and much more...
For additional information please go to www.mc.maricopa.edu/communityed/summeryouth.html.
Or call the Center for Community Education at 480-461-7493.
Student Support

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Student Life and Leadership ..................... 461-7285
Testing Center Information Services .......... 461-7336
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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 sa-onlineadvisors@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.

Effective 07/01/2013 evaluation and posting of credits from other college will be done only upon student request. To request processing of a submitted transcript, complete and submit the College Transcript Evaluation Request form located at: www.mesacc.edu/admissions-records/transferring-course-credits

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 INSTITUTE

The American Indian Institute (formerly 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 Institute’s personnel encourage a strong working relationship between Mesa Community College and Tribes 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 also assists with Tribal scholarships to ensure funding sources for the student. Support is offered to encourage students to complete an associate’s degree program 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 deadline dates and to familiarize themselves with the refund policy. The refund policy can be found by visiting www.maricopa.edu/publicstewardship/governance/adminregs/studenys/2_2php#refund. For additional information about services call 480-461-7400 or visit www.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 “MCCC 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.gov For further information 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 www.mesacc.edu/financial-aid/who-eligible/satisfactory-academic-progress

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: Amy Leer at 480-461-7381 and Scott Russell at 480-461-7369. For more information visit our website at www.mesacc.edu/honors

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

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

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

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

Housing/Living Accommodations

Mesa Community College has no on-campus housing. All housing arrangements are the responsibility of the individual student. The Office of Student Life and Leadership provides a free housing directory of local apartments and also provides a listing of roommates. The Housing Guide and Directory are available only to current Mesa Community College students. To view the Housing Guide, please visit www.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. For more information, please visit www.mesacc.edu/international-education or call 480-654-7756

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/study-abroad

For additional information on the services provided by International Education, please visit our website at www.mesacc.edu/international-education or call 201-461-7756. You can also email us at the following email addresses:

Current F-1 Students: id@mcmail.maricopa.edu
Study Abroad Student Inquiries: studyabroad@mcmail.maricopa.edu

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 Advisement/Registration 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.

**PUBLIC SAFETY DEPARTMENT**

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

In compliance with federal law, MCC Public Safety compiles and reports annual crime statistics to
the US Department of Education. Those statistics are available at any time from our office or may be accessed on our website at www.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 Down Town 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 “MCCCD 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
RECRUITMENT

The primary goal of the Office of Student Outreach and Recruitment Services is to influence, impact and improve college enrollment by developing strategies to attract new and continuing students to Mesa Community College. This goal is accomplished through various programs including, but not limited to traditional high school visits, school presentations, participation in college and career fairs, coordinated campus visits and tours, college-wide open house all which are delivered through and extensive communication plan utilizing enrollment tracking systems. The Office of Student Outreach and Recruitment Services also creates pathways and early high school bridge programs in an effort to provide a seamless enrollment experience. For more information, please call 480-461-6392.

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

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, official or unofficial transcript request, name and address of institution where the transcript needs to be sent, sign and date the letter, $5.00 fee. You may pay by check, credit card, or money order.
4. Fax: 480-461-7255. Be sure to include all the same information as in the mailed request.

Official transcripts will not be issued to students having outstanding debts to any of the Maricopa Community Colleges. For further information, visit www.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.
scholarships are available in the Student Financial Services Office, which is located in Building #42. Also visit www.mesacc.edu/financial-aid/types-aid/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/opps 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/

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

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.
STUDENT SUPPORT

- 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)

The last test is given out one hour before the office closes

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

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

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

GED pre-registration for the High School Equivalency Test is available at MCC at Southern and Dobson Monday through Thursday from 8:00 AM to 6:00 PM. The High School Equivalency exam is administered by appointment only. This is a community service available to anyone who is 16 years of age or older. Persons under 18 years of age require additional documentation. Two official forms government issued identification are required and a fee is charged. The GED exam is available in English, Spanish, and large-print editions. Special accommodations may be approved for people with physical and learning disabilities. The GED Testing Center is located at the Dobson and Southern location, Building 38A on the east side of campus. Certificates of Equivalency are issued by the Arizona State Department of Education. Please call 480-461-7480 for more information. Refer to www.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 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
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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
- ASM104 Bones, Stones, and Human Evolution
- ASB222 Buried Cities and Lost Tribes: Old World
  OR
- ASB223 Buried Cities and Lost Tribes: New World

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

- ASB202 Ethnic Minorities in the United States
- ASB211 Women in Other Cultures
- ASB214 Magic, Witchcraft, and Healing: An Introduction to Comparative Religion
- ASB220 Anthropology Goes to the Movies
- ASB230 Principles of Archaeology
- ASB231 Archaeological Field Methods
- ASB235 Southwest Archaeology
- ASB245 Indians of the Southwest
- ASB252 Anthropology of Sport
Institutional Programs

ASB253  Death and Dying Across Cultures
ASM265  Laboratory Methods in Archaeology
ASM275  Introduction to Forensic Anthropology

Arabic

See World Languages

Architecture

Merzhad Khorsandi, Program Director: 480-461-7257
Building TC 50
www.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.

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
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/art 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

**Automotive Performance**

Bob Bonura, Program Director: 480-461-7173
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**

Preston Cameron, Chairperson: 480-461-7714
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)
- Computer Information Systems (CIS)
- Entrepreneurial Studies (EPS)
- Fashion Merchandising & Design (TEC)
- General Business (GBS)
- Hotel and Restaurant Management (HRM)
- International Business (IBS)
• Management (MGT)
• Marketing (MKT)
• Network Academy (MST/CNT)
• Real Estate and 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

Chemistry

Mike Sims, Chairperson: 480-461-7015
Building PS 8
www.mesacc.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
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 IIA and lab

PHY121 University Physics I
PHY131 University Physics II

Business and Personal Computers

See Computer Information Systems
Chicana/Chicano Studies
Shereen Lerner, Chairperson: 480-461-7306
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 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</th>
<th>Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASU</td>
<td>BA</td>
<td>Communication</td>
</tr>
<tr>
<td>ASU West</td>
<td>BA/BS</td>
<td>Communication Studies</td>
</tr>
<tr>
<td>NAU</td>
<td>BA/BS</td>
<td>Speech Communication</td>
</tr>
<tr>
<td>UA</td>
<td>BA</td>
<td>Communication</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM100</td>
<td>Introduction to Human Communication</td>
</tr>
<tr>
<td>COM225</td>
<td>Public Speaking</td>
</tr>
</tbody>
</table>
Depending on the university to which you plan to transfer, the following courses may also be recommended:

- COM110 Interpersonal Communication
- COM207 Introduction to Communication Inquiry
- COM222 Argumentation
- COM230 Small Group Communication
- COM241 Performance of Literature
- COM250 Introduction to Organizational Communication
- COM259 Communication in Business and Professions* 
- COM263 Intercultural Communication
- COM271 Voice and Diction

*For non-Communication majors. COM259 meets the business requirement for accounting majors, media arts, and other disciplines.

**Computer Information Systems**

Preston Cameron, Chairperson: 480-461-7714
Bethann Partin, BPC/OAS Director: 480-461-7764
Elliot Cherner, CIS Director: 480-461-7917
Burton Borlongan, CIS Director: 480-461-7463
Bob Samson, Network Academy Director: 480-461-7744
Network Academy, Building BA 40
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
- 7:00 AM – 8:20 PM
- 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
- 7:30 AM – 5:00 PM
- 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 Applied Sciences)
- NAU BS Computer Science and Engineering
- UA BS Computer Science

If you are planning to pursue a bachelor’s degree in computer science at a public Arizona university, you can follow the Associate in Science degree pathway, which requires a total
of 60-64 credits. The AS degree transfers as a block (in other words, your transcript will not be evaluated one course at a time for admission to the university) without loss of credit and satisfies Arizona university admission requirements.

If you are planning to transfer to an out-of-state university to complete your bachelor’s degree, contact an academic advisor for help in choosing the best courses for your needs.

The pre-professional program will require selecting from the following courses. You should consult with the university that you are planning on attending for their exact requirements.

- **CSC100** Introduction to Computer Science for Non-Computer Majors
- **CSC110** Introduction to Computer Science for Majors
- **CSC120** Digital Design Fundamentals
- **CSC205** Object Oriented Programming and Data Structures
- **CSC230** Computer Organization and Assembly Language
- **MAT220** Calculus with Analytic Geometry I
- **MAT227** Discrete Mathematical Structures
- **MAT231** Calculus with Analytic Geometry II
- **MAT241** Calculus with Analytic Geometry III

### Construction

Merzhad Khorsandi, Program Director: 480-461-7257
Building TC 50
www.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.

### Counseling

Karen Hardin, Chairperson: 480-461-7588
Building 36
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

### Cultural Science

Shereen Lerner, Chairperson: 480-461-7306
Building SC 14
www.mesacc.edu/programs/departments/cultural-science

The Cultural Science Department includes five disciplines:

- African American Studies
- American Indian Studies
- Anthropology 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:

- DAH100 (Lecture) Introduction to Dance
- DAH201 (Lecture) World Dance Studies
- DAH250 (Lecture) Dance in Popular Culture
- DAN115AA Contemporary Dance Trends: Hip Hop
- DAN120AB Flamenco
- DAN120AK Capoeira
- DAN120AE Middle Eastern (Belly) Dancing
- DAN125 Social Dance
- DAN125AC Latin Ballroom
- DAN129/130 Musical Theatre Dance I/II
- DAN131/134/231/234 Ballet I/II/III/IV
- DAN132/135/232/235 Modern Dance I/II/III/IV
- DAN133/136/233/236 Modern Jazz Dance I/II/III/IV
- DAN140/145 Tap Dance I/II
- DAN141 Dance Workshop
- DAN146 Tap Dance Ensemble
- DAN150/155/250/255 Dance Performance I/II/III/IV
- DAN164 Improvisation
- 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:

<table>
<thead>
<tr>
<th>University</th>
<th>Degree</th>
<th>Discipline</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASU</td>
<td>BA</td>
<td>Economics (Liberal Arts)</td>
</tr>
<tr>
<td>ASU</td>
<td>BS</td>
<td>Economics (WP Carey-Business)</td>
</tr>
<tr>
<td>NAU</td>
<td>BS</td>
<td>Economics</td>
</tr>
<tr>
<td>UA</td>
<td>BA</td>
<td>Economics</td>
</tr>
</tbody>
</table>

These three universities all require or accept the following courses as requirements for the economics major:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT212</td>
<td>Brief Calculus</td>
</tr>
<tr>
<td>GBS221</td>
<td>Business Statistics OR</td>
</tr>
<tr>
<td>MAT167</td>
<td>Elements of Statistics</td>
</tr>
<tr>
<td>ECN211</td>
<td>Macroeconomics</td>
</tr>
<tr>
<td>ECN212</td>
<td>Microeconomics</td>
</tr>
</tbody>
</table>

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Education Studies

Nora Amavisca Reyes, Chairperson: 480-461-7781
Education Studies
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.

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 NAUTeach (Secondary Education, Math/Science Emphasis)
- Grand Canyon University Partnership: MCC-GCU BS Elementary Education Cohort
- Mesa Grow Your Own Teachers with Mesa Public School (MGYO)
- Tutor Training
- Evelyn H. Warren Child Development Laboratory
- Educators Academy Workshops
- Xalapa Summer Study Abroad Program
- Future Educators Club

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.

Electromechanical Automation

Scott Shaw, Program Director: 480-461-7498
Electromechanical Automation
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
Electronics
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
- Biotechnology
- Communications
- Entertainment
- Industrial
- Medical
- Power
- Semiconductor
- Transportation

All of these industries employ our graduates to deal with increasingly complex electronic systems in all areas of our economy. Typical ET jobs include developing, building, calibrating, testing, certifying, maintaining, and qualifying:
- instrument landing, radar, and air traffic control systems in airports
• complex biomedical equipment in biotechnology companies
• transmitters and communications equipment for TV and radio broadcasters
• instrumentation and switching substations for power companies
• medical ultrasound systems, pacemakers, and automatic defibrillators in medical equipment companies
• traffic signal instrumentation and controls for large metropolitan areas
• high-speed automated systems for the U.S. Postal Service
• complex instruments and control systems for semiconductor equipment vendors and manufacturers
• night vision equipment for defense companies

Electronic Technicians do not repair radios and TVs.

Opportunities in Electronics continue to grow. According to the U.S. Bureau of Labor Statistics,
“Growth in employment of electrical and electronic engineering technicians is expected to be about as fast as the average for all occupations through 2014.” — Occupational Outlook Handbook, May 2004

To see an up-to-the-minute listing of current local job openings for ET’s, a video about ET careers, and complete advisement information, visit the Electronics web site at www.mccele.com

MCC Electronics keeps its curriculum up-to-date by maintaining very close ties with local industry. It is the only Electronics Technology (ET) program in the state of Arizona that is certified by the Federal Aviation Administration (FAA). It also maintains an Instrumentation and Relay Technician Apprenticeship with SRP, and a student internship program with Boeing.

The Electronics program offers two AAS degrees:
• Electronics Engineering Technology (EET), which is the classic degree for engineering technicians offered here at MCC since 1965.
• Electronics Technology (ET), which is similar to the EET degree, but with less math and more hands-on electronics courses.

Both AAS degrees transfer as a block of credit into the ASU Polytechnic Bachelor of Applied Science degree programs, and most of the EET credits transfer into the ASU Polytechnic BSEET program.

Also offered is a one-year Certificate of Completion (CCL) and numerous individual courses that you can use to upgrade your skills in any particular area of Electronics.

For specific details about this program, see Career and Technical Programs.

Emergency Medical Technology

See Fire Science

Engineering Science

Mike Sims, Chairperson: 480-461-7015
Building PS 8
www.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.

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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE102</td>
<td>Engineering Analysis Tools and Techniques</td>
</tr>
<tr>
<td>ECE103</td>
<td>Engineering Problem Solving and Design</td>
</tr>
<tr>
<td>ECE111</td>
<td>Bioengineering Systems</td>
</tr>
<tr>
<td>ECE201</td>
<td>Introduction to Engineering Statics</td>
</tr>
<tr>
<td>ECE202</td>
<td>Introduction to Engineering Dynamics</td>
</tr>
<tr>
<td>ECE203</td>
<td>Applications of Engineering Mechanics</td>
</tr>
<tr>
<td>ECE214</td>
<td>Engineering Mechanics</td>
</tr>
<tr>
<td>ECE215</td>
<td>Mechanics of Materials</td>
</tr>
<tr>
<td>EEE120</td>
<td>Digital Design Fundamentals</td>
</tr>
<tr>
<td>EEE202</td>
<td>Circuits and Devices</td>
</tr>
<tr>
<td>EEE230</td>
<td>Computer Organization and Assembly Language</td>
</tr>
</tbody>
</table>

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:
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 post-graduate 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: Most EXS, HES or WED 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 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.

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 and 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.

**Geology**

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

Geology is one of the disciplines within the Physical Science Department. Geology faculty offer a wide range of courses in geology (GLG) for those who want to fulfill general education requirements, those who plan to major in geology, and those who are interested in majoring in geology in a university program. These courses provide both lecture and hands-on laboratory experiences.

In addition to teaching courses, geology faculty conduct community outreach by participating in a number of annual events and by sponsoring the Geo Club, a student organization. Geo Club performs various campus and community service activities that range from collecting pink
halite crystals at Trona to selling the crystals at various gem and mineral shows (such as the Flagstaff Gem and Mineral Show) to helping with the Geology Outreach program (such as Science Day).

For more information on geology courses and programs, see the Geology website or contact the department office.

If You Plan to Major in Geology

Work closely with an advisor to determine the best courses to take depending on the university program you wish to transfer into. The three public universities require or accept the following courses for students who want to major in geology:

- MAT220 Analytic Geometry and Calculus I
  OR
- MAT220 Analytic Geometry and Calculus I
- MAT231 Calculus with Analytic Geometry II
  OR
- MAT231 Calculus with Analytic Geometry II
- CHM151/151LL General Chemistry I and lab
- CHM152/152LL General Chemistry II and lab
- GLG101 Introduction to Geology I (Physical Lecture)
  AND
- GLG103 Introduction to Geology I (Physical Lab)
- PHY121 University Physics I AND
- PHY131 University Physics II

German

See World Languages

Health Sciences/Wellness

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

Paul Hietter, Chairperson: 480-461-7346
Building SC 14
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
- HIS101 History of Western Civilization Middle Ages to 1789
- HIS102 History of Western Civilization, 1789 to Present
- HIS103 United States History to 1865
- HIS104 United States History, 1865 to Present

Interior Design

Janice Pierson, Program Director: 480-461-7724
Building TC 50
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
Paul A. Elsner Library
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 landscapes. Our Red Mountain campus is located in a less congested region of the Sonoran Desert. Students are invited to become involved in many of the on-site field research projects (i.e., tagging of many of the native species found on campus).

At both campuses, our department maintains live animal collections primarily comprised of Sonoran Desert natives. Most of our animals are captive-bred specimens, including some that we have bred and raised ourselves. We also maintain freshwater and marine aquariums for class usage. Besides class use, these collections are used with visiting school groups, including the annual Science Day for elementary school students.

The Life Science Department continuously develops educational gardens for student and community use. These include our Deserts of North America and Xeriscape demonstration gardens at the Southern & Dobson campus. These community gardens have been developed in collaboration with the City of Mesa Water Conservation Department and the Master Gardeners of Maricopa County.

On our Red Mountain campus, the Cienega Project, a native pond environment, has been established. This pond contains many Arizona native species, including some rare and endangered species. This project has been developed in collaboration with Arizona Game and Fish. Student research projects using this area are encouraged.
The Life Science Department provides a home and sponsorship for multiple student clubs including Adventure Association, Environmental Action, Biotechnology, Pre-Dental, and Pre-Pharmacy. These clubs meet regularly in the Life Science building and sponsor speakers, outreach events, tours, and other activities. They also work with local, state, and national organizations to promote awareness of the career possibilities in these areas.

Field experiences are provided as a major part of many biology courses, including Environmental Biology and Natural History of the Southwest. In addition, we offer Marine Biology of Mexico and Field Biology of the Grand Canyon, which are short-term summer courses conducted entirely in the field.

Opportunities are available to participate in K-12 outreach, including science days, science summer-college, and other service-learning activities with our local school districts. We also offer other types of service-learning activities to our students in biology and health-related fields (i.e., AZ Game and Fish, City of Mesa, Solid Waste, Gray Hawk Nature Center, 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:

- **ASU BS Biology**
- **ASU BS Conservation Biology**
- **ASU BS Microbiology**
- **ASU BS Plant Biology**
- **ASU BS Molecular Biosciences and Biotechnology**
- **ASU BS Biology with Concentration in Biology and Society**
- **ASU West BS Life Sciences**
- **NAU BS Biology**
- **NAU BS Biology (with emphases)**
- **NAU BS Botany**
- **NAU BS Microbiology**
- **NAU BS Microbiology (Preprofessional)**
- **NAU BS Zoology**
- **NAU BS Zoology (Preprofessional)**
- **UA BA Biochemistry**
- **UA BA Ecology and Evolutionary Biology**
- **UA BS Biochemistry**
- **UA BS Ecology and Evolutionary Biology**
- **UA BS General Biology**
- **UA BS Microbiology**
- **UA BS Molecular and Cellular Biology**
- **UA BS Health Sciences: Physiological Sciences**

All three public Arizona universities require or accept the following courses for life science majors:

- **BIO181** General Biology (Majors) I
- **BIO182** General Biology (Majors) II
- **CHM151 AND CHM151LL** General Chemistry I and lab
- **CHM152 AND CHM152LL** General Chemistry II and lab

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**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.

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**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 curricula 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

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: 480-988-8503
Phoenix-Mesa Gateway Campus
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 in which they serve;
- Participants in the relationship between bereaved families and those engaged in the funeral service profession;
- Professionals knowledgeable of and compliant with federal, state, provincial/territorial, and local regulatory guidelines in the geographic area where they practice as well as:

Professionals sensitive to the responsibility for public health, safety, and welfare in caring for human remains.

The program has the following objectives:

- To enlarge the background and knowledge of students about the funeral service profession;
- To educate students in every phase of funeral service and to help enable them to develop proficiency and skills necessary for the profession;
- To educate students concerning the responsibilities of the funeral service profession to the community at large;
- To emphasize high standards of ethical conduct
- To provide a curriculum at the post-secondary level of instruction; and
- To encourage student and faculty research in the field of funeral service.

The vision of the Mortuary Science Program is to imbue the graduates of the program with the understanding that, as MCC graduates in the funeral service profession, they are leading the way in their local communities as well as the larger state, national and global communities through excellence in the death care profession.

The vision of the program is also to graduate thinking and caring individuals who understand that they have a sacred obligation to the memory of the deceased, the family members and friends of the deceased, the citizens of the community they serve and members of all allied health professions.

The Mortuary Science Program is a block program that comprises the second year of the Associate of Applied Science (AAS) degree. The AAS degree in Mortuary Science at Mesa Community College is accredited by the American Board of Funeral Service Education (ABFSE), 3414 Ashland Ave., Suite G., St. Joseph, MO 64506, 816-233-3747, www.abfse.org

The program is a member of the National Association of Colleges of Mortuary Science (NACMS). As a member of NACMS, it is permitted to induct those members of the class with the highest academic achievement into Mu Sigma Alpha, a National Honor Society for students of Mortuary Science.

Students enrolled in the second year of the program may also join Tau Chapter - Sigma Phi Sigma, a nationally recognized social 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 at the MCC Red Mountain Campus for further details 480-654-7200.

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 – Contact the Program at 480-988-8501 for specific information on dates and times.

Courses are available which lead to Cremation Operator Certification and additional Continuing Education for Certified Cremationists. These courses are separate from the ABFSE curriculum.

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The Annual passage rate of first-time takers on the National Board Examination (NBE) for the most recent three year period for this institution and all ABFSE accredited institutions is posted on the ABFSE web site (www.abfse.org).

The Licensure Examination is the National Board Examination offered by the International Conference of Funeral Service Examining Boards (the ICFSEB). 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. The fees for licensure are the responsibility of the student.

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 (MUC)
- Music Performance (MUP)
- Music Education (MUE)

Courses and programs are designed to enhance students’ skills, prepare them for transfer to university programs, and equip them with knowledge and skills required to prepare for careers in the music field.

In addition, the department produces a number of musical performances each year and serves as home base for several community musical groups. For more information about courses, programs, performances, and groups, call the department office at 480-461-7575.
If You Plan to Major in Music

It is recommended that students planning to transfer as music majors to a baccalaureate-granting college or university take a planned set of courses leading to the Associate in Arts (AA). The AA is a general degree that includes special requirements enabling music majors to graduate from MCC after earning 64 credit hours.

The three public Arizona universities offer the following baccalaureate programs in music:

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<th>ASU</th>
<th>BA</th>
<th>Music</th>
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<td>BM</td>
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<td>Secondary Education (Choral/Instrumental)</td>
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<td>Performance, Music Therapy</td>
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<td>Music Theory and/or Composition</td>
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<td>BFA Music Theatre – Theatre Arts</td>
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The MCC Music Department in partnership with Ottawa University offers a Music Education degree in Elementary and Secondary Music. Students complete their freshman and sophomore music and general education coursework, and their junior and senior performance ensembles and private instruction with MCC. Upper-division education courses are taken through Ottawa University.

The basic music courses required for most music majors planning to transfer to a baccalaureate-granting institution include:

| MTC105/106 | Music Theory and Aural Perception I |
| MTC155/156 | Music Theory and Aural Perception II |
| MTC205/206 | Music Theory and Aural Perception III |
| MTC255/256 | Music Theory and Aural Perception IV |
| MUE137     | Class Brass I |
| MUE138     | Class Brass II |
| MUE235     | Class Percussion I |
| MUE236     | Class Percussion II |
| MUE237     | Class Woodwinds I |
| MUE238     | Class Woodwinds II |
| MUP123     | Studio Class/Piano, Voice, Guitar, Instrumental, Jazz Styles (.5 credits 6 semesters) |
| MUP131     | Class Piano I |
| MUP132     | Class Piano II |
| MUP133     | Class Voice I |
| MUP134     | Class Voice II |
| MUP166     | Jazz Piano I |
| MUP167     | Jazz Piano II |
| MUP209     | Conducting |
| MUP231     | Class Piano III |

| MUP232     | Class Piano IV |
| MHL241     | Music History |
| MHL242     | Music History |

Performing ensemble

- Small (1 credits 6 semesters)
- Large (2 credits 6 semesters)

The Music Department offers the Associate in Applied Science (AAS) and Certificate of Completion (CCL) in:

- Audio Production Technologies/Sound Design
- Music Business

Network Academy

Preston Cameron, Chairperson: 480-461-7714
Burton Samson, Program Director: 480-461-7744
www.mesacc.edu/programs/networking-security

The Department of Business and Information Systems–Network Academy mission is to deliver education and training to Information Technology professionals and knowledge workers by developing, adopting, and implementing curricula that are aligned with industry standards and can lead to academic and industry certification.

The purpose of the Network Academy is to be:

- Responsive and adaptable to current and emerging industry needs
- Dedicated to responsible student advisement
- Committed to supporting, encouraging, and mentoring students
- We accomplish this mission and purpose by providing:
  - Certificate and degree programs
  - Hands-on experiences applicable to the workplace
  - Education for career advancement
  - Accessible, affordable, and flexible programs
  - Testing services for industry certifications and licenses

The Network Academy programs offer courses in the following disciplines:

- Computer Information Systems (CIS) – specializing in network administration, database administration, and distributed computing technologies including Microsoft, Oracle, Cisco Systems, Novell, Linux, Ascendant Learning (Security), SunMicrosystems, UNIX, and IBM
- Cisco Networking Technology (CNT) – courses offered under this prefix are certified as Cisco Networking Academy Courses
- Microsoft Technology (MST) – Specializing in Microsoft networking and distributed computing technologies
- Business and Personal Computers (BPC) – Desktop computing installation, maintenance, and support
Our specialized programs include:

- Cisco Networking Academy
- Sun Academic Alliance Center
- Microsoft IT Academy
- Novell Education Academic Partner
- CompTIA partner – A+ certification, N+, and NITAS site
- Information Assurance
- BioInformatics

All courses are aligned to current industry standards and certifications. Students may earn a certificate of completion at MCC, an Associate in Applied Science (AAS) at MCC, and/or industry-specific certifications through exams offered by the specific technology company.

Students can complete coursework toward an associate degree including:

- Networking System Administration
- Linux Networking Administration
- Information Assurance

Students can complete certificates of completion in Network Administration with specializations in:

- Information Assurance
- Network Security
- Network Administration: Cyber Forensics Technician
- Network Administration: CISCO Network Associate (CCNA)
- Network Administration: CISCO Network Professional (CCNP)
- Network Administration: Microsoft Windows
- Network Administration: Novell
- Network Administration: UNIX-Solaris

Please see Career and Technical Programs for specific requirements for certificates and degrees.

For more information on the department, see departmental website at 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, healthful, fair, sustainable foods? Looking for like-minded students and faculty who support these initiatives, too? Are you interested in knowing how other urbanites are living this “slow” lifestyle? If so, our new degree and certificate programs in Sustainable Food Systems may offer just the right career or personal interest pathway for you. MCC offers a degree and certificate in this emerging field.
   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
Bethann Partin, OAS Program Director: 480-461-7764
See Computer Information Systems

Philosophy and Religious Studies
Patrice Nanco, Chairperson: 480-461-7621
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.

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.

The three public Arizona universities offer a variety of baccalaureate programs for those who plan to major in physics and astronomy:

- ASU BS Physics
- NAU BS Astronomy
- NAU BS Physics
- NAU Merged BS Physics and Astronomy
- NAU Merged BS Physics and Mathematics
- UA BS Physics
- UA BS Astronomy
- UA BS Science Education Physics

Work closely with an advisor to select courses that will help you meet your academic and professional goals. All three public Arizona universities require or accept the following courses for physics majors:

- MAT231 Calculus with Analytic Geometry II
- MAT241 Calculus with Analytic Geometry III
- PHY121 University Physics I
- PHY131 University Physics II

Political Science

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

For more information, see Social Science

In addition to offering courses in political science (POS), the faculty also sponsor the Model United Nations group that competes nationally each.

If You Plan to Major in Political Science

The three public Arizona universities offer a large number of baccalaureate degree programs in political science, including:

- ASU BA Political Science (Asian Studies)
- ASU BA Political Science (Latin American Studies)
- ASU BS Political Science
- ASU BA Political Science
- ASU West BA Social and Behavioral Science (Political Science)
- ASU West BS Social and Behavioral Sciences (Political Science)
- ASU West BA Political Science
- ASU West BS Political Science
- NAU BA International Affairs
- NAU BA Political Science
- NAU BS American Political Studies
- NAU BS Political Science
- UA BA Political Science
These three universities all require or accept the following courses for political science majors:

- POS110 American National Government
- POS120 World Politics
- POS140 Comparative Government
- POS210 Political Ideologies

**Portuguese**

See World Languages

**Psychological Science**

Ly Tran-Nguyen, Chairperson: 480-461-7925
Building BP 43A
www.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

Amelia Rodriguez, Chairperson: 480-461-7025
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 a 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.

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 MAPPS/Alliance degree pathway, which requires a total of 60-64 credits. The MAPPS/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/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 Volunteerism in Social Work: Service-Learning Experience
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 Outback, which also hosts musicals and dance concerts.

The Theatre Arts and Film program sponsors the Stagedoor Players, an organization designed to foster student interest in theatre, as well as explore careers in theatre and pursue special interests in the area. The Stagedoor Players sponsor workshops and performances at various times throughout the year and in the summer. Many of these productions are written and staged entirely by students.

The department is committed to student success and faculty are available during their office hours for one-on-one assistance and advisement.

Theatre Arts students may apply for scholarships by contacting Kevin Dressler or Kara Thomson, Co-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>Field</th>
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</thead>
<tbody>
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<td>BA</td>
<td>Theatre</td>
</tr>
<tr>
<td>ASU West</td>
<td>BA</td>
<td>Interdisciplinary Arts and Performance</td>
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<tr>
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</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:

- THP112  Acting I
- THP212  Acting II
- THP213  Introduction to Technical Theatre
- THP217  Introduction to Design Scenography
- THE220  Modern Drama (Dramatic Analysis)

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

- THE111  Introduction to Theatre
- THE118  Playwriting
- THE205  Introduction to Cinema
- THE206  Introduction to Television Arts
- THE210  Contemporary Cinema
- THP115  Theatre Make-up
- THP131  Stage Movement
- THP201AA  Theatre Production I
- THP201AB  Theatre Production II
- THP203  Technical Theatre Production
- THP210  Acting: Television/Film
- THP211  Creative Drama
- THP214  Directing: Theatre Techniques
- THP216  Beginning Stage Lighting
- THP217  Introduction to Design Scenography
- THP219  Introduction to Puppetry
- THP225  Visual Script Analysis
- THP241  Performance of Literature
- THP250  Stage Properties
- THP260  Theatrical Design: Rendering
- THP261  Pre-visualization Modeling
- THP263  Entertainment Industry Design I: 2D CAD
- THP264  Entertainment Industry Design II: 3D CAD
- THP265  Introduction to Stage Management
- THP266  Production Careers in Entertainment
- THP267  Painting Techniques for Film, TV and Theatre
- THP269  Technical Theatre Portfolio Development

Contact an academic advisor in the Advisement Center and/or Theatre Faculty for help in choosing the best courses for your needs.

Veterinary Technology

Dr. Jill Sheport, Program Director: 480-461-7488
Building TC 50
www.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)
- French (FRE)
- Hebrew (HEB)
- Japanese (JPN)
- Navajo (NAV)
- Russian (RUS)
- Chinese (CHI)
- German (GER)
- Italian (ITA)
- Latin (LAT)
- Portuguese (POR)
- 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.
Academic Certificate in African-American Studies...... 101  
Academic Certificate in Child and Family Professional Development ................. 102  
Academic Certificate in Communication Skills for Non-Native English Speakers........ 104  
Academic Certificate in Creative Writing.................................................. 105  
Academic Certificate in Electronic Music .................................................. 106  
Academic Certificate in Global Citizenship ............................................. 101  
Academic Certificate in Language and Literary Culture Of the USA ............... 103  
Academic Certificate in Language Studies ............................................. 103  
Academic Certificate in Oral Communication Competence In The Workplace .................................. 105  
Academic Certificate in Oral Communication Fluency For Non-Native English Speakers ......................... 104  
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MCCCD DEGREES

Catalog Under Which A Student Graduates

Students maintaining continuous enrollment at any public Arizona community college or university may graduate according to the requirements of the catalog in effect at the time of initial enrollment or according to the requirements of any single catalog in effect during subsequent terms of continuous enrollment. Students may maintain continuous enrollment whether attending a single public community college or university in Arizona or transferring among public institutions in Arizona while pursuing their degrees.

1. A semester in which a student earns course credit will be counted toward continuous enrollment. Non-credit courses, audited courses, failed courses, or courses from which the student withdraws do not count toward the determination of continuous enrollment for catalog purposes.

Example A:
- Admitted & Earned Course Credit at a Public Community College or University – Fall '05 (Active)
- Continued at a Public Community College – Spring '06, Fall '06 (Active)
- Transferred to a University – Spring '07 (2005 or Any Subsequent Catalog)

Example B:
- Admitted & Earned Course Credit at a Public Community College or University – Fall '02 (Active)
- Enrolled But Earned All Ws, Zs, or Fs – Spring '03 (Inactive)
- Enrolled in Audit Courses Only – Fall '03 (Inactive)
- Nonattendance – Spring '04 (Inactive)
- Transferred to a University – Fall '04 (2002 or Any Subsequent Catalog)

Example A: continued
- Nonattendance – Spring '03, Fall '03, Spring '04 (Inactive)
- Readmitted & Earned Course Credit at a Public Community College – Fall '04 (Active)
- Transferred to a University – Spring '05 (2004 or Any Subsequent Catalog)

Example B:
- Admitted & Earned Course Credit at a Public Community College or University – Fall '02 (Active)
- Nonattendance – Spring '03 (Inactive)
- Readmitted & Earned Course Credit at a Public Community College – Summer '03 (Active)
- Nonattendance – Fall '04 Spring '04 (Inactive)
- Transferred to a University – Fall '04 (2002 or Any Subsequent Catalog)
*Students are not obligated to enroll and earn course credit during summer terms, but summer enrollment may be used to maintain continuous enrollment status.

3. Students admitted or readmitted to a public Arizona community college or university during a summer term must follow the requirements of the catalog in effect the following fall semester or of any single catalog in effect during subsequent terms of continuous enrollment.

Example:
- Admitted & Earned Course Credit at a Public Community College or University – Summer '04 (Active)
- Continued at a Public Community College – Fall '04, Spring '05 (Active)
- Nonattendance – Fall '05 (Inactive)
- Readmitted & Earned Course Credit at a Public Community College – Summer '06 (Active)
- Transferred to a University – Summer '06 (2004 or Any Subsequent Catalog)

4. Students transferring among Arizona public higher education institutions must meet the admission requirements, residency requirements, and all curricular and academic requirements of the degree-granting institution.

NOTE: Time Limit for Transfer Coursework

Students should be aware that the receiving institution may have age and credit limits on certain coursework to be used in transfer. 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, 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;

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

The Maricopa County Community College District Arizona General Education Curriculum (MCCCD AGEC) is a 35-38 semester-credit general education certificate that fulfills lower-division general education requirements for students planning to transfer to any Arizona public community college or university. Generally, the MCCCD AGEC transfers as a block without loss of credit.
In most cases, all courses used to satisfy the MCCCD AGEC will apply to graduation requirements of the university major for which the AGEC was designed. For students planning to pursue an associate’s degree or transfer to an Arizona public community college or university, the AGEC-A is a component of the MCCCD Associate in Arts, the AGEC-B is a component of the MCCCD Associate in Business, and the AGEC-S is a component of the MCCCD Associate in Science.

**Purpose of the AGECs**

There are three types of MCCCD AGECs. They are the AGEC-A, the AGEC-B, and the AGEC-S. Designed to articulate with different academic majors, their requirements vary accordingly. Additional information on academic majors at the Arizona public universities can be accessed via the following website: www.aztransfer.com

1. The AGEC-A is designed to satisfy requirements in many liberal arts majors as well as other majors that articulate with the Associate in Arts (e.g., social sciences, fine arts, humanities). AGEC-A requires a minimum of college mathematics or college algebra to satisfy the Mathematics [MA] requirement. AGEC-A Mathematics requirement is less stringent than the AGEC-B and AGEC-S. AGEC-A and AGEC-B Natural Sciences requirements are less stringent than AGEC-S.

2. The AGEC-B is designed to satisfy requirements in business majors that articulate with the Associate in Business. AGEC-B requires a minimum of brief calculus to satisfy the Mathematics [MA] requirement.

3. The AGEC-S is designed to satisfy requirements in majors with more prescriptive mathematics and mathematics-based science requirements. AGEC-S articulates with the Associate in Science. AGEC-S requires a minimum of the first course in a calculus sequence to satisfy the Mathematics [MA] requirement, and a minimum of eight credits of any university chemistry, university physics or general biology to satisfy the Natural Sciences [SQ/SG] requirement. In addition, students must select six to eight additional credits of math and/or science appropriate to the major.

**Academic Policies that Govern the AGEC A, B, S:**

- Requires 35-38 semester credits in courses numbered 100 and above to be completed with a grade of “C” or better. On an exception basis, P-grades may be allowed in the AGEC for credit transferred if documentation collected by the community college indicates that the P-grade issued was the only option for the student and the P-grade is a “C” or better. The P-grade exception does not apply to credits awarded by AGEC granting/receiving institutions.
- Credit received through prior learning assessment or credit by evaluation is transferable within the Maricopa Community Colleges but is not necessarily transferable to other colleges and universities. No more than 20 semester credit hours may be applied toward AGEC.
- Uses the following policies to help students complete the required Core and Awareness Areas without exceeding the 35-38 semester credits.

1. Courses can satisfy a Core area and one or two Awareness areas simultaneously.
2. A course cannot be used to satisfy more than one Core area requirement in the AGEC A and B.
3. A course can be used to satisfy the L and SB or L and HU requirements simultaneously in the Core area for the AGEC S.

Follow the general education policy that follows:

**General Education Designations (example: [FYC], [SB], [HU], etc.)**

Effective fall 2000 the course evaluation and/or the general education designation as listed in the Arizona CEG (Course Equivalency Guide) within the Arizona Course Applicability System (AZCAS) is valid for the term in which the student is awarded credit on the transcript. A course evaluation and/or general education designation may be subject to change. Given that curriculum is dynamic at both MCCCD and the institutions to which MCCCD students transfer, students have the option to petition for course evaluations and/or general education designations.

The college reserves the right to make necessary course and program changes in order to meet current educational standards.

- Required courses that transfer as equivalent courses, departmental elective credit (XXXXDEC), or general elective credit (Elective) at all Arizona public universities according to the Arizona CEG (Course Equivalency Guide). The course evaluation and/or general education designation as listed in AZCAS is valid for the term in which the student is awarded credit on the transcript;
- Require that a minimum of 12 semester credits of course work be taken at any of the MCCCD colleges;
• Include both course and their modular equivalents. Either the course or the modular equivalents will satisfy the AGEC;
• Accept one of the courses that is cross-referenced with other courses;
• Provide for exemption from Arizona university admission requirements for: Students who complete the AGEC-A, AGEC-B, or AGEC-S with a minimum 2.0 on a 4.0=A scale, or students who complete an associate or higher degree from a regionally accredited post-secondary institution with a minimum 2.0 on a 4.0=A scale for Arizona residents and a minimum 2.5 on a 4.0=A scale for non-residents.

The 35-38 semester credits required for each of the three AGECs follow. View satisfy MCCCD AGEC-A, AGEC-B and/or AGEC-S for specific course information via the following website: www.maricopa.edu/academic/ccta by clicking on the statewide AGEC icon.

The AGEC A, B, S, and AGEC Matrix identify 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 (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)

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 a Core area and one or two Awareness areas simultaneously. Therefore, no additional semester credits are required to satisfy the two Awareness areas.
   1. Cultural Diversity in the United States [C] AND
   2. Global Awareness [G] OR
   3. Historical Awareness [H]

AGEC Area Requirements Descriptions/Definitions - CORE AREAS

First-Year Composition (FYC)
Courses must be completed with a grade of “C” or better in the First-Year Composition Core area. Courses must emphasize skills necessary for college-level learning and writing skills.

Literacy and Critical Inquiry [L]
Courses must be completed with a grade of “C” or better in the Literacy and Critical Inquiry Core area. In the [L] course, typically at the sophomore level, students gather, interpret, and evaluate evidence and express their findings in writing or speech. This course includes a series of graded written or spoken formal assignments.

For AGEC S, students will select a course that satisfies both Literacy and Social & Behavioral Sciences or Literacy and Humanities and Fine Arts requirements simultaneously.

Literacy is defined broadly as communicative competence in written and oral discourse; critical inquiry is defined as the gathering, interpreting, and evaluating of evidence.

Building on the proficiency attained in traditional First-Year Composition courses, the Literacy and Critical Inquiry requirement helps students sustain and extend their ability to reason critically and communicate clearly through language.

Mathematical Studies
Courses must be completed with a grade of “C” or better in the Mathematical Studies Core area. One course must be selected from Mathematics [MA]. In AGEC A and AGEC B, a second course must be selected from Computer/Statistics/Quantitative Applications [CS].

The Mathematical Studies requirement is intended to ensure students have skills in basic mathematics, can use mathematical analysis in their chosen fields, and can understand how computers make mathematical analysis more powerful and efficient.

First, the acquisition of essential skills in basic mathematics requires the student to complete a course in college algebra or to demonstrate a higher level of skill by completing a course for which college algebra is a prerequisite.

Second, the real-world application of mathematical reasoning requires the student to take a course in statistics or the use of quantitative analysis to solve problems of substance.

Third, the use of the computer to assist in serious analytical work is required. Computers are widely used to study the implications of social decisions or to model physical systems.

Mathematics [MA] AGEC-A
The AGEC-A Mathematics Core area requires a course in college mathematics, college algebra, pre-calculus, or any other mathematics course for which college algebra is a prerequisite.

Mathematics [MA] AGEC-B
The AGEC-B Mathematics Core area requires a course in Brief Calculus or a higher-level mathematics course.

Mathematics [MA] AGEC-S
The AGEC-S Mathematics Core area requires the first course in the calculus sequence or any mathematics course for which that course is a prerequisite.

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 issued was the only option for the student and the P-grade is a “C” or better. The P-grade exception does not apply to credits awarded by AGEC granting/receiving institutions.

• Credit received through prior learning assessment or credit by evaluation is transferable within the Maricopa Community Colleges but is not necessarily transferable to other colleges and universities. No more than 20 semester credit hours may be applied toward AGEC.

• The General Education Requirements for AGEC-A may be completed in 35 semester credits with the following stipulations:
  – Courses can satisfy a Core Area and one or two Awareness Areas simultaneously.
  – A course cannot be used to satisfy more than one Core Area.

• General Education Courses can satisfy multiple areas within the degree simultaneously (AGEC-A Core Area, AGEC Awareness Area, MCCCD Additional Requirements, or lower-division courses applicable to the major).

• Effective fall 2000, the course evaluation and/or general education designation as listed in the Arizona Course Equivalency Guide (CEG) within the Arizona Course Applicability System (AZCAS) is valid for the term in which the student is awarded credit on the transcript. A course evaluation and/or general education designation may be subject to change. Students do have the option to petition for general education evaluations and/or general education designations upon transfer.

Courses completed at one of the Maricopa Community Colleges to meet AGEC-A requirements must be listed in the Course Equivalency Guide within the Arizona Course Applicability System as an equivalent course, departmental elective credit (XXXXDEC), or general elective credit (Elective) at all Arizona public universities. The course’s evaluation and/or general education designation is valid for the term in which the student is awarded credit on the transcript. View specific course information via the following website: www.maricopa.edu/academic/ccta by clicking on the statewide AGEC icon.

Courses completed at one of the Maricopa Community Colleges to meet the General Electives requirement must be transferable to the university or universities to which the student plans to transfer, as elective credit or better. For appropriate course selection, students should consult with an advisor.

Courses transferred from another regionally accredited institution to one of the Maricopa Community Colleges will be evaluated by the college for inclusion in the AGEC-A or Associate in Arts Degree.

• Courses and their modular equivalents will satisfy AGEC-A and Associate in Arts requirements.

• If a course is cross-referenced with one or more other courses, then only one of the cross-referenced courses will be accepted to meet requirements.

Courses completed at one of the Maricopa Community Colleges to satisfy Common Courses must be transferable as elective or better to the universities that have the shared majors listed on a Common Course Matrix. A shared major is a university degree program that has similar academic preparation to one or more degree programs at other Arizona public universities as listed on the Common Course Matrices. For appropriate course selection, students should consult with an advisor.

Degree Requirements

The 60-64 semester credits required for the Associate in Arts follow. View specific course information via the following website: www.maricopa.edu/academic/ccta by clicking on the statewide icon. The AGEC A, B, S, and AGEC Maric identify the courses in alpha-order by prefix as well as the Core Areas and Awareness Areas where the course will apply.

I. MCCCD General Education

The MCCCD General Education includes two areas: MCCCD AGEC-A and MCCCD Additional Requirements.
MCCCD AGEC-A

1. Core Areas 35 Credits
   a. First-Year Composition (FYC) 6
   b. Literacy and Critical Inquiry [L] 3
   c. Mathematical Studies [MA/CS] 6

   To complete the Mathematical Studies requirement, select one course to satisfy Mathematics [MA] A and a second course from Computer/Statistics/Quantitative Applications [CS].
   1) Mathematics [MA] A (3 credits)
      Note: requires a course in college mathematics (MAT142) or college algebra (MAT150, MAT151, MAT152) or pre-calculus (MAT187) or any other mathematics course designated with the MA general education value and for which college algebra is a prerequisite.
      AND
   2) Computer/Statistics/Quantitative Applications [CS] (3 credits)

   d. Humanities and Fine Arts [HU] 6
   Students are encouraged to choose coursework from more than one discipline for a total of six semester credits.

   e. Social and Behavioral Sciences [SB] 6
   Students are encouraged to choose coursework from more than one discipline for a total of six semester credits.

   f. Natural Sciences [SQ/SG] 8
   To complete the Natural Sciences requirement: Select four (4) semester credits of [SQ] and four (4) semester credits of [SG] for a total of eight (8) semester credits, OR eight (8) semester credits of [SQ]. Students cannot take eight (8) semester credits of [SG] to meet the Natural Sciences requirement.

   The lecture course(s) selected for Natural Sciences must include or be accompanied by the corresponding laboratory course. The lecture and corresponding laboratory course(s) may carry separate credit. Students should consult with an advisor for appropriate course selection. Students should also access the AZ Course Equivalency Guide (CEG) within the AZ Course Applicability System (AZCAS) for information on equivalencies.

2. Awareness Areas

   Students must satisfy two Awareness Areas:
   Cultural Diversity in the United States [C] and either Global Awareness [G] or Historical Awareness [H]. However, it is not necessary for students to exceed thirty-five semester credits to complete the Awareness Areas because courses can satisfy a Core Area and one or two Awareness Areas simultaneously. Therefore no additional semester credits are required to satisfy the two Awareness Areas.

   Cultural Diversity in the United States [C] AND Global Awareness [G] OR Historical Awareness [H]

3. MCCCD Additional Requirements 0-6 Credits

   Students must satisfy Oral Communication and Critical Reading areas. However, it is not necessary for students to exceed the thirty-five semester credits required in order to complete the MCCCD Additional Requirements because courses can satisfy a Core Area and MCCCD Additional Requirements simultaneously. Therefore no additional semester credits are required to satisfy Oral Communication and Critical Reading.

   a. Oral Communication
      A total of three (3) semester credits is required for Oral Communication. However, if students select a communication course that satisfies both the Oral Communication area and an area within the Core, then the Oral Communication requirement has been satisfied and additional electives may be taken.
      Select from the following options:
      COM100 [SB] (3 credits) OR COM100AA & COM100AB & COM100AC [SB] (3 credits) OR COM110 [SB] (3 credits) OR COM110 AA & COM110 AB & COM110 AC [SB] (3 credits) OR COM225 [L] (3 credits) OR COM230 [SB] (3 credits)

   b. Critical Reading
      A total of three (3) semester credits is required for the Critical Reading area. However, if students complete CRE101 and apply it to AGEC-A Core Requirements or if the students demonstrate proficiency through assessment, then the Critical Reading requirement has been satisfied and additional electives may be taken.
      CRE101 [L] OR equivalent as indicated by assessment.
II. General Electives

Select courses to complete a minimum of 60 semester credits but no more than a total of 64 semester credits.

For students who have decided on a major that articulates with the AA, but who are undecided on the university to which they will transfer, courses satisfying the General Electives area should be selected from the list of Common Courses, Arizona Transfer Pathway Guides, and/or University Transfer Guides in order for the courses to apply in the major upon transfer.

The list of Common Courses for each major is included in the Arizona Transfer Pathway Guides. University Transfer Guides are also available for the Arizona public universities. These guides, both statewide and institutional, are accessible on the following web site: www.aztransfer.com

Students must select MCCCD courses that are transferable to the university or universities to which the student plans to transfer, as elective credit or better according to the Arizona CEG within the AZCAS. For appropriate course selection, students should consult with an advisor.

For some majors, students must demonstrate 4th semester proficiency at the 202 course level to satisfy the Non-English Language Requirements. Students should consult the Arizona Transfer Pathway Guides and/or the University Transfer Guides to determine this requirement for the major at the university to which they intend to transfer. If required, it is recommended that students choose Maricopa courses as electives to meet this requirement as part of the Associate in Arts degree.

Students who are undecided on a major or university should consult an advisor. Not all majors have common courses, so it is recommended that students consult with an advisor for a list of common courses or assistance with selecting appropriate electives.

**Associate in Arts Total Credits:** 60-64

ASSOCIATE IN SCIENCE (AS)

The Maricopa County Community College District Associate in Science degree requires 60-64 semester credits for the program of study. The degree includes the following components:
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. View specific course information via the following website: www.maricopa.edu/academic/ccta by clicking on the statewide AGEC icon.

- 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. View satisfy MCCCD AGEC-A, AGEC-B, and/or AGEC-S for specific course information via the following website: www.maricopa.edu/academic/ccta by clicking on the statewide AGEC icon. The AGEC A, B, S and AGEC Matrix identify the courses in alphabetical order by prefix as well as the Core Areas and Awareness Areas where the course will apply.

#### I. MCCCD General Education

The MCCCD General Education includes two areas: MCCCD AGEC-S and MCCCD Additional Requirements.

##### MCCCD AGEC-S

<table>
<thead>
<tr>
<th>1. Core Areas</th>
<th>36-38 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>0-3</td>
</tr>
</tbody>
</table>

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
   Global Awareness [G] OR
   Historical Awareness [H]

3. MCCCD Additional Requirements 0-6 Credits
   Students must satisfy Oral Communication and Critical Reading areas. However, it is not necessary for students to exceed the 36-38 semester credits required in order to complete the MCCCD Additional Requirements.

a. Oral Communication
   A total of three (3) semester credits are required for Oral Communication. However, if students select a communication course that satisfies both the Oral Communication area and an area within the Core, then the Oral Communication requirement has been satisfied and additional electives may be taken.
   Select from the following options:
   COM100 [SB] (3 credits) OR
   COM100AA & COM100AB &
   COM100AC [SB] (3 credits) OR
   COM110 [SB] (3 credits) OR
   COM110AA & COM110AB &
   COM110AC [SB] (3 credits) OR
   COM225 [L] (3 credits) OR
   COM230 [SB] (3 credits)

b. Critical Reading
   A total of three (3) semester credits are required for the Critical Reading area. If students demonstrate proficiency through assessment, then the Critical Reading requirement has been satisfied and additional electives may be taken.
   CRE101 [L] OR equivalent as indicated by assessment.

II. General Electives
   Select courses to complete a minimum of 60 semester credits but no more than a total of 64 semester credits.

   For students who have decided on a major that articulates with the AS, but who are undecided on the university to which they will transfer, courses satisfying the General Electives area should be selected from the list of Common Courses, Arizona Transfer Pathway Guides, and/or University Transfer Guides in order for the courses to apply in the major upon transfer.
The list of Common Courses for each major is included in the Arizona Transfer Pathway Guides. University Transfer Guides are also available for the Arizona public universities. These guides, both statewide and institutional, are accessible on the following web site: www.aztransfer.com

Students must select MCCCD courses that are transferable to the university or universities to which the student plans to transfer, as elective credit or better according to the Arizona CEG within the AZCAS. For appropriate course selection, students should consult with an advisor.

For some majors, students must demonstrate 4th semester proficiency at the 202 course level to satisfy the Non-English Language Requirements. Students should consult the Arizona Transfer Pathway Guides and/or the University Transfer Guides to determine this requirement for the major at the university to which they intend to transfer. If required, it is recommended that students choose Maricopa courses as electives to meet this requirement as part of the Associate in Science degree.

Students who are undecided on a major or university should consult an advisor. Not all majors have common courses, so it is recommended that students consult with an advisor for a list of common courses or assistance with selecting appropriate electives.

**ASSOCIATE IN 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.
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
      2) CIS105 [CS] Survey of Computer Information Systems, OR BPC110 [CS]
         Computer Usage and Applications
   c. Literacy and Critical Inquiry [L] 3
      COM225 Public Speaking
   d. Humanities and Fine Arts [HU] 6
      1) Select (3) semester credits from the following courses:
         ARH100 Introduction to Art
         ARH101 Prehistoric through Gothic Art
         ARH102 Renaissance through Contemporary Art
         THE111 Introduction to Theatre
         DAH100 Introduction to Dance
         DAH201 World Dance Studies
         MHL140 Survey of Music History
         MHL143 Music in World Cultures
         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
   e. Social and Behavioral Sciences [SB] 6
      1) Select 3 semester credits from the following courses:
         HIS103 United States History to 1865
         POS110 American National Government
         GCU227 United States and Arizona Social Studies or
         POS227 United States and Arizona Social Studies
         AND
2) Select 3 semester credits from the following courses:
CFS205 Human Development
ECH/CFS176 Child Development
ECN211 Macroeconomic Principles
ECN212 Microeconomic Principles
GCU121 World Geography I: Eastern Hemisphere
GCU122 World Geography II: Western Hemisphere
HIS104 United States History 1865 to Present
PSY101 Introduction to Psychology

f. Natural Sciences—Science-Quantitative [SQ] and Science-General [SG] 8

To complete the Natural Sciences requirement, select a total of 8 semester credits from the following categories. At least 4 credits must be SQ courses. You can select 4 semester credits of SG and 4 semester credits of SQ for a total of 8 semester credits. Natural Sciences courses must include or be accompanied by the corresponding laboratory course. When the lecture and corresponding laboratory are awarded separate credit, both will be counted as equivalent to one course in that discipline.

1) Life Sciences - Select 4 semester credits of SQ or SG from BIO

AND

2) Physical Sciences or Earth/Space Sciences - Select 4 semester credits of SQ or SG credits from the following prefixes:
   AGS  ASM  AST  CHM
   GPH  GLG  PHS  PHY

Note: Students are advised to check with the university they plan to attend as requirements for lab sciences may vary.

g. Awareness Areas 0
   The MCCCDAEE requires coursework in two Awareness Areas:
   Cultural Diversity in the U.S. [C] AND
   Historical Awareness [H] OR
   Global Awareness [G]

Courses can satisfy a Core Area Requirement and one or more Awareness Areas, or can satisfy an Elementary Education Requirement and one or more Awareness Areas simultaneously. Therefore, no additional semester credits are required to satisfy the two Awareness Areas.

2. MCCC Additional Requirements 0-3 Credits
   a. Oral Communication
      Satisfied by COM225 taken for Literacy and Critical Inquiry Requirement
   b. Critical Reading
      CRE101 or exemption by testing.

II. Elementary Education Requirements 25 Credits
A total of 25 semester credits are required to satisfy the Elementary Education Requirements.

A. Education Foundations 18 Credits
Complete the following courses to satisfy the Education Foundations requirements:
EDU 220 Introduction to Serving English Language Learners
EDU221 Introduction to Education
EDU222 Introduction to the Exceptional Learner
EDU230 Cultural Diversity in Education
MAT156 Mathematics for Elementary Teachers I
MAT157 Mathematics for Elementary Teachers II

B. 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)
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: Health, Safety, Nutrition and Fitness
FON100 Introductory Nutrition

Associate in Arts Total Credits: 60-63
ASSOCIATE IN ARTS, FINE ARTS – DANCE (AAFA)

The Maricopa County Community College District Associate in Arts, Fine Arts - Dance degree requires a minimum of 64 semester credits for the program of study. The degree includes the following components:

I. General Education
   Arizona General Education Curriculum for Arts (AGEC-A)
   MCCCD Additional Requirements

II. Fine Arts Requirements – Dance

Purpose of the Degree

The Associate in Arts, Fine Arts - Dance degree is designed for students planning to transfer to four-year colleges and universities. In general, the components of the degree meet requirements for majors in the Fine Arts. The degree is designed to prepare students to meet selective admission criteria for programs such as the Bachelor of Fine Arts, which may require a portfolio or performance requirement.

The semester credits used to satisfy the MCCCD Associate in Arts, Fine Arts - Dance degree may apply to university graduation requirements of the university major for which the degree is designed. Information regarding the articulation of the degree with majors at the Arizona public universities can be accessed via the following website: www.aztransfer.com

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

• Completion of the Associate in Arts, Fine Arts - Dance degree and the AGEC-A provides for exemption from Arizona public university admission requirements for Arizona residents who have a minimum Grade Point Average of 2.0 on a 4.0=A scale and a minimum 2.5 on a 4.0=A scale for non-residents.
• The graduation policies within the general catalog must be satisfied for completion of the Associate in Arts, Fine Arts - Dance degree.
• A minimum of 64 semester credits in courses numbered 100 and above to be completed with a grade of “C” or better. Credit units transferred from outside of the district need to be at a grade of “C” or better. A grade of “C” equals 2.0 on a 4.0 grading scale or equivalent. On an exception basis, P-grades may be allowed in the AGEC for credit transferred if documentation collected by the community college indicates that the P-grade issued was the only option for the student and the P-grade is a “C” or better. The P-grade exception does not apply to credits awarded by AGEC granting/receiving institutions;
• Credit received through prior learning assessment or credit by evaluation is transferable within the Maricopa Community Colleges but is not necessarily transferable to other colleges and universities. No more than 20 semester credit hours may be applied toward AGEC.
• The General Education Requirements for AGEC-A may be completed in 35 semester credits with the following stipulations
  – Courses can satisfy a Core Area and one or two Awareness Areas simultaneously
  – A course cannot be used to satisfy more than one Core Area
• General Education Courses can satisfy multiple areas within the degree simultaneously (AGEC-A Core Area, AGEC Awareness Area, MCCCD Additional Requirements, or lower-division courses applicable to the major).
• Effective Fall 2000, the course evaluation and/or general education designation as listed in the Arizona Course Equivalency Guide (CEG) within the Arizona Course Applicability System (AZCAS), is valid for the term in which the student is awarded credit on the transcript. A course evaluation and/or general education designation may be subject to change. Students do have the option to petition for general education evaluations and/or general education designations upon transfer.
• Courses completed at one of the Maricopa Community Colleges to meet AGEC-A requirements must be listed in the Course Equivalency Guide within the Arizona Course Applicability System as an equivalent course, departmental elective credit (XXXXDEC), or general elective credit (Elective) at all Arizona public universities. The course’s evaluation and/or general education designation is valid for the term in which the student is awarded credit on the transcript. View specific course information via the following website: www.maricopa.edu/academic/ccta/ by clicking on the statewide AGEC icon.
• 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. View specific course information via the following website: www.maricopa.edu/academic/ccta/ by clicking on the statewide AGEC icon. The AGEC A, B, S and AGEC Matrix identify the courses in alpha-order by prefix as well as the Core Areas and Awareness Areas where the course will apply.

1. **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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM100 [SB]</td>
<td>Oral Communication</td>
<td>3</td>
</tr>
<tr>
<td>COM100AA &amp; COM100AB &amp; COM100AC [SB]</td>
<td>(3 credits) OR</td>
<td></td>
</tr>
<tr>
<td>COM110 [SB]</td>
<td>(3 credits) OR</td>
<td></td>
</tr>
<tr>
<td>COM110AA &amp; COM110AB &amp; COM110AC [SB]</td>
<td>(3 credits) OR</td>
<td></td>
</tr>
<tr>
<td>COM225 [L]</td>
<td>(3 credits) OR</td>
<td></td>
</tr>
<tr>
<td>COM230 [SB]</td>
<td>(3 credits)</td>
<td></td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRE101 [L]</td>
<td>Critical Reading</td>
<td>3</td>
</tr>
<tr>
<td>CRE101AA &amp; CRE101AB &amp; CRE101AC [SB]</td>
<td>(3 credits) OR</td>
<td></td>
</tr>
<tr>
<td>CRE225 [L]</td>
<td>(3 credits) OR</td>
<td></td>
</tr>
<tr>
<td>CRE230 [SB]</td>
<td>(3 credits)</td>
<td></td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAN150</td>
<td>Dance Performance I</td>
<td>1</td>
</tr>
<tr>
<td>DAN210</td>
<td>Dance Production I</td>
<td>3</td>
</tr>
<tr>
<td>DAN221</td>
<td>Rhythmic Theory for Dance I</td>
<td>2</td>
</tr>
<tr>
<td>DAN264</td>
<td>Choreography I</td>
<td>3</td>
</tr>
<tr>
<td>DAN280</td>
<td>Dance Practicum</td>
<td>2</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAN120++</td>
<td>World Dance (any module)</td>
<td>1</td>
</tr>
<tr>
<td>DAN129</td>
<td>Musical Theatre Dance I</td>
<td>1</td>
</tr>
<tr>
<td>DAN130</td>
<td>Musical Theatre Dance II</td>
<td>1</td>
</tr>
<tr>
<td>DAN131</td>
<td>Ballet I</td>
<td>1</td>
</tr>
<tr>
<td>DAN132</td>
<td>Modern Dance I</td>
<td>1</td>
</tr>
<tr>
<td>DAN133</td>
<td>Modern Jazz Dance I</td>
<td>1</td>
</tr>
<tr>
<td>DAN134</td>
<td>Ballet II</td>
<td>1</td>
</tr>
<tr>
<td>DAN135</td>
<td>Modern Dance II</td>
<td>1</td>
</tr>
<tr>
<td>DAN136</td>
<td>Modern Jazz Dance II</td>
<td>1</td>
</tr>
<tr>
<td>DAN229</td>
<td>Musical Theatre Dance III</td>
<td>1</td>
</tr>
<tr>
<td>DAN230</td>
<td>Musical Theatre Dance IV</td>
<td>1</td>
</tr>
<tr>
<td>DAN231</td>
<td>Ballet III</td>
<td>1</td>
</tr>
<tr>
<td>DAN231AA</td>
<td>Ballet III: Intensive</td>
<td>2</td>
</tr>
<tr>
<td>DAN232</td>
<td>Modern Dance III</td>
<td>1</td>
</tr>
<tr>
<td>DAN233</td>
<td>Modern Jazz Dance III</td>
<td>1</td>
</tr>
<tr>
<td>DAN234</td>
<td>Ballet IV</td>
<td>1</td>
</tr>
<tr>
<td>DAN234AA</td>
<td>Ballet IV: Intensive</td>
<td>2</td>
</tr>
<tr>
<td>DAN235</td>
<td>Modern Dance IV</td>
<td>1</td>
</tr>
<tr>
<td>DAN236</td>
<td>Modern Jazz Dance IV</td>
<td>1</td>
</tr>
<tr>
<td>DAN237</td>
<td>Ballet Pointe I</td>
<td>1</td>
</tr>
<tr>
<td>DAN290</td>
<td>Dance Conservatory I (any module)</td>
<td>1-3</td>
</tr>
<tr>
<td>DAN291</td>
<td>Dance Conservatory II (any module)</td>
<td>1-3</td>
</tr>
<tr>
<td>DAN292</td>
<td>Dance Conservatory III (any module)</td>
<td>1-3</td>
</tr>
</tbody>
</table>
Part III: Restricted Electives  9 Credits

The remaining credits from DAH and DAN prefixed courses should be selected as prescribed by the dance advisor. Only three of the remaining credits may be selected from the following DAN prefixed courses:

DAH++++ Any DAH prefixed course EXCEPT DAH100 or DAH201 if selected to satisfy the AGEC-A Humanities and Fine Arts Area
DAN115++ Contemporary Dance Trends (any module) 1
DAN120++ World Dance (any module) 1
DAN125++ Social Dance (any module) 1
DAN129 Musical Theatre Dance I 1
DAN130 Musical Theatre Dance II 1
DAN133 Modern Jazz Dance I 1
DAN136 Modern Jazz Dance II 1
DAN140 Tap Dance I 1
DAN141 Dance Workshop 1
DAN145 Tap Dance II 1
DAN146 Tap Dance Ensemble 1
DAN150 Dance Performance I 1
DAN164 Improvisation 1
DAN230 Musical Theatre Dance IV 1
DAN231 Ballet III 1
DAN231AA Ballet III: Intensive 2
DAN232 Modern Dance III 1
DAN233 Modern Jazz Dance III 1
DAN234 Ballet IV 1
DAN234AA Ballet IV: Intensive 2
DAN235 Modern Dance IV 1
DAN236 Modern Jazz Dance IV 1
DAN237 Ballet Pointe I 1
DAN290++ Dance Conservatory I (any module) 1-3
DAN291++ Dance Conservatory II (any module) 1-3
DAN292++ Dance Conservatory III (any module) 1-3
DAN298++ Special Projects (any module) 1-3

* Selection of DAN298 courses to satisfy degree requirements should be done in consultation with a program advisor or faculty member as Special Projects courses do not currently transfer to any of the three Arizona state public universities.

Associate in Arts, Fine Arts – Dance Total Credits 64
P-grade issued was the only option for the student and the P-grade is a “C” or better. The P-grade exception does not apply to credits awarded by AGEC granting/receiving institutions.

- Credit received through prior learning assessment or credit by evaluation is transferable within the Maricopa Community Colleges but is not necessarily transferable to other colleges and universities. No more than 20 semester credit hours may be applied toward AGEC.

- The General Education Requirements for AGEC-A may be completed in 35 semester credits with the following stipulations
  - Courses can satisfy a Core Area and one or two Awareness Areas simultaneously
  - A course cannot be used to satisfy more than one Core Area

- General Education Courses can satisfy multiple areas within the degree simultaneously (AGEC-A Core Area, AGEC Awareness Area, MCCCD Additional Requirements, or lower-division courses applicable to the major).

- Effective Fall 2000, the course evaluation and/or general education designation as listed in the Arizona Course Equivalency Guide (CEG) within the Arizona Course Applicability System (AZCAS), is valid for the term in which the student is awarded credit on the transcript. A course evaluation and/or general education designation may be subject to change. Students do have the option to petition for general education evaluations and/or general education designations upon transfer.

- Courses completed at one of the Maricopa Community Colleges to meet AGEC-A requirements must be listed in the Course Equivalency Guide within the Arizona Course Applicability System as an equivalent course, departmental elective credit (XXXXDEC), or general elective credit (Elective) at all Arizona public universities. The course’s evaluation and/or general education designation is valid for the term in which the student is awarded credit on the transcript. View specific course information via the following website: www.maricopa.edu/academic/ccta/ by clicking on the statewide AGEC icon.

- 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. View specific course information via the following website: www.maricopa.edu/academic/ccta/ by clicking on the statewide AGEC icon. This list identifies the courses in alpha-order by prefix as well as the Core Areas and Awareness Areas where the course will apply.

#### I. MCCCD General Education

The MCCCD General Education includes two areas: MCCCD AGEC-A and MCCCD Additional Requirements

**MCCCD AGEC-A**

1. Core Areas 35 Credits
   a. First-Year Composition (FYC) 6
   b. Literacy and Critical Inquiry [L] 3
   c. Mathematical Studies [MA/CS] 6

   To complete the Mathematical Studies requirement, select one course to satisfy Mathematics [MA] A and a second course from Computer/Statistics/Quantitative Applications [CS]

   1) Mathematics [MA] A (3 credits)
      Select a course in college mathematics or college algebra or pre-calculus or any other mathematics course for which college algebra is a prerequisite AND
2) Computer/Statistics/Quantitative Applications [CS] (3 credits)

d. Humanities and Fine Arts [HU]  6
   Students are encouraged to choose coursework from more than one discipline for a total of six semester credits.
   Select the following:
   ARH101 Prehistoric Through Gothic Art  3

e. Social and Behavioral Sciences [SB]  6
   Students are encouraged to choose coursework from more than one discipline for a total of six semester credits.

f. Natural Sciences [SQ/SG]  8
   To complete the Natural Sciences requirement: Select four (4) semester credits of [SQ] and four (4) semester credits of [SG] for a total of eight (8) semester credits, OR eight (8) semester credits of [SQ]. Students 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 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 two Awareness Areas simultaneously. Therefore no additional semester credits are required to satisfy the two Awareness Areas.
   Cultural Diversity in the United States [C]
   AND
   Global Awareness [G] OR
   Historical Awareness [H]

3. MCCCD Additional Requirements  0-6 Credits
   Students must satisfy Oral Communication and Critical Reading areas. However, it is not necessary for students to exceed the thirty-five semester credits required in order to complete the MCCCD Additional Requirements because courses can satisfy a Core Area and MCCCD Additional Requirements simultaneously. Therefore no additional semester credits are required to satisfy Oral Communication and Critical Reading.

   a. Oral Communication  3
      A total of three (3) semester credits is required for Oral Communication. However, if students select a communication course that satisfies both the Oral Communication area and an area within the Core, then the Oral Communication requirement has been satisfied and additional electives may be taken.
      Select from the following options:
      COM100 [SB] (3 credits) OR COM100AA & COM100AB & COM100AC [SB] (3 credits) OR COM110 [SB] (3 credits) OR COM110AA & COM110AB & COM110AC [SB] (3 credits) OR COM225 [L] (3 credits) OR COM230 [SB] (3 credits)

   b. Critical Reading  3
      A total of three (3) semester credits is required for the Critical Reading area. However, if students complete CRE101 and apply it to AGEC-A Core Requirements or if the students demonstrate proficiency through assessment, then the Critical Reading requirement has been satisfied.
      Select from the following options to complete 3 credits:
      CRE101 (3 credits) OR equivalent as indicated by assessment

II. Fine Arts Requirements – Art  28 Credits
   A minimum of 28 credits are required to satisfy the Fine Arts Requirements – Art Foundations 16 Credits
   Select the following:
   ADA/ART112 Two-Dimensional Design  3
   ADA/ART115 Three-Dimensional Design  3
   ARH102 Renaissance Through Contemporary Art  3
   ART111 Drawing I  3
   ART113 Color  3
   ART255 AB The Portfolio  1
GRADUATION POLICIES AND REQUIREMENTS

Restricted Electives 12 Credits
Select from the following options to complete a minimum of twelve semester credits:
ART116  Life Drawing I  3
ART122  Drawing and Composition II  3
ART131  Photography I  3
ART151  Sculpture I  3
ART161  Ceramics I  3
ART165  Watercolor Painting I  3
ART167  Painting I  3

Associate in Arts, Fine Arts – Art Total Credits 63

ASSOCIATE IN ARTS, FINE ARTS – THEATRE (AAFA)

The Maricopa County Community College District Associate in Arts, Fine Arts - Theatre degree requires a minimum of 60-64 semester credits for the program of study. The degree includes the following components:

I. General Education
Arizona General Education Curriculum for Arts (AGEC-A)
MCCCD Additional Requirements

II. Fine Arts Requirements – Theatre
Purpose of the Degree
The Associate in Arts, Fine Arts - Theatre degree is designed for students planning to transfer to four-year colleges and universities. In general, the components of the degree meet requirements for majors in the Fine Arts the degree is designed to prepare students to meet selective admission criteria for programs such as the Bachelor of Fine Arts, which may require a portfolio or performance requirement.

The semester credits used to satisfy the MCCCD Associate in Arts, Fine Arts - Theatre may apply to university graduation requirements of the university major for which the degree is designed. Information regarding the articulation of the degree with majors at the Arizona public universities can be accessed via the following website: www.aztransfer.com

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

• Completion of the Associate in Arts, Fine Arts - Theatre and the AGEC-A provides for exemption from Arizona public university admission requirements for Arizona residents who have a minimum Grade Point Average of 2.0 on a 4.0=A scale and a minimum 2.5 on a 4.0=A scale for non-residents.

• The graduation policies within the general catalog must be satisfied for completion of the Associate in Arts, Fine Arts - Theatre degree.

• A minimum of 60 semester credits in courses numbered 100 and above to be completed with a grade of “C” or better. Credit units transferred from outside of the district need to be at a grade of “C” or better. A grade of “C” equals 2.0 on a 4.0 grading scale or equivalent. On an exception basis, P-grades may be allowed in the AGEC for credit transferred if documentation collected by the community college indicates that the P-grade issued was the only option for the student and the P-grade is a “C” or better. The P-grade exception does not apply to credits awarded by AGEC granting/receiving institutions.

• Credit received through prior learning assessment or credit by evaluation is transferable within the Maricopa Community Colleges but is not necessarily transferable to other colleges and universities. No more than 20 semester credit hours may be applied toward AGEC.

• The General Education Requirements for AGEC-A may be completed in 35 semester credits with the following stipulations
  – Courses can satisfy a Core Area and one or two Awareness Areas simultaneously
  – A course cannot be used to satisfy more than one Core Area

• General Education Courses can satisfy multiple areas within the degree simultaneously (AGEC-A Core Area, AGEC Awareness Area, MCCCD Additional Requirements, or lower-division courses applicable to the major)

• Effective Fall 2000, the course evaluation and/or general education designation as listed in the Arizona Course Equivalency Guide (CEG) within the Arizona Course Applicability System (AZCAS), is valid for the term in which the student is awarded credit on the transcript. A course evaluation and/or general education designation may be subject to change. Students do have the option to petition for general education evaluations and/or general education designations upon transfer.

• Courses completed at one of the Maricopa Community Colleges to meet AGEC-A requirements must be listed in the Course Equivalency Guide within the Arizona Course Applicability System as an equivalent course, departmental elective credit (XXXXDEC), or general elective credit (Elective) at all Arizona public universities. The course’s evaluation and/or general education designation is valid for the term in which the student is awarded credit on the transcript. View specific course information via the
following website: www.maricopa.edu/academic/ccta/ by clicking on the statewide AGEC icon.

- 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. View specific course information via the following website: www.maricopa.edu/academic/ccta/ by clicking on the statewide AGEC icon.

The AGEC A, B, S and AGEC Matric identify the courses in alpha-order by prefix as well as the Core Areas and Awareness Areas where the course will apply.

I. MCCCD General Education

The MCCCD General Education includes two areas; MCCCD AGEC-A and MCCCD Additional Requirements

MCCCD AGEC-A

1. Core Areas 35 Credits
   a. First-Year Composition (FYC) 6
   b. Literacy and Critical Inquiry [L]
      Select the following:
      THE220 Modern Drama 3
   c. Mathematical Studies [MA/CS] 6
      To complete the Mathematical Studies requirement, select one course to satisfy Mathematics [MA] A and
      a second course from Computer/Statistics/Quantitative Applications [CS].
      1) Mathematics [MA] A (3 credits)
         Select a course in college mathematics or college algebra or pre-calculus or any other mathematics course for which college algebra is a prerequisite.
         AND
      2) Computer/Statistics/Quantitative Applications [CS] (3 credits)
   d. Humanities and Fine Arts [HU] 6
      Students are encouraged to choose coursework from more than one discipline for a total of six semester credits.
      Select the following:
      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 16-17 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 2
THP213 Introduction to Technical Theatre 3
THP217 Introduction to Design Scenography 3

Restricted Electives 9-12 Credits

Students may take a variety of courses, or they may choose to emphasize a particular aspect of theatre, such as acting, technical theatre, cinema, theatre education, directing, movement, musical theatre, etc. Students should consult with their campus theatre advisor for the restricted electives recommended to attain each area of emphasis.

Select from the following options to complete a minimum of 9 semester credits:

- COM/THP271 Voice and Diction 3
- HUM/THE206 Introduction to Television Arts 3
- HUM/THE210 Contemporary Cinema 3
- THE118 Playwriting 3
- THP120AA Audition Techniques: Prepared Monologue 1
- THP120AB Audition Techniques: Cold Readings 1
- THP130 Stage Combat 3
- THP131 Stage Movement 3
- THP151 Theatre for Youth 3
- THP210 Acting: TV/Film 3
- THP211 Creative Drama 3
- THP212 Acting II 3
- THP214 Directing Techniques 3
- THP216 Beginning Stage Lighting 3
- THP219 Introduction to Puppetry 3
- THP220 Advanced Acting: Television and Film 3
- THP226 Theatrical Design: Costuming 3
- COM/THP241 Oral Interpretation of Literature 3
- THP262 Entertainment Industry Design Drafting 3
- THP267 Painting Techniques for Film, TV/Theatre 3
- THP268 Opportunities in Production 3
- MUP/THP270 Musical Theatre Workshop 2
- COM/THP271 Voice and Diction 3
- THP281 Production and Acting I 3
- THP298++ Special Projects 1-3

Associate in Arts, Fine Arts–Theatre Total Credits 60-64
ASSOCIATE IN BUSINESS – GENERAL REQUIREMENTS (ABUS-GR)

The Maricopa County Community College District Associate in Business General Requirements (ABus GR) degree requires a total of 62-63 semester credits for the program of study. The degree has three major components:

I. MCCCD General Education
   Includes Arizona General Education Curriculum for Business (AGEC-B)

II. Common Lower Division Program Requirements

III. General Electives

Purpose of the Degree

The ABus-GR degree is designed for students who plan to transfer to Arizona’s public universities into majors that articulate with the Associate in Business General Requirements pathway and for students who plan to complete lower division coursework toward a baccalaureate program at other degree-granting institutions. All business majors except 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 to satisfy the MCCCD Associate in Business General Requirements will apply to university graduation requirements of the university major for which the ABus-GR was designed.

Academic Policies that Govern the Associate in Business General Requirements Degree

- Requires 62-63 semester credits in courses numbered 100 and above to be completed with a grade of “C” or better. Credit units transferred from outside of the district need to be at a grade of “C” or better. A grade of “C” equals 2.0 on a 4.0 grading scale or equivalent. On an exception basis, P-grades may be allowed in the AGEC for credit transferred if documentation collected by the community college indicates that the P-grade issued was the only option for the student and the P-grade is a “C” or better. The P-grade exception does not apply to credits awarded by AGEC granting/receiving institutions.
- Credit received through prior learning assessment or credit by evaluation is transferable within the Maricopa Community Colleges but is not necessarily transferable to other colleges and universities. No more than 20 semester credit hours may be applied toward AGEC.
- Uses the following policies to help students complete the required Core and Awareness Areas in AGEC-B without exceeding the 35 semester credits.
  - Courses can satisfy a Core Area and one or two Awareness Areas simultaneously.
  - A course cannot be used to satisfy more than one Core Area requirement.
- Uses the following policies to help students complete the program requirements at a minimum of 62 semester credits but not more than 63 semester credits.
- Courses can satisfy multiple areas within the degree simultaneously (AGEC-B Core Area, AGEC-B Awareness Area, and/or Common Lower Division Program Requirements.
- Follows the general education policy below:

General Education Designations (example: [FYC], [SB], [HU], etc.)

Effective Fall 2000 the course evaluation and/or general education designation as listed in the Arizona CEG (Course Equivalency Guide) within the Arizona Course Applicability System (AZCAS) is valid for the term in which the student is awarded credit on the transcript. A course evaluation and/or general education designation may be subject to change. Given that curriculum is dynamic at both MCCCD and the institutions to which MCCCD students transfer, students have the option to petition for general education evaluations and/or general education designations.

- Requires courses that transfer as an equivalent course, departmental elective credit (XXXXDEC), or general elective credit (Elective) at all Arizona public universities according to the Arizona Course Equivalency Guide (CEG) within the Arizona Course Applicability System (AZCAS). The course evaluation and/or general education designation as listed in AZCAS is valid for the term in which the student is awarded credit on the transcript.
Degree Requirements

The 62-63 semester credits required for the Associate in Business General Requirements follow. View satisfy MCCCD AGEC A, AGEC B and/or AGEC S for specific course information via the following website: www.maricopa.edu/academic/ecta

- Click on the AGEC icon
- Select Maricopa Community College District or any of the Maricopa Community Colleges
- Click on the appropriate AGEC A, B, S, or AGEC Matrix

The lists identify the courses in alpha-order by prefix as well as the different Core Areas and Awareness Areas where the course will apply.

I. MCCCD General Education

MCCCD AGEC-B

1. Core Areas 35 Credits
   a. First-Year Composition (FYC) 6
   b. Literacy and Critical Inquiry [L] 3
   c. Mathematical Studies [MA/CS] 6
      To complete the Mathematical Studies requirement select one course to satisfy Mathematics [MA] B and a second course from Computer/Statistics/Quantitative Applications [CS].
      1) Mathematics [MA] B (3 credits)
         MAT212, Brief Calculus, or a higher level mathematics course AND
      2) Computers/Statistics/Quantitative Applications) [CS] (3 credits)
         CIS105 [CS] Survey of Computer Information Systems
   d. Humanities and Fine Arts [HU] 6

Students are encouraged to choose coursework from more than one discipline for a total of six semester credits.

e. Social and Behavioral Sciences [SB] 6

Students are encouraged to choose coursework from more than one discipline for a total of six semester credits.

f. Natural Sciences [SQ/SG] 8

To complete the Natural Sciences requirement:
Select four (4) semester credits of [SQ] and four (4) semester credits of [SG] for a total of (8) semester credits, OR eight (8) semester credits of [SQ].

Students cannot take eight (8) semester credits of [SG] to meet the Natural Sciences requirement.

The lecture course(s) selected for Natural Sciences must include or be accompanied by the corresponding laboratory course. The lecture and corresponding laboratory course(s) may carry separate credit. Students should consult with an advisor for appropriate course selection. Students should also access the AZ Course Equivalency Guide (CEG) within the AZ Course Applicability System (AZCAS) for information on equivalencies.

2. Awareness Areas

Students must satisfy two Awareness Areas: Cultural Diversity in the United States [C] and either Global Awareness [G] or Historical Awareness [H]. However, it is not necessary for students to exceed thirty-five semester credits to complete the Awareness Areas because courses can satisfy a Core Area and one or two Awareness Areas simultaneously. Therefore no additional semester credits are required to satisfy the two Awareness Areas.

   Cultural Diversity in the United States [C]
   AND
   Global Awareness [G] OR
   Historical Awareness [H]

II. Common Lower Division Program Requirements 27 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
CIS162AD C#: Level I
GBS151 Introduction to Business
GBS215 Business Law and Society
GBS233 [L] Business Communication
**GBS220 Quantitative Methods in Business

GBS110 OR Human Relations in Business and Industry

MGT251 Human Relations in Business
IBS101 Introduction to International Business
MGT253 Owning and Operating a Small Business

MKT271 Principles of Marketing
PAD100 21st Century Public Policy and Service
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 with an advisor.

ABUS-GR Degree Total Credits 62-63

ASSOCIATE IN BUSINESS – SPECIAL REQUIREMENTS (ABUS – SR)

The Maricopa County Community College District Associate in Business, Special Requirements (ABus-SR) degree requires a total of 62-63 semester credits for the program of study. The degree has three major components:

I. MCCCD General Education

Includes the Arizona General Education Curriculum for Business (AGEC-B)

II. Common Lower Division Program Requirements

III. General Electives

Purpose of the Degree

The ABus-SR degree is designed for Computer Information Systems majors who plan to transfer to Arizona’s public universities and for students who plan to complete lower division coursework toward a baccalaureate program at other degree-granting institutions. 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.

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. View satisfy MCCCD AGEC-A, AGEC-B and/or AGEC-S for specific course information via the following website: www.maricopa.edu/academic/ccta

• Click on the AGEC icon
• Select Maricopa Community College District or any of the Maricopa Community Colleges
• Click on the appropriate AGEC A, B, S, or AGEC Matrix

The lists identify the courses in alpha-order by prefix as well as the different Core Areas and Awareness Areas where the course will apply.
I. MCCCD General Education

MCCCD AGEC-B

1. Core Areas 35 Credits
   a. First-Year Composition (FYC) 6
   b. Literacy and Critical Inquiry [L] 3
   c. Mathematical Studies [MA/CS] 6
      To complete the Mathematical Studies requirement select one course to satisfy the Mathematics [MA] B and a second course from Computer/Statistics/Quantitative Applications [CS]
      1) Mathematics [MA] B (3 credits)
         MAT212, Brief Calculus, or a higher level mathematics course AND
      2) Computer/Statistics/Quantitative Applications [CS] (3 credits)
         CIS105 [CS] Survey of Computer Information Systems
   d. Humanities and Fine Arts [HU] 6
      Students are encouraged to choose course work from more than one discipline for a total of six semester credits.
   e. Social and Behavioral Sciences [SB] 6
      Students are encouraged to choose course work from more than one discipline for a total of six semester credits.
   f. Natural Sciences [SQ/SG] 8
      Select four (4) semester credits of [SQ] and four (4) semester credits of [SG] for a total of eight (8) semester credits, OR eight (8) semester credits of [SQ]. Students cannot take eight (8) semester credits of [SG] to meet the Natural Sciences requirement.
      The lecture course(s) selected for Natural Sciences must include or be accompanied by the corresponding laboratory course. The lecture and corresponding laboratory course(s) may carry separate credit. Students should consult with an advisor for appropriate course selection. Students should also access the AZ Course Equivalency Guide (CEG) within the AZ Course Applicability System (AZCAS) for information on equivalencies.

2. Awareness Areas
   Students must satisfy two Awareness Areas: Cultural Diversity in the United States [C] and either Global Awareness [G] or Historical Awareness [H]. However, it is not necessary for students to exceed thirty-five semester credits to complete the Awareness Areas because courses can satisfy a Core Area and one or two Awareness Areas simultaneously. Therefore no additional semester credits are required to satisfy the two Awareness Areas.
   Cultural Diversity in the United States [C] AND
   Global Awareness [G] OR
   Historical Awareness [H]

II. Common Lower Division Program Requirements 27 Credits

A total of 27-28 credits is required for the Common Lower Division Program Requirements. Common courses meeting general education areas are noted with the general education designations encased in brackets.

Complete the following:

Accounting
   *ACC111  Accounting Principles I AND
   ACC230  Uses of Accounting Information I AND
   ACC240  Uses of Accounting Information II OR
   *ACC211  Financial Accounting AND
   *ACC212  Managerial Accounting 6
   Council Note: ACC250 is no longer an option
   *MCCCD ACC111 and ACC112 together are equivalent to
   ACC211  Programming I 3
   CIS162AD C#: Level I Programming II 3
   CIS250  Management Information Systems
   GBS205  Legal, Ethical, Regulatory Issues in Business 3
   GBS220  Quantitative Issues in Business OR
   MAT217  Mathematical Analysis for Business OR
   MAT218  Mathematical Analysis for Business 3
   GBS221 [CS] Business Statistics 3
   ECN211 [SB] Macroeconomic Principles 3
   ECN212 [SB] Microeconomic Principles 3

III. General Electives 0-6 Credits

Select courses to complete a minimum of 62 semester credits but no more than a total of 63 semester credits for the program. General Electives semester credits may be necessary if courses selected for the
degree satisfy multiple areas. For appropriate course selection, students should consult an advisor.

Students must select courses that are acceptable as an equivalent course, departmental elective credit (XXXXDEC), or general elective credit (Elective) at all Arizona public universities according to the Arizona Course Equivalency Guide (CEG) within the Arizona Course Applicability System (AZCAS). For appropriate course selection, students should consult with an advisor.

**ABus-SR Total Credits** 62-63

**ASSOCIATE IN GENERAL STUDIES (AGS)**

The Maricopa County Community College District Associate in General Studies (AGS) degree is recommended for students whose educational goals require flexibility. The AGS allows students to choose any elective courses numbered 100 or above to complete the degree. Therefore, this degree may be less appropriate for students who intend to transfer to a baccalaureate-granting institution.

Students who demonstrate skills comparable to those in Critical Reading and/or Mathematics and/or Computer Usage may substitute acceptable elective courses to satisfy the total credits required for the degree.

**Academic Policies That Govern the Associate in General Studies Degree**

- requires a minimum of 60 semester credits in courses numbered 100 and above.
- AGS degree requirements follow with the use of a diagonal character (/) between course numbers to signify options. An asterisk (*) following the course number defines requirements with an effective begin term of spring;
- requires grades as listed for specific areas such as the General Education Core where a minimum grade of “C” is required. Courses applied to other areas may be completed with a minimum grade of “D”;
- uses the following policies for course(s ) satisfying multiple program areas;
  1. A course can simultaneously satisfy one Core area and one Distribution area. Courses that meet this criterion are bold print and underscored in the Core areas and Distribution areas.
  2. A course cannot satisfy more than one Core area, even if it is approved for more than one Core area.

3. A course cannot satisfy more than one Distribution area, even if it is approved for more than one Distribution area.
   - follows the graduation policies within the general catalog;
   - includes both courses and their modular equivalents; either the course or the modular equivalents will satisfy the Associate in General Studies;
   - accepts one of the courses that is cross-referenced with other courses;

**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)**

Satisfactory completion of a higher level Mathematics course

**Computer Usage (1 credit)**

Computer-related course or demonstration of comparable computer skills. Additional courses may be approved by individual colleges. Students should contact their advisor for college-specific courses satisfying the requirement.

**ACC Accounting 115**


**AJS Administration of Justice Studies 205**

**AMS Automated Manufacturing System 150**

**ARC Architecture 243/244/245**

GENERAL EDUCATION DISTRIBUTION AREAS

(28-29 credits - grade of “C” or better)

**Humanities and Fine Arts (9 credits)**
Students are encouraged to choose courses from more than one discipline.

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

**Social and Behavioral Sciences (9 credits)**
Students are encouraged to choose courses from more than one discipline.

- AFR African American Studies 202
- AIS American Indian Studies 101/140/141/160/170
- AJS Administration of Justice Studies 101/119/162/200/225/258/259/270
- ASB Anthropology 102/202/211/222/223/226/252
- ASM Anthropology 104/275
### GRADUATION POLICIES AND REQUIREMENTS

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<td>Society and Business 200</td>
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<tr>
<td>SLC</td>
<td>Studies in Language &amp; Culture 201</td>
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<tr>
<td>SOC</td>
<td>Sociology Any SOC course(s) (EXCEPT 143, 157,215, 245, 253, 265, 270)</td>
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<tr>
<td>SWU</td>
<td>Social Work 102/171/258/292</td>
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<td>WED</td>
<td>Wellness Education 110</td>
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<td>WST</td>
<td>Women’s Studies 100/110/160/161</td>
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<td>YAQ</td>
<td>Yaqui Indian History and Culture 100</td>
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<td></td>
<td>Natural Sciences (7-8 credits)</td>
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<td></td>
<td>Two lecture courses and one corresponding laboratory course are to be selected. The lecture and corresponding laboratory course(s) may carry separate credit. For appropriate course selection students should consult with an advisor.</td>
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<tr>
<td>AGS</td>
<td>Agricultural Science 164</td>
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<td>ASB</td>
<td>Anthropology 231</td>
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<td>ASM</td>
<td>Anthropology 104/265</td>
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<tr>
<td>AST</td>
<td>Astronomy 101/102/111/112/113/114</td>
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<td>ENV</td>
<td>Environmental Sciences 101</td>
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<td>FON</td>
<td>Food and Nutrition 241/241LL</td>
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<td>FOR</td>
<td>Forensic Science 105/106</td>
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<td>GLG</td>
<td>Geology Any GLG course(s) (except 105)</td>
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<tr>
<td>GPH</td>
<td>Physical Geography 111/112/113/211/212/214/213/215</td>
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<tr>
<td>HES</td>
<td>Physical Science 110/120</td>
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<td>PHY</td>
<td>Physics 101/101AA/111AA/111/112/115/116/121/131</td>
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<td>PSY</td>
<td>Psychology 275/290AB/290AC</td>
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<td>AIS</td>
<td>American Indian Studies 213</td>
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<td>BIO</td>
<td>Biology 294</td>
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<td>COM</td>
<td>Communication 222/225/241</td>
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<td>CRE</td>
<td>Critical Reading 101</td>
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<td>CUL</td>
<td>Culinary Arts 223</td>
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<tr>
<td>ENG</td>
<td>English 111/200/215/216/217/218</td>
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<td>ENH</td>
<td>English Humanities 254/255</td>
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<tr>
<td>GBS</td>
<td>General Business 233</td>
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<td>GPH</td>
<td>Physical Geography 211</td>
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<td>HUM</td>
<td>Humanities 225/250/251</td>
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<td>IFS</td>
<td>Information Studies 101</td>
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<td>JRN</td>
<td>Journalism 201/234</td>
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<td>MCO</td>
<td>Mass Communications 220</td>
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<tr>
<td>PHI</td>
<td>Philosophy 103/106/218</td>
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<td>POS</td>
<td>Political Science 115</td>
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<td>PSY</td>
<td>Psychology 290AB/290AC</td>
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<td>REL</td>
<td>Religious Studies 203/205</td>
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<tr>
<td>THE</td>
<td>Theater 220</td>
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<tr>
<td>TPH</td>
<td>Theater Performance/Production 241</td>
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</tbody>
</table>

### 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 or degree. 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 area 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)**

**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.

- AHU Arabic Humanities 245
- AIS American Indian Studies 213
- AJIS Administration of Justice Studies 123
- ARH Art Humanities Any ARH Course(s)
- ASB Anthropology 211/214/220/222/223/253
- CCS Chicana and Chicano Studies 101
- CNS Construction 101
- COM Communication 241
- DAH Dance Humanities 100/201/250
- EDU Education 291/292/294
- ENG English 200/213/218
- ENH English Humanities Any ENH Course(s)
- FRE French 265
- HCR Health Care Related 210
- HIS History 101/102/103/108/111/113/114/212/243/253/254/275
- HUM Humanities Any HUM course(s)
  (EXCEPT 120/203/207/225)
- INT Interior Design 115/120/225
- LAT Latin 201/202
- PHI Philosophy Any PHI Course(s)
- REL Religious Studies Any REL Course(s)
  (EXCEPT 271)
SLC  Studies in Language & Culture 201
SPA  Spanish 241/242/265/266
SPH  Spanish Humanities 245
STO  Storytelling 292/294
THE  Theater 111/205/206/210
THP  Theater/Performance/Production 241
WST  Women’s Studies 209/284/285/290

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

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

AFR  African American Studies 202
AIS  American Indian Studies 101/140/141/160/170
AJS  Administration of Justice Studies 101/200/225/258/259/270
ASB  Anthropology 100/102/202/211/222/223/226/230/235/252
ASM  Anthropology 104/275
CFS  Child/Family Studies 112/157/159/176/205/235/259
COM  Communications 100/100AA&100AB&100AC/110/110AA&110AB & 110AC/163/230/250/263
ECH  Early Childhood Education 176
ECN  Economics Any ECN course(s)
EDU  Education 221/222
EED  Early Education 200/205/222
EMT  Emergency Medical Technology 258
ENG  English 213
FOR  Forensic Science 275
FSC  Fire Science 258
FUS  Future Studies 101
GCU  Cultural Geography 102/121/122/141/211/227
HES  Health Science 100
HIS  History Any HIS course(s) (EXCEPT 111, 170, 203, 251, 252)
IBS  International Business 109
MCO  Mass Communications 120
PAD  Public Administration 200
POS  Political Science Any POS course(s)
REC  Recreation 120
SBU  Society and Business 200
SLC  Studies in Language & Culture 201
SOC  Sociology Any SOC course(s) (EXCEPT 143, 157, 245, 251, 253, 265, 270)
SWU  Social Work 102/171/258/292
WED  Wellness Education 110

WST  Women’s Studies 100/110/160/161
YAQ  Yaqui Indian History and Culture 100

**Natural Sciences (4 credits)**

The lecture course(s) selected for Natural Sciences must include or be accompanied by the corresponding laboratory course. The lecture and corresponding laboratory course(s) may carry separate credit. Students should consult with an advisor for appropriate course selection.

AGS  Agricultural Science 164
ASB  Anthropology (Soc/Behv Science) 231
ASM  Anthropology (Science/Math) 104/265
AST  Astronomy 101/102/111/112/113/114
FON  Food and Nutrition 241&241LL
FOR  Forensic Science 105/106
GLG  Geology Any GLG course(s)
GPH  Physical Geography 111/112&113/211/212&214/213&215
PHS  Physical Science 110/120
PHY  Physics 101/101AA/111/111AA/112/115/116/121/131
PSY  Psychology 275/290AB/290AC

**ACADEMIC CERTIFICATES (AC)**

**Purpose of the Academic Certificate (area of emphasis)**

The Maricopa Community College District Academic Certificate (area of emphasis) is a defined and coherent program of study that is recommended for students who wish to gain additional expertise in an academic area. While this program of study can result in proficiency in specified skills and competencies, as well as mastery of knowledge, it is not designed to prepare someone for employment in a specific occupation. The content for an Academic Certificate (area of emphasis) may be derived from a variety of disciplines or it can be discipline specific. The Academic Certificate does not require a general studies component even though requirements of the certificate may include courses that currently meet specific general studies designations such as Humanities and Fine Arts, Social and Behavioral Sciences, etc.
Academic Policies that Govern the Academic Certificate (area of emphasis)

- Generally ranges from 12-39 credit hours in courses numbered 100 or above, although there is no minimum number of credit hours required for an Academic Certificate;
- Requires a cumulative GPA of 2.0 or better for completion;
- Follows the graduation policies within the general catalog;
- accepts one of the courses that is cross-referenced with other courses;
- includes both courses and their modular equivalents. either the course or the modular equivalents will satisfy the Academic Certificate requirements;
- does not presume block transfer value. Consequently, in most cases the Academic Certificate should not be a subset of an existing transfer degree;
- may have admission criteria established by the college if and when appropriate;
- is for the most part college specific.

Academic Certificate in African-American Studies (15-18 Credits)
Major Code: 6226

The interdisciplinary Academic Certificate (AC) in African-American Studies enhances students’ understanding of African-Americans by examining history, social issues, literature, culture, religion, ethnic relations, and gender issues. Through coursework, students develop skills in critical thinking, inquiry, and discourse while becoming more informed.

Program Notes:
+ indicates course has prerequisite and/or corequisites

Courses selected must satisfy the following General Education Requirements:

**Awareness Area:**
Cultural Diversity in the United States (C) 3 credits
Historical Awareness (H) 3 credits

**Core Area:**
Humanities (HU) 3 credits
Social and Behavioral Sciences (SB) 6 credits
Admission Criteria (None)
Program Prerequisites (None)

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**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 (APS 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-Americans in Film (HU, C) 3
- SOC143   Sociology of African American Problems (SB, C) 3
- WST105   Women of Color in America (C) 3

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**Academic Certificate in Global Citizenship (16 credits) Major Code: 6212**

The interdisciplinary Academic Certificate (AC) in Global Citizenship enhances students’ understanding of the world around them and current social issues such as economic and social justice, human and civil rights, world and regional conflicts, environmental degradation, cultural diversity, and political change. Through a combination of coursework and experiential learning, students develop skills in critical thinking, inquiry, and discourse while becoming more informed, socially responsible, and engaged citizens of their communities, country, and world. The certificate includes specialized tracks in the impact of diverse cultures on American life: Impact of Diverse Cultures on American Life; Political and Economic Interdependence of the International Community; Global Study of Cultures, Religions, and Values; Regional Study of Cultures, Religions, and Values; and Science, Technology and the World.

**Required Courses (7 credits)**
- GLO298AA Special Projects 1

Select 6 credits from the following courses:
- ASB102   Introduction to Cultural and Social Anthropology (3)
- COM263   Elements of Intercultural Communication (3)
- ECN213   The World Economy (3)
- GCU121   World Geography I: Eastern Hemisphere (3)
GRADUATION POLICIES AND REQUIREMENTS

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 HU OR L
Foreign Languages: All of the following 201, 202, 203, or
204-level classes are also acceptable under Track 3:
ARB, FRE, GER, HEB, ITA, JPN, RUS, SPA

Track 4 – Science, Technology, and the World (9-10 credits)
ASB231  Introduction to Archaeological
Field Methods 4
ASM104  Bones, Stones, and Human Evolution 4
BIO105  Environmental Biology 4
BIO107  Introduction to Biotechnology 4
CHM107  Chemistry and Society 3
GLG110  Geological Disasters and the Environment 3
GPH111  Introduction to Physical Geography 4
+GPH210  Introduction to Environmental Geography 3

PHS120  Introduction to Physical Science: Astronomy,
Meteorology, Geology and Oceanography 4
SOC180  Social Implications of Technology 3

Academic Certificate In 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)
ECH253  National Credential Portfolio Development 3

Academic Specialization:
Students must complete one of the following blocks:

Family Child Care
CFS163  Family Child Care: Introduction
to Business Management 3
CFS164  Family Child Care: Curriculum
and Environment 3
EED205  The Developing Child: Prenatal
to Age Eight 3
EED215  Early Learning: Health, Safety,
Nutrition and Fitness 3
+EED260  Early Childhood Infant/
Toddler Internship (1) OR
+EED261  Early Childhood Preschool Internship (1) 1

Infant Toddler
ECH205  The Developing Child: Prenatal
to Age Eight 3
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
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 AND Students must choose 3-5 credits in 201 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

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 ENG108 First Year Composition for ESL (3) 3
+ENG109 Business Writing for ESL (3) OR +ENG111 Technical and Professional Writing (3) 3
ENH111 Literature and the American Experience 3
+CRE101 College Critical Reading (3) OR Equivalent as indicated by assessment 0-3
Academic Certificate In Communication Skills For Non-Native English Speakers (30 Credits) Major Code: 6222

The Academic Certificate (AC) in Communication Skills for Non-Native English Speakers is an interdisciplinary program of study designed to extend traditional ESL coursework. It provides Non-Native English Speakers with oral and written communication skills including interpersonal communication, small group interaction, problem solving, public speaking and presentation skills, conflict resolution, and leadership. Students develop skills to enhance their professional, social, and personal interactions, and become more competitive and effective in the workplace.

**Required Courses (21 credits)**

- **COM100** Introduction to Human Communication (3)
- **COM110** Interpersonal Communication (3) 3
- **COM120** Pronunciation of American Speech (3) 3
- **+COM221** Oral Fluency in American Speech (3) 3
- **+COM282AC** Volunteerism for Speech Communication: A Service Learning Experience (3)
- **CRE101** College Critical Reading (3) OR Equivalent as Indicated by Assessment (3) 3
- **ENG101** First Year Composition (3) OR First-Year Composition for ESL (3) 3
- **ENG102** First Year Composition (3) OR First Year Composition for ESL (3) 3
- **ENG108** First Year Composition (3) OR First Year Composition for ESL (3) 3

**Restricted Electives (9 credits)**

If choosing BPC110 or CIS105 only one can be applied.
- **BPC110** Computer Usage and Applications (3) 3
- **CIS105** Survey of Computer Information Systems (3) 3
- **+COM230** Small Group Communication (3) 3
- **+COM259** Communication in Business and Professions (3) 3
- **+GBS233** Business Communication (3) 3
- **+ENG111** Technical Writing (3) 3
- **IBS109** Cultural Dimension for International Trade (3) 3
- **+SWU292** Effective Helping in a Diverse World (3) 3
- **Any approved General Education course in the cultural awareness [C] value (3) OR Any approved General Education course in the cultural awareness [C] value (3) OR**
- **COM++++** Any COM Communication course (3) 3

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**Academic Certificate In Oral Communication Fluency For Non-Native English Speakers (15 Credits) Major Code: 6223**

The Academic Certificate (AC) in Oral Communication Fluency for Non-Native English Speakers is a concentrated program of study in communication and oral fluency designed to extend traditional ESL coursework. It provides Non-Native English Speakers with intense practice in pronunciation and fluency of American speech as well as experience in all communication contexts including interpersonal communication, small group interaction, problem solving, and public speaking. Students develop skills to enhance their professional, academic, and social interactions to become more competitive and effective in the academic environment and in the workplace.

**Required Courses (12 credits)**

- **COM110** Interpersonal Communication (3) 3
- **COM120** Pronunciation of American Speech (3) 3
- **+COM221** Oral Fluency in American Speech (3) 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) 3

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**Note:**
- The **Recommended Electives** (9 credits) can be chosen from the following disciplines:
  - **ASB** Any ASB Anthropology course(s)
  - **COM** Any COM Communication course(s)
  - **EDU** Any EDU Education course(s)
  - **ENG** Any ENG English course(s) expect courses used to satisfy Required Courses area.
  - **ENH** Any ENH English Humanities course(s)
  - **HIS** Any HIS History course(s)
  - **HUM** Any HUM Humanities course(s)
  - **IBS** Any IBS International Business course(s)
  - **IGS** Any IGS Integrated Studies course(s)
  - **MUP** Any MUP Music: Performance course(s)
  - **PSY** Any PSY Psychology course(s)
  - **REL** Any REL Religious Studies course(s)
  - **SOC** Any SOC Sociology course(s)

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**Course Descriptions:**

- **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 First Year Composition for ESL (3)
- **ENG107** First-Year Composition for ESL (3)
- **ENG108** First Year Composition (3) OR First Year Composition for ESL (3)
- **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)**
- **COM++++** Any COM Communication course (3)
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)**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
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<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 Equivalent as Indicated by Assessment</td>
<td>0-3</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 Code</th>
<th>Course 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 3

Academic Certificate In Creative Writing (24 Credits) Major Code: 6224

The Academic Certificate (AC) in Creative Writing is designed to provide students and professional writers with access to a community of writers and creative writing activities, instruction and guidance from established authors, and ongoing support in improving their writing skills and marketing their work. As students take courses in the program, they will build a portfolio of original work that may be used to seek admittance to a bachelor’s or master’s level creative writing program or that may include work to be submitted for publication. The program offers classes, workshops, and other activities such as readings and contests, which are accessible to writers of all levels regardless of academic or professional standing. The program serves many students, especially women, minorities, seniors, and working adults, who are under-represented in traditional creative writing programs because of cultural, dialect or language differences, scheduling difficulties, financial need, or lack of academic experience. Completion of the certificate does not lead to a particular degree program, but may aid students in their pursuit of a career in the writing professions and in their continued enjoyment of writing for personal growth.

**Program Notes:**
Students must earn a grade of “C” or better for all courses required within the program
+ indicates course has prerequisites and/or corequisites.
++ indicates any module.

**Admission Criteria:**
Students wishing to enroll in the Creative Writing program must complete a formal application; contact Program Director.

**Required Courses (21 credits)**

ENG210 may be substituted for CRW150 with permission of Program Director.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRW150</td>
<td>Introduction to Creative Writing (3) OR</td>
<td></td>
</tr>
<tr>
<td>CRW155</td>
<td>Bilingual Creative Writing (3)</td>
<td>3</td>
</tr>
<tr>
<td>CRW200</td>
<td>must be repeated for a total of two (2) credits</td>
<td>3</td>
</tr>
<tr>
<td>+CRW200</td>
<td>Readings for Writers (1)</td>
<td>2</td>
</tr>
<tr>
<td>+CRW201</td>
<td>Portfolio</td>
<td>1</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRW120</td>
<td>Introduction to Writing Children’s Literature</td>
<td>3</td>
</tr>
</tbody>
</table>
CRW160 Introduction to Writing Poetry 3
CRW170 Introduction to Writing Fiction 3
CRW172 Introduction to Comic Book Writing 3
CRW180 Introduction to Writing Nonfiction 3
CRW190 Introduction to Screenwriting 3
THE118 Playwriting 3

Series II:
Students must complete three (3) of the following courses for a total of nine (9) credits.
+CRW202 The Writer as Witness 3
+CRW203 Dialogue 3
+CRW204 Journaling 3
+CRW220 Intermediate Writing Children’s Literature 3
+CRW261 Topics in Writing: Poetry 3
+CRW270 Intermediate Fiction Writing 3
+CRW271 Topics in Writing: Fiction 3
+CRW272 Planning and Structuring the Novel 3
+CRW273 Writing the Novel 3
+CRW274 Revising the Novel 3
+CRW275 Writing the Mystery Story 3
+CRW281 Topics in Writing: Non-Fiction 3
+CRW290 Intermediate Screenwriting 3
+CRW291 Topics in Writing: Plays 3

Restricted Electives (3 credits)
COM243 Interpreter’s Theatre 3
+CRW+++ Any CRW Creative Writing prefixed course not listed under Required Courses area. 1-3
ENG235 Magazine Article Writing 3
+ENG236 Magazine Writer’s Workshop 3
ENG/THE260 Film Analysis 3
+ENH+++ Any ENH English Humanities prefixed course 3
HUM/THE210 Contemporary Cinema 3

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)
+ENG101 First-Year Composition (3) OR
+ENG107 First-Year Composition for ESL (3) 3
+ENG102 First-Year Composition (3) OR

Required Courses (4 credits)
+ENG270 Workplace Writing 3
+ENG297 Writing Program Portfolio 3

Restricted Electives (4 credit)
+ENG109 Business Writing for ESL 3
+ENG111 Technical and Professional Writing 3
+ENG213 Introduction to the Study of Language 3
+ENG215 Strategies of Academic Writing 3
+ENG216 Persuasive Writing on Public Issues 3
+ENG217 Personal and Exploratory Writing 3
+ENG218 Writing About Literature 3
+ENG219 Life Stories 3
ENG235 Magazine Article Writing 3
+ENG298++ Special Projects (any suffixed course) 1-3

Academic Certificate In Electronic Music (40 Credits) Major Code: 6231
The Academic Certificate (AC) in Electronic Music is intended for the student who would like to obtain acknowledgment for completion of electronic music courses, and is not designed to prepare students for employment. While the completion of the certificate does not lead to a particular degree, it does provide and enhance the development of musicianship for enjoyment and personal growth. This program provides the student with fundamental musical skills covering a variety of topics, including theory, performance, composition, and history. In addition, students receive a high level of technical training in creating electronic music. As students complete courses in the program, they will build a portfolio of original compositions that may be used to seek admittance to a bachelor’s-level music program.

Admission Criteria: None
Program Prerequisites: (2-3 credits)
MTC100 Fundamentals of Music (2) OR
MTC101 Introduction to Music Theory (3) OR
Permission of instructor 2-3

Required Courses (40 credits)
Students are required to complete a total of six (6) credits of MTC240.
+MTC105 Music Theory I 3
MTC106 Aural Perception I 1
+MTC155 Music Theory II 3
MTC156 Aural Perception II 1
+MTC205 Music Theory III 3
MTC206 Aural Perception III 1
+MTC255 Music Theory IV 3
MTC256 Aural Perception IV 1
MTC191 Electronic Music I 3
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</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSH111</td>
<td>Sustainable Cities</td>
<td>3</td>
</tr>
<tr>
<td>SUS110</td>
<td>Sustainable World</td>
<td>3</td>
</tr>
</tbody>
</table>

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

**Track II: Social, Political, Economic, Treatment of the Earth**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECN212</td>
<td>Microeconomic Principles</td>
<td>3</td>
</tr>
<tr>
<td>+ECN263</td>
<td>The Economics of Natural Resources, Population and the Environment</td>
<td>3</td>
</tr>
<tr>
<td>ENH206</td>
<td>Nature and Environmental Literature</td>
<td>3</td>
</tr>
<tr>
<td>GCU102</td>
<td>Introduction to Human Geography</td>
<td>3</td>
</tr>
</tbody>
</table>

**Track III: Coupled Human-Environment Systems**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASB102</td>
<td>Introduction to Cultural and Social Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ASB222</td>
<td>Buried Cities and Lost Tribes: Old World (3) OR</td>
<td></td>
</tr>
<tr>
<td>ASB223</td>
<td>Buried Cities and Lost Tribes: New World (3)</td>
<td>3</td>
</tr>
<tr>
<td>ASB226</td>
<td>Human Impacts on Ancient Environments</td>
<td>3</td>
</tr>
<tr>
<td>ASM104</td>
<td>Bones, Stones, and Human Evolution</td>
<td>4</td>
</tr>
<tr>
<td>BIO105</td>
<td>Environmental Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIO108</td>
<td>Plants and Society</td>
<td>4</td>
</tr>
<tr>
<td>CHM107</td>
<td>Chemistry and Society</td>
<td>3</td>
</tr>
<tr>
<td>GCU121</td>
<td>World Geography I: Western Hemisphere</td>
<td>3</td>
</tr>
<tr>
<td>GCU122</td>
<td>World Geography II: Western Hemisphere</td>
<td>3</td>
</tr>
<tr>
<td>+GPH210</td>
<td>Society and Environment</td>
<td>3</td>
</tr>
<tr>
<td>GPH267</td>
<td>Extreme Weather and Climate</td>
<td>3</td>
</tr>
</tbody>
</table>

**Track IV: Human Transformation of the Earth**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASB100</td>
<td>Introduction to Global Health</td>
<td>3</td>
</tr>
<tr>
<td>CNS205</td>
<td>Sustainable Construction/LEED Certification</td>
<td>3</td>
</tr>
<tr>
<td>ECE111</td>
<td>Bioengineering Systems</td>
<td>3</td>
</tr>
<tr>
<td>FON135</td>
<td>Sustainable Cooking</td>
<td>3</td>
</tr>
<tr>
<td>FON143</td>
<td>Food and Culture</td>
<td>3</td>
</tr>
<tr>
<td>FON161</td>
<td>Sustainable Food Production</td>
<td>3</td>
</tr>
<tr>
<td>+INT170</td>
<td>Interior Materials</td>
<td>3</td>
</tr>
<tr>
<td>SCT100</td>
<td>Introduction to Sustainable Built Environments</td>
<td>3</td>
</tr>
<tr>
<td>SOC180</td>
<td>Social Implications of Technology</td>
<td>3</td>
</tr>
<tr>
<td>WED124</td>
<td>Environmental Wellness</td>
<td>3</td>
</tr>
</tbody>
</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

Program Prerequisites: (3 credits)
+ENG101 First-Year Composition (3) OR
+ENG107 First-Year Composition for ESL (3)

Required Courses (7 credits)
+PHI216 Environmental Ethics (3)
+BIO105 Environmental Biology (4) OR
+GLG110 Geological Disasters and the Environment (3) AND
+GLG111 Geological Disasters and the Environment Lab (1)

Restricted Electives (9 credits)
Humanities, Social Science and Wellness:
Students will choose 2 different courses from the following list:
+ECN263 The Economics of Natural Resources, Population and the Environment (3)
+ENH206 Literature of the Southwest (30)
+HUM201 Humanities: Universal Themes (3)
+REC150AB Outdoor Adventure Skills (3)
+SBU200 Society and Business (3)

Students will choose 1 course from the following list:
+HIS110 World History to 1500 (3)
+HIS111 World History 1500 to the Present (3)
+HUM250 Ideas and Values in the Humanities (3)
+PHI104 World Philosophy (3)
+POS120 World Politics (3)
+PSY132 Psychology and Culture (3)
+SOC101 Introduction to Sociology (3)

Academic Certificate In Women’s Studies (15 Credits) Major Code: 6225

The Women’s Studies program, an intensive interdisciplinary liberal arts certificate program, provides students with tools and opportunities to discuss and critique historical and contemporary theories and practices of feminism(s). The curriculum enables students to write well, think critically and analyze problems effectively. Students complete a variety of courses focusing on women’s experiences and perspectives, exploring topics such as history, culture, class, race, ethnicity, sexuality and gender in order to help bring about equality, understanding, and peace. These courses are culturally responsive to the diversity of one half of the world’s people, their work, and their impact on multicultural societies.

Required Courses (3 credits)
+WST100 Women and Society (3)

Restricted Electives (12 credits)
+ASB211 Women in Other Cultures (3)
+ENH/WST284 19th Century Women Writers (3)
+ENH/WST285 Contemporary Women Writers (3)
+HIS201 History of Women in America (3)
+HLR/WST286 Women and Health: Body/Mind/Spirit/Connection (3)
+HUM/WST209 Women and Films (3)
+PSY235 Psychology of Gender Differences (3)
+PSY258 Domestic Problems and Crises (3)
+REL/WST290 Women and Religion (3)
+SOC212 Gender and Society (3)
+WST105 Women of Color in America (3)
+WST110 Women and Gender: A Feminist Psychology (3)
+WST120 Gender, Class, and Race (3)
+AJI/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)
+AJI/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 Agribusiness Sales and Service and Horticulture sections for additional programs and related areas)
Urban Horticulture MC
(See Horticulture section for additional programs and related areas)

EQUINE TRAINING AND MANAGEMENT
Equine Science SC
Veterinary Technology/Animal Health MC

HORTICULTURE
Landscape Aide MC
Landscape Specialist MC
(See Agricultural Production and Management section for additional programs and related areas)
Workforce Development: Horticulture RS
Workforce Development: Landscape Technology RS

ARCHITECTURE AND CONSTRUCTION
Air Conditioning and Refrigeration
Air Conditioning/Refrigeration/Facilities GW
Residential and Light Commercial Air Conditioning GW

APPRENTICESHIP RELATED INSTRUCTION
Construction Trades: Bricklaying and Tilesetting GW
Construction Trades: Carpentry GW
Construction Trades: Construction Management GW
Construction Management PC
Construction Trades: Millwrighting GW
Construction Trades: Plastering and Cement Masonry GW
Construction Trades: Painting and Drywalling GW
Construction Trades: Pre-Apprenticeship GW
Construction Trades: Sheet Metal GW
Construction Trades: Electricity GW
Construction Trades: Heat and Frost Insulation GW
Construction Trades: Heavy Equipment Operations GW
Construction Trades: Ironworking GW
Construction Trades – Mechanical Trades: Heating, Ventilating and Air Conditioning GW
Construction Trades – Mechanical Trades: Plumbing GW
Construction Trades – Mechanical Trades: Pipefittering GW
Construction Trades – Mechanical Trades: Sheet Metal GW
Construction Trades: Concrete Form Builder GW
Construction Trades: Pipe Trades – Pipelitter-Refrigeration GW
Construction Trades: Pipe Trades – Plumbing GW
Power Plant Technology GW, EM
Construction Trades: Roofing GW
Construction Trades: Pipe Trades – Steamfitting GW

BUILDING AND CONSTRUCTION
Architecture MC
Architectural CADD Level III MC
Architectural Drafting CADD Level III MC
Architectural CAD Technology PC
Architectural Technology SC
Building Inspection EM, MC
Building Safety Technology SC
Civil Engineering Technology PC
Construction MC
Construction Drafting CADD Level III MC
Construction Trades: Heavy Equipment Operations GW
Construction Management PC
Plan Review MC
Pre-Contractor Licensing MC
Residential Drafting CADD Level II MC
Survey and Civil Drafting - CADD Level II MC
Workforce Development: Carpentry Level I RS
Workforce Development: Carpentry Level II RS
Workforce Development: Furniture Construction/Refinishing Level I RS
Workforce Development: Furniture Construction/Refinishing Level II RS

ART, A/V TECHNOLOGY, AND COMMUNICATION
Adolescent Development GC, RS
Adolescent Studies PC
Adult Development and Aging GC, RS
Alteration Specialist MC
Apparel Construction PC
Costume Design and Production MC
Costuming PC
Family Development PC
Family Life Education GC, RS
Family Support PC
Fashion Design PC
Fashion Design Level I PC
Fashion Design Level II PC
Fashion Illustration PC
Interior Merchandising GC, MC, PC, EM
Interior Design MC, PC, SC
Interior Design: Advanced MC
Interior Design: Professional Level SC
Parent Education GC, RS
Pattern Design Level I PC
Pattern Design Level II PC
Merchandising PC
Fashion Merchandising PC
Fashion Merchandising & Design MC
Image Consultant MC

MUSIC
Audio Production Technologies GC, MC, PC, PV, SC
Beginning Piano Pedagogy MC
Intermediate Piano Pedagogy MC
Dance Technology
Music Business

COMMERCIAL ART/ADVERTISING ART
Computer Graphic Design
(See Media Technology section for additional programs and related areas)
Digital Media Arts
Graphic Design: Visual Communication
Journalism
Workforce Development: Graphic Arts Level I
Workforce Development: Graphic Arts Level II

AEROSPACE AND AVIATION
Aircraft Maintenance Technology
Airframe Maintenance (Part 147)
Airway Science Technology, Flight Emphasis
Flight Technology
Powerplant Maintenance (Part 147)

BIOSCIENCE
Biomedical Research Technology
Biotechnology
Biotechnology and Molecular Biosciences

BUSINESS, MANAGEMENT, AND ADMINISTRATION
Accounting
Accounting – Specialized Para-Professional
Bookkeeping
Microcomputer Accounting
Software Quality Assurance
(See Business Administration for additional programs and related areas)
Accounting Paraprofessional

BUSINESS ADMINISTRATION
Business (Fastrack)
General Business
(See Management and Finance section for additional programs and related areas)
International Business
International Trade

MANAGEMENT
Business Management
General Business Specialized
Human Resources Management
Management
Management I
Management II
Middle Management
Military Leadership
Project Management
Public Relations
(See Middle Management section for additional programs and related areas)
Retail Management
Retail Sales Manager

OFFICE OCCUPATIONS
Administrative Office Professional
Administrative Technology
Administrative Professional
Business Technology Specialist
Computer Applications
Data Entry Clerk
General Office Secretary
Office Technology
Paralegal Studies
Court Reporting: Broadcast Captioning
Court Reporting: CART
Realtime Reporting Scoping
Receptionist
Management of Clinical Information Technology
Management of Clinical Information Technology: Health Information Technology Implementation Support
Management of Clinical Information Technology: Health Information Technology Technical Support
Management of Clinical Information Technology: PracticeWorkflow and Information Management Redesign
Management of Clinical Information Technology: Implementation Management
Management of Clinical Information Technology: Health Information Technology Training
Technology Support Analyst

TOTAL QUALITY MANAGEMENT
Automobile Insurance: Customer Service
Automobile Policy: Customer Service
Automobile Insurance Claims: Customer Service
Broadband Telecommunications: Account Services
Broadband Telecommunications
Broadband Telecommunications: Field Operations
Broadband Telecommunications: Technical Support Services
Credit Counseling: Customer Service
Customer Service Management
Human Services-Assistance: Customer Service
Human Services-Specialist: Customer Service
Insurance-Customer Service
Human Services - Unemployment Insurance: Customer Service
Motor Vehicle: Customer Service
Organizational Leadership
Organizational Management
Pharmacy: Customer Service
Quality Customer Service
Utilities Customer Service

EDUCATION AND TRAINING
Early Childhood Education
Child and Family Organizations
Management and Administration
Child Development Associate (CDA) Preparation
Curriculum for Young Children
Early Care Specialist
Early Childhood Education and Administration
Early Childhood Classroom Management
Early Childhood Development

WORKFORCE DEVELOPMENT
Workforce Development and Community Re-Entry

EDUCATION
Gifted Education
Reading Specialist Endorsement
Teacher Assisting
Foundations of Student Services

ENVIRONMENTAL TECHNOLOGY
Environmental Science Technology
Geospatial Technologies
Occupational Safety and Health Technology
Radiation Protection Technology
Safety, Health and Environmental Studies
Wastewater Treatment
Water Resources Technologies
Water Resources Technologies: Hydrologic Studies
Water Treatment

FINANCE
Banking and Finance
Certified Residential Appraiser
Home Inspection
Licensed Real Estate Appraiser
Real Estate
Real Estate: Prelicense
Residential Appraisal Trainee
Bank Account Management: Customer Service

GOVERNMENT AND PUBLIC ADMINISTRATION
Public Administration
Tribal Development

HEALTH SCIENCE
Allied Health
Advanced Behavioral Health Sciences
Basic Behavioral Health
Medical Laboratory Sciences
Clinical Research Associate
Community Health Worker
Developmental Disabilities Specialist
Diagnostic Medical Sonography
Electroneurodiagnostic (END) Technology
Health Information: Long Term Care Settings
Health Information Technology
Health Services Management
Health Unit Coordinating
Histologic Technology
Hospital Central Service Technology
Laboratory Assisting
Computed Tomography
Magnetic Resonance Imaging
Medical Assisting
Medical Coding: Hospital-Based
Medical Billing and Coding: Physician-Based
Medical Front Office
Medical Radiography
Medical Transcription
Perioperative Nursing
Phlebotomy
Physical Therapist Assisting
Polysomnographic Technology
Radiation Therapy
Recovery Support
Respiratory Care
Speech Language Pathology Assistant
Surgical Technology

EMERGENCY MEDICAL TECHNOLOGY
Advanced Emergency Medical Technology (Paramedicine)
Community Emergency Response Team (CERT): Level I
Emergency Communications and Deployment
Intermediate Emergency Medical Technology

DENTAL
Clinical Dental Assisting
Dental Assisting
Dental Hygiene
Dental Office Management
Dental Assisting Technology
Community Dental Health Coordination

NURSING
Fast Track Practical Nursing
Nursing
Nurse Assisting
Practical Nursing
Nursing Refresher

HOSPITALITY AND TOURISM/FOOD AND NUTRITION
Advanced Professional Culinary Arts
Baking and Pastry
Basic Culinary Studies
Commercial Food Preparation
Culinary Arts
Culinary Studies
Culinary Fundamentals  SC  
(See Hospitality section for additional programs and related areas)  
Dietetic Technology  CG, PV  
Food Service Administration  PC  
Professional Food and Beverage Service  PC  
Sustainable Food Systems  MC, RS  

HOSPITALITY  
Airline Operations: Ground Operations  RS  
Airline Operations: Initial Flight Attendant  RS  
Airline Operations: Passenger Services  RS  
Airline Operations: Reservations  RS  
Culinary Arts  SC  
(See Food & Nutrition section for additional programs and related areas)  
Hospitality and Tourism/Golf Management  SC  
Hospitality and Tourism/Hotel Management  SC  
Hospitality and Tourism/Restaurant Management  SC  
Hospitality and Tourism/Spa and Wellness Center Management  SC  
Hospitality/Hospital Management  SC  
Hospitality and Tourism/Tourism Development and Management  SC  

HUMAN SERVICES/PARKS, RECREATION, LEISURE AND FITNESS STUDIES  
Recreation Management  MC, SC  

HEALTH AND PHYSICAL EDUCATION/FITNESS  
Group Fitness Instructor  GC, MC  
Personal Trainer  GC, MC  
Personal Training Specialist  CG, EM, GC, MC, PV, SC, SM  
Strength, Nutrition and Personal Training  CG, GC, MC, PV, SC, SM  
Teaching, Healing, Meditation & Stress Management  PV  
Therapeutic Massage  CG, PC  
Yoga Instruction  SC  

FAMILY AND CONSUMER SCIENCE  
Nutrition for Fitness and Wellness  GC, MC, SC  

SOCIAL SCIENCES  
Addictions and Substance Use Disorders Level I  RS  
Addictions and Substance Use Disorders Level II  RS  
Addictions and Substance Use Disorders  RS  
Deaf Studies  PC  
Interpreter Preparation  PC  
Professional Addictions Counseling  RS  

SOCIAL SERVICES  
Gerontology  RS  
Gerontology: Aging Services Management  RS  
Gerontology: Eldercare  RS  
Gerontology: Foundations  RS  
Gerontology: Generalist  RS  
Gerontology: Program Development  RS  

MORTUARY SCIENCE  
Mortuary Science  MC  

INFORMATION TECHNOLOGY COMPUTER SCIENCE  
Advanced Computer Usage and Applications  RS  
Advanced Web Designer  MC  
Business Office Computer Applications  GC  
Computer Applications Technology  EM  
Computer Applications: Microsoft Office Specialist/Advanced  MC  
Computer Applications: Microsoft Office Specialist/Basic  MC  
Computer Hardware and Desktop Support  CG, EM, SC  
Computer Hardware and Network Support  SC  
Computer Information Systems  GC, PC, SC, SM  
Computer Information Technology  PV  
Computer Networking Technology  PV  
Computer Programming  MC  
Computer Systems Maintenance  PV  
Computer Technology  RS  
Computer Usage and Applications  RS  
Computer and Information Technologies  SM  
Database Development  SC  
Desktop Publishing  EM  
Engineering Technology  GC, CGC, EM  
Game Technology  MC  
Geographic Information Systems  MC  
Information Security  GC  
Information Security Administration  GC  
Information Security Technology  GC  
Information Security Wireless Networks  GC  
Information Technology  CG  
Information Technology: Programming and Systems Analysis  SM  
Information Technology: Web and Graphic Design  SM  
Information Technology: Cisco Networking  SM  
Information Technology: Computer Applications Specialist  SM  
Information Technology: Network Server  SM  
Information Technology: Network Security  SM  
Information Technology Support  SM  
Linux Associate  CG, EM, GC, MC  
Linux Networking Administration  EM, GC, MC  
Linux Professional  CG, EM, GC, MC, PV  
(See Office Occupations section for additional programs and related areas)  
Computer Applications: Office Specialist/Core Level  CG  
(See Office Occupations section for additional programs and related areas)  
Computer Applications: Office Specialist/Expert Level  CG  
(See Office Occupations section for additional programs and related areas)  
Computer Business Applications  CG  
(See Office Occupations section for additional programs and related areas)  
Microsoft Desktop Support Technology  EM, GC, PV  
Microsoft Networking Technology  EM, GC, GW, PV  
Microsoft Technical Specialist  EM, GC, GW, PV  
Microsoft Applications Development  PV  
Microsoft Server Administration  EM, GC, PV
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<td>Network Administration: Microsoft Windows Server</td>
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<td>Digital Arts: Digital Photography</td>
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<td>Industrial Design Technology: Design Specialist: SolidWorks</td>
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<td>Micro Circuit Mask Design</td>
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<td>Public Works Leadership</td>
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### ELECTRONICS/ELECTRICAL TECHNOLOGY

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<td>Workforce Development: Electrical Level II</td>
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<td>Surveying Technology</td>
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### WELDING TECHNOLOGY

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<tr>
<th>Welding</th>
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| MARKETING, SALES, AND SERVICE
| Marketing | MC, PC, SC |
| Marketing I | PC |
| Marketing II | PC |
| Salesmanship | MC |

### LAW, PUBLIC SAFETY, CORRECTIONS, AND SECURITY

<p>| Advanced Emergency Medical Technology (Paramedic) | MC, PC, PV |
| Community Emergency Response Team (CERT): Level I | PC |
| Emergency Medical Technology | CG, GC, MC, PC, PV |
| Emergency Communications and Deployment | PC |
| Fire Investigation | CG, EM, GC, MC, PC, PV |
| Paramedicine | GC, PC, PV, MC |</p>
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<tr>
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<th>SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS</th>
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<td>Administration of Justice-Fundamentals</td>
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<td>Basic Corrections</td>
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<td>Crime and Accident Scene Photography</td>
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<td>Crime and Intelligence Analysis</td>
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<td>Global Citizenship</td>
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<td>Judicial Studies</td>
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<td>Law Enforcement Investigator</td>
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<td>Law Enforcement Training Academy</td>
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<td>Paralegal</td>
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<td>Police Academy Preparation Level I</td>
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<td>Police Supervision</td>
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<td>FIRE SCIENCE</td>
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<td>Emergency Response and Operations</td>
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<td>Fire Science</td>
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<td>Hazardous Materials Response</td>
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<thead>
<tr>
<th>College Acronyms/Name:</th>
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<tbody>
<tr>
<td>CG: Chandler Gilbert Community College</td>
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<tr>
<td>EM: Estrella Mountain Community College</td>
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<tr>
<td>GC: Glendale Community College</td>
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<tr>
<td>GW: GateWay Community College</td>
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<tr>
<td>MC: Mesa Community College</td>
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<tr>
<td>PC: Phoenix College</td>
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<tr>
<td>PV: Paradise Valley Community College</td>
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<tr>
<td>RS: Rio Salado College</td>
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<tr>
<td>SC: Scottsdale Community College</td>
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<td>SM: South Mountain Community College</td>
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<td>Victimology (CCL)</td>
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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 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: 64

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

Required Courses: Credits: 24
AJS101 Introduction to Criminal Justice 3
AJS109 Substantive Criminal Law 3
AJS212 Juvenile Justice Procedures 3
AJS225 Criminology 3
AJS230 The Police Function 3
AJS240 The Correction Function 3
AJS260 Procedural Criminal Law 3
AJS275 Criminal Investigation I 3

Restricted Electives: Credits: 15-18
AJS+++++ Administration of Justice Studies (Any other AJS courses) OR
JUD+++++ Judicial Studies (Any JUD course) 15-18

General Education: Credits: 25-27
First-Year Composition
+ENG101 First Year Composition (3) AND
ENG102 First Year Composition (3) 6

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

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

Mathematics
MAT102 Mathematical Concepts/Applications (3) OR
MAT120 Intermediate Algebra (5) OR
MAT121 Intermediate Algebra (4) OR
MAT122 Intermediate Algebra (3) OR
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 Eviden 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
### CAREER AND TECHNICAL PROGRAMS

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**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)

**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)

- **Oral Communication**
  - COM100 Introduction to Human Communication (3) OR
  - COM225 Public Speaking (3)

- **Critical Reading**
  - CRE101 College Critical Reading

- **Mathematics**
  - MAT102 Mathematical Concepts and Applications (3) OR
  - Satisfactory completion of a higher-level mathematics course

- **Humanities and Fine Arts**
  - AJS123 Ethics in Criminal Justice

- **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

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
- **JUD101** The Courts in Arizona
- **JUD103** Role of the Court Staff
- **JUD107** Civil Procedure in Arizona Courts
- **JUD109** Judicial Writing
- **JUD111** Sentencing Misdemeanants
- **JUD113** Court Management
- **JUD115** Injunctive Actions
- **JUD119** Alternative Dispute Resolution
- **JUD121** Appeals

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
- **AJS109** Substantive Criminal Law
- **AJS151** Firearms I
- **+AJS153** Firearms II/Handguns
- **AJS205** Criminal Justice Report Writing
- **AJS230** The Police Function
- **AJS260** Procedural Criminal Law
- **AJS270** Community Relations
- **AJS275** Criminal Investigation I
- **AJS290BU** Family Violence

**Restricted Electives: Credits: 15-18**

- **AJS+++++** Any Administration of Justice Studies course OR
- **JUD+++++** Any Judicial Studies course

**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)

- **Oral Communication**
  - COM100 Introduction to Human Communication (3) OR
  - COM225 Public Speaking (3) OR
  - COM230 Small Group Communication (3)

- **Critical Reading**
  - CRE101 College Critical Reading (3) OR

- **Mathematics**
  - MAT102 Mathematical Concepts/Applications or satisfactory completion of higher level mathematics course

- **Humanities and Fine Arts**
  - AJS123 Ethics and the Administration of Justice

- **Social and Behavioral Sciences**
  - AJS/EMT/FSC/SWU258 Victimology and Crisis Management

- **Natural Sciences**
  - Any approved general education course in the Natural Sciences area
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 for each course listed in the required courses area.

Required Courses: Credits: 18
- AJS101 Introduction to Criminal Justice 3
- AJS123 Ethics and the Administration of Justice 3
- AJS162 Domestic Violence 3
- AJS225 Criminology 3
- AJS/EMT/FSC/SWIU258 Victimology and Crisis Management 3

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)

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)

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

The Certificate of Completion (CCL) in Forensic Investigation prepares students to effectively advocate for victims in a wide range of circumstances. Areas of study include crisis intervention, community services, victim rights, and emergency response, among others. Major Code: 5488 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
- 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 each course listed in the required courses area.

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 3
- ASM/FOR275 Introduction to Forensic Anthropology 3

The Certificate of Completion (CCL) in Victimology program prepares students to effectively advocate for victims in a wide range of circumstances. Areas of study include crisis intervention, community services, victim rights, and emergency response, among others. Major Code: 5392 Total Credits: 15

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

Required Courses: Credits: 15
- AJS101 Introduction to Criminal Justice 3
- 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 Victimology program provides students with an important knowledge base for investigative specialization in a wide range of disciplines and careers. Areas of study include crisis intervention, community services, victim rights, and emergency response, among others. Major Code: 5392 Total Credits: 15

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

Required Courses: Credits: 18
- AJS151 Theories of Criminal Behavior 3
- AJS153 Firearms II/Handguns 1
- AJS215 Criminalistics Physical Evidence 3
- AJS216 Criminalistics: Biological Evidence 3
- AJS241 Police Photography 3
- AJS275 Criminal Investigation I 3
- AJS290BH Sex Crimes Investigation 3
- ASM/FOR275 Introduction to Forensic Anthropology 3

The Certificate of Completion (CCL) in Victimology program prepares students to effectively advocate for victims in a wide range of circumstances. Areas of study include crisis intervention, community services, victim rights, and emergency response, among others. Major Code: 5392 Total Credits: 15

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

Required Courses: Credits: 18
- AJS101 Introduction to Criminal Justice 3
- AJS123 Ethics and the Administration of Justice 3
- AJS162 Domestic Violence 3
- AJS225 Criminology 3
- AJS/EMT/FSC/SWIU258 Victimology and Crisis Management 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++ Volunteering 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++ Volunteering 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
+ARC282++ Volunteering 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 Drawings Analysis, Blueprint Reading 3
+CNS201  Construction Management (Office Operation) 3
+CNS230  Computer Aided Design and Drafting II 3
+CNS240  Computer Aided Design and Drafting III 3
+CNS285  Introduction to Residential Plan Review 3
+CNS286  Introduction to Commercial Plan Review 3

REA179  Real Estate Principles I 3
+REA180  Real Estate Principles II 3
+REA281  Principles of Real Estate 3

General Education: Credits: 22
First-Year Composition
Any approved general education course in the First-Year Composition area 6
Oral Communication
COM100  Introduction to Human Communication 3
Critical Reading
+CRE101  College Critical Reading (3) or Equivalent as indicated by assessment 3
Mathematics
Met by MAT150, MAT151, or MAT152, in required courses area 0
Humanities and Fine Arts
Any approved general education course in the Humanities and Fine Arts area 3
Social and Behavioral Sciences
Any approved general education course from the Social and Behavioral Sciences area 3
Natural Sciences
PHY111  General Physics I 4

The Certificate of Completion (CCL) in Architectural CADD Level III prepares students to work as advanced architectural computer technicians within architectural firms/agencies. The program develops knowledge and skills required to perform various computer needed responsibilities for all types of residential and commercial construction. Students will develop knowledge and skills of two architectural software applications and residential/commercial drafting. Major Code: 5354 Total Credits: 27

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

Required Courses: Credits: 27
ARC150  Architectural Desktop I 3
+ARC161  Residential Architecture Drafting I 3
+ARC162  Advance Residential Architecture Drafting II 3
+ARC163  Commercial Architecture Drafting II 3
+ARC164  Advanced Commercial Architecture Drafting II 3
+ARC165  Introduction to Architecture Professional Practice and Ethics 3
ARC282++ Volunteering for Architecture: A Service-Learning Experience (3) OR
+ARC290++ Architecture Internship (3) OR
+ARC296++ Cooperative Education (3) OR
+ARC298++ Special Projects (3)
CNS130  Construction Drafting Foundation 3
The Certificate of Completion (CCL) in Architectural Detailing CADD Level III prepares students to work as architectural drafting technicians in a variety of residential design and drafting companies/agencies. This certificate develops student knowledge and skills required to perform residential and commercial detailing responsibilities via computer and/or board drafting. Major Code: 5532 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)
+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 residential design and drafting companies/agencies. Students will enhance their computer and board drafting skills/knowledge and also train on residential specific drafting skills to perform intermediate-level drafting technician responsibilities. Major Code: 5349 Total Credits: 24

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

Required Courses: Credits: 24

+ARC161 Residential Architecture Drafting 3
+ARC162 Advanced Residential Architecture Drafting 3
+ARC225 Fundamentals of Architectural Detailing 3
+ARC282AC Volunteerism for Architecture: A Service-Learning Experience (3) OR
+ARC290AC Architecture Internship (3) OR
+ARC296WC Cooperative Education (3) OR
+ARC298AC Special Projects (3)
+BLT262 Introduction to International Residential Code (IRC) 3
+CNS130 Construction Drawing Foundation 3
+CNS230 Computer Aided Design & Drafting (CADD) 3D for Construction and Architecture (CADD II) 3

Automotive Certificates/ Degrees

- Associate in Applied Science in Automotive Performance Technology
- Certificate of Completion in Air Conditioning
- Certificate of Completion in Automotive Electrical Systems
- Certificate of Completion in Brakes, Alignment, Suspension, and Steering
- Certificate of Completion in Engine Performance and Diagnosis
- Certificate of Completion in Transmissions and Power Trains

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

The Associate in Applied Science (AAS) in Automotive Performance Technology prepares students to work as automotive mechanics and technicians who diagnose, service, test, and repair complex, computer-controlled automotive electrical systems. The program emphasizes knowledge and skills in reading, math, problem solving, and writing that are necessary to perform automotive diagnosis and service. Major Code: 3482 Total Credits: 69

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

Required Courses: Credits: 45

+APT101 Automotive Service Operations 2
+APT131 Automotive Power Trains 6
+APT141 Alignment, Steering, and Suspension 6
+APT151 Automotive Brake Systems 4
+APT161 Automotive Electrical and Electronic Systems I 4
+APT171 Automotive Air Conditioning 4
+APT181 Engine Performance and Diagnosis I 6
+APT262 Automotive Electrical and Electronic Systems II 4
+APT282 Engine Performance and Diagnosis II 6
+GTC107 Technical Mathematics I 3
Courses in the CCL may include lecture and lab components to provide suitable classroom related material/theory, combined with hands-on learning experiences. Courses in the CCL are National Automotive Technicians Education Foundation (NATEF) accredited and aligned with the professional certification standards from National Institute for Automotive Service Excellence (ASE). This alignment can help prepare for ASE professional certification exams. Courses in this CCL are designed to help students gain insight into specific aspects of the automotive service industry. The courses contained in the CCL can be combined with courses in other CCLs and be directly applied to the Associate in Applied Science (AAS) degree in Automotive Performance Technology. Major Code: 5449 Total Credits: 18

The Certificate of Completion (CCL) in Brakes, Alignment, Suspension and Steering program provides students the opportunity to learn the theory and practical skills necessary to service automotive vehicles. This CCL will introduce students to the theory, diagnosis, service and repair of Automotive Brake Systems, Powertrain Systems, Steering, and Suspensions Systems in vehicles. It also introduces students to vehicle alignment techniques and procedures. Courses in the CCL may include lecture and lab components to provide suitable classroom related material/theory, combined with hands-on learning experiences. Courses in the CCL are National Automotive Technicians Education Foundation (NATEF) accredited and aligned with the professional certification standards from National Institute for Automotive Service Excellence (ASE). This alignment can help prepare for ASE professional certification exams. Courses in this CCL are designed to help students gain insight into specific aspects of the automotive service industry. The courses contained in the CCL can be combined with courses in other CCLs and can be directly applied to the Associate in Applied Science (AAS) degree in Automotive Performance Technology. Major Code: 5449 Total Credits: 18

The Certificate of Completion (CCL) in Automotive Electrical Systems program provides students the opportunity to learn the theory and practical skills necessary to service automotive vehicles. This CCL will introduce students to the theory, diagnosis, service and repair of Automotive Electrical systems in vehicles, including the Brake and the Air Conditioning systems.

### Required Courses: Credits: 10

- APT101 Automotive Service Operations 2
- APT131 Automotive Power Trains 4
- APT141 Alignment, Steering, and Suspension 6
- APT151 Automotive Brake Systems 4

### Required Courses: Credits: 18

- APT101 Automotive Service Operations 2
- APT151 Automotive Brake Systems 4
- APT161 Automotive Electrical and Electronic Systems I 4
- APT171 Automotive Air Conditioning 2
- APT176 Automotive Electrical and Electronic Systems II 4

### Requirements

- **Natural Sciences**
  - Any approved general education course in the Natural Sciences area 4

- **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

- **Critical Reading**
  - 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

- **Restricted Electives:**
  - Credits: 3
    - APT270+ Automotive Technology Internship (any module) 1-3
    - APT282+ Volunteerism for Automotive: A Service-Learning Experience (any module) 1-3
    - APT296+ Cooperative Education (any module) 1-4
    - APT298+ Special Projects (any module) 1-3

### General Education: Credits: 21-22

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

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

- **Critical Reading**
  - CRE101 College Critical Reading (3)
  - At “C” level or above OR equivalent as indicated by assessment 3

- **Mathematics**
  - Met by GTC107 in required courses area 0

- **Humanities & Fine Arts**
  - Any approved general education course in the Humanities and Fine Arts area 2-3

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

- **Natural Sciences**
  - Any approved general education course in the Natural Sciences area 4

The Certificate of Completion (CCL) in Air Conditioning program provides students the opportunity to learn the theory and practical skills necessary to service automotive vehicles. This CCL will introduce students to the theory, diagnosis, service and repair of Air Conditioning systems in vehicles. Courses in the CCL may include lecture and lab components to provide suitable classroom related material/theory, combined with hands-on learning experiences. Courses in the CCL are National Automotive Technicians Education Foundation (NATEF) accredited and aligned with the professional certification standards from National Institute for Automotive Service Excellence (ASE). This alignment can help prepare for ASE professional certification exams. Courses in this CCL are designed to help students gain insight into specific aspects of the automotive service industry. The courses contained in the CCL can be combined with courses in other CCLs and can be directly applied to the Associate in Applied Science (AAS) degree in Automotive Performance Technology. Major Code: 5449 Total Credits: 18

### Required Courses: Credits: 18

- APT101 Automotive Service Operations 2
- APT151 Automotive Brake Systems 4
- APT161 Automotive Electrical and Electronic Systems I 4
- APT171 Automotive Air Conditioning 2
- APT262 Automotive Electrical and Electronic Systems II 4

### Requirements

- **Natural Sciences**
  - Any approved general education course in the Natural Sciences area 4

- **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

- **Critical Reading**
  - College Critical Reading (3)
  - At “C” level or above OR equivalent as indicated by assessment 3
The Certificate of Completion (CCL) in Engine Performance and Diagnosis program provides students the opportunity to learn the theory and practical skills necessary to service automotive vehicles. This CCL will introduce students to the theory, diagnosis, service and repair of Transmissions and Power Train systems in vehicles. Courses in the CCL may include lecture and lab components to provide suitable classroom related material/theory, combined with hands-on learning experiences. Courses in the CCL are National Automotive Technicians Education Foundation (NATEF) accredited and aligned with the professional certification standards from National Institute for Automotive Service Excellence (ASE). This alignment can help prepare for ASE professional certification exams. Courses in this CCL are designed to help students gain insight into specific aspects of the automotive service industry. The courses contained in the CCL can be combined with courses in other CCLs and be directly applied to the Associate in Applied Science (AAS) degree in Automotive Performance Technology. Major Code: 5478 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>
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<tbody>
<tr>
<td>APT101</td>
<td>Automotive Service Operations</td>
<td>2</td>
</tr>
<tr>
<td>APT161</td>
<td>Auto Electrical/Electronic Systems</td>
<td>4</td>
</tr>
<tr>
<td>APT181</td>
<td>Engine Performance and Diagnosis I</td>
<td>6</td>
</tr>
<tr>
<td>APT282</td>
<td>Engine Performance and Diagnosis II</td>
<td>6</td>
</tr>
</tbody>
</table>

The Certificate of Completion (CCL) in Transmissions and Power Trains program provides students the opportunity to learn the theory and practical skills necessary to service automotive vehicles. This CCL will introduce students to the theory, diagnosis, service and repair of Transmissions and Power Train systems in vehicles. Courses in the CCL may include lecture and lab components to provide suitable classroom related material/theory, combined with hands-on learning experiences. Courses in the CCL are National Automotive Technicians Education Foundation (NATEF) accredited and aligned with the professional certification standards from National Institute for Automotive Service Excellence (ASE). This alignment can help prepare for ASE professional certification exams. Courses in this CCL are designed to help students gain insight into specific aspects of the automotive service industry. The courses contained in the CCL can be combined with courses in other CCLs and be directly applied to the Associate in Applied Science (AAS) degree in Automotive Performance Technology. Major Code: 5467 Total Credits: 8

Required Courses: Credits: 8

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>APT101</td>
<td>Automotive Service Operations</td>
<td>2</td>
</tr>
<tr>
<td>APT131</td>
<td>Automotive Power Trains</td>
<td>6</td>
</tr>
</tbody>
</table>

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

<table>
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<tbody>
<tr>
<td>BIO181</td>
<td>General Biology (Majors) I</td>
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<tr>
<td>BIO211AA</td>
<td>Biotechnology Seminar: Biomedical Applications</td>
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</tr>
<tr>
<td>BIO212AA</td>
<td>Biotechnology I</td>
<td>5</td>
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<tr>
<td>BIO212AB</td>
<td>Biotechnology II</td>
<td>5</td>
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<tr>
<td>BIO212AC</td>
<td>Biotechnology III</td>
<td>5</td>
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<tr>
<td>BIO220</td>
<td>Biology of Microorganisms</td>
<td>4</td>
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<tr>
<td>+BIO240</td>
<td>General Genetics</td>
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<tr>
<td>+BIO244</td>
<td>General Genetics Laboratory</td>
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<tr>
<td>+BIO249</td>
<td>Applied Biosciences: Biotechnology Internship</td>
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<tr>
<td>CHM151</td>
<td>General Chemistry I</td>
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<td>CHM151LL</td>
<td>General Chemistry I Laboratory</td>
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<tr>
<td>+CHM152</td>
<td>General Chemistry II</td>
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<tr>
<td>+CHM152LL</td>
<td>General Chemistry II Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>+CHM230</td>
<td>Fundamental Organic Chemistry</td>
<td>3</td>
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<tr>
<td>+CHM230LL</td>
<td>Fundamental Organic Chemistry</td>
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<tr>
<td>+CHM260</td>
<td>Fundamental Biochemistry</td>
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<td>+CHM260LL</td>
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<tr>
<td>+MAT150</td>
<td>College Algebra/Functions (5) OR</td>
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<tr>
<td>+MAT151</td>
<td>College Algebra/Functions (4) OR</td>
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</tr>
<tr>
<td>+MAT152</td>
<td>College Algebra/Functions (3) OR</td>
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General Education: Credits: 15

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<th>Course Code</th>
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<tbody>
<tr>
<td>ENG101</td>
<td>First-Year Composition (3) OR</td>
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<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)</td>
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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
### 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**

### Required Courses: Credits: 41

#### Program Prerequisites: Credits: 4

<table>
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<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tr>
<td>High School Diploma or GED</td>
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<tr>
<td>4CHM130</td>
<td>Fundamental Chemistry (3) AND</td>
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<td>CHM130LL</td>
<td>Fundamental Chemistry Laboratory (1) OR</td>
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<tr>
<td>MAT120</td>
<td>Intermediate Algebra (5) OR</td>
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<td>MAT121</td>
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<tr>
<td>MAT122</td>
<td>Intermediate Algebra (3) OR</td>
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<tr>
<td>Equivalent as indicated by assessment</td>
<td>1-5</td>
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#### Required Courses: Credits: 41

<table>
<thead>
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<tbody>
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<tr>
<td>BIO212AA</td>
<td>Biotechnology I</td>
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<td>BIO212AB</td>
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<td>BIO212AC</td>
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<td>BIO220</td>
<td>Biology of Microorganisms</td>
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<tr>
<td>BIO240</td>
<td>General Genetics</td>
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<td>CHM152LL</td>
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### 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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<td>ACC109</td>
<td>Accounting Concepts</td>
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<td>BPC110</td>
<td>Computer Usage and Applications (3) OR</td>
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<tr>
<td>CIS105</td>
<td>Survey of Computer Information Systems (3)</td>
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<td>GBS151</td>
<td>Introduction to Business (3) OR</td>
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<td>IBS101</td>
<td>Introduction to International Business (3)</td>
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<tr>
<td>GBS205</td>
<td>Legal, Ethical, and Regulatory Issues in Business</td>
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<tr>
<td>+GBS233</td>
<td>Business Communication</td>
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<tr>
<td>MGT251</td>
<td>Human Relations in Business</td>
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<td>MKT271</td>
<td>Principles of Marketing</td>
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<tr>
<td>OAS108</td>
<td>Business English</td>
<td>3</td>
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<tr>
<td>CSM/</td>
<td>Quality Customer Service</td>
<td>3</td>
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<tr>
<td>TQM240</td>
<td>Project Management in Quality Organizations</td>
<td>3</td>
</tr>
</tbody>
</table>

### Restrictive Electives: Credits: 8-16

Students must select one of the following tracks:

### Track I-Business Communication Credits: 15

- **COM110** Interpersonal Communication (3)
- **+COM259** Communication in Business and Professions (3)
- **COM263** Elements of Intercultural Communication (3)
- **+ENG111** Technical Writing (3)
- **MKT101** Introduction to Public Relations (3)

### Track II-Management Credits: 16

- **MGT147** Supply Chain Management (3)
- **MGT229** Management and Leadership I (3)
- **MGT230** Management and Leadership II (3)
- **MGT237** Personnel/Human Resources Management (3)
- **TQM230** Teamwork Dynamics (3)
- **TQM235** Motivation, Evaluation, and Recognition Systems (3)

### Track III-Marketing Credits: 15

- **MKT101** Introduction to Public Relations (3)
- **MKT263** Advertising Principles (3)
- **MKT267** Principles of Salesmanship (3)
- **MKT268** Merchandising (3)
- **+MKT273** Marketing Research (3)

### 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

### Certificate of Completion in Small Business Start-Up

### 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

### Associate in Applied Science in Administrative Professional

### Certificate of Completion in Entrepreneurial Studies I

### Certificate of Completion in Entrepreneurial Studies II

**Contact:** Preston Cameron

Phone: (719) 461-7714
**CAREER AND TECHNICAL PROGRAMS**

**Track IV - Management Information Systems  Credits: 15**
- CIS117DM  
  Microsoft Access: Database Management  3
- CIS150AB  
  Object-Oriented Programming Fundamentals  3
- +CIS159  
  Visual Basic Programming I  3
- CIS250  
  Management of Information Systems  3
- CIS162AD  
  C# Level I (3) OR  3
- +CIS259  
  Visual Basic Programming II (3)  3

**Track V - Real Estate  Credits: 15**
- REA179  
  Real Estate Principles I  3
- REA180  
  Real Estate Principles II  3
- REA282  
  Real Estate Finance (3) OR  3
- REA285  
  Real Estate Selling (3)  3
- REA283  
  Property Management (3) OR  3
- REA270  
  Basic Appraisal Principles (2) AND  3
- REA273  
  Residential Market Analysis  3
- REA288  
  Real Estate Investment Strategy (3) OR  3
- REA271  
  Basic Appraisal Procedure (2) AND  3
- REA274  
  Residential Appraiser Site Valuation and Cost Approach (1)  3

**Track VI - International Trade  Credits: 15**
- IBS109  
  Cultural Dimension for International Trade  3
- +IBS116  
  Export/Import Management  3
- +IBS118  
  International Marketing Management  3
- +IBS123  
  U.S. Custom and Export Licensing Regulations  3
- +IBS140  
  International Financial Management  3

**Track VII - Multimedia Technology  Credits: 15**
- CIS108  
  Electronic Portfolio Development  1
- CIS120DC  
  Flash: Digital Animation  3
- CIS120DK  
  Introduction to Digital Video Editing  3
- CIS/ MMT140  
  Survey of Multimedia Technology  2
- MTC/ TCM120  
  Introduction to Sound Design for Film and Video  3
- CIS120DB  
  Computer Graphics: Adobe Illustrator (3) OR  3
- CIS120DF  
  Computer Graphics: Adobe Photoshop (3) OR  3
- CIS120DG  
  Fireworks: Web Graphics (3)  3

**Track VIII - Web Technology  Credits: 15**
- CIS120DB  
  Computer Graphics: Adobe Illustrator (3) OR  3
- CIS120DF  
  Computer Graphics: Adobe Photoshop (3) OR  3
- CIS120DG  
  Fireworks: Web Graphics (3)  3
- CIS133DA  
  Internet/Web Development Level I  3
- +CIS233DA  
  Internet/Web Development Level II  3
- CIS233DC  
  Internet Web Publishing: Dreamweaver  3
- +CIS235  
  e-Commerce (3) OR  3
- CIS120DC  
  Flash: Digital Animation (3)  3

**Track IX - Project Management  Credits: 14**
- CIS224  
  Project Management Microsoft  3
- +MGT242  
  Project Scope and Procurement Management  2
- +MGT243  
  Project Time and Cost Management  2
- +MGT244  
  Project Risk and Quality Management  2
- +MGT245  
  Project, Human Resources and Communications Management  2
- +MGT246  
  Principles of Project Management  3

**Track X - Small Business  Credits: 13-14**
- +ACC115  
  Computerized Accounting  2
- CIS131AA  
  Doing Business on the Internet  1
- CIS133CA  
  Internet/Web Development Level I-C  3
- EPI510  
  Introduction to Entrepreneurship (2) AND  3
- EPI195  
  The Business Plan for Business Start-Up (2) OR  3
- MGT253  
  Owning and Operating a Small Business (3)  3
- SBS204  
  Small Business Marketing and Advertising  2
- SBS213  
  Hiring and Managing Employees  1
- SBS214  
  Small Business Customer Relations  1
- SBS230  
  Financial and Tax Management for Small Business  2

**Track XI - Game Technology  Credits: 15**
- CIS107  
  The Electronic Game Industry  3
- CIS151  
  Computer Game Development Level I  3
- +ART/  
  Three-Dimensional Computer Design  3
- ADA170  
  Flash: Digital Animation  3
- CIS120DC  
  Computer Graphics: Adobe Photoshop (3) OR  3
- CIS120DB  
  Computer Graphics: Adobe Illustrator (3)  3

**Track XII - Software Quality Assurance  Credits: 12**
- +CIS244  
  Testing Software Tools  3
- +CIS246  
  Software Quality  3
- +CIS248  
  Engineering Quality in Software Development  3
- +CIS249  
  Software Testing for Quality Assurance  3

**Track XIII - Bookkeeping Technician  Credits: 8**
- ACC111  
  Accounting Principles I  3
- +ACC115  
  Computerized Accounting  2
- ACC121  
  Income Tax Preparation  3

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

First-Year Composition  6
Oral Communication  3
Critical Reading  3
Mathematics  0-3
Humanities and Fine Arts  3
Social and Behavioral Sciences  3
Natural Sciences  4

The Certificate of Completion (CCL) in International Trade program prepares students for entry- and mid-level positions in international business. It is also designed to provide advanced knowledge and skills for those already working in the field of international business. Major Code: 5999 Total Credits: 21-23

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

**Required Courses: Credits: 21-23**
- IBS109  
  Cultural Dimension for International Trade  3
- +IBS116  
  Export/Import 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  3
- FRE+++  
  any FRE/French course (3-4) OR  3
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 3
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: 5087 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

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: 16-22

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

Required Courses: Credits: 13-19
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 Advanced Computer Usage and Applications 3
+BPC210 Advanced Computer Usage and Applications 3

Track II: Credits 10-12
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 Database Management: Microsoft Access-Level II (1) OR
CIS117DM Microsoft Access: Database Management (3) 2-3
CIS118AB PowerPoint: Level I 1
+CIS118BB PowerPoint: Level II 1
OAS113DE Word Processing: Word 2

Restricted Electives: Credits: 3
BPC100AD Computing Fundamentals 1
BPC100BD Key Software Applications 1
BPC100CD Living Online 1
CIS121AE Windows Operating System: Level I 1
OAS118 10-Key By Touch 1
OAS125 Introduction to the Professional Office 3

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
CAREER AND TECHNICAL PROGRAMS

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: 19-23

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

Required Courses: Credits: 16-20
GBS104 Quality Telephone Techniques 1
OAS101 Computer Typing I: Keyboarding and Formatting 3
OAS108 Business English 3
CSM/TQM101 Quality Customer Service 3

Students will select one of two tracks:

Track I: Credits 6
+BPC210 Advanced Computer Usage and Applications 3
+BPC250 Post Advanced Computer Usage and Applications 3

Track II: Credits 10
BPC100CD Living Online (1) OR
BPC106AH MS Outlook: Level I (.5) AND
+BPC106BH Microsoft Outlook: Level II (.5) 1
+MST157DA Windows Server Network Infrastructure Configuration (4) OR
+MST157DA Active Directory Windows Server Configuration (4) 4

The Certificate of Completion (CCL) in Technology Support Analyst 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: 3048 Total Credits: 64

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

Required Courses: Credits: 39
ACC111 Accounting Principles I 3
+ACC230 Uses of Accounting Information I 3
+ACC240 Uses of Accounting Information II 3
+BPC110 Computer Usage and Applications (3) OR
+BPC250 Post Advanced Computer Usage and Applications (3) OR
+BPC210 Advanced Computer Usage and Applications (3) OR

The Associate in Applied Science (AAS) in Retail Management is designed to prepare individuals working in retail management, the food industry, and related fields, for the mid-level management position challenges of the future. The curriculum encompasses business essentials and also emphasizes the skill sets needed for effective management and communication in the work environment. Instruction will provide the background and knowledge necessary for students to develop the judgment skills they must exercise as business managers. Major Code: 3048 Total Credits: 64

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

Required Courses: Credits: 39
ACC111 Accounting Principles I 3
+ACC230 Uses of Accounting Information I 3
+ACC240 Uses of Accounting Information II 3
+BPC110 Computer Usage and Applications (3) OR
+BPC250 Post Advanced Computer Usage and Applications (3) OR
+BPC210 Advanced Computer Usage and Applications (3) OR

The Certificate of Completion (CCL) in Retail Management is designed to prepare individuals working in retail management, the food industry, and related fields, for the mid-level management position challenges of the future. The curriculum encompasses business essentials and also emphasizes the skill sets needed for effective management and communication in the work environment. Instruction will provide the background and knowledge necessary for students to develop the judgment skills they must exercise as business managers. Major Code: 3048 Total Credits: 64

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

Required Courses: Credits: 39
ACC111 Accounting Principles I 3
+ACC230 Uses of Accounting Information I 3
+ACC240 Uses of Accounting Information II 3
+BPC110 Computer Usage and Applications (3) OR
+BPC250 Post Advanced Computer Usage and Applications (3) OR
+BPC210 Advanced Computer Usage and Applications (3) OR

The Certificate of Completion (CCL) in Retail Management is designed to prepare individuals working in retail management, the food industry, and related fields, for the mid-level management position challenges of the future. The curriculum encompasses business essentials and also emphasizes the skill sets needed for effective management and communication in the work environment. Instruction will provide the background and knowledge necessary for students to develop the judgment skills they must exercise as business managers. Major Code: 3048 Total Credits: 64

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

Required Courses: Credits: 39
ACC111 Accounting Principles I 3
+ACC230 Uses of Accounting Information I 3
+ACC240 Uses of Accounting Information II 3
+BPC110 Computer Usage and Applications (3) OR
+BPC250 Post Advanced Computer Usage and Applications (3) OR
+BPC210 Advanced Computer Usage and Applications (3) OR

The Certificate of Completion (CCL) in Retail Management is designed to prepare individuals working in retail management, the food industry, and related fields, for the mid-level management position challenges of the future. The curriculum encompasses business essentials and also emphasizes the skill sets needed for effective management and communication in the work environment. Instruction will provide the background and knowledge necessary for students to develop the judgment skills they must exercise as business managers. Major Code: 3048 Total Credits: 64

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

Required Courses: Credits: 39
ACC111 Accounting Principles I 3
+ACC230 Uses of Accounting Information I 3
+ACC240 Uses of Accounting Information II 3
+BPC110 Computer Usage and Applications (3) OR
+BPC250 Post Advanced Computer Usage and Applications (3) OR
+BPC210 Advanced Computer Usage and Applications (3) OR

The Certificate of Completion (CCL) in Retail Management is designed to prepare individuals working in retail management, the food industry, and related fields, for the mid-level management position challenges of the future. The curriculum encompasses business essentials and also emphasizes the skill sets needed for effective management and communication in the work environment. Instruction will provide the background and knowledge necessary for students to develop the judgment skills they must exercise as business managers. Major Code: 3048 Total Credits: 64

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

Required Courses: Credits: 39
ACC111 Accounting Principles I 3
+ACC230 Uses of Accounting Information I 3
+ACC240 Uses of Accounting Information II 3
+BPC110 Computer Usage and Applications (3) OR
+BPC250 Post Advanced Computer Usage and Applications (3) OR
+BPC210 Advanced Computer Usage and Applications (3) OR

The Certificate of Completion (CCL) in Retail Management is designed to prepare individuals working in retail management, the food industry, and related fields, for the mid-level management position challenges of the future. The curriculum encompasses business essentials and also emphasizes the skill sets needed for effective management and communication in the work environment. Instruction will provide the background and knowledge necessary for students to develop the judgment skills they must exercise as business managers. Major Code: 3048 Total Credits: 64

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

Required Courses: Credits: 39
ACC111 Accounting Principles I 3
+ACC230 Uses of Accounting Information I 3
+ACC240 Uses of Accounting Information II 3
+BPC110 Computer Usage and Applications (3) OR
+BPC250 Post Advanced Computer Usage and Applications (3) OR
+BPC210 Advanced Computer Usage and Applications (3) OR

The Certificate of Completion (CCL) in Retail Management is designed to prepare individuals working in retail management, the food industry, and related fields, for the mid-level management position challenges of the future. The curriculum encompasses business essentials and also emphasizes the skill sets needed for effective management and communication in the work environment. Instruction will provide the background and knowledge necessary for students to develop the judgment skills they must exercise as business managers. Major Code: 3048 Total Credits: 64

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

Required Courses: Credits: 39
ACC111 Accounting Principles I 3
+ACC230 Uses of Accounting Information I 3
+ACC240 Uses of Accounting Information II 3
+BPC110 Computer Usage and Applications (3) OR
+BPC250 Post Advanced Computer Usage and Applications (3) OR
+BPC210 Advanced Computer Usage and Applications (3) OR
**CAREER AND TECHNICAL PROGRAMS**

**Mathematics**
- MAT102 Mathematical Concepts/Applications (3) OR Satisfactory completion of a higher level mathematics course 3

**Humanities and Fine Arts**
- Any approved general education course from the Humanities and Fine Arts area. 3

**Social and Behavioral Sciences**
- SBU200 Society and Business 3

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

The Certificate of Completion (CCL) in Retail Management is designed to prepare individuals working in the food industry, and related fields, for the management challenges of the future. The curriculum encompasses several business essentials and also emphasizes the skill sets needed for effective management and communication in the work environment. Major Code: 5286 Total Credits: 33

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

Required Courses: Credits: 33
- ACC111 Accounting Principles I 3
- BPC110 Computer Usage and Applications (3) OR CIS105 Survey of Computer Information Systems (3) 3
- +ENG101 First-Year Composition (3) OR ENG107 First-Year Composition for ESL (3) 3
- GBS110 Human Relations in Business and Industry (3) OR
- MGT251 Human Relations in Business (3) 3
- GBS131 Business Calculations (3) OR +MAT102 Mathematical Concepts and Applications (3) 3
- +GBS233 Business Communication 3
- COM110 Interpersonal Communication (3) OR
- IND133 Speaking in Business (3) 3
- MGT101 Techniques of Supervision (3) OR MGT229 Management and Leadership I (3) 3
- MGT179 Utilizing the Human Resources Department (3) OR
- MGT276 Personnel/Human Resources Management (3) 3
- +MKT268 Merchandising 3
- MKT271 Principles of Marketing 3

The Certificate of Completion (CCL) in Salesmanship is specifically designed for students interested in a career in salesmanship. The program will accommodate both those students who are currently employed and desiring advancement as well as those students seeking initial employment. Major Code: 5281 Total Credits: 18

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

Required Courses: Credits: 18
- COM100 Introduction to Human Communication (3) OR COM230 Small Group Communication (3) 3
- +GBS233 Business Communication 3
- MGT251 Human Relations in Business 3
- MKT267 Principles of Salesmanship 3
- +MKT277 Advanced Sales 3
- CSM/ TQM101 Quality Customer Service 3

The Certificate of Completion (CCL) in Small Business seeks to expand refine and update their knowledge and skills to apply in their own businesses. This certificate provides a bundling of relevant courses for small business owners and recognition for having completed this program in the form of a certificate. Major Code: 5191 Total Credits: 13-14

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

Program Prerequisites: Credits: 4
- ACC107 Bookkeeping Theory and Practice 4

Required Courses: Credits: 13-14
+ACC115 Computerized Accounting 2
+CIS131AA Doing Business on the Internet 1
+CIS233AB Internet Web Publishing: FrontPage Level I 1
+EPS150 Introduction to Entrepreneurship (2) AND EPS195 The Business Plan and Business Start-Up (2) OR
MG253 Owning and Operating a Small Business (3) 3-4
SBS204 Small Business Marketing and Advertising 2
SBS230 Financial Tax Management for Small Business 2
SBS213 Hiring and Managing Employees 1
SBS214 Small Business Customer Relations 1

The Certificate of Completion (CCL) in Small Business Start-Up is designed to meet the needs of individuals who wish to become entrepreneurs. It is a flexible program that consists of 1, 2, and 3 credit courses that can be offered in a variety of formats (online, on ground, flex express, accelerated) to support the schedules of prospective small business owners. Courses provide a background in marketing, management, finance, and a capstone course in which students complete a business plan. The goal of the Small Business Start-Up certificate is to create a foundation for prospective small business owners and contribute to the long-term success of the business community. Major Code: 5706 Total Credits: 12

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

Required Courses: Credits: 12
- MGT253 Owning and Operating a Small Business (3) 3
- MKT271 Principles of Marketing 3
- SBS213 Hiring and Managing Employees 1
- SBS214 Small Business Customer Relations 1
- SBS220 Internet Marketing for Small Business 2
- SBS230 Financial Tax Management for Small Business 2

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
MGT+++++ Any MGT Management course(s) except courses used to satisfy Required Courses area 1-18
MKT+++++ Any MKT Marketing course(s) except courses used to satisfy Required Courses area 1-18
REA+++++ Any REA Real Estate course(s) 1-18
SBS+++++ Any SBS Small Business Management course(s) 1-18

General Education: Credits: 22-24
First-Year Composition: 6
+ENG101 First-Year Composition (3) OR
+ENG107 First-Year Composition for ESL (3) AND
+ENG102 First-Year Composition (3) OR
+ENG108 First-Year Composition for ESL (3) 6
Oral Communication: 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.
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 the 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 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 in the Oral Communication area. 3
Critical Reading
+CRE101 College Critical Reading (3) OR
   Equivalent by assessment 0-3
### CAREER AND TECHNICAL PROGRAMS

<table>
<thead>
<tr>
<th>Mathematics</th>
<th>Any approved general education course from the Mathematics area 3-5</th>
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<tbody>
<tr>
<td>Humanities and Fine Arts</td>
<td>Any approved general education course from the Humanities and Fine Arts area 3</td>
</tr>
<tr>
<td>Social and Behavioral Sciences</td>
<td>Any approved general education course from the Social and Behavioral Sciences area 3</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>Any approved general education course from the Natural Sciences area 4</td>
</tr>
</tbody>
</table>

**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
- +GBS233 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

**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: 21**
- BPC110 Computer Usage and Application 3
- BPC/ OAS111AA Computer Keyboarding I 1
- GBS205 Legal, Ethical, and Regulatory Issues in Business 3
- CIS113DE Microsoft Word: Word Processing 3
- CIS121AE Windows Operating System: Level I 1
- CIS133AA Internet/Web Development Level I-A 3
- MGT251 Human Relations in Business 3
- OAS108 Business English 3
- OAS125 Introduction to the Professional Office 3

**Restricted Electives: Credits: 17**
- ACC111 Accounting Principles I 3
- +ACC115 Computerized Accounting 3
- +BPC133AA Windows Desktop Design and Publishing 3
- CIS114DE Excel Spreadsheet 3
- CIS117DM Microsoft Access: Database Management 3
- +CIS122AE Windows Operating System: Level II 1
- +CIS133BA Internet/Web Development Level I-B 1
- +CIS213DE Advanced Microsoft Word: Word Processing 3
- GBS131 Business Calculations 3
- GBS151 Introduction to Business 3
- MGT229 Management and Leadership I 3
- +MGT270++ Management Internship (any suffixed course) 1-3
- MGT276 Personnel/Human Resources Management 3

**General Education: Credits: 22-25**
- First-Year Composition
  - +ENG101 First-Year Composition (3) OR +ENG107 First-Year Composition for ESL (3) AND +ENG102 First-Year Composition (3) OR +ENG108 First-Year Composition for ESL (3) 6
- Oral Communication
  - Any approved general education course from the Oral Communication area. 3
- Critical Reading
  - Any approved general education course from the Critical Reading area. 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. 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 Entrepreneurial Studies I** is designed to provide students with an introduction to the entrepreneurial process. Courses include a history of entrepreneurship, current research into its impacts on society, types of business start-up opportunities, and creating a preliminary business plan, as well as securing a healthy financial future. Major Code: 5819 Total Credits: 10

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

**Required Courses: Credits: 10**
- EPS150 Introduction to entrepreneurship 3
- EPS160 New Venture Creation 2
- EPS195 Business Start-Up and Planning 2
- GBS/HEC132 Personal and Family Financial Security 3

**The Certificate of Completion (CCL) in Entrepreneurial Studies II** is designed to provide students with the necessary skills, knowledge, and abilities to start and run their own business. Courses include new venture legal issues, financial projections, and alternatives, in addition to market research to determine business feasibility. Also covers management skills and entrepreneurial thinking for owning and operating a small business. Major Code: 5820 Total Credits: 18

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

**Required Courses: Credits: 18**
- CCL Entrepreneurial Studies Level I (5819) 10
- EPS161 New Venture Law and Finance 3
- EPS165 New Venture Feasibility Analysis 2
- MGT253 Owning and Operating a Small Business 3
Caterpillar Technician Training Certificates/Degrees

• Associate in Applied Science in Caterpillar Technician Training

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

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
First-Year Composition 3
ENG101 First-Year Composition (3) 3
ENG111 Technical Writing (3) 3
Oral Communication 3
Any approved general education course from the Oral Communication area 3
Critical Reading 3
Any approved general education course from the Critical Reading area 3
Mathematics 3
GCT108 Technical Mathematics II 3
Humanities and Fine Arts 3
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 (Waived)

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: 3124 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
ECH128 Early Learning: Play and the Arts 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: Birth to Age Eight 3
EED245 Early Learning: Language Acquisition and Literacy Development 3
EED255 Portfolio Development and Writing for the Profession 3
EED260 Early Childhood Infant/Toddler Internship 1
EED261 Early Childhood Preschool Internship 1
EED278 Early Learning: Curriculum and Instruction-Birth/Preschool 3
EED280 Standards, Observation and Assessment of Typical/Atypical Behaviors of Young Children Birth to Age Eight 3

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
**Required Courses: Credits: 26**
- 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
- ITD+++++ Any ITD Infant/Toddler Development course(s) 1-9
- FCS+++++ Any FCS Family and Consumer Science course(s) 1-9

**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 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 in the Humanities and Fine Arts area 3
- Social and Behavioral Sciences
  - CFS/EC176 Child Development (3) OR EED205 The Development Child: Prenatal to Age Eight (3) OR CFS235 Developing Child: Theory into Practice, Prenatal – Age 8 (3) 3
- Natural Sciences
  - Any approved general education course from the Natural Sciences Area 4

**Restricted Electives: Credits: 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
- 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) OR EED222 Introduction to the Exceptional Young Child: Birth to Age Eight (3) OR +EED245 Early Learning: Language Acquisition and Literacy Development (3) 3
- EED255 Portfolio Development and Writing for the Profession 3
- +EED260 Early Childhood Infant/Toddler Internship 1
- +EED261 Early Childhood Preschool Internship 1
- +EED278 Early Learning: Curriculum and Instruction-Birth/Preschool 3

The Certificate of Completion (CCL) in Early Care Specialist program 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 required within the program.

**Required Courses: Credits: 26**
- CFS/EC176 Child Development (3) OR EED205 The Developing Child: Prenatal to Age Eight (3) 3
- ECH128 Early Learning: Play and the Arts 3
## Computer Information Systems Certificates/Degrees

- Associate in Applied Science in Computer Programming
- Certificate of Completion in Computer Programming
- Certificate of Completion in Software Quality/Assurance
- Associate in Applied Science in Programming/System Analysis
- Certificate of Completion in Programming/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
- Certificate of Completion in Adobe Foundation

### Required Courses: Credits: 15

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
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<td>+CIS105</td>
<td>Survey of Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>+CIS117DM</td>
<td>Microsoft Access: Database Management</td>
<td>3</td>
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<td>+CIS276DA</td>
<td>MySQL Database</td>
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<td>+CIS276DB</td>
<td>SQL Server Database</td>
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<td>+CIS276DC</td>
<td>Oracle Database</td>
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<tr>
<td>+CIS133DA</td>
<td>Internet/Web Development Level I</td>
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<tr>
<td>+CIS126DL</td>
<td>Linux Operating System</td>
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<tr>
<td>+MST150++</td>
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<td>+CIS169</td>
<td>Visual Basic Programming I</td>
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<td>+CIS162AD</td>
<td>C#: Level I</td>
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<tr>
<td>+CIS163AA</td>
<td>Java Programming: Level I</td>
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### Restricted Electives: Credits: 15

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<tr>
<td>+CIS166AA</td>
<td>Introduction to JavaScripting</td>
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<td>+CIS166AB</td>
<td>Web Scripting with Perl/CGI</td>
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<td>Web Scripting with (ASP.NET)</td>
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<td>Java Programming: Level II</td>
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<td>+CIS284</td>
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<td>+CIS250</td>
<td>Management of Information Systems</td>
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<td>+CIS190</td>
<td>Introduction to Local Area Networks</td>
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<tr>
<td>+CNT140</td>
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<tr>
<td>+MST140</td>
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</table>

### General Education: Credits: 22-24

- First-Year Composition
- Any approved general education course in the First Year Composition area
- Oral Communication
- COM100 Introduction to Human Communication | 3 |
- COM110 Interpersonal Communication | 3 |
- COM225 Public Speaking | 3 |
- COM230 Small Group Communication | 3 |
Critical Reading: 0
Mathematics
MAT120 Intermediate Algebra (5) OR
MAT121 Intermediate Algebra (4) OR
MAT122 Intermediate Algebra (3) 3-5
Humanities and Fine Arts
Any approved general education course in the Humanities and Fine Arts Area 3
Social and Behavioral Sciences
SBU200 Society and Business 3
Natural Sciences
Any approved general education course from the Natural Sciences Area 4

The Certificate of Completion (CCL) in Computer Programming prepares students for entry-level positions in computer programming. The program emphasizes knowledge and skills required to design, develop, test, and document structured and object-oriented program utilizing a variety of programming languages. Major Code: 5207 Total Credits: 30

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

Required Courses: Credits: 24
CIS105 Survey of Computer Information Systems 3
CIS117DM Microsoft Access: Database Management (3) OR
+CIS276DA MySQL Database (3) OR
+CIS276DB SQL Server Database (3) OR
+CIS276DC Oracle Database (3) 3
CIS133DA Internet/Web Development Level I 3
CIS126DL Linux Operating System (3) OR
MST150++ Microsoft Windows (3) 3
CIS150AB Object-Oriented Programming Fundamentals 3
CIS135 Visual Basic Programming I 3
CIS162AD C#: Level I 3
CIS163AA Java Programming: Level I 3

Restricted Electives: Credits: 6
+CIS162AB C++: Level I 3
+CIS166AA Introduction to JavaScripting (3) OR
+CIS166AB Web Scripting with Perl/CGI (3) OR
+CIS166AC Web Scripting with (ASP).NET (3) OR
+CIS166AD Web Scripting with (JSP) (3) OR
+CIS166AE Web Scripting with (PHP) (3) OR
+CIS166AF Web Scripting with Python (3) 3
+CIS259 Visual Basic Programming II 3
+CIS262AB C++: Level II 3
+CIS262AD C#: Level II 3
+CIS263AA Java Programming: Level II 3
CIS224 Project Management Microsoft Project for Windows 3
+CIS249 Software Testing for Quality Assurance 3
+CIS250 Management of Information Systems 3
+CIS190 Introduction to Local Area Networks (3) OR
CNT140 Cisco Networking Basics (4) OR
CNT140AA Cisco Networking Fundamentals (4) OR
*MST140 Microsoft Networking Essentials (3) 3-4

The Certificate of Completion (CCL) in Software Quality Assurance in quality and testing are an integral part of software design, development, and construction. The Software Quality Assurance program prepares students to work in a variety of environments. The program emphasizes the importance of quality control in the software environment, the tools used in a testing environment, and how to apply quality assurance concepts in the working environment. The program is designed for both people seeking to enter a career in software quality assurance as well as those already working in the field who wish to advance and update their knowledge and skills. Major Code: 5393 Total Credits: 12

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

Program Prerequisites: Credits: 3
CIS150AB Object-Oriented Programming Fundamentals 3
CIS159 Visual Basic Programming I 3
CIS162AB C++: Level I 3
CIS162AD C#: Level I 3
CIS163AA Java Programming: Level I 3

Required Courses: Credits: 12
+CIS244 Testing Software Tools 3
+CIS246 Software Quality 3
+CIS248 Engineering Quality in Software Development 3
+CIS249 Software Testing for Quality Assurance 3

The Associate in Applied Science (AAS) in Programming and System Analysis 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

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

Program Prerequisites: 0-3 Credits
CRE101 College Critical Reading (3) or Equivalent by assessment 0-3

Required Courses: Credits: 36-37
ACC111 Accounting Principles I 3
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
MST150V 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 JavaScripting (3) OR
+CIS166AB Web Scripting with Perl/CGI (3) OR
+CIS166AC Web Scripting with Active Server Pages (ASP) 3
.NET (3) OR
+CIS166AD Web Scripting with Java Server Pages (JSP) (3) OR
+CIS166AE Web Scripting with PHP: Preprocessor (PHP) (3)

+CIS166AF Web Scripting with Python (3) 3
+CIS190 Introduction to Local Area Networks (3) OR
+CNT140 Cisco Networking Basics (4) OR
+CNT140C Cisco Networking Fundamentals (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

The Certificate of Completion (CCL) in Software Quality Assurance is designed for individuals who wish to enhance their skills in testing and assurance of software quality. Major Code: 5393 Total Credits: 12

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

Program Prerequisites: Credits: 3
CIS150AB Object-Oriented Programming Fundamentals 3
CIS159 Visual Basic Programming I 3
CIS162AB C++: Level I 3
CIS162AD C#: Level I 3
CIS163AA Java Programming: Level I 3

Required Courses: Credits: 12
+CIS244 Testing Software Tools 3
+CIS246 Software Quality 3
+CIS248 Engineering Quality in Software Development 3
+CIS249 Software Testing for Quality Assurance 3

The Certificate of Completion (CCL) in Software Quality Assurance is designed for individuals who wish to enhance their skills in testing and assurance of software quality. Major Code: 5393 Total Credits: 12

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

Program Prerequisites: Credits: 3
CIS150AB Object-Oriented Programming Fundamentals 3
CIS159 Visual Basic Programming I 3
CIS162AB C++: Level I 3
CIS162AD C#: Level I 3
CIS163AA Java Programming: Level I 3

Required Courses: Credits: 12
+CIS244 Testing Software Tools 3
+CIS246 Software Quality 3
+CIS248 Engineering Quality in Software Development 3
+CIS249 Software Testing for Quality Assurance 3

The Certificate of Completion (CCL) in Software Quality Assurance is designed for individuals who wish to enhance their skills in testing and assurance of software quality. Major Code: 5393 Total Credits: 12

Program Notes: Students must earn a grade of “C” or better for all courses required within the program.
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 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) OR
- **CIS150** Programming Fundamentals (3) OR
- **CIS150AB** Object-Oriented Programming Fundamentals (3) OR
- **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) OR
- **+CIS225** Business Systems Analysis and Design (3) OR
- **+CIS225AB** Object Oriented Analysis and Design (3) OR
- **+CIS250** Management of Information Systems (3) OR
- **+CIS217AM** Advanced Microsoft Access: Database Management (3) OR
- **+CIS119DO** Introduction to Oracle: SQL (3) OR
- **+CIS276DA** MySQL Database (3) OR

**Restrict 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

Required Program Prerequisites 0

**Mathematics**

- **MAT150** College Algebra/Functions (5) OR
- **MAT151** College Algebra/Functions (4) OR
- **MAT152** College Algebra/Functions (3) 3-5

**Humanities and Fine Arts**

- Any approved general education course in the Humanities and Fine Arts Area 3

**Social and Behavioral Sciences**

- **ECN121** Macroeconomic Principles (3) OR
- **ECN212** Microeconomic Principles (3) OR
- **SBU200** Society and Business (3) 3

**Natural Sciences**

- Any approved general education course from the Natural Sciences Area 4

**Restricted Electives: Credits: 3**

- **CIS263AA** Java Programming: Level II 3

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

**Required Courses: Credits: 27**

- **CIS133DA** Internet/Web Development Level I 3
- **CIS224** Project Management Microsoft 3
- **CIS117DM** Microsoft Access: Database Management (3) OR
- **+CIS276DA** MySQL Database (3) OR
- **+CIS276DB** SQL Server Database (3) OR
- **+CIS276DC** Oracle Database (3) OR
- **+CIS150AB** Object-Oriented Programming Fundamentals 3
- **+CIS166AA** Introduction to JavaScript 3
- **+CIS233DA** Internet/Web Development Level II 3
- **+CIS234** XML Application Development 3
- **+CIS250** Management of Information Systems 3
- **+CIS290AC** Computer Information Systems Internship 3

**Restricted Electives: Credits: 12**

- **CIS120DC** Flash: Digital Animation 3
- **CIS126DL** Linux Operating System 3
- **+CIS159** Visual Basic Programming I 3
- **+CIS152AD** C#: Level I 3
- **+CIS163AA** Java Programming: Level I 3
- **+CIS166AB** Web Scripting with Perl/CGI 3
- **+CIS166AC** Web Scripting with Active Server Pages (ASP) NET 3
- **+CIS166AD** Web Scripting with Java Server Pages (JSP) 3
- **+CIS166AE** Web Scripting with PHP: Hypertext Preprocessor (PHP) 3
- **+CIS217AM** Advanced Microsoft Access:Database Mgmt 3
- **+CIS233DC** Internet Web Development Dreamweaver 3
- **+CIS259** Visual Basic Programming II 3
- **+CIS262AD** C# Level II 3
- **+CIS263AA** Java Programming: Level II 3
- **MST150** Microsoft Windows Professional (3) OR
- **MST150XP** Microsoft Windows XP Professional (3) OR

**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
### Program: Associate in Applied Science (AAS) in Web Designer

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

#### Required Courses: Credits: 19

- **CIS117DM** Microsoft Access: Database Management (3) OR
- **CIS276DA** MySQL Database (3) OR
- **CIS276DB** SQL Server Database (3) OR
- **CIS276DC** Oracle Database (3)
- **CIS133DA** Internet/Web Development Level I OR
- **CIS166AB** Web Scripting with Perl/CGI
- **CIS166AC** Web Scripting with Active Server Pages (ASP) NET
- **CIS166AD** Web Scripting with Java Server Pages (JSP)
- **CIS166AE** Web Scripting with PHP: Hypertext Preprocessor (PHP)
- **CIS217AM** Advanced Microsoft Access: Database Management
- **CIS234** XML Application Development
- **CIS259** Visual Basic Programming II
- **CIS262AD** C# Level II
- **CIS263AA** Java Programming: Level II
- **MST150** Microsoft Windows Professional (3) OR
- **MST150XP** Microsoft Windows XP Professional (3)

**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

- **CIS120DC** Flash: Digital Animation
- **CIS126DL** Linux Operating System
- **CIS159** Visual Basic Programming I
- **CIS162AD** C#: Level I
- **CIS163AA** Java Programming: Level I
- **CIS166AB** Web Scripting with Perl/CGI
- **CIS166AC** Web Scripting with Active Server Pages (ASP) NET
- **CIS166AD** Web Scripting with Java Server Pages (JSP)
- **CIS166AE** Web Scripting with PHP: Hypertext Preprocessor (PHP)
- **CIS217AM** Advanced Microsoft Access: Database Management
- **CIS234** XML Application Development
- **CIS259** Visual Basic Programming II
- **CIS262AD** C# Level II
- **CIS263AA** Java Programming: Level II
- **MST150** Microsoft Windows Professional (3) OR
- **MST150XP** Microsoft Windows XP Professional (3)

**The Associate in Applied Science (AAS) in Web Designer** is designed to give students a set of skills that could allow them to develop simple websites with static information. Completing the program may lead to such positions as web technician and web designer assistant or to serve as a departmental or personal web publisher. Major Code: 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: 33

- **CIS120DC** Flash: Digital Animation
- **CIS120DF** Computer Graphics: Adobe Photoshop
- **CIS133DA** Internet/Web Development Level I
- **CIS166AA** Introduction to JavaScript
- **CIS217AM** Advanced Microsoft Access: Database Management
- **CIS220DC** Computer Graphics: Adobe Illustrator
- **CIS224** Project Management Microsoft
- **CIS229** Visual Basic Programming I
- **CIS234** XML Application Development
- **CIS259** Visual Basic Programming II
- **CIS262AD** C# Level II
- **CIS263AA** Java Programming: Level II
- **MST150** Microsoft Windows Professional (3) OR
- **MST150XP** Microsoft Windows XP Professional (3)
- **CIS284** Business Video Presentation
- **CIS291** Business Video Projects
- **CIS298AC** Computer Information Systems Internship (3) OR
- **CIS290AC** Computer Information Systems Internship (3) OR
- **CIS299AC** Special Projects (3)

**Restricted Electives: Credits: 6**

- **CIS120DB** Computer Graphics: Adobe Illustrator
- **CIS120DK** Introduction to Digital Video Editing
- **CIS120DL** Digital Video Compositing: After Effects
- **CIS166AB** Web Scripting with Perl/CGI
- **CIS166AE** Web Scripting with PHP: Hypertext Preprocessor (PHP)
- **CIS220DK** Advanced Digital Video Production: Premiere
- **CIS224** Project Management Microsoft
- **CIS291** Business Video Projects
- **MTC/TCM120** Introduction to Sound Design for Film and Video

### General Education: Credits: 25-27

**First Year Composition:**

- Any approved general education course in the First-Year Composition Area
  
**Oral Communication:**

- Any approved general education course in the Oral Communication Area

**Critical Reading:**

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

**Mathematics:**

- Any approved general education course in the Mathematics Area

**Humanities and Fine Arts:**

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

**Social and Behavioral Sciences:**

- SBU200 Society and Business

**Natural Sciences:**

- Any approved general education course from the Natural Sciences Area

**The Certificate of Completion (CCL) in Web Designer** is designed to give students a set of skills that would allow them to develop comprehensive and interactive Web sites and...

### Sample Courses

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<td>SQL Server Database</td>
</tr>
<tr>
<td>CIS276DC</td>
<td>Oracle Database</td>
</tr>
<tr>
<td>CIS133DA</td>
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</tr>
<tr>
<td>CIS166AB</td>
<td>Web Scripting with Perl/CGI</td>
</tr>
<tr>
<td>CIS166AC</td>
<td>Web Scripting with Active Server Pages (ASP) NET</td>
</tr>
<tr>
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</tr>
<tr>
<td>CIS166AE</td>
<td>Web Scripting with PHP: Hypertext Preprocessor (PHP)</td>
</tr>
<tr>
<td>CIS217AM</td>
<td>Advanced Microsoft Access: Database Management</td>
</tr>
<tr>
<td>CIS234</td>
<td>XML Application Development</td>
</tr>
<tr>
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<td>Visual Basic Programming II</td>
</tr>
<tr>
<td>CIS262AD</td>
<td>C# Level II</td>
</tr>
<tr>
<td>CIS263AA</td>
<td>Java Programming: Level II</td>
</tr>
<tr>
<td>MST150</td>
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</tr>
<tr>
<td>MST150XP</td>
<td>Microsoft Windows XP Professional</td>
</tr>
<tr>
<td>CIS133DA</td>
<td>Internet/Web Development Level I</td>
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### Sample Courses

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<tr>
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<tr>
<td>CIS117DM</td>
<td>Microsoft Access: Database Management</td>
</tr>
<tr>
<td>CIS276DA</td>
<td>MySQL Database</td>
</tr>
<tr>
<td>CIS276DB</td>
<td>SQL Server Database</td>
</tr>
<tr>
<td>CIS276DC</td>
<td>Oracle Database</td>
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<tr>
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<tr>
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<td>Microsoft Windows XP Professional</td>
</tr>
<tr>
<td>CIS133DA</td>
<td>Internet/Web Development Level I</td>
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</tbody>
</table>
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: 3087 Total Credits: 62

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

### Required Courses: Credits: 28-29

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CIS117DM</td>
<td>Microsoft Access: Database Management (3) OR</td>
</tr>
<tr>
<td>CIS226AL</td>
<td>Internet/Intranet Server Administration-Linux (3) OR</td>
</tr>
<tr>
<td>CIS240DL</td>
<td>Linux Network Administration-Linux (3) OR</td>
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<tr>
<td>MST150</td>
<td>Microsoft Windows Professional (3) OR</td>
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<tr>
<td>MST150XP</td>
<td>Microsoft Windows XP Professional (3) AND</td>
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<tr>
<td>MST152</td>
<td>Microsoft Windows Server (4) OR</td>
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<td>MST152DA</td>
<td>Microsoft Windows 2000 Server (4) OR</td>
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<tr>
<td>MST152DB</td>
<td>Microsoft Windows 2003 Server (4) OR</td>
</tr>
<tr>
<td>CIS224</td>
<td>Project Management Microsoft Project for Windows</td>
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<td>CNT140AA</td>
<td>Cisco Networking Fundamentals</td>
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### Restricted Electives: Credits: 9

<table>
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<tr>
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<tbody>
<tr>
<td>CIS120DC</td>
<td>Flash: Digital Animation</td>
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<tr>
<td>CIS120DF</td>
<td>Computer Graphics: Adobe Photoshop</td>
</tr>
<tr>
<td>CIS220DC</td>
<td>Flash: Advanced Animation and ActionScript</td>
</tr>
<tr>
<td>CIS233DC</td>
<td>Internet Web Development: Dreamweaver</td>
</tr>
<tr>
<td>CIS234</td>
<td>XML Application Development</td>
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<tr>
<td>CIS235</td>
<td>e-Commerce</td>
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<tr>
<td>CIS250</td>
<td>Management of Information Systems</td>
</tr>
<tr>
<td>CIS290AC</td>
<td>Computer Information Systems Internship</td>
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### General Education: Credits: 25-27

- First Year Composition
  - Any approved general education course in the First-Year Composition Area
  - 6 credits

- Oral Communication
  - Any approved general education course in the Oral Communication Area
  - 3 credits
CAREER AND TECHNICAL PROGRAMS

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

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
+CIS220DC Advanced Web Programming with Macromedia Flash 3
CIS230DA 3D Studio Max Materials 3
CIS251 Computer Game Development-Level II 3
+MMT216 Multimedia Project Management (3) OR CIS224 Project Management Microsoft Project for Windows (3) 3

Restricted Electives: Credits: 3
CIS253 Computer Game Development-Level III 3
CIS230DB 3D Studio Max: Lighting and Rendering 3
+MTC/ TCM120 Introduction to Sound Design for Film and Video 3
BPC/ CIS120DB Computer Graphics: Adobe Illustrator 3

General Education: Credits: 22-24
First-Year Composition Any approved general education course in the First-Year Composition Area 6
Oral Communication Any approved general education course in the Oral Communication Area 3
Critical Reading Met by CRE101 or equivalent as indicated by assessment in Program Prerequisite area 0
Mathematics MAT120 Intermediate Algebra (5) OR MAT121 Intermediate Algebra (4) OR MAT122 Intermediate Algebra (3) OR Satisfactory completion of a higher level mathematics course 3-5
Humanities and Fine Arts Any approved general education course in the Humanities and Fine Arts Area 3
Social and Behavioral Sciences SBU200 Society and Business 3
Natural Sciences Any approved general education course from the Natural Sciences Area 4

The Certificate of Completion (CCL) in Game Technology is a discipline that includes the development and management of dynamic environments for games and related visualization applications. The Certificate of Completion in Game Technology will help prepare students for entry-level career opportunities with studios, corporations, organizations, educational institutions, government agencies, advertising and entertainment industries that require visual and interactive content to support, enhance, entertain and/or market their product or service. Possible entry-level or internship positions leading to careers after completing this certificate program may include 3D Animator, Production Artist, 3D Modeler, Game Designer, Game Developer, or Multimedia Designer/Developer. Major Code: 5637 Total Credits: 28

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

Required Courses: Credits: 25
CIS105 Survey of Computer Information Systems 3
+CIS107 The Electronic Game Industry 3
+CIS151 Computer Game Development – Level I 3
+ART/ ADA170 Three-Dimensional Computer Design (3) OR CIS130DA 3D Studio Max: Modeling (3) 3
+ADA/ART/ MMT184 Computer Animation (3) OR CIS130DB 3D Studio Max: Animation (3) 3
CIS120DF Computer Graphics: Adobe Photoshop (3) OR CIS120DG Fireworks: Web Graphics (3) 3
+CIS220DC Advanced Web Programming with Macromedia Flash 3
CIS230DA 3D Studio Max Materials 3
CIS251 Computer Game Development-Level II 3
+MMT216 Multimedia Project Management (3) OR CIS224 Project Management Microsoft Project for Windows (3) 3

Restricted Electives: Credits: 3
+CIS150AB Object-Oriented Programming Fundamentals 3
+MMT216 Multimedia Project Management 3
+ART/ TCM120 Introduction to Sound Design for Film and Video 3
CIS120DB Computer Graphics: Adobe Illustrator 3
CIS224 Project Management Microsoft Project for Windows 3

The Associate in Applied Science (AAS) in Multimedia and Business Technology is a discipline that integrates business applications with multiple digital media types including text, graphics, animation, audio, and video and then delivers this interactive material electronically. The Associate of Applied Science in Multimedia and Business Technology will help prepare students for technical career opportunities with corporations, organizations, educational institutions, government agencies, entertainment, and advertising industries that require interactive content to support, enhance, and/or market their product or service.

The curriculum brings together business concepts and multimedia technology to prepare students for careers such as a Multimedia Producer, Multimimedia Scriptwriter, Multimedia Developer, Multimedia Designer, Computer-Based Training or Instructional Designer, Digital Graphic Designer, Webpage Developer, Interface Designer, Video/Audio Specialist, Video Editor or Animator. Major Code: 3147 Total Credits: 62

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

Program Prerequisites: Credits 3
CRE101 College Critical Reading (3) OR Equivalent as indicated by assessment 3

Required Courses: Credits: 40
ART142 Introduction to Digital Photography 3
CIS120DC Flash: Digital Animation 3
CAREER AND TECHNICAL PROGRAMS

Required Courses: Credits: 27
CIS120DK Introduction to Digital Video Editing 3
CIS105 Survey of Computer Information Systems 3
+MTC/ MMT140 Survey of Multimedia Technology 2
+MMC/ TCM120 Introduction to Sound Design for Film and Video 3
+MMC/ MMT216 Multimedia Project Management (3) OR
CIS224 Project Management Microsoft 3
CIS220DC Project for Windows (3) 3
+MMC/ CIS233DC Internet Web Development: Dreamweaver 3
+MMC/ CIS291 Business Video Projects 3
+MMC/ CIS220DK Advanced Digital Video Production: Premiere 3
CIS106AA Captivate: Video Presentations (1) OR
CIS106AB Camtasia: Video Presentations (1) 1
CIS120DL Digital Video Compositing: After Effects 3
MMT292 Multimedia Update 1
CIS220DC Flash: Advanced Animation and ActionScript 3

General Education: Credits: 22-24
First-Year Composition
Any approved general education course in the First-Year Composition Area 6
Oral Communication
Any approved general education course in the Oral Communication Area 3
Critical Reading
Met by CRE101 or equivalent as indicated by assessment in Program Prerequisite area. 0
Mathematics
MAT120 Intermediate Algebra (5) OR 3-5
MAT121 Intermediate Algebra (4) OR
MAT122 Intermediate Algebra (3) OR
Satisfactory completion of a higher level mathematics course
Humanities and Fine Arts
Any approved general education course in the Humanities and Fine Arts Area 3
Social and Behavioral Sciences
SBU200 Society and Business 3
Natural Sciences
Any approved general education course from the Natural Sciences Area 4

The Certificate of Completion (CCL) in Multimedia Technology is a discipline that integrates multiple digital media types including text, graphics, animation, audio, and video and then delivers this interactive material electronically. The Certificate of Completion in Multimedia Technology will help prepare students for entry-level career opportunities with corporations, organizations, educational institutions, government agencies, entertainment, and advertising industries that require interactive content to support, enhance and/or market their product or service. 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
CIS120DB Computer Graphics: Adobe Illustrator (3) OR
CIS120DF Computer Graphics: Adobe Photoshop (3) OR
CIS120DG Computer Graphics: Macromedia Fireworks (3) OR
ART142 Introduction to Digital Photography 3
CIS120DC Computer Graphics: Macromedia Flash 3
CIS120DK Introduction to Digital Video Editing 3

The Certificate of Completion (CCL) in Adobe Foundation program helps develop proficiency with three of Adobe’s foundational graphics programs: Photoshop, Illustrator, and Flash. The courses in this CCL are the common subset of those required for the other Adobe Creative Suite CCLs. Thus all the course in the Adobe Foundations CCL may be applied towards the requirements of any of these more comprehensive certificates. Major Code: 5807 Total Credits: 9
Program Notes: Students must earn a grade of “C” or better for all courses within the program.

Required Courses: Credits: 9
CIS120DF Computer Graphics: Adobe Photoshop 3
CIS120DB Computer Graphics: Adobe Illustrator 3
CIS120DC Flash: Digital Animation 3

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 II
• Certificate of Completion in Home Inspection
• Certificate of Completion in Construction Drafting – CADD Level III
• Certificate of Completion in Plan Review
• Certificate of Completion in Pre-Contracting Licensing
• Certificate of Completion in Survey and Civil Drafting – CADD I

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.

Program Prerequisites: Credits: 3-5
MAT120 Intermediate Algebra (5) OR 3-5
MAT121 Intermediate Algebra (4) OR
MAT122 Intermediate Algebra (3)
### Required Courses: Credits: 18-20

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<tr>
<td>CNS130</td>
<td>Computer Aided Design and Drafting</td>
<td>3</td>
</tr>
<tr>
<td>CNS175</td>
<td>Working Drawing Analysis: Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>CNS180</td>
<td>Building Construction Methods, Materials, and Equipment</td>
<td>3</td>
</tr>
<tr>
<td>CNS181</td>
<td>Cost Estimating I</td>
<td>3</td>
</tr>
<tr>
<td>MAT150</td>
<td>College Algebra/Functions (5) OR</td>
<td></td>
</tr>
<tr>
<td>MAT151</td>
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</tr>
<tr>
<td>MAT152</td>
<td>College Algebra/Functions (3) OR</td>
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### Track I - Construction Drafting Credits: 27

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<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>BLT263</td>
<td>Building Codes</td>
<td>3</td>
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<tr>
<td>+CET101</td>
<td>Surveying I</td>
<td>3</td>
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<tr>
<td>+CET102</td>
<td>Surveying II</td>
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<tr>
<td>+CET201</td>
<td>Boundary Control and Legal Principles I</td>
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<td>+CET202</td>
<td>Boundary Control and Legal Principles II</td>
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<tr>
<td>+CET257</td>
<td>Route and Construction Surveying</td>
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<td>+CNS201</td>
<td>Construction Management: Office Operation</td>
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<td>Computer Aided Design &amp; Drafting (CADD) 3D</td>
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<td>Advanced Computer Aided Design &amp; Drafting (CADD) for Construction and Architecture (CADD II)</td>
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<td>+CNS250</td>
<td>Civil Drafting I: Land Development</td>
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<td>+CNS251</td>
<td>Civil Drafting II: Land Development</td>
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<td>CNS261</td>
<td>Microcomputers for Constructors</td>
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<td>+CNS282++</td>
<td>Volunteerism for Construction: A Service-Learning Experience</td>
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<tr>
<td>+CNS290++</td>
<td>Construction Internship (any suffixed courses)</td>
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<tr>
<td>+CNS296++</td>
<td>Cooperative Education</td>
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<tr>
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### Track II - Construction Inspection Credits: 27

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<td>Residential Architecture Drafting I: Computer &amp; Board</td>
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<td>Commercial Architecture Drafting I: Computer &amp; Board</td>
<td>3</td>
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<td>ELC123</td>
<td>Residential Electrical Wiring and Codes</td>
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<td>BLT121</td>
<td>Electrical Codes</td>
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<tr>
<td>BLT127</td>
<td>Plumbing Codes</td>
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<td>BLT128</td>
<td>Mechanical Codes</td>
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<td>BLT140</td>
<td>Environmentally Responsible Building</td>
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<tr>
<td>BLT262</td>
<td>Introduction International Residential Code (IRC)</td>
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<tr>
<td>BLT263</td>
<td>Building Codes</td>
<td>3</td>
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<tr>
<td>CNS200</td>
<td>Construction Management: Field Operation</td>
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<tr>
<td>CNS201</td>
<td>Construction Management: Office Operation</td>
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</tr>
<tr>
<td>CNS263</td>
<td>Electrical Construction Fundamentals</td>
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<td>CNS271</td>
<td>Home Inspection Structure</td>
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<td>CNS272</td>
<td>Home Inspection Plumbing, Electrical &amp; HVAC</td>
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<td>CNS273</td>
<td>Home Inspection Insulation and Interior</td>
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<td>Home Inspection Roofing and Exteriors</td>
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<td>Volunteerism for Construction: A Service-Learning Experience</td>
<td>1-3</td>
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<tr>
<td>+CNS285</td>
<td>Introduction to Residential Plan Review</td>
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<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>
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<tr>
<td>+CNS296++</td>
<td>Cooperative Education</td>
<td>1-3</td>
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<tr>
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### Track III - Construction Management Credits: 27

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<tr>
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<td>Environmentally Responsible Building</td>
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<tr>
<td>BLT262</td>
<td>Introduction International Residential Code (IRC)</td>
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</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>CNS182</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</td>
<td>1-3</td>
</tr>
<tr>
<td>+CNS290++</td>
<td>Construction Internship (any suffixed courses)</td>
<td>1-3</td>
</tr>
<tr>
<td>+COM225</td>
<td>Public Speaking</td>
<td>3</td>
</tr>
<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>
</tr>
<tr>
<td>+GBS221</td>
<td>Business Statistics</td>
<td>3</td>
</tr>
<tr>
<td>+CNS296++</td>
<td>Cooperative Education</td>
<td>1-3</td>
</tr>
<tr>
<td>+CNS298++</td>
<td>Special Project</td>
<td>1-3</td>
</tr>
</tbody>
</table>

### General Education: Credits: 22

<table>
<thead>
<tr>
<th>Area</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences</td>
<td>PHY111</td>
<td>General Physics I</td>
<td>4</td>
</tr>
<tr>
<td>Humanities and Fine Arts</td>
<td>+CNS282++</td>
<td>Volunteerism for Construction: A Service-Learning Experience</td>
<td>1-3</td>
</tr>
<tr>
<td>Social and Behavioral Sciences</td>
<td>+CNS285</td>
<td>Introduction to Residential Plan Review</td>
<td>3</td>
</tr>
<tr>
<td>First-Year Composition</td>
<td>+CNS286</td>
<td>Introduction to Commercial Plan Review</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>+CNS290++</td>
<td>Construction Internship (any suffixed courses)</td>
<td>1-3</td>
</tr>
<tr>
<td>Oral Communication</td>
<td>+CNS296++</td>
<td>Cooperative Education</td>
<td>1-3</td>
</tr>
<tr>
<td>First-Year Composition area</td>
<td>+CNS298++</td>
<td>Special Project</td>
<td>1-3</td>
</tr>
<tr>
<td>Critical Reading</td>
<td>+CNS282+</td>
<td>Volunteerism for Construction: A Service-Learning Experience</td>
<td>1-3</td>
</tr>
<tr>
<td>+CRE101 College Critical Reading or Equivalent as indicated by assessment</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics</td>
<td>Met by MAT150, MAT151, or MAT152, in required courses area</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Social and Behavioral Sciences</td>
<td>Any approved general education course from the Social and Behavioral Sciences area</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Humanities and Fine Arts</td>
<td>Any approved general education course in the Humanities and Fine Arts area</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>
| The Certificate of Completion (CCL) in Building Inspection prepares the student for a career in public/governmental agencies as an inspector in various areas of the building inspection field. The student gains the knowledge and develops skills necessary to perform as a building inspector in general building code compliance inspection or in specific areas of code compliance, such as mechanical, electrical, plumbing, etc. Major Code: 5554 Total Credits: 21

Program Notes: Students must earn a grade of “C” or better for all courses within the program.
## CAREER AND TECHNICAL PROGRAMS

### Required Courses: Credits: 21

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</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>A Service Learning Experience (3) OR</td>
<td></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>

The Certificate of Completion (CCL) in Computer Aided Design and Drafting - CADD Level I prepares the student to work as a junior draftsman for any construction or architecture-related design and drafting company/agency. In this program, the student develops skills and gains knowledge necessary to perform introductory computer drafting responsibilities. Major Code: 5498 Total Credits: 9

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

### Required Courses: Credits: 9

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNS130</td>
<td>Construction Drawing Foundation</td>
<td>3</td>
</tr>
<tr>
<td>CNS230</td>
<td>Computer Aided Design and Drafting (CADD) 3D</td>
<td></td>
</tr>
<tr>
<td>CNS240</td>
<td>Advanced Computer Aided Design and Drafting</td>
<td></td>
</tr>
</tbody>
</table>

The Certificate of Completion (CCL) in Construction Drafting - CADD Level II prepares the student to work as an advanced construction draftsman for construction-related design and drafting companies/agencies. The student will develop knowledge of and skills for commonly used computer software applications. Students will be able to perform various construction drafting-related functions necessary for any architecture, civil, and construction-related work. Major Code: 5502 Total Credits: 27

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

### Required Courses: Credits: 27

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</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>CNS220</td>
<td>Computer Aided Design &amp; Drafting (CADD) 3D</td>
<td></td>
</tr>
<tr>
<td>CNS240</td>
<td>Advanced Computer Aided Design &amp; Drafting (CADD)</td>
<td></td>
</tr>
</tbody>
</table>

### Required Courses: Credits: 21

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<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>A Service-Learning Experience (3) OR</td>
<td></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>

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNS175</td>
<td>Working Drawing Analysis: Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>+CNS201</td>
<td>Construction Management: Office Operation</td>
<td></td>
</tr>
<tr>
<td>+CNS271</td>
<td>Home Inspection Structure</td>
<td></td>
</tr>
<tr>
<td>+CNS272</td>
<td>Home Inspection Plumbing, Electrical &amp; HVAC</td>
<td></td>
</tr>
<tr>
<td>+CNS273</td>
<td>Home Inspection: Insulation and Interior</td>
<td></td>
</tr>
<tr>
<td>+CNS274</td>
<td>Home Inspection: Roofing and Exteriors</td>
<td></td>
</tr>
<tr>
<td>+CNS282AC</td>
<td>Volunteerism for Construction: A Service-Learning</td>
<td></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>

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<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>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>CNS130</td>
<td>Construction Drawing Foundation</td>
<td>3</td>
</tr>
<tr>
<td>CNS180</td>
<td>Building Construction Methods, Materials, and Equipment</td>
<td>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>+CNS282AC</td>
<td>Volunteerism for Construction: A Service-Learning</td>
<td></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>

The Certificate of Completion (CCL) in Pre-Contracting Licensing prepares the student for a career as a general contractor. Before one can practice as a general contractor, the State of Arizona requires that a passing score is obtained on the general contractor’s exam. With this certificate student will gain the knowledge and develop the required skills necessary 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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<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>CNS180</td>
<td>Building Construction Methods, Materials, and Equipment</td>
<td>3</td>
</tr>
<tr>
<td>CNS181</td>
<td>Cost Estimating I</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>+CNS282AC</td>
<td>Volunteerism for Construction: A Service-Learning</td>
<td></td>
</tr>
<tr>
<td>+CNS290AC</td>
<td>Construction Internship (3) OR</td>
<td></td>
</tr>
</tbody>
</table>

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The Certificate of Completion (CCL) in Survey and Civil Drafting - CADD Level II prepares the student to work as a construction drafting technician for civil engineering, surveying, and construction-related company/agency. The student will be equipped with the knowledge and skills of software applications to perform various construction drafting (computer and board) related responsibilities for surveying, civil engineering, and construction-related work. Major Code: 5501 Total Credits: 27

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

**Required Courses: Credits: 27**

- CET101 Surveying I 3
- CET102 Surveying II 3
- CNS130 Construction Drawing Foundation 3
- CNS230 Computer Aided Design & Drafting (CADD) 3D for Construction and Architecture (CADD II) 3
- CNS240 Advanced Computer Aided Design & Drafting (CADD) for Construction and Architecture (CADD III) 3
- CNS250 Civil Drafting I: Land Development 3
- CNS251 Civil Drafting II: Land Development 3
- CNS252 Civil Drafting III: Land Development 3
- CNS282AC Volunteerism for Construction: A Service-Learning Experience (3) OR
- CNS290AC Construction Internship (3) OR
- CNS296WC Cooperative Education (3) OR
- CNS298AC Special Projects (3) 3

**Dental Degree**

- Associate in Applied Science in Dental Hygiene
- Program Director: Deborah Holexa
- Contact: (480) 654-7252

The Associate in Applied Science (AAS) in Dental Hygiene prepares students to practice entry-level dental hygiene. Dental hygiene students will provide preventive and therapeutic services, and will develop a commitment to the community through extramural opportunities serving diverse populations. The program is a blend of academic and clinical coursework that requires attention to detail and motivation to complete tasks on a timeline. Graduates are employed in private dental offices, hospitals, schools, and clinics within their community. Major Code: 3831 Total Credits: 98-102.5

The Commission on Dental Accreditation of the American Dental Association (211 E. Chicago Ave., Chicago, IL 60611-2678, (312) 440-4653) grants accreditation to the Phoenix College, Rio Salado, and Mesa programs. The Commission is a specialized accrediting body recognized by the United States Department of Education. Graduates are eligible for board examinations and licensure in all fifty states.

Applicants who are accepted and enroll in a MCCCD Dental Hygiene program will be exposed to blood-borne and infectious diseases. The program strictly adheres to established policies and procedures regarding infection control as recommended by the Centers for Disease Control and Prevention, American Dental Association, the Organization for Safety and Asepsis Procedures, and the Occupational Safety and Health Administration.

Program Notes: Students must earn a grade of “C” or better for all courses that will be applied toward the degree. All General Education requirements are met by program prerequisites as indicated.

Students should consult with an advisor in selecting courses to meet the General Education areas.

**Admission Criteria:**
- A high school diploma or GED equivalency is required.
- Ability to fully participate in classroom, laboratory, or clinical setting program activities. Submit current CPR card for Health Care Provider and maintain current status throughout the program. Complete and submit the required proof of immunity and health declaration form signed by a licensed health care provider. Submit to a drug screening and demonstrate negative results. Submit current 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
- +BIO202 One year of high school biology 4
- +BIO205 Microbiology 4
- +CHM138 Chemistry for Allied Health 3
- +CHM138LL Chemistry for Allied Health Laboratory 1
- EMT/HCC/ CPR for Health Care Provider OR
- RES109 Current CPR certification at the Health Care Provider or Professional Rescuer level 0.5

**General Education Requirements: Credits: 28**

- First Year Composition
- Oral Communication
- Critical Reading
- Mathematics
- Humanities and Fine Arts
- Natural Sciences
- Social and Behavioral Sciences

**OPTION 2 Credits: 44.5**

- 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
- +BIO202 One year of high school biology 4
- +BIO205 Microbiology 4
- +CHM138 Chemistry for Allied Health 3
- +CHM138LL Chemistry for Allied Health Laboratory 1
- EMT/HCC/ CPR for Health Care Provider OR
- RES109 Current CPR certification at the Health Care Provider or Professional Rescuer level 0.5

**General Education Requirements: Credits: 28**

- First Year Composition
- Oral Communication
- Critical Reading
- Mathematics
- Humanities and Fine Arts
- Natural Sciences
- Social and Behavioral Sciences

**OPTION 2 Credits: 44.5**

- 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
- +BIO202 One year of high school biology 4
- +BIO205 Microbiology 4
- +CHM138 Chemistry for Allied Health 3
- +CHM138LL Chemistry for Allied Health Laboratory 1
- EMT/HCC/ CPR for Health Care Provider OR
- RES109 Current CPR certification at the Health Care Provider or Professional Rescuer level 0.5

**General Education Requirements: Credits: 28**

- First Year Composition
- Oral Communication
- Critical Reading
- Mathematics
- Humanities and Fine Arts
- Natural Sciences
- Social and Behavioral Sciences

**OPTION 2 Credits: 44.5**

- 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
- +BIO202 One year of high school biology 4
- +BIO205 Microbiology 4
- +CHM138 Chemistry for Allied Health 3
- +CHM138LL Chemistry for Allied Health Laboratory 1
- EMT/HCC/ CPR for Health Care Provider OR
- RES109 Current CPR certification at the Health Care Provider or Professional Rescuer level 0.5

**General Education Requirements: Credits: 28**

- First Year Composition
- Oral Communication
- Critical Reading
- Mathematics
- Humanities and Fine Arts
- Natural Sciences
- Social and Behavioral Sciences
CAREER AND TECHNICAL PROGRAMS

OPTION 2  Credits: 44.5
BIO156  Introductory Biology for Allied Health (4) OR
BIO181  General Biology (Majors) (4) OR
One year of high school biology 4
BIO202  Human Anatomy and Physiology II 4
+ BIO205  Mathematics 4
+ CHM138  Chemistry for Allied Health 3
+ CHM138LL  Chemistry for Allied Health Laboratory 1
EMT/HCC/ RES109  CPR for Health Care Provider (0.5) OR
Current CPR certification at the Health Care Provider OR
Professional Rescuer level 0.5

General Education Requirements: Credits: 28
First Year Composition
Any approved general education courses in the First Year Composition area. 6
Oral Communication
Any approved general education course in the Oral Communication area. 3
Critical Reading
+ CRE101  College Critical Reading (3) OR
Equivalent as indicated by assessment 3
Mathematics
+ MAT102  Mathematical Concepts/Applications (3) OR
Equivalent course OR
Satisfactory completion of a higher level mathematics course 3
Humanities and Fine Arts
Any approved general education course in the Humanities and Fine Arts area. 3
Natural Sciences
BIO201  Human Anatomy and Physiology I 4
Social and Behavioral Sciences
PSY101  Introduction to Psychology (3) AND
SOC101  Introduction to Sociology (3) 6

Required Courses: Credits: 58
+ DHE110  Pharmacology 3
+ DHE112  Oral Pathology 3
+ DHE115  Emergency Medicine 2
+ DHE119  Head and Neck Anatomy 3
+ DHE120  Pre-Clinical Dental Hygiene 2
+ DHE121  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 II 2
+ DHE213  Dental Hygiene Clinic II 5
+ DHE219  Practice Management 2
+ DHE225  Periodontics 2
+ DHE227  Dental Anesthesia 2
+ DHE229  Community Oral Health 3
+ DHE232  Dental Hygiene Theory III 2
+ DHE233  Dental Hygiene Clinic III 5

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
Social and Behavioral Sciences:
Met by PSY101 Introduction to Psychology (3) AND
SOC101  Introduction to Sociology (3) in the Program Prerequisites area. 0

Digital Arts Certificate/ Degree

• Associate in Applied Science in Digital Arts
• Certificate of Completion in Digital Arts: Digital Illustration
• Certificate of Completion in Digital Arts: Digital Photography
• Certificate of Completion in Digital Arts: Graphic Design
• Certificate of Completion in Digital Arts: Web Design

Department Chairperson: Sarah Capawana
Contact: (480) 461-7516

The Associate in Applied Science (AAS) in Digital Arts is designed for the student who wishes to develop or enhance multimedia skills in Web Design, Digital Photography, Digital Illustration, and Graphic Design. Major Code: 3081 Total Credits: 62-65

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

Required Courses: Credits: 37-40
ART100  Introduction to Computer Graphic Art 1
ART111  Drawing I 3
ADA/ ART112  Two-Dimensional Design 3
ART113  Color 3
ART142  Introduction to Digital Photography 3
+ ADA/ ART177  Computer-Photographic Imaging 3
+ ART255  Art Marketing (3) OR
ART255AA  Self-Promotion (1) AND
+ ART255AB  The Portfolio (1) AND
+ ART255AC  Marketing Fine Art (1) 3
+ ART202  Digital Arts Survey 3

General Education: Credits: 0
First Year Composition:
Met by any approved First Year Composition courses in the Program Prerequisites area. 0
Select one of the following four (4) tracks: Credits 15-18

**Track I-Web Design**  
Credits: 18  
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
</table>
| CIS133DA    | Internet/Web Development Level I (3) OR  
+ADA/ | Two-Dimensional Computer Design (3)         | 3 |
| ART169      | Computer Aided Graphic Arts I  
+ART/ | Art of Web Site Design                     | 3 |
| MMT190      | Art of Web Site Design                     | 3 |
| ART192      | Advanced Web Presentation Design           | 3 |
| MMT216      | Multimedia Project Management (3) OR       | 3 |
| ART203      | Aesthetics of Web Design (3)               | 3 |
| ART200      | Animation and Interactivity                 | 3 |

**Track II-Digital Illustration**  
Credits: 15  
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
</table>
| ART116      | Life Drawing I  
+ART122     | Drawing and Composition II                | 3 |
| ART169      | Two-Dimensional Computer Design            | 3 |
| ART270      | Intermediate Computer Photographic Imaging | 3 |
| ART274      | Advanced Computer Photographic Imaging     | 3 |
| ART289      | Computer Illustration                      | 3 |

**Track III-Digital Photography**  
Credits: 15  
<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>
<tr>
<td>ART289</td>
<td>Computer Illustration</td>
<td>3</td>
</tr>
</tbody>
</table>

**Track IV-Graphic Design**  
Credits: 15  
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
</table>
| ART143      | Intermediate Digital Photography (3) OR  
+ADA/ | Advanced Web Presentation Design (3) OR | 3 |
| ART289      | Computer Illustration (3)             | 3 |
| ART/        | MMT190       | Art of Web Site Design                 | 3 |
| ADA/        | ART169       | Two-Dimensional Computer Design         | 3 |
| ADA/        | ART183       | Computer Aided Graphic Arts I           | 3 |
+ADA/ | Computer Aided Graphic Arts II         | 3 |

**General Education: Credits: 25**  
First-Year Composition  
+Any approved General Education course in the First-Year Composition area  
Oral Communication  
Any approved General Education course in the Oral Communication area  
Critical Reading  
+Any approved General Education course in the Critical Reading area  
Mathematics  
+Any approved General Education course in the Mathematics 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 Digital Arts: **Digital Illustration** prepares students to work in a specialized field of computer art and illustration as commercial illustrators, graphic designers, fine artists, background illustrators, and multimedia artists. The program emphasizes principles of art and develops knowledge and skills required to solve design and compositional problems. The program is designed for both those seeking to enter a career in media arts and those already working in the field who wish to advance and update their knowledge and skills. Major Code: 5631 Total Credits: 19  

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

**Program Prerequisites: Credits: 3**  
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
</table>
| ART111      | Drawing I (3) OR  
Permission of Department or Division | 3 |

**Required Courses: Credits: 19**  
<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>ART116</td>
<td>Life Drawing I</td>
<td>3</td>
</tr>
</tbody>
</table>
+ART122      | Drawing and Composition II                   | 3 |
+ART169      | Two-Dimensional Computer Design              | 3 |
+ART177      | Computer-Photographic Imaging                | 3 |
+ART270      | Intermediate Computer Photographic Imaging   | 3 |
+ART289      | Computer Illustration                        | 3 |

The Certificate of Completion (CCL) in Digital Arts: **Digital Photography** prepares students for careers in photography and digital imaging as photo assistants, commercial photographers, portrait and fine art photographers, digital production technicians, and photo retouchers. In the program the student develops an understanding of traditional photographic principles, film, cameras, and printing, and learns how to apply these principles using digital cameras, inkjet printers and computer software. Knowledge and skills can be applied to such occupational areas as media production, marketing, graphic production, and multimedia. The program is designed for both those seeking to enter a career in digital photography or digital imaging and those already working in the field who wish to advance and update their knowledge and skills. Major Code: 5632 Total Credits: 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>ART100</td>
<td>Introduction to Computer Graphic Art</td>
<td>1</td>
</tr>
<tr>
<td>ART116</td>
<td>Life Drawing I</td>
<td>3</td>
</tr>
</tbody>
</table>
+ART122      | Drawing and Composition II                   | 3 |
+ART169      | Two-Dimensional Computer Design              | 3 |
+ART177      | Computer-Photographic Imaging                | 3 |
+ART270      | Intermediate Computer Photographic Imaging   | 3 |
+ART289      | Computer Illustration                        | 3 |

The Certificate of Completion (CCL) in Digital Arts: **Digital Illustration** prepares students 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  

**Required Courses: Credits: 22**  
<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>ART116</td>
<td>Life Drawing I</td>
<td>3</td>
</tr>
</tbody>
</table>
+ART122      | Drawing and Composition II                   | 3 |
+ART169      | Two-Dimensional Computer Design              | 3 |
+ART177      | Computer-Photographic Imaging                | 3 |
+ART270      | Intermediate Computer Photographic Imaging   | 3 |
+ART289      | Computer Illustration                        | 3 |
### Program Notes:
Students must earn a grade of “C” or better for all courses required within the program.

### Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>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>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.

### Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>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>CIS133DA</td>
<td>Internet/Web Development Level I (3) OR</td>
<td>3</td>
</tr>
<tr>
<td>ART169</td>
<td>Two-Dimensional Computer Design (3)</td>
<td>3</td>
</tr>
<tr>
<td>ART177</td>
<td>Computer-Photographic Imaging</td>
<td>3</td>
</tr>
<tr>
<td>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>ART/</td>
<td>Advanced Web Presentation Design</td>
<td>3</td>
</tr>
<tr>
<td>MMT216</td>
<td>Multimedia Project Management (3) OR</td>
<td>3</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>

The Associate in Applied Science 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: 62-68

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

### Program Prerequisites:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GTC107</td>
<td>Technical Mathematics I (3) OR Equivalent or satisfactory score on a placement exam</td>
<td>3</td>
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</table>

### Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFT110</td>
<td>Technical Drafting I</td>
<td>3</td>
</tr>
<tr>
<td>+DFT111</td>
<td>Technical Drafting II</td>
<td>3</td>
</tr>
<tr>
<td>+DFT112</td>
<td>Technical Drafting III</td>
<td>3</td>
</tr>
<tr>
<td>+DFT115</td>
<td>Geometric Dimensioning and Tolerancing</td>
<td>3</td>
</tr>
<tr>
<td>+DFT252AA</td>
<td>Computer Aided Drafting I: AutoCAD</td>
<td>3</td>
</tr>
<tr>
<td>+DFT254AA</td>
<td>Computer Aided Drafting II: AutoCAD</td>
<td>3</td>
</tr>
<tr>
<td>+ELE105</td>
<td>Algebra-Trigonometry for Technology (5) OR</td>
<td>3-5</td>
</tr>
<tr>
<td>+GTC108</td>
<td>Technical Mathematics II (3)</td>
<td>3</td>
</tr>
<tr>
<td>GTC106AA</td>
<td>Industrial Safety</td>
<td>2</td>
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</table>

### Restricted Electives:

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

<table>
<thead>
<tr>
<th>Track I-Micro Circuit Mask Design-Credits: 20</th>
</tr>
</thead>
<tbody>
<tr>
<td>+DFT245AA</td>
</tr>
<tr>
<td>+DFT245AB</td>
</tr>
<tr>
<td>+ELE111</td>
</tr>
<tr>
<td>+ELE131</td>
</tr>
<tr>
<td>+ELE181</td>
</tr>
<tr>
<td>+ELE241</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Track II-C.N.C. Programming-Credits: 21</th>
</tr>
</thead>
<tbody>
<tr>
<td>GTC102</td>
</tr>
<tr>
<td>+GTC/</td>
</tr>
<tr>
<td>MET206</td>
</tr>
<tr>
<td>GTC216</td>
</tr>
<tr>
<td>+GTC236</td>
</tr>
<tr>
<td>GTC276</td>
</tr>
<tr>
<td>MET131</td>
</tr>
</tbody>
</table>

### General Education:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<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>6</td>
</tr>
<tr>
<td>ENG111</td>
<td>Technical Writing (3)</td>
<td></td>
</tr>
</tbody>
</table>
**Oral Communication**
- COM100 Introduction to Human Communication (3)
- COM110 Interpersonal Communication (3)
- COM230 Small Group Communication (3)

**Critical Reading**
- CRE101 College Critical Reading (3)

**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

The Certificate of Completion (CCL) in Electro-Mechanical Drafting prepares students to work in the electro/mechanical drafting field. The program emphasizes on current technological trends in the industry and is designed for those planning to enter a career in the field as well as for those already in the field who want to advance and update their knowledge and skills. Major Code: 5551 Total Credits: 4

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

**Required Courses: Credits: 44**
- DFT110 Technical Drafting I (3)
- DFT111 Technical Drafting II (3)
- DFT112 Technical Drafting III (3)
- DFT115 Geometric Dimensioning and Tolerancing (3)
- DFT245AA Integrated Circuit Design-CMOS IA (3)
- DFT245AB Integrated Circuit Design-CMOS IB (3)
- DFT252AA Computer Aided Drafting I: AutoCAD (3)
- DFT254AA Computer Aided Drafting II: AutoCAD (3)
- STA101 Algebra-Trigonometry for Technology (3)
- STA111 Circuit Analysis I (4)
- STA181 Computer Programming for Technology (3)
- STA241 Microprocessor Concepts (4)
- ELE110 Survey of Computer Information Systems (3)
- ELE111 Technical Drafting I (3)
- ELE112 Technical Drafting II (3)
- ELE115 Geometric Dimensioning and Tolerancing (3)
- ELE241 Microprocessor Concepts (4)
- GTC110 Semiconductor Processing Technology I (3)

The Certificate of Completion (CCL) in Computer Aided Drafting II: AutoCAD prepares students to work in the drafting industry. Major Code: 5547 Total Credits: 18

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

**Required Courses: Credits: 18**
- DFT110 Technical Drafting I (3)
- DFT111 Technical Drafting II (3)
- DFT112 Technical Drafting III (3)
- DFT252AA Computer Aided Drafting I: AutoCAD (3)
- DFT254AA Computer Aided Drafting II: AutoCAD (3)
- DFT256AA Computer Aided Drafting III: AutoCAD (3)

The Certificate of Completion (CCL) in Mechanical Drafting program prepares students to work in the mechanical drafting field. The program emphasizes current technological trends in the industry and is designed both for those planning to enter a career in the field as well as for those already working in the field who want to advance and update their knowledge and skills. Major Code: 5600 Total Credits: 34

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

**Required Courses: Credits: 34**
- DFT110 Technical Drafting I (3)
- DFT111 Technical Drafting II (3)
- DFT112 Technical Drafting III (3)
- DFT115 Geometric Dimensioning and Tolerancing (3)
- DFT252AA Computer Aided Drafting I: AutoCAD (3)
- DFT254AA Computer Aided Drafting II: AutoCAD (3)
- DFT256AA Computer Aided Drafting III: AutoCAD (3)
- STA101 Algebra-Trigonometry for Technology (3)
- STA111 Circuit Analysis I (4)
- STA241 Microprocessor Concepts (4)
- ELE110 Survey of Computer Information Systems (3)
- ELE111 Technical Drafting I (3)
- ELE112 Technical Drafting II (3)
- ELE115 Geometric Dimensioning and Tolerancing (3)
- ELE241 Microprocessor Concepts (4)

The Certificate of Completion (CCL) in Modern Manufacturing and Design program prepares students to work in the modern manufacturing and design fields. Major Code: 5548 Total Credits: 29

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

**Required Courses: Credits: 29**
- DFT110 Technical Drafting I (3)
- DFT111 Technical Drafting II (3)
- DFT112 Technical Drafting III (3)
- DFT115 Geometric Dimensioning and Tolerancing (3)
- DFT252AA Computer Aided Drafting I: AutoCAD (3)
- DFT254AA Computer Aided Drafting II: AutoCAD (3)
- DFT256AA Computer Aided Drafting III: AutoCAD (3)
- STA101 Algebra-Trigonometry for Technology (3)
- STA111 Circuit Analysis I (4)
- STA181 Computer Programming for Technology (3)
- STA241 Microprocessor Concepts (4)
- ELE110 Survey of Computer Information Systems (3)
- ELE111 Technical Drafting I (3)
- ELE112 Technical Drafting II (3)
- ELE115 Geometric Dimensioning and Tolerancing (3)
- ELE241 Microprocessor Concepts (4)
- ELE245 Semiconductor Processing Technology I (3)

The Certificate of Completion (CCL) in Computer Aided Drafting III: AutoCAD prepares students to work in the drafting industry. Major Code: 5547 Total Credits: 18

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

**Required Courses: Credits: 18**
- DFT110 Technical Drafting I (3)
- DFT111 Technical Drafting II (3)
- DFT112 Technical Drafting III (3)
- DFT115 Geometric Dimensioning and Tolerancing (3)
- DFT252AA Computer Aided Drafting I: AutoCAD (3)
- DFT254AA Computer Aided Drafting II: AutoCAD (3)
- DFT256AA Computer Aided Drafting III: AutoCAD (3)
- STA101 Algebra-Trigonometry for Technology (3)
- STA111 Circuit Analysis I (4)
- STA181 Computer Programming for Technology (3)
- STA241 Microprocessor Concepts (4)

The Certificate of Completion (CCL) in CAD/CAM Design and Drafting prepares students to work in the CAD/CAM design and drafting field. Major Code: 5547 Total Credits: 18

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

**Required Courses: Credits: 18**
- DFT110 Technical Drafting I (3)
- DFT111 Technical Drafting II (3)
- DFT112 Technical Drafting III (3)
- DFT115 Geometric Dimensioning and Tolerancing (3)
- DFT252AA Computer Aided Drafting I: AutoCAD (3)
- DFT254AA Computer Aided Drafting II: AutoCAD (3)
- DFT256AA Computer Aided Drafting III: AutoCAD (3)
- STA101 Algebra-Trigonometry for Technology (3)
- STA111 Circuit Analysis I (4)
- STA181 Computer Programming for Technology (3)
- STA241 Microprocessor Concepts (4)

The Certificate of Completion (CCL) in Robotics and Automation prepares students to work in the robotics and automation field. Major Code: 5547 Total Credits: 18

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

**Required Courses: Credits: 18**
- DFT110 Technical Drafting I (3)
- DFT111 Technical Drafting II (3)
- DFT112 Technical Drafting III (3)
- DFT115 Geometric Dimensioning and Tolerancing (3)
- DFT252AA Computer Aided Drafting I: AutoCAD (3)
- DFT254AA Computer Aided Drafting II: AutoCAD (3)
- DFT256AA Computer Aided Drafting III: AutoCAD (3)
- STA101 Algebra-Trigonometry for Technology (3)
- STA111 Circuit Analysis I (4)
- STA181 Computer Programming for Technology (3)
- STA241 Microprocessor Concepts (4)

The Certificate of Completion (CCL) in Architectural Drafting prepared students to work in the architectural drafting field. Major Code: 5547 Total Credits: 18

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

**Required Courses: Credits: 18**
- DFT110 Technical Drafting I (3)
- DFT111 Technical Drafting II (3)
- DFT112 Technical Drafting III (3)
- DFT115 Geometric Dimensioning and Tolerancing (3)
- DFT252AA Computer Aided Drafting I: AutoCAD (3)
- DFT254AA Computer Aided Drafting II: AutoCAD (3)
- DFT256AA Computer Aided Drafting III: AutoCAD (3)
- STA101 Algebra-Trigonometry for Technology (3)
- STA111 Circuit Analysis I (4)
- STA181 Computer Programming for Technology (3)
- STA241 Microprocessor Concepts (4)

**Education Certificates/Degrees**
- Certificate of Completion in ESL Endorsement
- Certificate of Completion in Bilingual Endorsement
- Certificate of Completion in Reading Specialist Endorsement

Department Chairperson: Dr. Nora Amavisca Reyes
Contact: (480) 461-7781

The Certificate of Completion (CCL) in ESL Endorsement is designed for certified teachers pursuing bilingual endorsement. The Bilingual Endorsement Certificate program provides background in the philosophical, cultural and linguistic processes involved in the education of English language learners. Instruction in methodology, as well as a practicum within a bilingual classroom setting are required for successful completion of the program. Includes all necessary coursework toward Bilingual Endorsement in the state of Arizona. Valid Arizona teaching certificate is required for state endorsement. Major Code: 5127 Total Credits: 29

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

**Required Courses: Credits: 29**
- +EDU220 Introduction to Serving English Language Learners (ELL) (3)
- +EFL220 Introduction to Serving the English Language Learner for Certified Teachers (3)
- +EDU230 Cultural Diversity in Education (3)
- +EFL241 Methods for Teaching the Bilingual Student (3)
- +EFL244 Reading and Writing in SEI/ESL/Bilingual Settings (3)
- +EFL246 Teaching and Assessment of English Language Learners (ELL) (3)
- +EDP247 Practicum for English as a Second Language (ESL)/Bilingual Teachers (3)
- +ENG213 Introduction to the Study of Language (3)
- +SLC201 Introduction to Linguistics (3)
- +SPA103 Elementary Spanish for Spanish Speakers I (4)
- +SPA104 Elementary Spanish for Spanish Speakers II (4)
The Certificate of Completion (CCL) in ESL Endorsement prepares certified teachers to earn the English as a Second Language Endorsement in Arizona. The program emphasizes the philosophical, cultural, and linguistic processes involved in teaching English language learners. Students develop knowledge and skills required of teachers working with English language learners through a combination of courses in methodology and practicum experience in an ESL classroom. This program includes all coursework required for those with valid Arizona teaching certificates to qualify for SEI and ESL endorsement in Arizona. Major Code: 5126 Total Credits: 27

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

**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>
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<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>
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<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

**Certificate of Completion (CCL) in Reading Specialist** program qualifies certified Early Childhood, Elementary, Secondary, or Special Education teachers for Reading Endorsement in Grades K-8, Grades 6-12, or Grades K-12 as specified by the Arizona Department of Education. Coursework focuses on foundations of language and literacy, essential elements of elementary reading and writing instruction, elements of elementary content area reading and writing, reading assessment systems, and leadership. Certificate requires a reading practicum in a K-12 classroom setting. Major Code: 5128 Total Credits: 24-30

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>+EDU270</td>
<td>Theoretical and Research Foundations of Language and Literacy</td>
<td>3</td>
</tr>
<tr>
<td>+EPD274</td>
<td>Reading Assessment</td>
<td>6</td>
</tr>
<tr>
<td>+EPD276</td>
<td>The Teacher Leader</td>
<td>3</td>
</tr>
</tbody>
</table>

**Restricted Electives: Credits: 12-18**

+EPD244 Reading and Writing in SEI/ESL/ Bilingual Settings (3) OR

EDU271 Phonics Based Reading and Decoding (3) OR

EDU/ ENH291 Children’s Literature (3)

Select one of the following three (3) tracks

**Track I: Grades K-8 Credits: 9**

+EPD271AA Essential Elements of Elementary Reading and Writing Instruction K-8 | 3

+EPD272AA Elements of Elementary Content Area Reading and Writing K-8 | 3

+EPD277AA Reading Field Experience K-8 | 3

**Track II: Grades 6-12 Credits: 9**

+EPD271AB Essential Elements of Adolescent Reading and Writing Instruction 6-12 | 3

+EPD272AB Elements of Adolescent Content Area Reading and Writing 6-12 | 3

+EPD277AB Reading Field Experience 6-12 | 3

**Track III: Grades K-12 Credits: 15**

+EPD271AA Essential Elements of Elementary Reading and Writing Instruction K-8 | 3

+EPD271AB Essential Elements of Adolescent Reading and Writing Instruction 6-12 | 3

+EPD272AA Elements of Adolescent Content Area Reading and Writing K-8 | 3

+EPD272AB Elements of Adolescent Content Area Reading and Writing 6-12 | 3

+EPD277AA Reading Field Experience K-8 | 3

+EPD277AB Reading Field Experience 6-12 | 3

---

**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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<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</td>
<td></td>
</tr>
</tbody>
</table>

Equivalent or satisfactory score on a placement exam 0-5
Required Courses: Credits: 47
ECE102 Engineering Analysis Tools and Techniques 2
ECE103 Engineering Program Solving and Design 2
+ELE111 Circuit Analysis I 4
+ELE112 Circuit Analysis II 4
+ELE121 Solid State Devices and Circuits I 4
+ELE131 Digital Logic and Circuits 3
ELE181 Computer Programming for Technology 3
+ELE222 Solid-State Devices and Circuits II 4
+ELE241 Microprocessor Concepts 4
+MAT220 Analytic Geometry & Calculus I 5
+MAT231 Calculus with Analytic Geometry II 4
+PHY111 General Physics I 4
+PHY112 General Physics II (4) OR
+CHM130 Fundamental Chemistry (3) AND
+CHM130LL Fundamental Chemistry Laboratory (1) 4

General Education: Credits: 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
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

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: A grade of “C” or better is required for all courses within the program.

**Required Courses: Credits: 33**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ELE105</td>
<td>Algebra-Trigonometry for Technology</td>
<td>5</td>
</tr>
<tr>
<td>ELE111</td>
<td>Circuit Analysis I</td>
<td>4</td>
</tr>
<tr>
<td>ELE112</td>
<td>Circuit Analysis II</td>
<td>4</td>
</tr>
<tr>
<td>ELE121</td>
<td>Solid-State Devices and Circuits I</td>
<td>4</td>
</tr>
<tr>
<td>ELE131</td>
<td>Digital Logic and Circuits</td>
<td>3</td>
</tr>
<tr>
<td>ELE181</td>
<td>Computer Programming for Technology</td>
<td>3</td>
</tr>
<tr>
<td>ELE241</td>
<td>Microprocessor Concepts</td>
<td>4</td>
</tr>
<tr>
<td>GTC106</td>
<td>Industrial Safety</td>
<td>2</td>
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<tr>
<td>GTC185</td>
<td>Electro-Mechanical Devices</td>
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</table>

**Exercise Science Certificates/Degrees**

- Associate in Applied Science in Recreation Management
- Certificate of Completion in Recreation Management
- Associate in Applied Science in Exercise Science and Personal Training
- Certificate of Completion in Personal Training Specialist
- Certificate of Completion in Nutrition for Fitness and Wellness

**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.

**Required Courses: Credits: 32-38**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<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) OR</td>
<td>3</td>
</tr>
<tr>
<td>COM100</td>
<td>Introduction to Human Communications (3) OR</td>
<td>3</td>
</tr>
<tr>
<td>COM110</td>
<td>Interpersonal Communication (3)</td>
<td>3</td>
</tr>
<tr>
<td>HES154</td>
<td>First Aid/Cardiopulmonary Resuscitation OR (3)</td>
<td>3</td>
</tr>
<tr>
<td>REC240</td>
<td>Wilderness First Responder (3)</td>
<td>3</td>
</tr>
<tr>
<td>MGT101</td>
<td>Techniques of Supervision (3) OR</td>
<td>3</td>
</tr>
<tr>
<td>MGT126</td>
<td>Customer Service Skills and Strategies (3) OR</td>
<td>3</td>
</tr>
<tr>
<td>MGT175</td>
<td>Business Organization and Management (3) OR</td>
<td>3</td>
</tr>
<tr>
<td>REC120</td>
<td>Leisure and the Quality of Life (3) OR</td>
<td>3</td>
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<tr>
<td>REC160</td>
<td>Leisure and Society (3)</td>
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</tr>
<tr>
<td>REC150AB</td>
<td>Outdoor Adventure Skills</td>
<td>3</td>
</tr>
</tbody>
</table>

**General Education: Credits: 22-24**

**First-Year Composition**

+Any approved general education course from the English and Rhetoric area

Oral Communication

Met by COM100 or COM110 in the Required Courses area

Critical Reading

+CRE101 College Critical Reading (3) OR equivalent as indicated by assessment.

Mathematics

+Any approved general education course from the Mathematics 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.
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.

**Required Courses: Credits: 33-41**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BPC110</td>
<td>Computer Usage and Applications (3) OR</td>
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<tr>
<td>CIS105</td>
<td>Survey of Computer Information Systems (3)</td>
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</tr>
<tr>
<td>COM100</td>
<td>Introduction to Human Communications (3) OR</td>
<td>3</td>
</tr>
<tr>
<td>COM110</td>
<td>Interpersonal Communication (3)</td>
<td>3</td>
</tr>
<tr>
<td>HES154</td>
<td>First Aid/Cardiopulmonary Resuscitation (3) OR</td>
<td>3</td>
</tr>
<tr>
<td>REC240</td>
<td>Wilderness First Responder (3)</td>
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<tr>
<td>MGT101</td>
<td>Techniques of Supervision (3) OR</td>
<td>3</td>
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<tr>
<td>MGT126</td>
<td>Customer Service Skills and Strategies (3) OR</td>
<td>3</td>
</tr>
<tr>
<td>MGT175</td>
<td>Business Organization and Management (3)</td>
<td>3</td>
</tr>
<tr>
<td>REC120</td>
<td>Leisure and the Quality of Life (3) OR</td>
<td>3</td>
</tr>
<tr>
<td>REC160</td>
<td>Leisure and Society (3)</td>
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</tr>
<tr>
<td>REC150A</td>
<td>Outdoor Adventure Skills</td>
<td>3</td>
</tr>
<tr>
<td>REC210</td>
<td>Leisure Delivery Systems</td>
<td>3</td>
</tr>
<tr>
<td>REC230</td>
<td>Programming of Recreation Services (3) OR</td>
<td>3</td>
</tr>
<tr>
<td>HRM145</td>
<td>Events Management (3)</td>
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<tr>
<td>REC250</td>
<td>Recreation Leadership</td>
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<tr>
<td>REC282++</td>
<td>Volunteerism for Recreation: A Service-Learning Experience (1-3)</td>
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<tr>
<td>REC296WA++</td>
<td>Cooperative Education (1) OR</td>
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</tr>
<tr>
<td>REC296WB++</td>
<td>Cooperative Education (2) OR</td>
<td>3</td>
</tr>
<tr>
<td>REC296WC++</td>
<td>Cooperative Education (3) OR</td>
<td>3</td>
</tr>
<tr>
<td>REC298AS++</td>
<td>Special Projects (1) OR</td>
<td>3</td>
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<tr>
<td>REC298ASAB</td>
<td>Special Projects (2) OR</td>
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</tr>
<tr>
<td>REC298AC++</td>
<td>Special Projects (3)</td>
<td>1-3</td>
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<tr>
<td>REC155++</td>
<td>Any recreational activity modules not used to satisfy other required courses</td>
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<tr>
<td>PED++++++</td>
<td>Any physical education activity modules</td>
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**Restricted Electives: Credits: 6**

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<tr>
<td>AIS113</td>
<td>Proposal Writing</td>
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<tr>
<td>ARH145</td>
<td>History of American Indian Art</td>
<td>3</td>
</tr>
<tr>
<td>COM263</td>
<td>Elements of Intercultural Communication</td>
<td>3</td>
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<tr>
<td>COM281</td>
<td>Communication Activities</td>
<td>3</td>
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<tr>
<td>CPD102AS++</td>
<td>Conflict Resolution</td>
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<tr>
<td>CPD103BL++</td>
<td>Dynamics of Leadership (2) OR</td>
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<tr>
<td>LDR101</td>
<td>Emerging Leaders I (2) OR</td>
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<tr>
<td>EXS265++</td>
<td>Theory of Coaching</td>
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<tr>
<td>GBS120</td>
<td>Workplace Communication Skills</td>
<td>3</td>
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<tr>
<td>GBS205</td>
<td>Legal, Ethical, and Regulatory Issues in Business</td>
<td>3</td>
</tr>
<tr>
<td>GCU221</td>
<td>Arizona Geography</td>
<td>3</td>
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<tr>
<td>HES100</td>
<td>Healthful Living</td>
<td>3</td>
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<tr>
<td>HIS105</td>
<td>Arizona History</td>
<td>3</td>
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<tr>
<td>HIS106</td>
<td>Southwest History</td>
<td>3</td>
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<tr>
<td>HRM110</td>
<td>Introduction to Hospitality and Tourism</td>
<td>3</td>
</tr>
<tr>
<td>+PSY230</td>
<td>Introduction to Statistics</td>
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</table>

The Associate of Applied Science (AAS) in Exercise Science 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 Specialist Certification, ACSM personal trainer certification, the National Strength and Conditioning Association (NSCA) personal trainer certification, the National Academy of Sports Medicine (NASM) personal trainer certification and the American Council on Exercise (ACE) personal trainer certification. The curriculum is designed to strengthen students’ educational background in fitness and nutrition potentially increasing their marketability in these fields. 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 may also find this program appropriate. Major Code: 3059

Total Credits: 64-72

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>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EXS101</td>
<td>Introduction to Exercise Science, Kinesiology and Physical Education</td>
<td>3</td>
</tr>
<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>
<td>3</td>
</tr>
<tr>
<td>EXS132</td>
<td>Cardiovascular Fitness: Physiological Principles and Training Techniques</td>
<td>3</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>
<td>2</td>
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<tr>
<td>EXS216</td>
<td>Instructional Competency: Muscular Strength and Conditioning</td>
<td>2</td>
</tr>
<tr>
<td>EXS218</td>
<td>Instructional Competency: Cardiorespiratory Exercises and Activities</td>
<td>2</td>
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<tr>
<td>+EXS239</td>
<td>Practical Applications of Personal Training Skills and Techniques Internship (3) OR</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 Internship (2)</td>
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<tr>
<td>FON100</td>
<td>Introductory Nutrition (3) OR</td>
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<tr>
<td>FON105</td>
<td>Nutrition Principles for Fitness Professionals (3) OR</td>
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<tr>
<td>FON241</td>
<td>Principles of Human Nutrition (3)</td>
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<tr>
<td>+FON210</td>
<td>Sports Nutrition and Supplements for Physical Activities</td>
<td>3</td>
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<tr>
<td>+FON247</td>
<td>Weight Management Theory</td>
<td>3</td>
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<tr>
<td>HES154</td>
<td>First Aid/Cardiopulmonary Resuscitation (3) OR</td>
<td>3</td>
</tr>
<tr>
<td>BLS Health Care Provider and First Aid Certification</td>
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**General Education: Credits: 25-27**

First Year Composition

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<tr>
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<th>Course Name</th>
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<tr>
<td>ENG101</td>
<td>First Year Composition (3) AND</td>
<td>3</td>
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<tr>
<td>ENG102</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>
<td>ENG108</td>
<td>First-Year Composition for ESL (3)</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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<tbody>
<tr>
<td>COM100</td>
<td>Introduction to Human Communication (3) OR</td>
<td>3</td>
</tr>
<tr>
<td>COM110</td>
<td>Interpersonal Communication (3)</td>
<td>3</td>
</tr>
</tbody>
</table>

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.

**Required Courses: Credits: 33-41**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BPC110</td>
<td>Computer Usage and Applications (3) OR</td>
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<td>CIS105</td>
<td>Survey of Computer Information Systems (3)</td>
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</tr>
<tr>
<td>COM100</td>
<td>Introduction to Human Communications (3) OR</td>
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<tr>
<td>COM110</td>
<td>Interpersonal Communication (3)</td>
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<tr>
<td>HES154</td>
<td>First Aid/Cardiopulmonary Resuscitation (3) OR</td>
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<tr>
<td>REC240</td>
<td>Wilderness First Responder (3)</td>
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<tr>
<td>MGT101</td>
<td>Techniques of Supervision (3) OR</td>
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</tr>
<tr>
<td>MGT126</td>
<td>Customer Service Skills and Strategies (3) OR</td>
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<tr>
<td>MGT175</td>
<td>Business Organization and Management (3)</td>
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<tr>
<td>REC120</td>
<td>Leisure and the Quality of Life (3) OR</td>
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<td>REC160</td>
<td>Leisure and Society (3)</td>
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<tr>
<td>REC150A</td>
<td>Outdoor Adventure Skills</td>
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<td>REC210</td>
<td>Leisure Delivery Systems</td>
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<tr>
<td>REC230</td>
<td>Programming of Recreation Services (3) OR</td>
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<td>HRM145</td>
<td>Events Management (3)</td>
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<tr>
<td>REC250</td>
<td>Recreation Leadership</td>
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<tr>
<td>REC282++</td>
<td>Volunteerism for Recreation: A Service-Learning Experience (1-3)</td>
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<td>REC296WA++</td>
<td>Cooperative Education (1) OR</td>
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<tr>
<td>REC296WB++</td>
<td>Cooperative Education (2) OR</td>
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<tr>
<td>REC296WC++</td>
<td>Cooperative Education (3) OR</td>
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</tr>
<tr>
<td>REC298AS++</td>
<td>Special Projects (1) OR</td>
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<td>REC298ASAB</td>
<td>Special Projects (2) OR</td>
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<tr>
<td>REC298AC++</td>
<td>Special Projects (3)</td>
<td>1-3</td>
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<tr>
<td>REC155++</td>
<td>Any recreational activity modules not used to satisfy other required courses</td>
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<tr>
<td>PED++++++</td>
<td>Any physical education activity modules</td>
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**Restricted Electives: Credits: 6**

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<td>ARH145</td>
<td>History of American Indian Art</td>
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<td>COM263</td>
<td>Elements of Intercultural Communication</td>
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<td>COM281</td>
<td>Communication Activities</td>
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<tr>
<td>CPD102AS++</td>
<td>Conflict Resolution</td>
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<tr>
<td>CPD103BL++</td>
<td>Dynamics of Leadership (2) OR</td>
<td>2</td>
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<tr>
<td>LDR101</td>
<td>Emerging Leaders I (2) OR</td>
<td>2</td>
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<tr>
<td>EXS265++</td>
<td>Theory of Coaching</td>
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<td>GBS120</td>
<td>Workplace Communication Skills</td>
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<td>GBS205</td>
<td>Legal, Ethical, and Regulatory Issues in Business</td>
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<td>GCU221</td>
<td>Arizona Geography</td>
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<td>HES100</td>
<td>Healthful Living</td>
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<td>HIS105</td>
<td>Arizona History</td>
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<td>HIS106</td>
<td>Southwest History</td>
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<td>HRM110</td>
<td>Introduction to Hospitality and Tourism</td>
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<tr>
<td>+PSY230</td>
<td>Introduction to Statistics</td>
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</table>
The Certificate of Completion (CCL) in Nutrition for Fitness and Wellness program is designed to provide personal trainers 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: 5445 Total Credits: 30-37

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

**Required Courses: Credits: 22**

- EXS101 Introduction into Exercise Science, Kinesiology and Physical Education (3)
- EXS125 Introduction to Exercise Physiology (3)
- EXS130 Strength Fitness-Physiological Principles and Training Techniques (3)
- FON100 Introductory Nutrition (3) OR Any equivalent FON Food and Nutrition course (3) (3)
- FON125 Introduction to Professions in Nutrition and Dietetics (1)
- +FON210 Sports Nutrition and Supplements for Physical Activity (1)
- +FON230 Nutrition for Special Populations (3)
- +FON247 Weight Management Theory (3)
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 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 an 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 Arizona State Paramedic Certification OR equivalent (0) OR Permission of Program Director 0-9

Required Courses: Credits: 18-45.5
Students must select one (1) of the following five (5) tracks:
Credits: 18-45.5

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
AJSDPR/
FSC139 Emergency Response to Terrorism 3
AJSDPR/
FSC146 Disaster Recovery Operations 3
AJSDPR/
FSC147 Emergency Preparedness 3
AJSDPR/
FSC148 Fundamentals of Emergency Management 3
AJSDPR/
FSC149 Hazard Mitigation 3
FSC224 Incident Command Systems 3

Track IV: Fire Science Credits: 24
AJSDPR/
FSC147 Emergency Preparedness (3) OR
AJSDPR/
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
FSC119 Introduction Fire Service Ethics 3
+FSC208 Firefighter Safety and Building Construction 3
FSC209 Fire Investigation I 3
+FSC210 Fire Investigation II 3
+FSC211 Fire Investigation III 3
+FSC212 Fire Investigation IV 3

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.
AJSDPR++ Any AJSD Administration of Justice Studies courses
DPR+++ Any DPR Disaster Preparedness and Emergency Response courses
EMT+++ Any EMT Emergency Medical Technology courses
FSC+++ Any FSC Fire Science Technology courses
LET+++ Any LET Law Enforcement Technology courses

General Education: Credits: 22-25
First-Year Composition
Any approved general education courses from the First-Year Composition area. 6
Oral Communication
Any approved general education course from the Oral Communication area. 3
Critical Reading  
Any approved general education course from the Critical Reading area 3
Mathematics  
Any approved general education course from the Mathematics area 3
Humanities and Fine Arts  
Any approved general education course from the Humanities and Fine Arts area 3
Social and Behavioral Sciences  
Any approved general education course from the Social and Behavioral Sciences area 3
Natural Sciences  
Any approved general education course from the Natural Sciences area 4

The Certification of Completion (CCL) in Emergency Management provides the student with knowledge and skills required to conduct a comprehensive emergency management program. The program prepares students to manage fire department operations, hazardous materials incidents, tactics, strategy, safety of firefighting activities, and customer service in the public sector. 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
AJIS/FSC139 Emergency Response to Terrorism 3
AJIS/FSC146 Disaster Recovery Operations 3
AJIS/FSC147 Emergency Preparedness 3
AJIS/FSC148 Fundamentals of Emergency Management 3
AJIS/FSC149 Hazard Mitigation 3
FSC224 Incident Command Systems 3

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.

Program Prerequisites: Credits: 9
+EMT/  
FSC104 Basic Emergency Medical Technology 9

Required Courses: Credits: 24
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

The Certificate of Completion (CCL) in Firefighter Operations 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: 5557 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 Fire Officer Leadership 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) OR  
AJIS/DPR/ FSC147 Emergency Preparedness (3) OR  
AJIS/DPR/ FSC148 Fundamentals of Emergency Management (3) 3
+FSC208 Firefighter Safety and Building Construction 3
FSC215 Customer Service in the Public Sector 3

Required Courses: Credits: 14
+FSC102 Fire Department Operations 11
+FSC104 Basic Emergency Medical Technology (9) OR  
AJIS/DPR/ FSC147 Emergency Preparedness (3) OR  
AJIS/DPR/ FSC148 Fundamentals of Emergency Management (3) 3
+FSC208 Firefighter Safety and Building Construction 3
FSC215 Customer Service in the Public Sector 3

The Certificate of Completion (CCL) in Customer Service in the Public Sector 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.

Program Prerequisites: Credits: 9
+EMT/  
FSC104 Basic Emergency Medical Technology 9

Required Courses: Credits: 24
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

The Certificate of Completion (CCL) in Customer Service in the Public Sector 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
AJIS/FSC139 Emergency Response to Terrorism 3
AJIS/FSC146 Disaster Recovery Operations 3
AJIS/FSC147 Emergency Preparedness 3
AJIS/FSC148 Fundamentals of Emergency Management 3
AJIS/FSC149 Hazard Mitigation 3
FSC224 Incident Command Systems 3

The Certificate of Completion (CCL) in Customer Service in the Public Sector 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.

Program Prerequisites: Credits: 9
+EMT/  
FSC104 Basic Emergency Medical Technology 9

Required Courses: Credits: 24
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
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**
- TEC111 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: Preston Cameron
Contact: (480) 461-7714
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: 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

  **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
  - TEC237 Color and Design (3) OR TEC274AC
  - TEC238 Fashion Illustration II (3) OR TEC239
  - TEC230 Pattern Design II (3) OR TEC231
  - TEC271AC Fashion Design Internship (3) OR TEC271AC
  - TEC241 Advanced Computer-Assisted Fashion Design 3
  - TEC4++++ Any TEC prefixed course not listed under Required Courses area 3

**Track III-Fashion Retailing Credits: 28**
- ACC111 Accounting Principles I 3
- +ACC230 Uses of Accounting Information I 3
- CIS105 Survey of Computer Information Systems 3
- ECN211 Macroeconomic Principles 3
- ECN212 Microeconomic Principles 3
- +GBS220 Quantitative Methods in Business 3
- +GBC221 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
- TEC4++++ Any TEC prefixed course not listed under Required Courses area 3
**General Education: Credits: 25-27**

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

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

Critical Reading
- CRE101  College Critical Reading (3) OR
- CRE111  Critical Reading for Business and Industry (3) OR
- Equivalent as indicated by assessment

Mathematics
- MAT120  Intermediate Algebra (5) OR
- MAT121  Intermediate Algebra (4) OR
- MAT122  Intermediate Algebra (3)

Humanities and Fine Arts
- Any approved general education course in the Humanities and Fine Arts area
- ARH++++ Any ARH Art Humanities course recommended

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

Natural Sciences
- Any approved general education course in the Natural Sciences area

**The Certificate of Completion (CCL) in Alteration Specialist** is designed to prepare students for employment in alterations for the apparel industry. Students will develop skills in advanced clothing construction, tailoring and couture techniques appropriate for a variety of fabrics and designs, and fitting techniques for all types of apparel. They will develop the ability to select appropriate fashion fabrics, interfacing, and lining materials for specific items of apparel. Students completing this certificate will be able to alter and repair ready-make garments as a profession. Students completing the certificate can expect entry-level positions in the alteration profession for retailers, dry-cleaning industry, or their own alteration establishment. Major Code: 5556 Total Credits: 20-22

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

**Program Prerequisites: Credits: 3**

- TEC111  Clothing Construction

**Required Courses: Credits: 20-22**

- TEC122  Sewing with Knits
- TEC124  Advanced Clothing Construction
- TEC129  Sewing with a Serger
- TEC222  Textiles
- TEC223  Tailoring
- TEC227  Couture Sewing
- TEC277++ Alteration Internship (any module) (1-3)

**The Certificate of Completion (CCL) in Alteration Specialist** 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**

- TEC106  History of Fashion
- TEC111  Clothing Construction
- TEC124  Advanced Clothing Construction
- TEC125  Fashion Design (3) OR
- TEC134  Fashion Illustration I (3)
- TEC222  Textiles
- TEC223  Tailoring
- TEC225  Pattern Design I
- TEC230  Pattern Design II
- TEP115  Theatre Makeup
- TEP201++ Theatre Production (any module) (1-3)

**The Certificate of Completion (CCL) in Costume Design and Production** is designed for students with an interest in costume design and production. 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 courses required within the program.

**Required Courses: Credits: 30**

- TEC106  History of Fashion
- TEC111  Clothing Construction
- TEC124  Advanced Clothing Construction
- TEC125  Fashion Design (3) OR
- TEC134  Fashion Illustration I (3)
- TEC222  Textiles
- TEC223  Tailoring
- TEC225  Pattern Design I
- TEC230  Pattern Design II
- TEP115  Theatre Makeup
- TEP201++ Theatre Production (any module) (1-3)

**The Certificate of Completion (CCL) in Costume Design and Production** is designed for students with an interest in costume design and production. 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 courses required within the program.
### Program Prerequisites: Credits: 3

- MKT/TEC109 Introduction to Fashion Merchandising 3

### Required Courses: Credits: 24

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<th>Course Name</th>
<th>Credits</th>
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<td>BPC110</td>
<td>Computer Usage and Applications (3) OR</td>
<td>3</td>
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<td>CIS105</td>
<td>Survey of Computer Information Systems (3)</td>
<td>3</td>
</tr>
<tr>
<td>MGT229</td>
<td>Management and Leadership I (3) OR</td>
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<td>MGT253</td>
<td>Owning and Operating a Small Business (3)</td>
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</tr>
<tr>
<td>TEC151</td>
<td>Display and Visual Merchandising</td>
<td>3</td>
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<td>TEC222</td>
<td>Textiles</td>
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<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) OR</td>
<td>1-3</td>
</tr>
<tr>
<td>TQM101</td>
<td>Quality Customer Service (3)</td>
<td>3</td>
</tr>
</tbody>
</table>

- **The Certificate of Completion (CCL) in Textile and Apparel: Pattern I** 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

- TEC111 Clothing Construction (3) OR 0-3

### Required Courses: Credits: 15

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<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>
</tr>
<tr>
<td>TEC226</td>
<td>Draping for Fashion Design</td>
<td>3</td>
</tr>
<tr>
<td>TEC231</td>
<td>Pattern Grading</td>
<td>3</td>
</tr>
<tr>
<td>TEC270</td>
<td>Design Studio</td>
<td>3</td>
</tr>
</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 or above with skills and 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 0-13

### Required Courses: Credits: 11

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>TEC224</td>
<td>Pattern Drafting</td>
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</tr>
<tr>
<td>TEC228</td>
<td>Advanced Draping for Fashion Design</td>
<td>3</td>
</tr>
<tr>
<td>TEC230</td>
<td>Pattern Design II</td>
<td>3</td>
</tr>
<tr>
<td>TEC233</td>
<td>Computer-Assisted Pattern Making</td>
<td>3</td>
</tr>
</tbody>
</table>

- **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 but 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 0-3

### Required Courses: Credits: 11

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEC122</td>
<td>Sewing with a Serger</td>
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</tr>
<tr>
<td>TEC226</td>
<td>Draping for Fashion Design</td>
<td>3</td>
</tr>
<tr>
<td>TEC229</td>
<td>Advanced Serging</td>
<td>2</td>
</tr>
<tr>
<td>TEC270</td>
<td>Design Studio</td>
<td>1</td>
</tr>
</tbody>
</table>

- **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.

### Program Prerequisites: Credits: 15

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEC106</td>
<td>History of Fashion</td>
<td>3</td>
</tr>
<tr>
<td>MKT/TEC109</td>
<td>Introduction to Fashion Merchandising</td>
<td>3</td>
</tr>
<tr>
<td>TEC151</td>
<td>Display and Visual Merchandising</td>
<td>3</td>
</tr>
<tr>
<td>TEC245</td>
<td>Wardrobe Strategies</td>
<td>3</td>
</tr>
<tr>
<td>INT150</td>
<td>Color and Design</td>
<td>3</td>
</tr>
</tbody>
</table>

- **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 0-3

### Required Courses: Credits: 11

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEC113</td>
<td>Textiles: Dyeing</td>
<td>1</td>
</tr>
<tr>
<td>TEC114</td>
<td>Textiles: Block Printing/Silk Screening</td>
<td>1</td>
</tr>
<tr>
<td>TEC115</td>
<td>Textiles: Hand Painting</td>
<td>1</td>
</tr>
<tr>
<td>TEC116</td>
<td>Textiles: Stitchery and Embellishment</td>
<td>1</td>
</tr>
<tr>
<td>TEC161</td>
<td>Digital Machine Embroidery Laboratory</td>
<td>1</td>
</tr>
</tbody>
</table>
Industrial Sewing Technician program is designed to provide students with an interest in design and development of apparel, accessories or home decor for custom and commercial uses. It provides students with skills using project management and supply chain resources. Students also use the proper techniques in pattern drafting, grading and CAD applications for apparel patterns. Students completing the certificate will enter the fashion industry at entry-level positions with skills and an understanding of the product development process. Major Code: 5801 Total Credits: 14

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

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

Required Courses: Credits: 12
TEC141 Fashion Design: CAD 2
+TEC221 Computer-Assisted Fashion Design 2
+TEC233 Computer-Assisted Pattern Making 3
+TEC236 Portfolio Development 1
+TEC241 Advanced Computer-Assisted Fashion Design 3

The Certificate of Completion (CCL) in Textile and Apparel: Fashion Illustration Specialist program is designed for students with an interest in illustrating for fashion design with advanced study and techniques used in drawing fashion figures and flats. Students complete a professional fashion illustration portfolio in a variety of media with various fabrics, textures, and patterns. Major Code: 5802 Total Credits: 12

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

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

Required Courses: Credits: 12
TEC134 Fashion Illustration I 3
+TEC135 Fashion Illustration II 3
+TEC136 Fashion Illustration III 3
TEC141 Fashion Design: CAD 2
+TEC236 Portfolio Development 1

The Certificate of Completion (CCL) in Textile and Apparel: Industrial Sewing Technician program is designed to provide skills for industrial sewing for manufacturing. Students gain proficiency in using industrial straight stitch, zigzag, overlock, cover stitch, blind hammers and walking feet sewing machines. Students also learn costing and production methods of construction. Completers of the certificate will enter the fashion industry at entry-level positions or above with industrial sewing skills. Major Code: 5800 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: 15
+TEC143 Industrial Sewing I 2
+TEC144 Industrial Sewing II 2
+TEC244 Industrial Sewing III 2
+TEC146 Manufacturing Sewing Methods I 2
+TEC147 Manufacturing Sewing Methods II 2
+TEC247 Manufacturing Sewing Methods III 2
TEC240 Apparel Production Management 2
+TEC162 Production Development Laboratory (1) OR TEC270 Design Studio (1) 1

The Certificate of Completion (CCL) in Textile and Apparel: Product Development program is designed for students with an interest in design and development of apparel, accessories or home decor for custom and commercial uses. It provides students with skills using project management and supply chain resources. Students also use the proper techniques in pattern drafting, grading and CAD applications for apparel patterns. Students completing the certificate will enter the fashion industry at entry-level positions with skills and an understanding of the product development process. Major Code: 5801 Total Credits: 14

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

Program Prerequisites: Credits: 14
+TEC125 Fashion Design 3
TEC141 Fashion Design: CAD 2
+TEC162 Product Development Laboratory 1
MKT/ TEC200 Retail Buying 3
TEC240 Apparel Production Management 2
TEC250 Apparel Quality Analysis 3

Geographic Information Systems Certificates/ Degrees

- Associate in Applied Science in Geospatial Technologies
- Certificate of Completion in Geographic Information System (GIS)

Program Director: Karen Blevins
Contact: (480) 461-7358

The Associate in Applied Science (AAS) in Geospatial Technologies prepares students for entry-level positions within the field of Geographic Information Systems. The Geospatial Technologies program will also provide students with the educational foundation necessary for a four-year degree. A Certificate of Completion (CCL) is also available. Major Code: 3108 Total Credits: 60

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

Program is designed for students with varying skills consult with program director.
CAREER AND TECHNICAL PROGRAMS

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
GPH110 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 3
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 BASIC 4
+GPH273 Advanced GIS Using ArcGIS (3) OR 3
GPH275 Introduction to Remote Sensing (3) 3

Track III-Transfer Emphasis Credits: 17
+GSC110AB Introduction to Computer Science (Java) 4
CSC181AB Applied Problem Solving with Visual BASIC 4
+CSC200AB Principles of Computer Science (Java) 4
+MAT220 Calculus with Analytic Geometry I 5

Restricted Electives: Credits: 2-8
GPH4+++ 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 Applications in Geospatial Technologies program provides a solid foundation in Geographic Information Systems concepts, not simply GIS software. This program equips students with fundamental GIS abilities that can be applied in a variety of environments where spatial data analysis is required. Major Code: 5135 Total Credits: 24-33

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.

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 Credits: None

Track II-Developer Credits: 0-5
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 Credits: 0-8
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: 24-33
+GPH219 Introduction to GIS Using ArcGIS 3
+GPH220 Intermediate GIS Using ArcGIS 3
+GPH273 Advanced GIS Using ArcGIS (3) OR 3
GPH275 Introduction to Remote Sensing (3) 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 3
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 BASIC 4
+GPH273 Advanced GIS Using ArcGIS (3) OR 3
GPH275 Introduction to Remote Sensing (3) 3

Track III-Transfer Emphasis Credits: 17
+GSC110AB Introduction to Computer Science (Java) 4
CSC181AB Applied Problem Solving with Visual BASIC 4
+CSC200AB Principles of Computer Science (Java) 4
+MAT220 Calculus with Analytic Geometry I 5

Restricted Electives: Credits: 2-8
GPH4+++ 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
### Horticulture Certificates/Degrees

- Associate in Applied Science in Urban Horticulture
- Certificate of Completion in Landscape Aide
- Certificate of Completion in Landscape Specialist

**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:** 42

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGB130</td>
<td>Establishing and Running an Agribusiness</td>
<td>3</td>
</tr>
<tr>
<td>AGB139</td>
<td>Agribusiness Computer Operations</td>
<td>3</td>
</tr>
<tr>
<td>AGL189</td>
<td>Landscape Design I</td>
<td>3</td>
</tr>
<tr>
<td>AGS164</td>
<td>Plant Growth and Development</td>
<td>4</td>
</tr>
<tr>
<td>AGS168</td>
<td>Grounds Equipment Management</td>
<td>3</td>
</tr>
<tr>
<td>AGS183</td>
<td>Urban Plant Identification and Use</td>
<td>3</td>
</tr>
<tr>
<td>AGS192</td>
<td>Urban Plant Care</td>
<td>3</td>
</tr>
<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**

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>AGL181</td>
<td>Landscape Construction Techniques</td>
<td>3</td>
</tr>
<tr>
<td>AGL190</td>
<td>Landscape Design II</td>
<td>3</td>
</tr>
<tr>
<td>AGL282</td>
<td>Landscape Computer Aided Design</td>
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**Track II-Nursery Operations Credits: 9**

<table>
<thead>
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</thead>
<tbody>
<tr>
<td>AGS186</td>
<td>Greenhouse Management and Construction</td>
<td>3</td>
</tr>
<tr>
<td>AGS187</td>
<td>Indoor Foliage Plants</td>
<td>3</td>
</tr>
<tr>
<td>AGS285</td>
<td>Propagation of Horticultural Plants</td>
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**Track III-Landscape Management Credits: 9**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>AGS182</td>
<td>Gardening Practices and Techniques</td>
<td>2</td>
</tr>
<tr>
<td>AGS187</td>
<td>Indoor Foliage Plants</td>
<td>3</td>
</tr>
<tr>
<td>AGS284</td>
<td>Lawn and Turf Care</td>
<td>3</td>
</tr>
<tr>
<td>AGS296WA</td>
<td>Cooperative Education</td>
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</table>

**Track IV-Turfgrass Management Credits: 9**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>AGL181</td>
<td>Landscape Construction Techniques</td>
<td>3</td>
</tr>
<tr>
<td>AGS261</td>
<td>Soil Fertility and Management</td>
<td>3</td>
</tr>
<tr>
<td>AGS284</td>
<td>Lawn and Turf Care</td>
<td>3</td>
</tr>
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</table>

**Track V-Floriculture/Floral Design Credits: 9**

<table>
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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>AGB140</td>
<td>Commercial Floral Design</td>
<td>3</td>
</tr>
<tr>
<td>AGB142</td>
<td>Floriculture</td>
<td>3</td>
</tr>
<tr>
<td>AGS182</td>
<td>Gardening Practices and Techniques</td>
<td>2</td>
</tr>
<tr>
<td>AGS296WA</td>
<td>Cooperative Education</td>
<td>1</td>
</tr>
</tbody>
</table>

**General Education: Credits 25-27**

<table>
<thead>
<tr>
<th>Area</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>First Year Composition</td>
<td>First-Year Composition (3) AND First-Year Composition (3)</td>
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<tr>
<td>Oral Communication</td>
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<td></td>
</tr>
<tr>
<td>Critical Reading</td>
<td>College Critical Reading (3) OR Equivalent as indicated by assessment</td>
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</tr>
<tr>
<td>Mathematics</td>
<td>Mathematical Concepts/Applications (3) OR</td>
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</tr>
<tr>
<td></td>
<td>Intermediate Algebra (5) OR</td>
<td></td>
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<td></td>
<td>Intermediate Algebra (4) OR</td>
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</tr>
<tr>
<td></td>
<td>Intermediate Algebra (3) OR</td>
<td></td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>Any approved general education course in the Natural Sciences area</td>
<td>4</td>
</tr>
<tr>
<td>Social and Behavioral Sciences</td>
<td>Any approved general education course in the Social and Behavioral Sciences area</td>
<td>3</td>
</tr>
</tbody>
</table>

**Certificate of Completion (CCL) in Landscape Aide** emphasizes the technology of production and management. The program is designed to prepare students to become employed as technicians, supervisors, managers, or owners in nurseries or landscape construction. In addition, the program prepares students for jobs with government agencies or other agencies involved with the technical phases of the Urban Horticulture industry. Major Code: 5069 Total Credits: 13

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

**Required Courses:** 13

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGL181</td>
<td>Landscape Construction Techniques</td>
<td>3</td>
</tr>
<tr>
<td>AGL189</td>
<td>Landscape Design I</td>
<td>3</td>
</tr>
<tr>
<td>AGS164</td>
<td>Plant Growth and Development</td>
<td>4</td>
</tr>
<tr>
<td>AGS183</td>
<td>Urban Plant Identification and Use</td>
<td>3</td>
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<tr>
<td>AGS192</td>
<td>Urban Plant Care</td>
<td>3</td>
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<tr>
<td>AGS260</td>
<td>Origin and Composition of Soils</td>
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<tr>
<td>AGS262</td>
<td>Irrigation Design, Installation, Operation, and Trouble Shooting</td>
<td>3</td>
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<td>AGS268</td>
<td>Insect, Weed and Pest Control</td>
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</tbody>
</table>

**Certificate of Completion (CCL) in Landscape Specialist** emphasizes the technology of production and management. The program is designed to prepare students to become employed as technicians, supervisors, managers, or owners in nurseries or landscape construction. 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:** 27

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGB130</td>
<td>Establishing and Running an Agribusiness</td>
<td>3</td>
</tr>
</tbody>
</table>

**Certificate of Completion in Landscape Aide (5069)** 13

**Certificate of Completion in Landscape Specialist (5069)** 13
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: Janice Pierson  
Contact: (480) 461-7724

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: 5482 Total Credits: 64-67

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

Required Courses: Credits: 45

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARH101</td>
<td>Prehistoric Through Gothic Art (3) OR</td>
<td>3</td>
</tr>
<tr>
<td>ARH102</td>
<td>Renaissance Through Contemporary Art (3)</td>
<td>3</td>
</tr>
<tr>
<td>INT100</td>
<td>Interior Design Drafting</td>
<td>3</td>
</tr>
<tr>
<td>INT105</td>
<td>Introduction to Interior Design</td>
<td>3</td>
</tr>
<tr>
<td>INT115</td>
<td>Historical Architecture and Furniture</td>
<td>3</td>
</tr>
<tr>
<td>INT120</td>
<td>Modern Architecture and Furniture</td>
<td>3</td>
</tr>
<tr>
<td>INT140</td>
<td>Introduction to CAD for Interior Design</td>
<td>3</td>
</tr>
<tr>
<td>INT145</td>
<td>Drawing and Rendering</td>
<td>3</td>
</tr>
<tr>
<td>INT150</td>
<td>Color and Design</td>
<td>3</td>
</tr>
<tr>
<td>INT160</td>
<td>Fabrics for Interiors</td>
<td>3</td>
</tr>
<tr>
<td>INT170</td>
<td>Interior Materials</td>
<td>3</td>
</tr>
<tr>
<td>INT175</td>
<td>Custom Design</td>
<td>3</td>
</tr>
<tr>
<td>INT190</td>
<td>Space Planning</td>
<td>3</td>
</tr>
<tr>
<td>INT200</td>
<td>Advanced CAD for Interior Design</td>
<td>3</td>
</tr>
<tr>
<td>INT205</td>
<td>Residential Design</td>
<td>3</td>
</tr>
<tr>
<td>INT260</td>
<td>Interior Codes and Regulations</td>
<td>3</td>
</tr>
</tbody>
</table>

General Education: Credits: 19-22

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. 0-3

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) OR 3
-SOC180 Social Implications of Technology (3) 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.

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>INT215</td>
<td>Professional Practices</td>
<td>3</td>
</tr>
<tr>
<td>INT230</td>
<td>Presentation Techniques</td>
<td>3</td>
</tr>
<tr>
<td>INT265</td>
<td>Building Systems</td>
<td>3</td>
</tr>
<tr>
<td>INT270</td>
<td>Commercial Design</td>
<td>3</td>
</tr>
</tbody>
</table>

Students are required to complete a total of three (3) credits from the following courses:
+INT271AA Interior Design Internship (1) OR 3
+INT271AB Interior Design Internship (2) OR 3
+INT271AC Interior Design Internship (3) 3
+INT290 Advanced Commercial Design 3

Restricted Electives: Credits: 9

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARH+++++</td>
<td>Any ARH Art Humanities prefixed course except courses used to satisfy the AAS requirements</td>
<td>3</td>
</tr>
<tr>
<td>ASB102</td>
<td>Introduction to Cultural and Social Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ASB211</td>
<td>Women in Other Cultures</td>
<td>3</td>
</tr>
<tr>
<td>ASB235</td>
<td>Southwest Archaeology</td>
<td>3</td>
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<tr>
<td>BIO++++++</td>
<td>Any BIO Biology prefixed course</td>
<td>3-5</td>
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<tr>
<td>CPS157</td>
<td>Marriage and Family Life</td>
<td>3</td>
</tr>
<tr>
<td>CPS/ECH176</td>
<td>Child Development</td>
<td>3</td>
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<tr>
<td>CPS205</td>
<td>Human Development</td>
<td>3</td>
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<tr>
<td>+CFS259</td>
<td>Sexuality Over the Life Span</td>
<td>3</td>
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<tr>
<td>CHM++++++</td>
<td>Any CHM Chemistry prefixed course</td>
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<tr>
<td>ECN++++++</td>
<td>Any ECN Economics prefixed course</td>
<td>3</td>
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<tr>
<td>ENH++++++</td>
<td>Any ENH English Humanities prefixed course</td>
<td>3</td>
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<tr>
<td>HIS++++++</td>
<td>Any HIS History prefixed course</td>
<td>3</td>
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<tr>
<td>HUM++++++</td>
<td>Any HUM Humanities prefixed course</td>
<td>3</td>
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<tr>
<td>MAT++++++</td>
<td>Any MAT Mathematics prefixed course</td>
<td>3-5</td>
</tr>
<tr>
<td>MHL++++++</td>
<td>Any MHL Music: History/Literature prefixed course</td>
<td>3</td>
</tr>
<tr>
<td>PHI++++++</td>
<td>Any PHI Philosophy course</td>
<td>3</td>
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<tr>
<td>PHY++++++</td>
<td>Any PHY Physics prefixed course</td>
<td>3</td>
</tr>
<tr>
<td>PSY125</td>
<td>Leadership and Group Dynamics</td>
<td>3</td>
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<tr>
<td>PSY++++++</td>
<td>Any PSY Psychology prefixed course, except PSY 101</td>
<td>3</td>
</tr>
<tr>
<td>REL+++++</td>
<td>Any REL Religious Studies prefixed course</td>
<td>3</td>
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</tbody>
</table>


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<tr>
<td>INT150</td>
<td>Color and Design</td>
<td>3</td>
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<tr>
<td>INT160</td>
<td>Fabrics for Interiors</td>
<td>3</td>
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<tr>
<td>INT170</td>
<td>Interior Materials</td>
<td>3</td>
</tr>
<tr>
<td>AGB140</td>
<td>Commercial Floral Design</td>
<td>3</td>
</tr>
<tr>
<td>AGS187</td>
<td>Indoor Foliage Plants</td>
<td>3</td>
</tr>
<tr>
<td>ARH100</td>
<td>Introduction to Art</td>
<td>3</td>
</tr>
<tr>
<td>ART111</td>
<td>Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ADA/ART112</td>
<td>Two-Dimensional Design</td>
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<tr>
<td>ART131</td>
<td>Photography I</td>
<td>3</td>
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<tr>
<td>GTC130</td>
<td>Furniture Construction I</td>
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<tr>
<td>+GTC131</td>
<td>Furniture Construction II</td>
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<tr>
<td>GTC144</td>
<td>Introduction to Cabinetmaking</td>
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<td>+GTC145</td>
<td>Advanced Cabinetmaking</td>
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<tr>
<td>MGT251</td>
<td>Human Relations in Business</td>
<td>3</td>
</tr>
<tr>
<td>MGT/TEC151</td>
<td>Display and Visual Merchandising</td>
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</tr>
<tr>
<td>MKT/TEC152</td>
<td>Advertising Principles</td>
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<td>MKT263</td>
<td>Merchandising</td>
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</tr>
<tr>
<td>MKT271</td>
<td>Principles of Marketing</td>
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<tr>
<td>SCT100</td>
<td>Introduction to Sustainable Built environments</td>
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</tr>
<tr>
<td>TEC126</td>
<td>Sewing for the Home</td>
<td>3</td>
</tr>
<tr>
<td>TEC128</td>
<td>Home Upholstery</td>
<td>3</td>
</tr>
<tr>
<td>INT/ART/MKT</td>
<td>Any INT, ART, or MKT prefixed course approved by department advisor</td>
<td>3</td>
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</table>

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

### Required Courses: Credits: 21

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<td>3</td>
</tr>
<tr>
<td>INT170</td>
<td>Interior Materials</td>
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### Restricted Electives: Credits: 9

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
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</tr>
</thead>
<tbody>
<tr>
<td>AGB140</td>
<td>Commercial Floral Design</td>
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<td>Photography I</td>
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</tr>
<tr>
<td>GTC130</td>
<td>Furniture Construction I</td>
<td>3</td>
</tr>
<tr>
<td>+GTC131</td>
<td>Furniture Construction II</td>
<td>3</td>
</tr>
<tr>
<td>GTC144</td>
<td>Introduction to Cabinetmaking</td>
<td>3</td>
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<tr>
<td>+GTC145</td>
<td>Advanced Cabinetmaking</td>
<td>3</td>
</tr>
<tr>
<td>MGT251</td>
<td>Human Relations in Business</td>
<td>3</td>
</tr>
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<td>Display and Visual Merchandising</td>
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<td>Home Upholstery</td>
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<tr>
<td>INT/ART/MKT</td>
<td>Any INT, ART, or MKT prefixed course approved by department advisor</td>
<td>3</td>
</tr>
</tbody>
</table>

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

### Required Courses: Credits: 34-36

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<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>+JRN125</td>
<td>Photo Editing</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>
<td>3</td>
</tr>
<tr>
<td>+JRN201</td>
<td>News Writing</td>
<td>3</td>
</tr>
<tr>
<td>+JRN203</td>
<td>Writing for Online Media</td>
<td>3</td>
</tr>
<tr>
<td>JRN215</td>
<td>News Production</td>
<td>3</td>
</tr>
<tr>
<td>JRN225</td>
<td>Photojournalism</td>
<td>3</td>
</tr>
<tr>
<td>JRN234</td>
<td>Feature Writing</td>
<td>3</td>
</tr>
<tr>
<td>+JRN240</td>
<td>++ Journalism Internship</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>
</tbody>
</table>

### Restricted Electives: Credits: 3

<table>
<thead>
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<th>Course</th>
<th>Description</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
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<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>
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<tr>
<td>HIS243</td>
<td>History of World Religions</td>
<td>3</td>
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<tr>
<td>REL243</td>
<td>World Religions</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>
</tr>
<tr>
<td>+JRN236</td>
<td>Advanced Practicum: Public Relations</td>
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<tr>
<td>MGT251</td>
<td>Human Relations in Business</td>
<td>3</td>
</tr>
</tbody>
</table>

### General Education: Credits: 25-27

**First-Year Composition**

+ENG101 First-Year Composition (3) AND
+ENG102 First-Year Composition (3) OR
+ENG111 Technical Writing (3)

---

**Journalism/Public Relations Degrees**

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

**Director:** Jack Mullins  
**Contact:** (480) 461-7270

The Associate in 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>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS105</td>
<td>Survey of Computers Information Systems</td>
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<tr>
<td>+MCO220</td>
<td>Cultural Diversity and the Media</td>
<td>3</td>
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</tbody>
</table>

### Restricted Electives: Credits: 3

The Certificate of Completion (CCL) in Interior Merchandising is intended to provide the student with the knowledge and creative skills important to the home furnishings, colorizing, visual merchandising, and home-staging industries. Students will study design principles and elements, color theory, drafting, furniture layout, historical and modern architecture and furniture, fabrics, and other factors utilized in interior merchandising. Elective coursework allows the student to take specific courses that will help prepare them for the particular segment of the industry they are most interested in pursuing. Major Code: 5429

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

### Required Courses: Credits: 21

<table>
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<tr>
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<tbody>
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<td>INT120</td>
<td>Modern Architecture and Furniture</td>
<td>3</td>
</tr>
<tr>
<td>INT150</td>
<td>Color and Design</td>
<td>3</td>
</tr>
<tr>
<td>INT160</td>
<td>Fabrics for Interiors</td>
<td>3</td>
</tr>
<tr>
<td>INT170</td>
<td>Interior Materials</td>
<td>3</td>
</tr>
</tbody>
</table>

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**Career and Technical Programs**
### Oral Communication
- COM100: Introduction to Human Communication (3) OR
- COM110: Interpersonal Communication (3) OR
- +COM225: Public Speaking (3) OR
- +COM230: Small Group Communication (3)

### Critical Reading
- +CRE101: College Critical Reading (3) OR equivalent as indicated by assessment

### Mathematics
- +MAT102: Mathematical Concepts Applications (3) OR
- +MAT120: Intermediate Algebra (5) OR
- +MAT121: Intermediate Algebra (4) OR
- +MAT122: Intermediate Algebra Accelerated (3) OR

### 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

### 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

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

- 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>
<td>ATP110</td>
<td>Basic Manufacturing Processes</td>
<td>2</td>
</tr>
<tr>
<td>ATP130</td>
<td>DC Circuit Analysis</td>
<td>2</td>
</tr>
<tr>
<td>ATP135</td>
<td>AC Circuit Analysis</td>
<td>2</td>
</tr>
<tr>
<td>ATP150</td>
<td>Fluid Power 1 - Hydraulics, Pneumatics, and Vacuum Concepts</td>
<td>2</td>
</tr>
<tr>
<td>ATP175</td>
<td>Introduction to Motors and Motor Controls</td>
<td>2</td>
</tr>
<tr>
<td>ATP180</td>
<td>PLC 1 - Introduction to Ladder Logic</td>
<td>2</td>
</tr>
<tr>
<td>ATP200</td>
<td>Sensors and Measurement</td>
<td>2</td>
</tr>
<tr>
<td>ATP215</td>
<td>Digital and Analog Circuits</td>
<td>2</td>
</tr>
<tr>
<td>ATP222</td>
<td>Servo Systems</td>
<td>2</td>
</tr>
<tr>
<td>ATP290</td>
<td>Lean Techniques and Six Sigma</td>
<td>3</td>
</tr>
<tr>
<td>CIS105</td>
<td>Survey of Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>FAC/GTC/MIT/OSH106</td>
<td>Industrial Safety</td>
<td>2</td>
</tr>
</tbody>
</table>

Restricted Electives: Credits: 9-11

Students should select one track, and take the required electives therein.

Track 1 - Process Control Systems and Programming Credits: 9

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATP160</td>
<td>PLC 2 - HMI Interfaces and Function Block Programming</td>
<td>2</td>
</tr>
<tr>
<td>ATP245</td>
<td>Introduction to Solid Modeling - Solidworks</td>
<td>3</td>
</tr>
<tr>
<td>ATP251</td>
<td>Fluid Power 2 - Automation Applications</td>
<td>2</td>
</tr>
<tr>
<td>ATP260</td>
<td>Automation System Integration</td>
<td>2</td>
</tr>
</tbody>
</table>

Track 2 - Electromechanical and Hybrid Systems Credits: 11

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATP235</td>
<td>CNC Programming</td>
<td>2</td>
</tr>
<tr>
<td>ATP245</td>
<td>Introduction to Solid Modeling - Solidworks</td>
<td>3</td>
</tr>
<tr>
<td>ATP251</td>
<td>Fluid Power 2 - Automation Applications</td>
<td>2</td>
</tr>
<tr>
<td>+ATP260</td>
<td>Automation System Integration</td>
<td>2</td>
</tr>
<tr>
<td>+ATP265</td>
<td>Automation System Integration</td>
<td>2</td>
</tr>
</tbody>
</table>

General Education: Credits: 25-27

First Year Composition
+ ENG101 First-Year Composition (3) AND + ENG111 Technical and Professional Writing (3) + ENG110 First-Year Composition is acceptable only if ENG111 is not available

Oral Communication
COM110 Interpersonal Communication 3

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

Mathematics
+MAT120 Intermediate Algebra (5) OR +MAT121 Intermediate Algebra (4) OR +MAT122 Intermediate Algebra (3) OR Equivalent or satisfactory completion of a higher level mathematics course. 3-5

Humanities and Fine Arts
Any approved general education course in the Humanities and Fine Arts Area 3

Social and Behavioral Sciences
SOC101 Introduction to Sociology 3

Natural Sciences
Any approved general studies course in the Natural Sciences Area 4

The Certificate of Completion (CCL) in Automation Technology Level I program introduces the student to automated systems used by companies to produce a variety of products. The emphasis is on the student awareness of the many issues a company must deal with when employing automation and the issues related to control of the equipment. Major Code: 5000 Total Credits: 17

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

Admission Criteria:
Math assessment score placing students into MAT090 or higher, or permission of department.

Required Courses: Credits: 17

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
</tr>
</thead>
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<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>
<td>ATP110</td>
<td>Basic Manufacturing Processes</td>
<td>2</td>
</tr>
<tr>
<td>CIS105</td>
<td>Survey of Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>FAC/GTC/MIT/OSH106</td>
<td>Industrial Safety</td>
<td>2</td>
</tr>
</tbody>
</table>

The Certificate of Completion (CCL) in Automation Technology Level II program allows students to be able to evaluate and troubleshoot minor system problems and contributes 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

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: 17

<table>
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<tr>
<th>Course Code</th>
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<tbody>
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<tr>
<td>CIS105</td>
<td>Survey of Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>COM100</td>
<td>Introduction to Human Communication</td>
<td>3</td>
</tr>
<tr>
<td>+ENG101</td>
<td>First Year Composition</td>
<td>3</td>
</tr>
<tr>
<td>FAC/GTC/MIT/OSH106</td>
<td>Industrial Safety</td>
<td>2</td>
</tr>
</tbody>
</table>

The Certificate of Completion (CCL) in Automation Technology Level II program allows students to be able to evaluate and troubleshoot minor system problems and contributes 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

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

Admission Criteria:
Math assessment score placing students into MAT090 or higher, or permission of department.

Program Prerequisites: Credits: 17

Certificate of Completion in Automation Technology Level I (5000) 17

Required Courses: Credits: 15-17

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATP130</td>
<td>DC Circuit Analysis</td>
<td>2</td>
</tr>
<tr>
<td>ATP135</td>
<td>AC Circuit Analysis</td>
<td>2</td>
</tr>
</tbody>
</table>
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
+ATP150 Fluid Power I - Hydraulics, Pneumatics, and Vacuum Concepts 2
ATP175 Introduction to Motors and Motor Controls 2
ATP180 PLC 1 - Introduction to Ladder Logic 2
+ATP200 Sensors and Measurement 2
+MAT120 Intermediate Algebra (5) OR
+MAT121 Intermediate Algebra (4) OR
+MAT122 Intermediate Algebra (3) OR
Equivalent or higher-level mathematics course 3-5

The 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
GTC107 Technical Mathematics I (3) OR Satisfactory score on math placement test

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/ 3
OSH106 Industrial Safety 2

General Education: Credits: 22
First-Year Composition
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
CAREER AND TECHNICAL PROGRAMS

+PHY111 General Physics I 4
+PHY112 General Physics II 4
WLD101 Welding I (3) OR
GTC129 Manufacturing Welding (3)

General Education: Credits: 18
First-Year Composition
+ENG101 First-Year Composition (3) AND
+ENG102 First-Year Composition (3)
Oral Communication
COM225 Public Speaking 3
Critical Reading
+Any approved General Education course in the Critical Reading area 3
Mathematics
Met by ELE105 in Program Prerequisites 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: 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
Met by GTC108 in Program Prerequisites area 0
Satisfactory score on math placement test.

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
Met by GTC/MET108 in Required Courses area
GTC216 Properties of Materials 3
+GTC296++ Cooperative Education (any suffixed course) (1-4) OR
+GTC298++ Special Projects (any suffixed course) (1-3) 1-4

Students must select one of the following three (3) tracks:

Track I-CNC/CAD/CAM Credits: 18
GTC102 Machine Processes, Theory and Application 3
+GTC/ MET206 CNC Programming 3
+GTC236 CAD/CAM CNC Programming 3
+GTC266 Solids Modeling 3
+GTC276 Solids Programming 3
+GTC208 Statistical Process Control (3) OR

QCT143 Principles of Quality Assurance (3) OR
MET131 Lean Manufacturing (3)

Track II-Electro-Mechanical Credits: 22
ELE100 Concepts of Electricity and Electronics 3
GTC102 Machine Processes, Theory and Application 3
+GTC181 Introduction to Fluid Power 3
+GTC185 Electro-mechanical Devices 4
+GTC/ MET206 CNC Programming 3
GTC129 Manufacturing Welding (3) OR
WLD101 Welding I (3) 3
+GTC208 Statistical Process Control (3) OR
QCT143 Principles of Quality Assurance (3) OR
MET131 Lean Manufacturing (3)

Track III-Management Credits: 20-21
MET131 Lean Manufacturing 3
MGT147 Supply Chain Management 3
MGT293 Management and Leadership I 3
MGT251 Human Relations in Business (3) OR
MGT253 Owning and Operating a Small Business (3) 3
MKT271 Principles of Marketing 3

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
Required Courses: Credits: 10-12
GTC107 Technical Mathematics I (3) or Satisfactory score on math placement test. 3

Program Prerequisites: Credits: 15-17
GTC104 Manufacturing Processes 4
GTC106 Industrial Safety 2
GTC108 Technical Mathematics II 3
GTC181 Introduction to Fluid Power 3
GTC185 Electro-mechanical Devices 4
GTC216 Properties of Materials 3
MET131 Lean Manufacturing 3
GTC208 Statistical Process Control (3) OR QCT143 Principles of Quality Assurance (3) 3

The Certificate of Completion (CCL) in CAD/CAM/CNC I program prepares the student to operate the Computer Numerical Control (CNC) systems that produce the machined product on CNC turning centers, machining centers, and other manufacturing equipment in a safety industrial environment preparing student for the National Institute of Metal Working Skills (NIMS) Level One CNC credentials. Major Code: 5616 Total Credits: 15-17

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

Program Prerequisites: Credits: 15
Certificate of Completion in Machining I (5614) 15

Required Courses: Credits: 15-17
FAC/GTC/MIT/OSH106 Industrial Study 2
+GTC/
  MET206 CNC Programming 3
  +GTC23 Advanced Machine Tools 3
  GTC298++ Special Projects (any suffixed course) 1-3
  +MET207 CNC Mill: Operator Training I 3
  +MET208 CNC Lathe: Operator Training I 3

The Certificate of Completion (CCL) in CAD/CAM/CNC II program 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 producing precision products of different types of material and features. Major Code: 5647 Total Credits: 10-12

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

Program Prerequisites: Credits: 15-17
Certificate of Completion in CAD/CAM/CNC II (5616) 15-17

Required Courses: Credits: 10-12
GTC216 Properties of Materials 3
+GTC298++ Special Projects (any suffixed course) 1-3
+MET209 CNC Mill: Operator Training II 3
+MET210 CNC Lathe: Operator Training II 3

The Certificate of Completion (CCL) in CAD/CAM/CNC III program introduces the skills needed to translate product sketches and engineering designs into electronic design systems that are the basis for Computer Aided Design (CAD) and Computer Aided Manufacturing (CAM). The program focuses on CAD/CAM application to the machine language to operate the Computer Numerical Control (CNC) systems that produce the machined product on CNC lathes, milling machines, and other manufacturing equipment. Major Code: 5795 Total Credits: 10-12

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

Program Prerequisites: Credits: 10-12
Certificate of Completion in CAD/CAM/CNC II (5647) 10-112

Required Courses: Credits: 10-12
+GTC236 CAD/CAM Computer Numerical Control (CNC) Programming 3
+GTC246 Advanced CAD/CAM CNC Programming 3
+GTC266 Solids Modeling 3
+GTC298++ Special Projects (any suffixed course) 1-3

The Certificate of Completion (CCL) in Machining I program introduces the skills and knowledge for application in a modern precision manufacturing work environment. Through classroom instruction and hands-on operation of Computer Numerical Control (CNC)-operated machine tools, students will learn to shape metals and other materials to close tolerances and customer specifications. 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
AIF105 Engineering Documentation 2
GTC102 Machine Processes, Theory and Application 3
GTC104 Manufacturing Processes 4
+GTC108 Technical Mathematics II 3
+MET112 Inspection Techniques 3

The Certificate of Completion (CCL) in Machining II program 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. Major Code: 5645 Total Credits: 9

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

Program Prerequisites: Credits: 15
Certificate of Completion in Machining I (5614) 15

Required Courses: Credits: 9
FAC/GTC/MIT/OSH106 Industrial Study 2
GTC216 Properties of Materials 3
+GTC223 Advanced Machine Tools 3
+GTC298AA Special Projects 1
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
MET229 Management and Leadership I 3
MET147 Supply Chain Management 3
MET131 Lean Manufacturing 3
TQM101 Quality Customer Service (3) OR 2-3
TQM220 Leadership and Empowerment Strategies (2) OR 2
TQM230 Teamwork Dynamics (2) OR 2
TQM240 Project Management in Quality Organizations (2) OR 2

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: 61-64

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: 42
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 3
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

General Education: Credits: 19-22

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 0-3
Mathematics
Met by ELE105 in Required Courses area 0
Humanities and Fine Arts
Any approved general education course from the Humanities and Fine Arts area 3
Social and Behavioral Sciences
Any approved general education course from the Social and Behavioral Sciences area 3
Natural Sciences
CHM130 Fundamental Chemistry (3) AND CHM130LL Fundamental Chemistry (1) 4
The Certificate of Completion (CCL) in Micro Circuit Mask Design prepares students to work in the microcircuit design field. The program emphasizes current technological trends in the industry and is designed both for those planning to enter a career in the field as well as for those already working in the field who want to advance and update their knowledge and skills. Major Code: 5504 Total Credits: 37

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: 37
- 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
- +ELE241 Microprocessor Concepts 4
- +GTC296WC Cooperative Education 3

Mortuary Science Degree

- Associate in Applied Science in Mortuary Science

Director: Tom Taggart
Contact: (480) 988-8501

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 Associate in Applied Science (AAS) in Mortuary Science offered at Mesa Community College is accredited by the American Board of Funeral Service Education (ABFSE) 3414 Ashland Avenue, Suite G, St. Joseph, MO 64506, 816-233-3747, www.abfse.org. Completion of the courses in 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 first year course work 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/ 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
- COM110 Interpersonal Communication (3) OR COM100 Introduction to Human Communication (3) 3
Critical Reading
- Any approved general education course in the Critical Reading Area 3
Mathematics
- MAT102 Mathematical Concepts/Applications (3) OR Equivalent as indicated by assessment OR Satisfactory completion of a higher level mathematics course. 3
Humanities and Fine Arts
- Any approved general education course in the Humanities and Fine Arts Area REL243 is recommended. 3
Social and Behavioral Sciences
- PSY101 Introduction to Psychology (3) OR PSY156 Understanding Death and Dying (3) 3
Natural Sciences
- BIO160 Introduction to Human Anatomy and Physiology 4
Music Certificates/ Degrees

- Associate in Applied Science in Audio Production Technologies
- Certificate of Completion in Audio Production Technologies
- Certificate of Completion in Disc Jockey Techniques
- Certificate of Completion in Sound Design
- Associate in Applied Science in Music Business
- Certificate of Completion in Music Business
- Certificate of Completion in Intermediate Piano Pedagogy
- Certificate of Completion in Sound Design

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. 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: 62

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

### Required Courses: Credits: 37-41

<table>
<thead>
<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>MTC110</td>
<td>Introduction to Aural Perception</td>
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</tr>
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<td>MTC195</td>
<td>Studio Music Recording I (DAW II)</td>
<td>3</td>
</tr>
<tr>
<td>MUC196</td>
<td>Studio Music Recording II (3) OR</td>
<td>3</td>
</tr>
<tr>
<td>MUC297AA</td>
<td>Music Internship</td>
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Select one of two (2) tracks

**Track I-Audio Production  Credits: 9**

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<td>Live Sound Reinforcement I</td>
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</tr>
<tr>
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<td>3</td>
</tr>
<tr>
<td>MUC295</td>
<td>Studio Music Recording III</td>
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</table>

**Track II-Sound Design Track  Credits: 12**

<table>
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<td>MUC122</td>
<td>Sound Design I (3) OR</td>
<td>3</td>
</tr>
<tr>
<td>TCM120</td>
<td>Introduction to Sound Design for Film and Video (3)</td>
<td>3</td>
</tr>
</tbody>
</table>

**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

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 program offers students an opportunity to receive training on industry-standard equipment. 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: 37-41

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

### Required Courses: Credits: 37-41

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**Track I-Audio Production  Credits: 9**

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**Track II-Sound Design Track  Credits: 12**

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<td>TCM120</td>
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**Track I-Audio Production  Credits: 9**

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The Certificate of Completion (CCL) in Disc Jockey Techniques program is designed to prepare students for entry-level employment as a live-performance disc jockey (DJ). This program will provide the student an understanding of how businesses related to the DJ profession are organized and operated in this highly competitive and rapidly changing profession. Major Code: 5745 Total Credits: 33

Program Notes: Students must earn a grade of “C” or better for related courses and experiences. Major Code: 3017 Total Credits: 60-63.

The certificate and degree with a music business emphasis are designed for both the performing music 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: 60-63.

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

- MUC222 Sound Design II (3)  
- MTC/ TCM220 Advanced Sound Design for Film and Video (3) 3
- MUC194 Introduction to Audio Mixing Techniques 3
- MUC292 Sound Design III 3

The Certificate of Completion (CCL) in Sound Design offers students an opportunity to learn concepts associated with Sound Design production and recording arts technologies while applying them in lab settings. Upon completion of the core courses, students will have acquired skills allowing them the opportunity to apply for a broad range of positions in the audio post-production field including: film & television, animation, radio, theatre, and commercial advertising. Major Code: 5686 Total Credits: 41

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

Admission Criteria:
Formal application and admission to the program is required.

Required Courses: Credits: 41

- MUC222 Sound Design II (3)  
- MTC/ TCM220 Advanced Sound Design for Film and Video (3) 3
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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: 60-63.

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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.
Restricted Electives: Credits: 12
Students must select twelve (12) credits from the approved list of Restricted Elective courses to specialize in Music Production, Disc Jockey Techniques, Songwriting, Performance, Marketing, Business, or Communications. Students must consult with the Music Business Program Director, Music Department Chair or designee to select the Restricted Elective courses recommended for each specialization.

Free Electives: Credits: 12
ACC111 Accounting Principles I 3
BPC128 Introduction to Desktop Publishing 1
CIS131AA Doing Business on the Internet 3
GBS151 Introduction to Business 3
+GBS233 Business Communication 3
+MKT110 Marketing and Social Networking 3
+MKT271 Principles of Marketing 3
+MTC101 Introduction to Music Theory (3) or higher level MTC Music: Theory/Composition course (3) 3
MTC113 Songwriting Techniques 1
+MUC111 Digital Audio Workstation I (DAWI) 3
MUC125 Introduction to Disc Jockey Techniques 4
MUC145 Recording Studio Business Operations 2
+MUC180 Computer Literacy for the Music Business 3
MUC195 Studio Music Recording I (3) OR MUC195AA Studio Music Recording I (3) 3
+MUC210 Advanced Industry Topics: Concert Promotion and Training 3
+MUC211 Advanced Industry Topics: Artist Management and Talent Development 3
MUC215 Music Industry Seminar: Innovation in Music Technology 1
+MUC240 Creative Music Production 4
+MUC241 Business Principles of Music Production 3
MUC274AB Music Industry Study Tour 2
+MUC295AB Portfolio for Music 1
+MUC298AA Special Projects 1
+MUC298AB Special Projects 2
+MUC298AC Special Projects 3
+MUC298D Special Projects 2
+MUC298E Special Projects 2
+MUC298F Special Projects 2
+MUC298G Special Projects 2
+MUC298H Special Projects 2
MUC298I Special Projects 2
SBS230 Financial and Tax Management for Small Business 2

General Education: Credits: 22-25
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
  CRE101 College Critical Reading (3) OR Equivalent as indicated by assessment 3
Mathematics
  +Any approved general education course in the Mathematics area 3
Humanities and Fine Arts
  Any approved general education course from the Humanities and Fine Arts area 3
Social and Behavioral Sciences
  Any approved general education course from the Social and Behavioral Sciences area 3
Natural Sciences
  Any approved general education course from the Natural Sciences area 4

The Certificate of Completion (CCL) in 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: 26

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

Required Courses: Credits: 11
MUC109 Music Business: Merchandising and the Law 3
MUC110 Music Business: Recording and Mass Media 3
+MUC295A Self-Promotion for Music 1
MUC209 Music Business: Industry Leadership and E-Commerce (3) OR MGT253 Owning and Operating a Small Business (3) 3
+MUC290AA Music Business Internship 1

Restricted Electives: Credits: 15
Students must select twelve (15) credits from the approved list of Restricted Elective courses to specialize in Music Production, Disc Jockey Techniques, Songwriting, Performance, Marketing, Business, or Communications. Students must consult with the Music Business Program Director, Music Department Chair or designee to select the Restricted Elective courses recommended for each specialization.

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.

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.

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 Network Administration
- Certificate of Completion in Linux Professional
- Associate of Applied Science in Networking System Administration
- Certificate of Completion in Network Administration: Cisco Network Professional
- Certificate of Completion in Network Administration: Microsoft Windows Server

Department Chairperson: Preston Cameron
Contact: (480) 461-7714

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 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

+ 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
  CNT140Aa Cisco Networking Fundamentals (4) OR
  MST140 Microsoft Networking Essentials (3) 3-4
  MST150+ Microsoft Windows Professional (Any module) 3

Restricted Electives: Credits: 14

Selected courses will not apply in both the Required Courses area and the Restricted Electives area.

BPC110 Computer Usage and Applications (3) OR
CIS105 Survey of Computer Information Systems (3) 3
+BPC270 Microcomputer Maintenance II 3
+BPC273 Advanced Server Computer Maintenance: Server+Prep 3

CIS121AH Microsoft PowerShell/Command Line Operations 3
+CIS197 VMware ESXI Server Enterprise 4
+CIS226AL Internet/Intranet Server Administration-Linux 4
+CIS241DL Apache Web Server Administration (Linux/Unix) 3
+CIS250 Management of Information Systems 3
+CIS270 Essentials of Network and Information Security 3
+CIS274DL Linux Enterprise Network Security 3
+CIS275DL Linux Capstone 3
+CIS296WC Cooperative Education 3
+CIS290+ Special Projects 1-3
+CIS190 Introduction to Local Area Networks (3) 3
CNT140 Cisco Networking Basics (4) OR
MST140 Microsoft Networking Essentials (3) OR 3-4

+ CNT150AA Cisco Routing Protocols and Concepts 4
+ CNT160AA Cisco Local Area Networking (LAN) Switching and Wireless 4
+ CNT170AA Cisco Accessing the Wide-Area Network (WAN) 4
MST150+ Microsoft Windows (any MST150 suffixed course) 3
+ MST155+ Implementing Windows Network Infrastructure (3) OR
+ MST155DA Windows Server Network Infrastructure Configuration (4) 3-4
+ MST157 Implementing Windows Directory Services (3) OR
+ MST157DA Active Directory Windows Server Configuration (4) 3-4
+ MST158DA Windows Server Administration 4

General Education: Credits: 22-25

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

Oral Communication
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
+ 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
+CIS238DL Linux System Administration 3
+CIS240DL Linux Network Administration 3
+CIS270 Essentials of Network and Information Security 3
+CIS274DL Linux Enterprise Network Security 3
+CIS275DL Linux Capstone 3
+CIS296WC Cooperative Education 3
+CIS298+ Special Projects 1-3
+CIS190 Introduction to Local Area Networks (3) 3
CNT140 Cisco Networking Basics (4) OR
MST140 Microsoft Networking Essentials (3) OR 3-4

+ BPC170 Computer Maintenance I: A+ Prep 3
+ BPC270 Computer Maintenance II 3
CIS105 Survey of Computer Information Systems (3) OR
CIS121AH Microsoft PowerShell/Command Line Operations 3
The Certificate of Completion (CCL) 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 current professional skills. Objectives for a variety of industry certifications are encompassed within课程 and program objectives. Major Code: 5204 Total Credits: 12

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

**Required Courses: Credits: 24-25**

+ BPC170  Computer Maintenance I: A+ Prep  3
+ BPC126DA  Linux Operating System  3
+ BPC238DA  Linux Network Administration  3
+ BPC239DA  Linux Shell Scripting  3
+ BPC240DA  Microsoft Windows Essentials (3)  3
+ BPC271DA  Microsoft Security Essentials  3
+ BPC190D  Introduction to Local Area Networks (3) OR
+ CNT140  Cisco Networking Basics (4) OR
+ MST150++  Microsoft Windows Essentials (Any module)  3

**Restricted Electives: Credits: 12**

- BPC270  Computer Maintenance II  3
- BPC237  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
- CIS241DL  Apache Web Server Administration (Linux/Unix)  3
- CIS250  Management of Information Systems  3
- CIS270  Essentials of Network and Information Security  3
- CIS274DL  Internet Enterprise Network Security  3
- CIS275DL  Linux Security  3
- CIS280  Current Topics in Computing  3
- CIS296WC  Cooperative Education  3
- CIS290++  Computer Information Systems Internship (Any suffixed course)  1-3
- CIS298AC  Special Projects  3

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

**+CIS105**  Survey of Computer Information Systems  3

**BPC273  Advanced Server Computer Maintenance: Server+ Prep**  3

**CIS225AL**  Internet/Intranet Server Administration-Linux  3

**CIS239DL**  Linux Shell Scripting  3

**CIS240DA**  Linux Network Administration  3

**CIS241DL**  Apache Web Server Administration (Linux/Unix)  3

**CIS270**  Essentials of Network and Information Security  3

**CIS274DL**  Internet Enterprise Network Security  3

**CIS275DL**  Linux Security  3

**CIS280**  Current Topics in Computing  3

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

**MST150++**  Microsoft Windows Essentials (Any suffixed course)  3

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

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

**MST157**  Implementing Windows Directory Services (3) OR

**MST157DA**  Active Directory Windows Server Configuration (4)  3-4

**MST158DA**  Windows Server Administration  4

The Certificate of Completion (CCL) in Linux Professional program is designed to help prepare students for a variety of industry-recognized Linux certification exams as well as provide practical hands-on skills for the workplace. The program includes a core of Linux classes including Linux operating system basics, System Administration, Network Administration, and Network Security. These classes will ensure a student’s knowledge and skill level in preparation for employment or to improve current professional skills. Objectives for a variety of industry certifications are encompassed within course and program objectives. Major Code: 5204 Total Credits: 12

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

**Required Courses: Credits: 6**

+ CIS126DA  Linux Operating System  3
+ CIS238DA  Linux System Administration  3

**restricted Electives: Credits: 6**

+ BPC170  Computer Maintenance I: A+ Prep  3
+ BPC273  Advanced Server Computer Maintenance: Server+ Prep  3
+ CIS105  Survey of Computer Information Systems  3
+ CIS197  VMware ESXI Server Enterprise  4
+ CIS121AH  Microsoft PowerShell/Command Line Operations  3
+ CIS225AL  Internet/Intranet Server Administration-Linux  3
+ CIS239DL  Linux Shell Scripting  3
+ CIS240DA  Linux Network Administration  3
+ CIS241DL  Apache Web Server Administration (Linux/Unix)  3
+ CIS270  Essentials of Network and Information Security  3
+ CIS274DL  Internet Enterprise Network Security  3
+ CIS275DL  Linux Security  3
+ CIS190  Introduction to Local Area Networks (3) OR
+ MST140  Cisco Networking Basics (4) OR
+ MST150++  Microsoft Windows Essentials (Any suffixed course)  3
+ MST155++  Implementing Windows Infrastructure (3) OR
+ MST155DA  Windows Server Network Infrastructure Configuration (4)  3-4
+ MST157  Implementing Windows Directory Services (3) OR
+ MST157DA  Active Directory Windows Server Configuration (4)  3-4
+ MST158DA  Windows Server Administration  4

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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. The Network core courses will also prepare students towards certification in Microsoft and Novell.

Program Prerequisites: Credits: 3
CRE101 College Critical Reading (3) OR Equivalent by assessment

Required Courses: Credits: 26-27
CIS105 Survey of Computer Information Systems (3) OR
BPC110 Computer Usage and Applications (3) 3
+BPC170 Computer Maintenance I: A+ Essentials Prep 3
+BPC270 Computer Maintenance II: A+ Technician Prep 3
+MST126++ Linux Operating System (Any module) 3
+MST150++ Microsoft Windows Professional (Any module) 4
+CIS266 Network Integration Capstone 4
+CIS270 Essentials of Network and Information Security (3) OR
CNT205 Cisco Certified Network Associate Security (4) OR
CIS271DL Linux Security (3) 3-4
CNT140AA Cisco Networking Fundamentals 4

Restricted Electives: Credits: 15
Students should select 15 credits from the following, except any courses to satisfy Required Courses area
+MST140AA Java Programming: Level I 3
+MST155DA Windows Server Network Infrastructure Configuration 4
+MST157DA Active Directory Windows Server Configuration 4
MST158DA Windows Server Server Configuration 4
+CNT150AA Cisco Routing Protocols and Concepts 4
+CNT160AA Cisco Local Area Networking (LAN) Switching and Wireless 4
+CNT170AA Cisco Accessing the Wide-Area Network (WAN) 4
+CNT2+++ Any CNT200 level prefixed course 4

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
COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR
COM725 Public Speaking (3) OR
COM230 Small Group Communication (3) 3

Critical Reading
Met by program prerequisites. 0

Natural Sciences Area
Any approved general education course in the Natural Sciences Area 4

Mathematics
MAT142 College Mathematics (3) OR
Satisfactory completion of a higher level mathematics course 3-5

Humanities and Fine Arts
PHI214 Business Ethics (3) OR
Any approved general education course in the Humanities and Fine Arts Area 3

Social and Behavioral Sciences
Any approved general education course in the Social and Behavioral Sciences Area 3

The Certificate of Completion (CCL) in Network Administration: Cisco Network Professional will equip students with marketable skills for learning the specific tasks and industry-recognized standards associated with network professional who can install, configure, and troubleshoot local and wide area networks for enterprise organizations with networks comprised of 100 to 500 or more nodes. The coursework emphasizes security, converged networks, quality of service (QoS), virtual private networks (VPN), broadband technologies, and integrating technologies in the network infrastructure. The program also prepares students to complete the required certification tests in Cisco Certified Network Professional (CCNP) certification, which indicates advanced or journeyman knowledge of networks. Major Code: 5328 Total Credits: 16

Program Notes: Students must earn a grade of “C” or better for all courses within the program. The Network core courses will also prepare students towards certification in Microsoft and Novell.

Program Prerequisites: Credits: 0-4
CCT170AA Cisco Accessing the Wide-Area Network (WAN) (4) OR
CNT170AA Cisco Certified Network Associate (CCNA) Industry Certification 0-4

Required Courses: Credits: 16
+CNT200 CCNP ROUTE: Implementing Cisco IP Routing 4
+CNT202 Cisco Secure Firewall 4
+CNT205 Cisco Certified Network Associate Security (4) OR
+CNT206 Cisco Certified Network Associate Wireless (4) OR
+CNT208 Cisco Certified Network Associate Voice (4) 4
+CNT220 CCNP SWITCH: Implementing Cisco IP Switching 4
+CNT231 CCNP TSHOOT: Maintaining and Troubleshooting Cisco IP Networks 4

The Certificate of Completion (CCL) in Network Administration: Microsoft Windows Server provides students with background knowledge and skills required for learning the specific tasks and industry recognized standards associated with computer networks and data communications. This program also prepares students to complete the required certification tests for Microsoft Administrator. Major Code: 5124 Total Credits: 18

Program Notes: Students must earn a grade of “C” or better for all courses within the program. The Network core courses will also prepare students towards certification in Microsoft and Novell.
Program Prerequisites: Credits: 0-3
CRE101 College Critical Reading (3) OR Equivalent as indicated by assessment 0-3

Required Courses: Credits: 18
CIS105 Survey of Computer Information Systems (3) OR BPC110 Computer Usage and Applications (3) 3
MST150 Microsoft Windows Professional (3) OR MST150++ Microsoft Windows (any module) (3) 3
+MST152 Microsoft Windows Server (4) OR +MST152DA Microsoft Windows 2000 Server (4) OR +MST152DB Microsoft Windows 2003 Server (4) OR 4
*MST158DA Windows Server Administration (4) OR +MST157DA Active Directory Windows Server Configuration 4
*MST155DA Windows Server Network Infrastructure Configuration 4

Nursing Certificates/Degrees

• Associate in Applied Science in Nursing
• Certificate of Completion in Practical Nursing
• Certificate of Completion in Nurse Assisting
• Certificate of Completion in Nursing Refresher

Department Chairperson: Debbie Bittner
Contact: (480) 461-7262

The Associate in Applied Science (AAS) Nursing Program is available at nine of the Maricopa Community Colleges. Clinical experiences are provided in a variety of healthcare settings. The Nursing Program provides eligibility for students to apply for the national exam for the registered nurse license.

Licensing requirements are the exclusive responsibility of the State Board of Nursing. The Associate in Applied Science (AAS) Nursing Program is approved by the Arizona State Board of Nursing and accredited by the National League for Nursing Accrediting Commission (NLNAC), 61 Broadway, 33rd Floor, New York, NY 10006, (212) 363-5555, ext. 153. Major Code: 3812 Total Credits: 61-74

Program Offerings
This program is offered at the following sites:
Chandler Gilbert Community College (480) 988-8880
Estrella Mountain Community College (623) 935-8949
GateWay Community College (602) 286-8178
Glendale Community College (623) 845-3350
Mesa Community College (480) 461-7600
Mesa Community College/Boswell (623) 974-7835
Paradise Valley Community College (602) 787-7060
Phoenix College (602) 285-7427
Scottsdale Community College (480) 423-6137

Waiver of Licensure/Certification Guarantee
Admission or graduation from the Nursing Program does not guarantee obtaining a license to practice nursing. Licensure requirements and the subsequent procedures are the exclusive right and responsibility of the Arizona State Board of Nursing. Students must satisfy the requirements of the Nurse Practice Act: Statutes, Rules and Regulations, independently of any college or school requirements for graduation.

Pursuant to A.R.S. § 32-1606(B)(17), an applicant for professional or practical nurse license by examination is not eligible for licensure if the applicant has any felony convictions and has not received an absolute discharge from the sentences for all felony convictions. The absolute discharge must be received five or more years before submitting this application. If you cannot prove that the absolute discharge date is five or more years, the Board cannot process your application.

All nursing applicants for licensure will be fingerprinted to permit the Department of Public Safety to obtain state and federal criminal history information. If there is any question about eligibility for licensure or certification, contact the nursing education consultant at the Arizona State Board of Nursing (602) 889-5150.

Health Declaration
It is essential that Nursing students be able to perform a number of physical activities in the clinical portion of the program. At a minimum, students will be required to lift patients, stand for several hours at a time, and perform bending activities. The clinical nursing experience also places students under considerable mental and emotional stress as they undertake responsibilities and duties impacting patients’ lives. Students must be able to demonstrate rational and appropriate behavior under stressful conditions. Individuals should give careful consideration to the mental and physical demands of the program prior to making application.

Health & Safety Requirements for the Nursing Program:
1. Students must submit a Health and Safety Documentation Checklist verifying completion of all requirements and maintain current status throughout the program.
2. Students must submit the Health Declaration Form signed by a licensed health care provider.
3. Students must test negative on a timed urine drug screen.
4. Students must provide a copy of their current and valid Fingerprint Clearance Card upon application.
Grade Requirements
Students must obtain a “C” grade or better in all courses required within the program.

Course Fee Information
Please see class schedule for information regarding course fees.

University Transfer Students
Students who are planning to earn the Bachelor of Science in Nursing may obtain their prerequisite courses at the Maricopa Community Colleges. For information on courses that meet requirements for admission into a baccalaureate program, please contact a program advisor.

Registered Nurse Pathway
The Associate in Applied Science (AAS) degree in Nursing graduate is eligible to apply for licensure as a Registered Nurse (RN). The RN is educated as a generalist who delivers health care to clients and family groups and has competencies related to the art and science of nursing. The RN may be employed in a variety of acute, long-term, and community-based health care settings. The AAS degree in Nursing provides the graduate with an educational foundation for articulation into the university setting.

The Nursing Program is approved by the Arizona State Board of Nursing and accredited by the National League for Nursing Accrediting Commission (NLNAC), 61 Broadway, 33rd Floor, New York, NY 10006, (212) 363-5555, ext. 153.

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

The Nursing Program’s Core Values of Caring, Holism, Nursing Role Development, Critical Thinking, Safe Practice, and Information Management and Technology are integrated into the student learning outcomes/program competencies.

Admission Criteria:
• High school diploma or GED.
• Formal application and admission to the program is required.
• A passing score on a nursing program admission test is required to complete an application.
• Applicants for Advanced Placement must receive a passing score on a practical nursing content exam for placement into Block 3.
• The final decision rests with the Nursing Program Chair at the College to which the student is accepted.

The Nursing Program Chair reserves the right to deny acceptance of an admission application if the applicant was dismissed for issues relating to academic integrity, unsafe patient care, and/or two (2) or more failures from any nursing program.

All applicants holding or receiving a certificate in Nursing Assisting and/or license as a Practical Nurse must remain in good standing with the Regulatory Board. Once enrolled, students receiving any disciplinary actions against their certificate or license must notify the Nursing Program Chair within five (5) school days. The Nursing Program Chair reserves the right to restrict the student’s participation in clinical experiences and involvement in patient care until the certificate and/or license is valid and unrestricted.

Program Prerequisites: Credits: 10-20
Area Note: The credit hour range is subject to change depending on the student’s educational experience.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>BIO136</td>
<td>Introductory Biology for Allied Health</td>
<td>4</td>
</tr>
<tr>
<td>BIO181</td>
<td>General Biology (Majors)</td>
<td>4</td>
</tr>
<tr>
<td>+BIO201</td>
<td>Human Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>+CHM130</td>
<td>Fundamental Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>+CHM130LL</td>
<td>Fundamental Chemistry Laboratory</td>
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</tr>
<tr>
<td>+MAT120</td>
<td>Intermediate Algebra</td>
<td>4</td>
</tr>
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Satisfactory completion of higher-level mathematics course

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY101</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>+PSY240</td>
<td>Developmental Psychology</td>
<td>3</td>
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Required Courses: Credits: 35

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<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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<td>+NUR251</td>
<td>Nursing Theory and Science III</td>
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<tr>
<td>+NUR271</td>
<td>Nursing Theory and Science IV</td>
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<tr>
<td>+NUR291</td>
<td>Nursing Clinical Capstone</td>
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General Education: Credits: 16-19

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<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>+ENG101</td>
<td>First-Year Composition</td>
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<tr>
<td>+ENG107</td>
<td>First-Year Composition</td>
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</tr>
<tr>
<td>+ENG102</td>
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Mathematics
Met by MAT120, or MAT121, or MAT122 OR Satisfactory completion of higher level mathematics course in Program Prerequisites area.

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

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The Practical Nursing Certificate of Completion (CCL) Program is available at nine of the Maricopa Community Colleges. Clinical experiences are provided in a variety of healthcare settings. The Practical Nursing Program provides eligibility for students to apply for the national exam for the practical nurse license. Licensing requirements are the exclusive responsibility of the Arizona State Board of Nursing. Major Code: 5957 Total Credits: 31-41

The Practical Nursing Certificate of Completion (CCL) Program is approved by the Arizona State Board of Nursing.

Waiver of Licensure/Certification Guarantee
Admission or graduation from the Nursing Program does not guarantee obtaining a license to practice nursing. Licensure requirements and the subsequent procedures are the exclusive right and responsibility of the State Board of Nursing. Students
must satisfy the requirements of the Nurse Practice Act: Statutes, Rules and Regulations, independently of any college or school requirements for graduation.

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2. Students must submit the Health Declaration Form signed by a licensed healthcare 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.
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• 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 application if the applicant was dismissed for issues relating to academic integrity, unsafe patient care, and/or two (2) or more failures from any nursing program.

All applicants holding or receiving a certificate in Nursing Assisting and/or license as a Practical Nurse must remain in good standing with the Board of Nursing. Once enrolled, students receiving any disciplinary actions against their certificate or license must notify the Nursing Program Chair within five (5) school days. The Nursing Program Chair reserves the right to restrict the student’s participation in clinical experiences and involvement in patient care until the certificate and/or license is valid and unrestricted.

Program Prerequisites: Credits: 10-20
Area Note: The credit hour range is subject to change depending on the student’s educational experience.

- BIO156 Introductory Biology for Allied Health (4) OR
- BIO181 General Biology (Majors) I (4) OR
  One year of high school biology 0-4
- BIO201 Human Anatomy and Physiology I 4
- CHM130 Fundamental Chemistry (3) AND
- CHM130LL Fundamental Chemistry Laboratory (1) OR
  One year of high school chemistry 0-4
- MAT120 Intermediate Algebra (5) OR
- MAT121 Intermediate Algebra (4) OR
- MAT122 Intermediate Algebra (3) OR
  Satisfactory completion of higher-level mathematics course 3-5
- PSY101 Introduction to Psychology (3) OR
- PSY240 Developmental Psychology (3) 3

Required Courses: Credits: 21
- NUR151 Nursing Theory and Science I 10
- NUR171 Nursing Theory and Science II 8
- NUR191 Practical Nursing Transition Course 3

The Certificate of Completion (CCL) in Nurse Assisting prepares students for entry-level employment in various health care settings as a nursing assistant. The program combines classroom instruction with clinical laboratory, skilled care and acute-care experiences. Students who complete the program are eligible to take a written and practical certification examination and work as a Certified Nursing Assistant. Licensing requirements are the exclusive responsibility of the Arizona State Board of Nursing.

Major Code: 5963 Total Credits: 6
The MCCD Nurse Assisting Program is approved by the Arizona State Board of Nursing.

Waiver of Licensure/Certification Guarantee
Admission or completion from the MCCD Nurse Assisting Program does not guarantee obtaining a license or certificate to practice nursing. Licensure and certification requirements and the subsequent procedures are the exclusive right and responsibility of the Arizona State Board of Nursing. Students must satisfy the requirements of the Nurse Practice Act: Statutes, Rules and Regulations, independently of any college of school requirements for graduation.

Pursuant to A.R.S. § 32-1606(B)(17), an applicant for professional or practical nurse license by examination is not eligible for licensure if the applicant has any felony convictions and has not received an absolute discharge from the sentences for all felony convictions. The absolute discharge must be received five or more years before submitting this application. If you cannot prove that the absolute discharge date is five or more years, the Board cannot process your application.

All nurse assistant applicants for certification will be fingerprinted to permit the Department of Public Safety to obtain state and federal criminal history information. All applicants with a positive history are investigated. If there is any question about eligibility for licensure or certification, contact the nursing education consultant at the Arizona State Board of Nursing, (602) 899-5150.

Health Declaration
It is essential that Nursing students be able to perform a number of physical activities in the clinical portion of the program. At a minimum, students will be required to lift patients, stand for several hours at a time, and perform bending activities. Students who have a chronic illness or condition must be maintained on current treatment and be able to implement direct patient care. The clinical nursing experience also places students under considerable mental and emotional stress as they undertake responsibilities and duties impacting patients’ lives. Students must be able to demonstrate rational and appropriate behavior under stressful conditions. Individuals should give careful consideration to the mental and physical demands of the program prior to making application.

Health & Safety Requirements for MCCD Nurse Assisting Program
1. Students must submit a completed Health and Safety Documentation Checklist and maintain current status throughout the program.
2. Students must submit CPR card for Health Care Provider and maintain current status throughout the program.
3. Students must submit a current Fingerprint Clearance Card.
4. Health Provider Signature Form signed by a licensed health care provider.
5. Negative urine drug screen.

Grade Requirements:
Student must obtain a “C” grade or better in all courses.

Course Fee Information:
Please see class schedule for information regarding course fees.

University Transfer Students
Students who are planning to earn the Bachelor of Science in Nursing may obtain their prerequisite courses at Maricopa Community Colleges. For information on courses that meet requirements for admission into a baccalaureate program, please contact a program advisor.

The Nurse Assisting Pathway
The Nurse Assisting Pathway is designed to prepare students to complete the Nurse Assistant Certification through the Arizona State Board of Nursing to practice in a health care agency as a certified nurse assistant. Completion of the nurse assistant program of study provides job-ready skills as a nursing assistant. Students may apply to the Nursing Program after completing the prerequisite courses and admission requirements.

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

Admission Criteria
Application and acceptance into the program, high school graduate or GED, and current Health Care Provider CPR Card are required before beginning courses.

All students must submit a copy of a Fingerprint Clearance Card with their application for the Maricopa Community College District Nursing Program.

Required Courses: Credits: 6

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR158</td>
<td>Nurse Assisting</td>
</tr>
</tbody>
</table>

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.

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.

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 Exercise Science and Personal Training
- Certificate of Completion in Nutrition for Fitness and Wellness

Program Director: Lori Zienkewicz
Contact: (480) 461-7379

The Associate in Applied Science (AAS) in Sustainable Food Systems is designed for a diverse student population, including those who are currently working within the food service industry and are interested in building upon their culinary skills in sustainable practices, as well as those with no culinary background. The program provides students with an overview of historical events that mark the Nation’s current food model, in addition to alternative methods for altering this model and creating more sustainable foods. Courses include concepts supporting the real food movement, which represents reeducating the individual and the community on the way food is purchased, brought to the table, and consumed. In addition, courses will cover basic nutrition, organic foods production, gardening concepts, food preparation laws and sanitation guidelines, basic principles, and preparation techniques for the cooking and baking process. The program also includes a Certificate of Completion (CCL) in Sustainable Food Systems. Major Code: 5158 Total Credits: 30-31

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.

Required Courses: Credits: 30-31
- Certificate of Completion in Sustainable Food Systems (5158)

Restricted Electives: Credits: 9-12

CAREER AND TECHNICAL PROGRAMS

AGS+++ Any AGS Agricultural Science course(s) except course(s) used to satisfy Required Courses area
CUL+++ Any CUL Culinary Arts Course(s) except course(s) used to satisfy Required Courses area
FON+++ Any FON Food and Nutrition Course(s) except course(s) used to satisfy Required Courses area

General Education: Credits: 18-22
First Year Composition
- +Met by ENG101 in the Required Courses area AND
- ENG102 First-Year Composition (3) OR
- ENG111 Technical Writing (3) 3

Oral Communication
- COMM100 Introduction to Human Communication (3) OR
- COM110 Interpersonal Communication (3) 3

Critical Reading
- CRE101 College Critical Reading (3) OR
- CRE111 Critical Reading for Business and Industry (3) OR Equivalent as indicated by assessment 0-3

Mathematics
- +MAT102 Mathematical Concepts/Applications (3) OR Satisfactory completion of a higher level mathematics course 3

Humanities and Fine Arts
- Any approved general education course in the Humanities and Fine Arts area 3

Social and Behavioral Sciences
- ECN211 Macroeconomic Principles (3) OR
- ECN212 Microeconomic Principles (3) 3

Natural Sciences
- BIO105 Environmental Biology (4) OR
- CHM107 Chemistry and Society (3) 3

The Certificate of Completion (CCL) in Sustainable Food Systems program is designed for students who want to learn about historical events that mark the nation’s current food model and take part in creating solutions to alter this model to produce a more sustainable food system worldwide. Course topics include concepts covering basic nutrition, organic foods production, gardening concepts, food safety and security, food entrepreneurship, careers in the field of food and nutrition, sustainable food preparation practices, and food preparation laws for small-scale food businesses. Students may also earn certification in a national food service safety and sanitation program. An Associate in Applied Science (AAS) degree in Sustainable Food Systems is also available. Major Code: 5158 Total Credits: 30-31

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

Admission Criteria
Formal application and admission into the Sustainable Food Systems program is required. Applications are available from a program advisor.

Program Prerequisites: Credits: 3
- +ENG101 First-Year Composition 3

Required Courses: Credits: 21
- AGS182 Gardening Practices and Techniques 2
- FON100 Introductory Nutrition 3
- FON104 Certification in Food Service Safety and Sanitation 1
- FON143 Food and Culture 3
- FON161 Sustainable Food Production Systems 3
- FON162 Organic Foods Production 3
- FON163 Sustainable Restaurant Practices 3
- FON285 Food and Nutrition Studies Internship 3
**Required Courses: Credits: 36-39**

- EXS101  Introduction to Exercise Science, Kinesiology, and Physical Education 3
- EXS112  Professional Applications of Fitness Principles 3
- EXS125  Introduction to Exercise Physiology 3
- EXS130  Strength Fitness: Physiological Principles and Training Techniques 3
- EXS132  Cardiovascular Fitness: Physiological Principles and Training Techniques 3
- 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 FON105  Nutrition Principles for Fitness Professionals (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

**Restricted Electives: Credits: 6-7**

- AGS260  Origin and Composition of Soils 4
- CUL105  Principles and Skills for Professional Cooking 3
- CUL113  Commercial Baking Techniques 3
- FON165  Food Entrepreneurship 3
- PHI216  Environmental Ethics (3) OR SUS100  Introduction to Sustainability (3) OR SUS110  Sustainable World (3) 3

**The Associate of Applied Science (AAS) in Exercise Science 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, the National Academy of Sports Medicine (NASM) personal trainer certification and the American Council on Exercise (ACE) personal trainer certification. The curriculum is designed to strengthen students’ educational background in fitness and nutrition potentially increasing their marketability in these fields. 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 may also find this program appropriate. Major Code: 3059 Total Credits: 64-72

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

**Restricted Electives: Credits: 6**

Choose a total of six (6) credits from EXS, FON, HES, SPM, and/or WED courses except courses used to satisfy Required Courses area

- EXS+++++  Any EXS Exercise Science courses
- FON+++++  Any FON Food and Nutrition courses
- HES+++++  Any HES Health Science courses
- SPM+++++  Any SPM Sports Management
- WED+++++  Any WED Wellness Education courses

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

**First Year Composition**

- ENGI01  First Year Composition (3) AND ENGI02  First Year Composition (3) OR ENGI07  First-Year Composition for ESL (3) AND ENGI08  First-Year Composition for ESL (3) 6

**Oral Communication**

- COM225  Public Speaking 3

**Critical Reading**

- CREI01  College Critical Reading 0-3

**Mathematics**

- Any approved general education course from the Mathematics area except MAT102
- 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) OR +BIO156  Introductory Biology for Allied Health (4) OR +BIO181  General Biology (Majors) I (4) 4

**The Certificate of Completion (CCL) in Nutrition for Fitness and Wellness** program is designed to provide personal trainers 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: 22

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

**Required Courses: Credits: 22**

- EXS101  Introduction to Exercise Science, Kinesiology, and Physical Education 3
- EXS125  Exercise Science 3
- EXS130  Strength Fitness-Physiological Principles and Training Techniques 3
- FON100  Introductory Nutrition (3) OR FON4+++++  Any equivalent FON Food and Nutrition course (3) 3
- FON125  Introduction to Professions in Nutrition and Dietetics 1
- FON230  Nutrition for Special Populations 3
- FON247  Weight Management Theory 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
- Certificate of Completion in Real Estate: Prelicense

Program Director: John Beshk
Contact: (480) 461-7715

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: 60-66

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

**Required Courses: Credits: 24-25**

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<td>CIS105</td>
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<td>PSY230</td>
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<td>TQM101</td>
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<td>TQM240</td>
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<td>+Any approved General Education course in First Year Composition</td>
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**Restricted Electives: Credits: 9-14**

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<td>MKT271</td>
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**General Education: Credits: 22-27**

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<tr>
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<td>+Any approved General Education course in the Oral Communication area</td>
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**Critical Reading**

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<td>CME101</td>
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<tr>
<td>Critical Reading</td>
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**Mathematics**

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<th>Course</th>
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<tr>
<td>Statistics for Real Estate Appraisers</td>
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<tr>
<td>Introduction to Statistics</td>
<td>3-5</td>
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<tr>
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<tr>
<td>Statistics for Real Estate Appraisers</td>
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**Humanities and Fine Arts**

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<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>Any approved general education course in the Humanities and Fine Arts Area</td>
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**Natural Sciences**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Statistics for Real Estate Appraisers</td>
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</tbody>
</table>

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: 30-31

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

**Required Courses: Credits: 30-31**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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**Communication area**

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**Mathematics**

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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

- REA179 Real Estate Principles I 3
- REA270 Basic Appraisal Principles 2
- +REA271 Basic Appraisal Procedures 2
- +REA272 Uniform Standards of Professional Appraisal Practice (USPAP) 1
- REA273 Residential Market Analysis Highest and Best Use I 1
- REA274 Residential Appraiser Site Valuation and Cost Approach 1
- +REA275 Residential Sales Comparison and Income Approaches 2
- REA276AA Residential Report Writing and Case Studies I 1
- REA277 Statistics, Modeling and Finance 1
- REA278 Advanced Residential Applications and Case Studies 1

The Certificate of Completion (CCL) in Real Estate prepares students to become accredited financial planners. The program emphasizes tax and investment management, securities, insurance, pension plans, and real estate. Completion of the certificate and several years of related experience qualify the students to sit for the national Certified Financial Planner (CFP) exam, administered by the International Board of Standards and Practices for Certified Financial Planners, Inc. (IBCFP). Major Code: 5653 Total Credits: 18

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

Required Courses: Credits: 18

- REA179 Real Estate Principles I 3
- REA180 Real Estate Principles II 3
- +REA281 Principles of Real Estate Law 3
- +REA282 Real Estate Finance (3) OR +REA285 Real Estate Selling (3) 3
- +REA283 Property Management (3) AND +REA288 Real Estate Investment Strategy (3) OR +REA289AH Real Estate Seminar: Contract Writing 0.5
- REA270 Basic Appraisal Principles (2) AND REA273 Residential Market Analysis Highest and Best Use (1) AND REA274 Residential Appraiser Site Valuation and Cost Approach (1) 6

The Certificate of Completion (CCL) in Residential Appraiser Site Valuation and Cost Approach prepares students for entry-level employment as a trainee in Real Estate Appraisal. Licensed appraisal students will gain entry level knowledge in the field of appraisal. Upon completion, students will have completed the necessary education requirements designated by the National Appraisal Qualification Board. Major Code: 5619 Total Credits: 15

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

Required Courses: Credits: 15

- REA179 Real Estate Principles I 3
- REA270 Basic Appraisal Principles 2
- +REA271 Basic Appraisal Procedures 2
- +REA272 Uniform Standards of Professional Appraisal Practice (USPAP) 1
- REA273 Residential Market Analysis Highest and Best Use I 1
- REA274 Residential Appraiser Site Valuation and Cost Approach 1
- +REA275 Residential Sales Comparison and Income Approaches 2
- REA276AA Residential Report Writing and Case Studies I 1
- REA277 Statistics, Modeling and Finance 1
- REA278 Advanced Residential Applications and Case Studies 1

The Certificate of Completion (CCL) in Real Estate: Prelicense program is designed to prepare students with the minimum coursework required by the state of Arizona for eligibility to take the state’s real estate salesperson’s license exam. Major Code: 5653 Total Credits: 6.5

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

Admission Criteria:
- High school diploma or GED or equivalency.
- Current ASSET/COMPASS/ACCUPLACER placement tests reflecting eligibility for the following:
- CRE101 College Reading OR Equivalent
- ENG101 First-Year Composition OR
- ENG107 First-Year Composition for ESL or Equivalent
- MAT102 Mathematical Concepts/Applications OR
- Completion of higher level mathematics course OR
- GBS131 Business Calculations

Required Courses: Credits: 6.5

- REA179 Real Estate Principles I (3) AND +REA180 Real Estate Principles II (3) OR REA201 Real Estate Principles I and II (6) 6
- +REA290AH Real Estate Seminar: Contract Writing 0.5

Veterinary Technology Degree

- Associate in Applied Science in Veterinary Technology

Department Chairperson: Bob Bonura
Contact: (480) 461-7173
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 paraprofessionals to veterinarians, biomedical researchers, other scientists, and animal control and humane organizations. Instruction includes practical clinical internship experience in veterinary emergency, large-animal, small-animal, and specialty practices, as well as in zoos, laboratories, humane societies, and other facilities. Major Code: 3015 Total Credits: 78

Program Notes: Students must earn a grade of “C” or better in all program prerequisite and required courses.

Admission Criteria:
- High school graduation or GED equivalency.
- Completion of program prerequisites.
- Formal application and admission to the Veterinary Technology/Animal Health program.

Program Prerequisites: Credits: 23-25

- ANS110AA Introduction to Animal Science 3
- BIO181 General Biology (Majors) I 4
- CHM130 Fundamental Chemistry (3) AND +CHM130LL Fundamental Chemistry Laboratory (1) 4
- +CRE101 College Critical Reading (3) OR equivalent as indicated by assessment 3
- +ENG101 First Year Composition (3) OR +ENG107 First Year Composition for ESL (3) OR +ENG102 First Year Composition (3) OR +ENG108 First Year Composition for ESL (3) OR +ENG111 Technical Writing (3) 3
- +MAT120 Intermediate Algebra (5) OR +MAT121 Intermediate Algebra (4) OR +MAT122 Intermediate Algebra (3) 3-5

Required Courses: Credits: 43

- AGB132 Agribusiness Accounting and Office Management 3
- AGB139 Agribusiness Computer Operations 3
- +ANH200 Veterinary Clinical Pathology 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
+BI0240 General Genetics 4
+BI0280 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.

Program Prerequisites: Credits: 3
GTC107  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
WLD106  Arc Welding 5
+WLD206 Advanced Weld - Heliarc and Wire Feed 5
+WLD208 Advanced Arc Welding - Certification 5
WLD225  Welding Inspection and Quality Control 3
Restricted Electives: Credits: 3-5
DFT+++++ Any DFT prefixed course(s) except courses used to satisfy Required Courses area
GTC+++++ Any GTC prefixed course(s) except courses used to satisfy Required Courses area
QCT+++++ Any QCT prefixed course(s)
WLD+++++ Any WLD prefixed course(s) except courses used to satisfy Required Courses area

General Education: Credits: 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)

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 by assessment.

Mathematics
- Met by GTC108 in “Required Course” area.

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 Leadership and Group Relations recommended.

Natural Sciences
- Any approved General Education course from the Natural Sciences Area

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
- GTC107 Technical Mathematics I (3) OR Satisfactory score on Technical Mathematics placement test

Required Courses: Credits: 27
- DFT110 Technical Drafting I
- GTC216 Properties of Materials
- WLD101 Welding I
- WLD106 Arc Welding
- +WLD206 Advanced Welding - Heliarc and Wire Feed
- +WLD208 Advanced Arc Welding - Certification
- +WLD225 Welding Inspection and Quality Control
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<td>REA</td>
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<td>REC</td>
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<td>REL</td>
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<td>RUS</td>
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<tr>
<td>SBS</td>
<td>Small Business Management</td>
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<td>SBU</td>
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<td>SCT</td>
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<td>SOC</td>
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<td>SPA</td>
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<td>SPM</td>
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<tr>
<td>SSB</td>
<td>Sustainability/Social Sciences and Humanities</td>
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<tr>
<td>STO</td>
<td>Storytelling</td>
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<tr>
<td>SUS</td>
<td>Sustainability/Natural Sciences</td>
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<tr>
<td>SWU</td>
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<tr>
<td>TEC</td>
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<tr>
<td>THE</td>
<td>Theatre-Performing Arts</td>
<td>285</td>
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<td>THP</td>
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<td>TQM</td>
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<td>WED</td>
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<td>WLD</td>
<td>Welding</td>
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<tr>
<td>WST</td>
<td>Women’s Studies</td>
<td>287</td>
</tr>
</tbody>
</table>
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.

ACC211 3 Credits 3 Periods
Financial Accounting
Introduction to theory and practice in the preparation and interpretation of general purpose financial statements. Prerequisites: None.

ACC212 3 Credits 3 Periods
Managerial Accounting
Development and analysis of accounting information for managerial planning and control. Prerequisites: A grade of 'C' or better in (ACC111 and ACC112), or ACC211, and (CIS105 or permission of Department or Division).

ACC221 3 Credits 3 Periods
Tax Accounting
Preparation of and accounting procedures for individuals; introduction to partnerships and corporate tax structures. Prerequisites: ACC111 or ACC211 or permission of Department or Division.

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.

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
Special Projects (See Page 280)

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, officership and professionalism. Prerequisites: None.

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.
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.

AFR203 3 Credits 3 Periods
African-American History: The Slavery Experience
History and cultural heritage of African-Americans, including arrival in the Americas, chattel slavery experience, emancipation, and participation in the American Civil War. Presented from an Afro-centric perspective. Prerequisites: AFR110, or permission of instructor.

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.

AGB298 1-3 Credits
Special Projects (See Page 280)

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.

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  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  Grounds Equipment Management
Selection, use and maintenance of grounds equipment, including both manual and power equipment. Prerequisites: None.

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

AGS183  Urban Plant Identification And Use
Identification, growth, cultural requirements, uses, maintenance, and care of landscape trees, shrubs, vines and ground covers commonly used in Arizona. Prerequisites: None.

AGS186  Greenhouse Management And Construction
Principles and practices of greenhouse operation; control of environmental factors and cultural practices affecting the production of greenhouse crops. Prerequisites: None.

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

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

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

AGS262  Irrigation Design, Installation, Operation, And Trouble Shooting
Design, installation, maintenance and trouble shooting of sprinklers, drip, and flood systems. Use of time clocks, pumps, filters, backflow devices, and other equipment to deliver water to the landscape. Types of water and their use in the landscape. Prerequisites: (AGS164 and AGL189) or permission of Instructor.

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

AGS282  Service-Learning Experience in Agriculture
Unpaid Service-Learning (SL) experience, completed with approved community partner. Prerequisites: Permission of Instructor. AGS282 may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.

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

AGS285  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  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  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 (See Page 280)

AHU – Arabic Humanities

AHU245  Arabic Culture and Islam
A survey of Arab heritage in the Arab world (Middle East). Cultural and social institutions and their contribution to the development of the region and its heritage. Prerequisites: None.

AIS - American Indian Studies

AIS101  Survey of American Indian Issues
Introduction to critical issues related to American Indian peoples. Examines cultural, political, economic, educational, social, and environmental issues. Focuses on contemporary issues and factors influencing American Indian communities. Prerequisites: None.
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Periods</th>
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</thead>
<tbody>
<tr>
<td>AIS105</td>
<td>Introduction to American Indian Studies</td>
<td>3</td>
<td>3 Periods</td>
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<tr>
<td>AJS101</td>
<td>Introduction To Criminal Justice</td>
<td>3</td>
<td>3 Periods</td>
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<tr>
<td>AJS107</td>
<td>Patrol Procedures</td>
<td>3</td>
<td>3 Periods</td>
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<tr>
<td>AJS109</td>
<td>Substantive Criminal Law</td>
<td>3</td>
<td>3 Periods</td>
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<tr>
<td>AJS112</td>
<td>Wellness for Law Enforcement Officers</td>
<td>3</td>
<td>3 Periods</td>
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<tr>
<td>AJS113</td>
<td>Evidence Technology/Fingerprints</td>
<td>3</td>
<td>3 Periods</td>
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<tr>
<td>AJS119</td>
<td>Computer Applications In Justice Studies</td>
<td>3</td>
<td>4 Periods</td>
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<tr>
<td>AJS123</td>
<td>Ethics And The Administration Of Justice</td>
<td>3</td>
<td>3 Periods</td>
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<tr>
<td>AJS151</td>
<td>Firearms I</td>
<td>1</td>
<td>1 Period</td>
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<tr>
<td>AJS152</td>
<td>First Aid</td>
<td>3</td>
<td>3 Periods</td>
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<tr>
<td>AJS153</td>
<td>Firearms II/Handguns</td>
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<td>1 Period</td>
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<tr>
<td>AJS154</td>
<td>Firearms III/Long Weapons</td>
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</table>

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

**AIS110 Navajo Government**
Addresses and examines major historical developments of the Navajo People with a focus on government, law, society, livelihood, tradition, and culture. Includes the major components and operation of Navajo government and related tribal laws, such as Title II and Title VII of the Navajo Nation Code, as well as the significance of the Treaty of 1868. Federal Indian policies and their impact on Navajo society and government, the importance of federal and tribal citizenship and related federal and tribal laws, and the role of the Navajo clanship system and other relevant cultural concepts addressed. Prerequisites: None.

**AIS170 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 American Indian Religions**
An examination of the historical and cultural background of diverse lifeways and worldviews belonging to the peoples indigenous to the North American continent over time, including a study of modern day American Indian beliefs and practices. Prerequisites: ENG101 or ENG107 or equivalent.

**AJS101 Introduction To Criminal Justice**
An introduction to crime and society’s responses to it. Examines the nature and causes of crime, the criminal law, constitutional safeguards, and the organization and operation of the criminal justice system including the police, courts, jails, prisons, probation and parole departments, and community correction agencies. Covers the history of the criminal justice system, terminology and career opportunities. Prerequisites: None.

**AJS107 Patrol Procedures**
Specialized areas of the patrol function, including responding to crowds, riots, bomb threats, intoxication, hazardous materials, fires, and domestic disputes. Partially fulfills Arizona POST (Peace Officer Standards and Training) requirements for proficiency skills academy attendance. Prerequisites: None.

**AJS109 Substantive Criminal Law**
Covers philosophy of legal sanctions and historical development from the common law to modern American criminal law, classifications of crimes, elements of and parties to crimes, general definition of crimes, common defenses utilized. Includes specific offenses and the essential elements of each offense. Required in AJS curriculum. Prerequisites: None.

**AJS112 Wellness for Law Enforcement Officers**
The value of physical fitness in law enforcement and the basic elements of strength training, aerobic conditioning, flexibility, nutrition, and back injury prevention. Prerequisites: None.

**AJS113 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 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 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 Firearms I**
Moral aspects, legal provisions, safety precautions and restrictions covering the use of firearms, and the firing of sidearms and shotguns. Prerequisites: None.

**AJS152 First Aid**
Methods for providing emergency medical care to victims of accidents or illness and related safeguards. Includes legal and civil issues, basic functions and major organs of the human body, injury management, resuscitation, movement and extrication of victims. Prerequisites: None.

**AJS153 Firearms II/Handguns**
Advanced familiarization with handguns. Variations of basic shooting stance. Legal and moral repercussions of self-defense. Includes range practice. Prerequisites: AJS151 or permission of Instructor.

**AJS154 Firearms III/Long Weapons**
Familiarization with different types of long weapons and associated ammunition. Emphasis on safety techniques for use and storage of weapons. Limited use of range for practice. Prerequisites: None.
### Course Descriptions

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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td><strong>AJS162</strong></td>
<td>3</td>
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<tr>
<td>Domestic Violence</td>
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<tr>
<td>Examines the history and development of correctional theories and institutions. Prerequisites: None.</td>
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<tr>
<td><strong>AJS192</strong></td>
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<tr>
<td>Serial Killers And Mass Murderers</td>
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<tr>
<td>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.</td>
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<tbody>
<tr>
<td><strong>AJS198AB</strong></td>
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<tr>
<td>Special Topics in the Administration of Justice</td>
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<tr>
<td>Explores special topics related to the administration of justice with an emphasis on current issues. Prerequisites: None.</td>
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<tr>
<td><strong>AJS200</strong></td>
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<tr>
<td>Current Issues In Criminal Justice</td>
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<tr>
<td>Examines current issues, techniques and trends in the Criminal Justice System. Prerequisites: None.</td>
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<td><strong>AJS201</strong></td>
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<tr>
<td>Rules Of Evidence</td>
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<tr>
<td>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.</td>
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<tr>
<td><strong>AJS205</strong></td>
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<tr>
<td>Criminal Justice Report Writing</td>
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<td>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.</td>
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<tr>
<td><strong>AJS212</strong></td>
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<tr>
<td>Juvenile Justice Procedures</td>
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<tr>
<td>Examines the history and development of juvenile justice theories, procedures, and institutions. Prerequisites: None.</td>
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<tr>
<td><strong>AJS215</strong></td>
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<tr>
<td>Criminalistics: Physical Evidence</td>
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<tr>
<td>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.</td>
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<tr>
<td><strong>AJS216</strong></td>
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<td>3</td>
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<tr>
<td>Criminalistics: Biological Evidence</td>
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<tr>
<td>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.</td>
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<tr>
<td>Court Procedures</td>
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<tr>
<td>Study of procedures practiced by courts of general and original jurisdiction. Extensive use of mock and moot trial methods used to prepare students in legal research, case preparation and presentation, and adversary hearings. Prerequisites: None.</td>
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<tr>
<td><strong>AJS225</strong></td>
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<td>3</td>
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<tr>
<td>Criminology</td>
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<tr>
<td>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.</td>
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<tbody>
<tr>
<td><strong>AJS230</strong></td>
<td>3</td>
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<tr>
<td>The Police Function</td>
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<tr>
<td>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.</td>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td><strong>AJS241</strong></td>
<td>3</td>
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<tr>
<td>Police Photography</td>
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<tr>
<td>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.</td>
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<tr>
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<tbody>
<tr>
<td><strong>AJS258</strong></td>
<td>3</td>
<td>3</td>
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<tr>
<td>Victimology and Crisis Management</td>
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<tr>
<td>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.</td>
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<tr>
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<tbody>
<tr>
<td><strong>AJS260</strong></td>
<td>3</td>
<td>3</td>
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<tr>
<td>Procedural Criminal Law</td>
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<tr>
<td>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.</td>
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<tr>
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<tbody>
<tr>
<td><strong>AJS269AC</strong></td>
<td>1</td>
<td>1</td>
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<tr>
<td>Internship</td>
<td></td>
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<tr>
<td>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.</td>
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</tbody>
</table>
AJS270  Community Relations  3 Credits 3 Periods
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  Criminal Investigation I  3 Credits 3 Periods
Introduction to the theory of criminal investigation. Examines crime scene procedures, case preparation, interviewing, and basic investigative techniques. Prerequisites: None.

AJS282  Volunteerism For Administration Of Justice: A Service-Learning Experience  1-3 Credits 1-3 Periods
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  Theories Of Criminal Behavior  1 Credit 1 Period
Theories of human behavior and crime. Biological, sociological, and psychological approaches to the theories of criminal behavior. Prerequisites: None.

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

AJS290AW  Narcotics And Dangerous Drugs  1 Credit 1 Period
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.

AJS290BE  Probation And Parole  1 Credit 1 Period
Current issues in probation and parole, including sentencing, parole revocation, and administrative procedure. Prerequisites: None.

AJS290BH  Sex Crimes Investigation  1 Credit 1 Period
Investigative procedures employed by the police and courtroom procedures utilized by the prosecuting attorney in sex-related crimes. Prerequisites: None.

AJS290BU  Family Violence  1 Credit 1 Period
Family violence issues as they relate to the criminal justice response. Prerequisites: None.

AJS290BV  Victim Assistance  1 Credits 1 Periods
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.

ANH200  Veterinary Clinical Pathology Methods  3 Credits 6 Periods
Fundamental studies of laboratory techniques and procedures involved in evaluating veterinary clinical samples. Includes hematology, urinalysis, hemostasis, blood biochemistry and enzymology, serology, cytology, and parasitology. The veterinary technician’s role in sample collection, sample storage and handling, and performance of analytic procedures. Use of laboratory equipment, laboratory safety and management, and quality control. Prerequisites: (ANS223, BIO205, and admission to the second year of the Veterinary Technician/Animal program) or permission of Instructor.

ANH205  Clinical Veterinary Anatomy And Physiology  3 Credits 6 Periods
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.

ANH210  Animal Nursing  2 Credits 4 Periods
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.

ANH220  Animal Pharmacology  3 Credits 5 Periods
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.

ANH230  Veterinary Radiography And Imaging  3 Credits 6 Periods
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.
ANH240 Veterinary Anesthesia, Surgery, And Emergency Nursing
Veterinary surgical nursing skills associated with aseptic technique and proper protocol in the surgery suite. Pre- and post-op monitoring, record keeping, and client education skills. Procedures and techniques with intravenous and inhalation anesthetics, surgical asepsis, skin preparation, instrument sterilization techniques and monitoring veterinary patients for vital signs. Prerequisites: ANS112, ANH210, ANH220, and admission to the Veterinary Technician/Animal Health program.

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 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 Animal Science And Health Practices

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

ANS222LL Animal Anatomy And Physiology Laboratory
Laboratory experience in support of ANS222. Includes dissection of preserved animal specimens. Prerequisites: None. Corequisites: ANS222.
COURSE COURSE DESCRIPTIONS

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

ANS296  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.

ANS298  1-3 Credits
Special Projects (See Page 280)

APT - Automotive Performance Technology

APT101  2 Credits 2 Periods
Automotive Service Operations
Basic principles of working in an automotive service area. Management-employee relations, resume writing, interviewing, shop practices, flat-rate system, equipment care, and tools. Prerequisites: None.

APT111  3 Credits 3 Periods
Internal Combustion Engines Theory
Study of construction and operating principles of internal combustion engines and related lubrication, cooling, fuel, and electrical systems. Prerequisites: None.

APT121AA  3 Credits 3 Periods
Auto Transmission (General Motors)
The fundamentals and principles of automatic transmissions presently in use by General Motors Corporation automobiles. Diagnosis, service, and reconditioning procedures necessary to maintain these units. Prerequisites: None.

APT131  6 Credits 10 Periods
Automotive Power Trains
Designed for beginning automotive students. Operation, diagnosis, service, and repair of the automotive power train. Includes clutches, torque converters, standard and automatic transmissions and transaxles, front and rear drive axles, drive shafts, differentials and transfer case. Prerequisites: None.

APT141  6 Credits 10 Periods
Alignment, Steering, And Suspension
Designed for beginning automotive students. Fundamental principles of steering and suspension systems. Includes two-wheel and four-wheel alignment procedures. Emphasis on diagnosis, testing, service, and rebuilding. Prerequisites: None.

APT151  4 Credits 7 Periods
Automotive Brake Systems
Designed for beginning automotive students. Fundamentals of drum, disc, and ABS brakes. Includes training in diagnosis, testing, service, and repair. Prerequisites: None.

APT161  4 Credits 7 Periods
Auto Electrical/Electronic Systems I
Designed for beginning automotive students. The principle of electricity; the mathematical computations involved with Ohm’s Law; the use of meters; electrical schematics; the theory of electrical components as they relate to automobiles; the diagnosis, testing, service and repair of batteries, starting systems and charging systems, lighting systems and instrumentation. Prerequisites: None.

APT171  4 Credits 7 Periods
Automotive Air Conditioning
Designed for beginning automotive students. Theory and principles of ventilation, heating, automotive refrigeration, vacuum-electric controls, and automatic temperature control systems. Includes training in diagnosis, testing, service and repair. Prerequisites: None.

APT181  6 Credits 10 Periods
Engine Performance And Diagnosis I
Designed for beginning automotive students. Engine construction and operating principles, including lubrication, cooling, induction, exhaust, fuel, emission and ignition systems. Includes training in diagnosis, testing, service, and repair. Prerequisites: None.

APT262  6 Credits 6 Periods
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.

APT282  6 Credits 6 Periods
Engine Performance and Diagnosis II
Designed for the experienced engine performance student. Training in fuel systems, emission systems, distributorless ignition systems, turbocharging, computerized engine controls and engine driveability. Includes training in diagnosis, testing, service and repair. Prerequisites: APT181 or instructor permission.

ARB - Arabic

ARB101  4 Credits 5 Periods
Elementary Arabic I
Introduction to the basic alphabet, grammar, pronunciation and vocabulary of the Arabic language. Listening, speaking, reading and writing skills. Prerequisites: None.
### ARC - Architecture

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ARC100</td>
<td>Introduction To Environmental Design</td>
<td>3</td>
<td>6 Periods</td>
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<tr>
<td>ARC120</td>
<td>Introduction To Environmental Design</td>
<td>3</td>
<td>3 Periods</td>
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<tr>
<td>ARC140</td>
<td>Rendering And Portfolio Development</td>
<td>3</td>
<td>6 Periods</td>
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<tr>
<td>ARC161</td>
<td>Residential Architectural Drafting</td>
<td>3</td>
<td>6 Periods</td>
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<tr>
<td>ARC162</td>
<td>Advanced Residential Architectural Drafting</td>
<td>3</td>
<td>6 Periods</td>
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<tr>
<td>ARC163</td>
<td>Commercial Architectural Drafting</td>
<td>3</td>
<td>3 Periods</td>
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<tr>
<td>ARC164</td>
<td>Advanced Commercial Architectural Drafting</td>
<td>3</td>
<td>3 Periods</td>
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<tr>
<td>ARC165</td>
<td>Introduction To Architecture Professional Practice And Ethics</td>
<td>3</td>
<td>3 Periods</td>
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<tr>
<td>ARC225</td>
<td>Fundamentals of Architectural Detailing</td>
<td>3</td>
<td>3 Periods</td>
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<tr>
<td>ARC226</td>
<td>Advanced Architectural Detailing</td>
<td>3</td>
<td>3 Periods</td>
</tr>
<tr>
<td>ARC251</td>
<td>Introduction to Revit</td>
<td>3</td>
<td>6 Periods</td>
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<tr>
<td>ARC265</td>
<td>Sketchup I: Introduction to Sketchup</td>
<td>3</td>
<td>6 Periods</td>
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<tr>
<td>ARC282</td>
<td>Volunteerism For Architecture: A Service-Learning Experience</td>
<td>1-3</td>
<td>1-3 Periods</td>
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<tr>
<td>ARC290AC</td>
<td>Architecture Internship</td>
<td>3</td>
<td>3 Periods</td>
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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.

An introduction to architectural drawing and graphic representation methods. Using architectural drawings and graphic representations as visualization, and problem-solving methods. Emphasis on visual communication, and the application and development of the visual design via process as well as product. Prerequisites: None.

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.

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.

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.

### Additional Notes
- **ARC100** and **ARC120** are prerequisites for **ARC163** and **ARC164**.
- **ARC161** and **ARC162** can be repeated for a maximum of 15 credits.
- **ARC163** requires an Advanced Commercial Architectural Drafting course.
- **ARC164** builds upon the skills developed in **ARC163**.
- **ARC165** covers professional, legal, and ethical issues in architecture practice and services.
- **ARC225** and **ARC226** focus on advanced detailing of major construction materials.
- **ARC251** uses Revit Design Development tools.
- **ARC265** introduces Sketchup rendering software.
- **ARC282** offers service-learning opportunities.
- **ARC290AC** provides architecture internship experience.

**Prerequisites**
- **ARC100** requires CNS130 or ARC163 permission.
- **ARC165** requires CNS130 or CNS180 permission.
- **ARC225** requires CNS130 or CNS180, or permission of Department or Division.
- **ARC226** requires CNS130, or CNS180, or permission of Department or Division.
- **ARC251** requires permission of Department or Division.
- **ARC265** requires CNS130, or permission of Department or Division.
- **ARC282** requires permission of Department or Division.
- **ARC290AC** requires permission of Department or Division.

**Credits and Periods**
- **1 Credit per Period**
- **3 Credits per 6 Periods**
- **1-3 Credits per 1-3 Periods**

### Course Descriptions

#### Introduction To Environmental Design
A survey of design through historical evaluation of built environments and works of well-known architects. Principles, concepts, and skills associated with designs of actual and imagined ideas and things. Emphasis on social, technical, environmental, and theoretical forces that impact design. Prerequisites: None.

#### Introduction To Environmental Design
An introduction to architectural drawing and graphic representation methods. Using architectural drawings and graphic representations as visualization, and problem-solving methods. Emphasis on visual communication, and the application and development of the visual design via process as well as product. Prerequisites: None.

#### Rendering And Portfolio Development
Two-dimensional and three-dimensional drawings and rendering methods, including freehand and/or use of drawing tools for presentation of ideas. Techniques for use of pencil, ink, and colors. Professional formatting of portfolios. Prerequisites: None.

#### Residential Architectural Drafting
Basics of residential drafting and documentation topics and techniques. Includes preliminary planning and preparation for residential documentation; use of the local building codes and standards; complete drawing and annotation of a floor plan, reflected ceiling plan, roof plan, building sections, framing plan, and exterior elevations. Prerequisites: CNS130, or permission of Department or Division.

#### Advanced Residential Architectural Drafting
Advanced residential drafting and documentation topics and techniques. Includes site orientation, layout and legal description; window and door schedules; interior elevation of kitchen and bathrooms; advanced instruction on framing and structural detail methods; foundation systems, support and layout; and other needed residential details and layouts. Prerequisites: CNS130 and ARC161, or permission of Department or Division.

#### Commercial Architectural Drafting
Fundamental commercial drafting and documentation topics and techniques. Includes preliminary planning and preparation for commercial documentation; use of the local building codes and standards; building methods and materials of commercial structures; complete drawing and annotation of a floor plan, reflected ceiling plan, roof plan, building sections, and exterior elevations. Prerequisites: CNS130, or permission of Department or Division.

#### Advanced Commercial Architectural Drafting
Further development of advanced commercial drafting and documentation topics and techniques. Covers commercial building materials and methods, specifications, land drawings, foundation plans, interior elevations, and more details specific to commercial buildings. Prerequisites: (CNS130 and ARC163) or permission of Department or Division.

#### Introduction To Architecture Professional Practice And Ethics
Professional, legal, and ethical issues in architecture practice and services. Includes marketing issues, communications, standards, insurance and bonds, agreements, contracts and contractors, standard American Institute of Architecture (AIA) forms and conditions, selection of contractors, and bidding procedures. Prerequisites: None.

#### Fundamentals of Architectural Detailing
Introduction to construction/architecture detailing. Examines functional, construction-related, and aesthetic applications of detailing. Prerequisites: CNS130, or CNS180, or permission of Department or Division.

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

#### Introduction to Revit
Introduction to the use of Revit Design Development tools through the development of 3-D model(s) in working drawing and rendered formats. Includes completing a set of construction documents from creating walls, incorporating doors, windows, floor, stairs, etc. to adding views and annotation to various sheets and coordinating those sheets within the finished set. Prerequisites: None. Previous architectural and CAD experience strongly recommended.

#### Sketchup I: Introduction to Sketchup
Provides students with introductory-level instruction utilizing Sketchup rendering software for school and workplace applications. Addresses basic drawing/rendering commands, accessing external drawing files, and plotting through the creation of both three-dimensional schematic and rendered interior and exterior building views. Prerequisites: None. Previous CAD experience recommended but not required.

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

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

**ARC298**  
Special Projects (See Page 280)  
1-3 Credits

**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.

**ART106**  
Gallery Operations  
3 Credits 6 Periods  
Operation of an art gallery. Includes organization, publicity, evaluation of artwork, selection and installation of exhibits. May be repeated for a total of four credits. 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**  
Life Drawing II  
3 Credits 6 Periods  
Further study of form, structure, and anatomy of the draped and undraped human figure with emphasis on composition. Prerequisites: ART116.

**ART118**  
Art Anatomy  
3 Credits 6 Periods  
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**  
Drawing and Composition II  
3 Credits 6 Periods  
Emphasis on composition and exploration of drawing media. Prerequisites: ART111.

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

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

**ART133**  
Photography III  
3 Credits 6 Periods  
Refinement of aesthetic and technical aspects producing convincing images of highest quality. Prerequisites: ART121 or permission of Instructor. ART111 and ART116 recommended but not required.

**ART142**  
Introduction to Digital Photography  
3 Credits 6 Periods  
Fundamentals of digital photography. Includes camera operations, exposure techniques, introduction to digital output, and theory of digital photography. Prerequisites: None. Digital camera required.

**ART143**  
Intermediate Digital Photography  
3 Credits 6 Periods  
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.
ART150  
Digital Storytelling  
3 Credits 6 Periods  
Enables students to find and develop their personal stories. Emphasis on the use of digital technology to create, edit, produce and archive a digital story. Prerequisites: None.

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

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

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

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

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

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

ART169  
Two-Dimensional Computer Design  
3 Credits 6 Periods  
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  
Computer-Photographic Imaging  
3 Credits 6 Periods  
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  
Computer Aided Graphic Arts I  
3 Credits 6 Periods  
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  
Art of Web Site Design  
3 Credits 6 Periods  
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.

ART202  
Digital Arts Survey  
3 Credits 6 Periods  
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  
Aesthetics of Web Design  
3 Credits 6 Periods  
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  
Drawing and Composition III  
3 Credits 6 Periods  
Advanced development of drawing skill with emphasis on compositional theory. Prerequisites: ART122 or permission of Instructor.

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

ART217  
Life Drawing IV  
3 Credits 6 Periods  
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  
Drawing and Composition IV  
3 Credits 6 Periods  
Further study of drawing techniques with emphasis on individual problems and techniques. Prerequisites: ART211 or permission of Instructor.

ART255  
Art Marketing  
3 Credits 3 Periods  
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  
Ceramics III  
3 Credits 6 Periods  
Emphasis on wheel throwing skill and individual style development. Prerequisites: ART162.
### COURSE DESCRIPTIONS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Periods</th>
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<tr>
<td>ART262 Ceramics IV</td>
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<td>ART265 Watercolor Painting III</td>
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<td>ART268 Painting IV</td>
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<td>ART270 Intermediate Computer Photographic Imaging</td>
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<td>ART274 Advanced Computer Photographic Imaging</td>
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<td>ART290 Studio Art</td>
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<td>ART292 Service-Learning Experience in Art</td>
<td>1-3</td>
<td>Credits</td>
<td>1-3 Periods</td>
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<tr>
<td>ART295BC Art Workshop/Seminar: Sculpture</td>
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<tr>
<td>ART295DA Art Workshop/Seminar: Photography</td>
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<td>Credit</td>
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<tr>
<td>ART295DC Art Workshop/Seminar: Photography</td>
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<td>ART295GB Art Workshop/Seminar: Ceramics</td>
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<td>ASB100 Introduction to Global Health</td>
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<tr>
<td>ASB102 Introduction to Cultural and Social Anthropology</td>
<td>3</td>
<td>Credits</td>
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<tr>
<td>ASB202 Ethnic Relations in the United States</td>
<td>3</td>
<td>Credits</td>
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</table>
### ASB211  Women in Other Cultures
3 Credits 3 Periods
Cross-cultural analysis of the economic, social, political, and religious factors that affect women’s status in traditional and modern societies. Prerequisites: None.

### ASB214  Magic, Witchcraft and Healing: An Introduction to Comparative Religion
3 Credits 3 Periods
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  Anthropology Goes to the Movies
3 Credits 3 Periods
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  Buried Cities and Lost Tribes: Old World
3 Credits 3 Periods
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  Buried Cities and Lost Tribes: New World
3 Credits 3 Periods
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 life ways, 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  Human Impacts on Ancient Environments
3 Credits 3 Periods
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  Introduction to Archaeological Field Methods
4 Credits 8 Periods
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  Southwest Archaeology
3 Credits 3 Periods
Anthropological perspective and comparative study of the cultures of prehistoric native peoples of the North American southwest. Prerequisites: None.

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

### ASB253  Death and Dying Across Cultures
3 Credits 3 Periods
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  Service-Learning Experience in Anthropology
1-3 Credits 1-3 Periods
Unpaid Service-Learning (SL) experience, completed with approved community partner. Prerequisites: Permission of Instructor. ASB282 may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.

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### ASM - Anthropology: Science/Mathematics

#### ASM104  Bones, Stones, and Human Evolution
4 Credits 5 Periods
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.

#### ASM265  Laboratory Methods in Archaeology
4 Credits 4 Periods
Techniques of artifact. Basic archaeological research techniques; methods of report writing. Prerequisites: None.

#### ASM275  Introduction to Forensic Anthropology
3 Credits 3 Periods
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.
<table>
<thead>
<tr>
<th>COURSE COURSE DESCRIPTIONS</th>
</tr>
</thead>
</table>

**ASM282**  
1-3 Credits 1-3 Periods  
Service-Learning Experience in Anthropology  
Unpaid Service-Learning (SL) experience, completed with approved community partner. Prerequisites: Permission of Instructor. ASM282 may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.

**AST – Astronomy**

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<td>AST111</td>
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<td>3</td>
<td>Introduction to Solar System Astronomy</td>
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<tr>
<td>AST112</td>
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<td>Introduction to Stars, Galaxies, and Cosmology</td>
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<tr>
<td>AST113</td>
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<td>Introduction to Solar System Astronomy Laboratory</td>
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<td>AST114</td>
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<td>Introduction to Stars, Galaxies, and Cosmology Laboratory</td>
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**ATP – AUTOMATION TECHNOLOGY**

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<td>ATP101</td>
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<td>Introduction to Automated Systems and Robotics</td>
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<td>ATP105</td>
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<td>Engineering Documentation</td>
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<td>ATP130</td>
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<td>DC Circuit Analysis</td>
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<td>ATP135</td>
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<td>AC Circuit Analysis</td>
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<td>ATP150</td>
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<td>Fluid Power 1 – Hydraulics, Pneumatics, and Vacuum Concepts</td>
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<tr>
<td>ATP160</td>
<td>2</td>
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<td>Programmable Logic Controllers 1 – Introduction to Ladder Logic</td>
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<tr>
<td>ATP175</td>
<td>2</td>
<td>3</td>
<td>Introduction to Motors and Motor Controls</td>
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<tr>
<td>ATP180</td>
<td>2</td>
<td>3</td>
<td>Programmable Logic Controllers 2 - Human-Machine Interfaces and Function Block Programming</td>
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<tr>
<td>ATP215</td>
<td>2</td>
<td>3</td>
<td>Digital and Analog Circuits</td>
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<tr>
<td>ATP251</td>
<td>2</td>
<td>3</td>
<td>Fluid Power 2 – Automation Applications</td>
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</table>

**AUT - Automotive Technology**

<table>
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<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Course Title</th>
<th>Prerequisites</th>
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<td>AUT097</td>
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<td>General Automotive Maintenance</td>
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<tr>
<td>AUT270AC</td>
<td>3</td>
<td>3</td>
<td>Automotive Technology Internship</td>
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</tbody>
</table>

1 Credits 1-3 Periods  
Service-Learning Experience in Anthropology  
Unpaid Service-Learning (SL) experience, completed with approved community partner. Prerequisites: Permission of Instructor. ASM282 may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.

**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.

**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.

**ATP175**  
2 Credits 3 Periods  
Introduction to Motors and Motor Controls  
Introduction to direct current and alternating current (AC) motors, types of direct current and alternating motors. Prerequisites: None.

**ATP180**  
2 Credits 3 Periods  
Programmable Logic Controllers 2 - Human-Machine Interfaces and Function Block Programming  
Principles and applications of Programmable Logic Controls (PLC’s). Control strategies, and ladder logic. Basic automation functions and operations to include programming, troubleshooting and maintenance. Application of PLC programming, operations and troubleshooting skills. Prerequisites: ATP130 and ATP135.

**ATP215**  
2 Credits 3 Periods  
Digital and Analog Circuits  
Introduction to the characteristics and design of basic analog and digital circuits and their application to controlling complex systems. Prerequisites: ATP130 and ATP135, or permission of instructor.

**ATP251**  
2 Credits 3 Periods  
Fluid Power 2 – Automation Applications  
Application of the basic Fluid Power principles of Hydraulics, Pneumatics, and Vacuum to the control of automated systems used to produce products through the application of discrete and hybrid electromechanical systems. Prerequisites: ATP150 or permission of instructor.

**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, or AUT270AB, or AUT270AC. Prerequisites: Permission of Department or Division.
## Course Descriptions

**BIO - Biology**

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<tr>
<th>Course Code</th>
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<tr>
<td>BIO100</td>
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<tr>
<td><strong>Biology Concepts</strong></td>
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<td>BIO105</td>
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<td><strong>Environmental Biology</strong></td>
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<td>BIO107</td>
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<td>BIO108</td>
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<td>BIO109</td>
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<td><strong>Microbes and Society</strong></td>
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<td><strong>Marine Biology</strong></td>
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<td>BIO149AH</td>
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<tr>
<td><strong>Field Biology: Marine Biology in Mexico</strong></td>
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</table>

**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.

**AUT298** 1-3 Credits

**Special Projects (See Page 280)**

On-site field experience in Mexico. Emphasis on observation and study of marine organisms along the shore. Prerequisites: Permission of Instructor.

**BIO149AM** 3 Credits 21 Periods

**Field Biology: Ecological and Environmental Field Experience**

Field expeditions in which ecological and environmental principles and concepts are observed and studied. 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.

**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.
COURSE DESCRIPTIONS

BIO212AA  5 Credits 6 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 6 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.

BIO212AC  5 Credits 6 Periods  
Biotechnology III  
Intensive introduction to biotechnology, including techniques for working with proteins, especially antibodies. Testing for presence of and purifying antibodies. Techniques for working with eukaryotic cells. Prerequisites: BIO212AB.

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.

BIO282  1-3 Credits 1-3 Periods  
Service-Learning Experience in Biology  
Unpaid Service-Learning (SL) experience, completed with approved community partner. Prerequisites: Permission of Instructor. BIO282 may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.

BIO298  1-3 Credits  
Special Projects (See Page 280)

BLT - Building Safety and Construction Technology

BLT121  3 Credits 3 Periods  
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.

BLT127  3 Credits 3 Periods  
Plumbing Codes  
Code requirements and construction practices. Topics include underground and above ground plumbing, venting and finish plumbing. Prerequisites: None.

BLT140  3 Credits 3 Periods  
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 Credits 3 Periods  
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

BPC100AA 0.5 Credit 0.5 Period
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 Credit 0.5 Period
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 Credit 2 Periods
Computing Fundamentals
Fundamental computer concepts and terminology for business and personal computers. Prerequisites: None.

BPC100BD 1 Credit 1 Period
Key Software Applications
Covers basic features of software applications for business and personal computers. Prerequisites: None.

BPC100CD 1 Credit 1 Period
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 Credits 4 Periods
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 Credit 2 Periods
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 Credit 2 Periods
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 Credit 0.5 Period
MS Outlook: Level I
Messaging and word processing functions of a Microsoft Outlook electronic work state. Prerequisites: None.

BPC106BH 0.5 Credit 0.5 Period
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 Credits 4 Periods
Computer Usage And Applications
Introduction to business and personal computer operations and usage. Software applications for analyzing and solving business problems including word processing, spreadsheet, database, and presentation graphics. Prerequisites: None.

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: A+ Exam Prep Level I
Explore technical aspects of personal computers, including system components, installation, system configuration, peripheral devices, and notebooks. Emphasis placed on proper usage of tools, safety procedures, and professionalism. Helps prepare students for the CompTIA A+ examinations. 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: A+ Exam Prep Level II
Explore advanced technical aspects of maintaining and servicing computers. Emphasis placed on installation, maintenance, mobile devices, security, troubleshooting, and resolving various computer problems. Helps prepare students for the CompTIA A+ examinations. 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.

CFS - Child/Family Studies

CFS101  1 Credit 1 Period
Art Activities For The Young Child
The creative use of art media and techniques at appropriate developmental levels. Prerequisites: None.

CFS101AJ  1 Credit 1 Period
Music Activities For The Young Child
Experiences with music in singing, rhythm instruments, creative movements, and games, as well as the development of music appreciation and basic listening skills. Prerequisites: None.

CFS123  1 Credit 1 Period
Health And Nutrition In Early Childhood Settings
Creating and maintaining healthy environments and practices in programs serving young children. Emphasis on assessing the child’s health status; nutrition and food service; communicable disease recognition, transmission, and prevention; infection control; regulations and regulatory agencies; and current topics, resources, and innovative practices. Prerequisites: None.

CFS125  1 Credit 1 Period
Safety In Early Childhood Settings
Fundamental concepts of promoting a safe, but challenging learning environment. 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  3 Credits 3 Periods
Marriage And Family Life
Study of marriage and the family as a social system, including models of family analysis, intra- and interpersonal relations, and cross-cultural and historical patterns. Prerequisites: None.

CFS176  3 Credits 3 Periods
Child Development
Study of the science of human development from conception through adolescence. Includes observation skills, parent and adult roles in the lives of children, and contemporary issues. Prerequisites: None.

CFS179  1 Credit 1 Period
Child Care: A Multifaceted Career
Overview of the child care field. Focus on enhancing children’s self esteem, providing for children’s nutritional needs, and developing adequate safety and sanitation practices. Prerequisites: None.

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHI101</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Elementary Chinese (Mandarin) I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHI102</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Elementary Chinese (Mandarin) II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Study of grammar and vocabulary along with the study of Chinese culture. Emphasis on pronunciation and speaking skills. Prerequisites: CHI101 or equivalent.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHI115</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Beginning Chinese Conversation I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHI201</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Intermediate Chinese I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continued development of speaking, reading, and writing proficiency in Mandarin Chinese through building vocabulary, phrases, idioms, and grammatical patterns. Includes study of Chinese culture. Prerequisites: CHI102 or equivalent or permission of instructor.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHI202</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Intermediate Chinese II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advanced development of speaking, reading, and writing skills in Mandarin Chinese, and continued exploration of Chinese culture. Prerequisites: CHI201 or equivalent or permission of instructor.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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 
Fundamental Biochemistry Laboratory
Laboratory experience in support of CHM152. Prerequisites: CHM151LL or permission of Instructor. Prerequisites or Corequisites: CHM152.

CHM230 
Fundamental Organic Chemistry
Chemistry of representative groups of organic compounds, emphasizing biological applications. CHM230 course content is designed to meet the needs of students in such areas as agriculture, home economics, nursing, pre-physician assistant, and physical education among others. Prerequisites: (CHM130 and CHM130LL), or (CHM150 or CHM151 and CHM151LL). Completion of (CHM130 and CHM130LL) or (CHM150 or CHM151 and CHM151LL) within the last two years recommended.

CHM230LL 
General Chemistry II Laboratory
Laboratory experience in support of CHM152. Prerequisites: CHM153LL, or CHM155LL, or equivalent. Prerequisites or Corequisites: CHM152.

CHM235 
General Organic Chemistry I
Rigorous introduction to chemistry of carbon-containing compounds. Reaction mechanisms and recent methods of synthesis emphasized. Prerequisites: CHM152 and CHM152LL, or CHM154 and CHM154LL. Completion of (CHM152 and CHM152LL) or (CHM154 and CHM154LL) within the last two years recommended.

CHM235LL 
General Organic Chemistry I Laboratory
Laboratory experience in support of CHM235. Prerequisites: CHM152LL, or CHM154LL, or equivalent. Corequisites: CHM235.

CHM236 
General Organic Chemistry IIA
Study of chemistry of carbon-containing compounds continued. Structural determination and additional reaction mechanisms and modern methods of synthesis emphasized. Prerequisites: CHM235 and CHM235LL. Completion of CHM235 and CHM235LL within the last two years recommended.

CHM236LL 
General Organic Chemistry IIA Laboratory
Laboratory experience in support of CHM236. Prerequisites: CHM235LL or equivalent. Corequisites: CHM236.

CHM260 
Fundamental Biochemistry
Structures, properties, and functions of proteins, enzymes, nucleic acids, carbohydrates and lipids; the utilization and synthesis of these materials by living systems and the relationship of the processes to energy production and utilization. Designed for students in agriculture, dental hygiene, home economics, nursing, and physical therapy. Prerequisites: CHM230 and CHM230LL, or CHM236 and CHM236LL, or CHM238 and CHM238LL. Completion of CHM230 and CHM230LL, or CHM236 and CHM236LL, or CHM238 and CHM238LL within the last two years recommended.

CHM260LL 
Fundamental Biochemistry Laboratory
Laboratory experience in support of CHM260. Prerequisites: CHM230 and CHM230LL or permission of Instructor. Corequisites: CHM260.

CHM298 
Special Projects (See Page 280)
1-3 Credits

CIS - Computer Information Systems

CIS100 
Internet: A Tool For Learning
Use of the Internet to promote learning. Focus on Internet services and access. Information provided on browsing, Internet addresses, naming conventions, search concepts and techniques, using bookmarks and capturing information. Prerequisites: None.

CIS103 
Introduction to Social Media
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.

CIS105 
Survey of Computer Information Systems
Overview of computer technology, concepts, terminology, and the role of computers in society. Discussion of social and ethical issues related to computers. Use of word processing, spreadsheet, database, and presentation software. Includes programming and use of the Internet. Exploration of relevant emerging technologies. Prerequisites: None.

CIS107 
The Electronic Game Industry
Introduction to the electronic game industry, including history, market, distribution and publishing channels, business models, team roles, and career landscape. Technical topics covered include software engineering, artificial intelligence, game physics, computer graphics, and networking. Prerequisites: CIS105 or permission of Instructor.

CIS108 
Electronic Portfolio Development
Compile, reflect on, and select prior learning experiences and artifacts. Design, produce, and publish an online portfolio that documents prior learning. Includes techniques for presenting the electronic portfolio for evaluation. Prerequisites: CIS105 or BPC110 or permission of Instructor.

CIS113AE 
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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS113BE</td>
<td>1</td>
<td>1.3</td>
<td>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.</td>
</tr>
<tr>
<td>CIS113CE</td>
<td>1</td>
<td>1.4</td>
<td>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: CIS113BE.</td>
</tr>
<tr>
<td>CIS114AE</td>
<td>1</td>
<td>2</td>
<td>Excel: Level I Computer spreadsheet skills for solving business problems using Excel, including calculations, forecasting, and projections. Prerequisites: None.</td>
</tr>
<tr>
<td>CIS114BE</td>
<td>1</td>
<td>2</td>
<td>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.</td>
</tr>
<tr>
<td>CIS114CE</td>
<td>1</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>CIS114DE</td>
<td>3</td>
<td>5</td>
<td>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.</td>
</tr>
<tr>
<td>CIS117AM</td>
<td>1</td>
<td>2</td>
<td>Database Management: Microsoft Access – Level I Introduction to the basic elements of current version of the Microsoft Access database management program, for casual and beginning users. Prerequisites: None.</td>
</tr>
<tr>
<td>CIS117BM</td>
<td>1</td>
<td>2</td>
<td>Database Management: Microsoft Access–Level II Exploration of additional components of the Microsoft Access database management program. Prerequisites: CIS117AM or permission of Instructor.</td>
</tr>
<tr>
<td>CIS117CM</td>
<td>1</td>
<td>2</td>
<td>Database Management: Microsoft Access–Level III Application of the features of the Microsoft Access program to some common database management problems. Prerequisites: NCIS117BM.</td>
</tr>
<tr>
<td>CIS117DM</td>
<td>3</td>
<td>5</td>
<td>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.</td>
</tr>
<tr>
<td>CIS118AB</td>
<td>1</td>
<td>2</td>
<td>PowerPoint: Level I Use of PowerPoint software to produce professional-quality presentation visuals. Prerequisites: None.</td>
</tr>
<tr>
<td>CIS118BB</td>
<td>1</td>
<td>2</td>
<td>PowerPoint: Level II Use of PowerPoint software add movement and sound to desktop presentations to enhance audience attention. Prerequisites: CIS118AB.</td>
</tr>
<tr>
<td>CIS120DA</td>
<td>3</td>
<td>4</td>
<td>Introduction to Digital Video Editing: Adobe Premiere Foundations of video import, export, and editing. Includes parts and function of a video camera, preproduction and production, incorporating photographs, titles, graphics, animation and audio, capturing, editing, rendering and outputting digital video. Helps students prepare for the Adobe Certifications related to Adobe Premiere. Prerequisites: None.</td>
</tr>
<tr>
<td>CIS120DB</td>
<td>3</td>
<td>4</td>
<td>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.</td>
</tr>
<tr>
<td>CIS120DC</td>
<td>3</td>
<td>4</td>
<td>Adobe Flash Level I: Digital Animation Focuses on entry-level skill expectations for digital animation using Adobe Flash. Covers basic animation techniques used in the creation, manipulation, and editing of Flash animation graphics. Helps students prepare for the Adobe certifications related to Adobe Flash. Prerequisites: None.</td>
</tr>
<tr>
<td>CIS120DF</td>
<td>3</td>
<td>4</td>
<td>Adobe Photoshop Level I: Digital Imaging Focuses on entry-level skill expectations for digital imaging using Adobe Photoshop. Helps students prepare for the Adobe Certifications related to Photoshop. Prerequisites: None.</td>
</tr>
<tr>
<td>CIS120DK</td>
<td>3</td>
<td>4</td>
<td>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.</td>
</tr>
<tr>
<td>CIS120DL</td>
<td>3</td>
<td>4</td>
<td>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.</td>
</tr>
</tbody>
</table>
### COURSE 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>CIS120DP</td>
<td>3</td>
<td>4</td>
<td>Adobe Acrobat Pro: Portable Document Format (PDF) Files</td>
<td>Introduction to creating PDF (Portable Document Format) files using Adobe Acrobat for web viewing and printing. Addresses creation of interactive PDF documents including security settings, navigation links, and form fields. Prerequisites: None</td>
</tr>
<tr>
<td>CIS121AE</td>
<td>1</td>
<td>2</td>
<td>Windows Operating System: Level I</td>
<td>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.</td>
</tr>
<tr>
<td>CIS121AI</td>
<td>1</td>
<td>2</td>
<td>Mac Operating System</td>
<td>Specific topics include getting started with Mac OS; working with disks, folders, and files; installing and using applications; setting system preferences; printing, faxing, and scanning; getting and living online; using iLife; sharing a Mac with other users; creating a home network; and maintaining the Mac. Prerequisites: None.</td>
</tr>
<tr>
<td>CIS122AA</td>
<td>1</td>
<td>1.7</td>
<td>Project Management Software: Level I</td>
<td>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.</td>
</tr>
<tr>
<td>CIS122AB</td>
<td>1</td>
<td>1.7</td>
<td>Project Management Software: Level II</td>
<td>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: CIS122AA or permission of Instructor.</td>
</tr>
<tr>
<td>CIS126DL</td>
<td>3</td>
<td>4</td>
<td>Linux Operating System</td>
<td>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.</td>
</tr>
<tr>
<td>CIS130DA</td>
<td>3</td>
<td>4</td>
<td>3D Studio Max: Modeling</td>
<td>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, Boolean, lofting, lathing, and compound object modeling. Introduction to basic lighting, texturing and rendering techniques. Prerequisites: CIS105.</td>
</tr>
<tr>
<td>CIS130DB</td>
<td>3</td>
<td>4</td>
<td>3D Studio Max: Animation</td>
<td>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.</td>
</tr>
<tr>
<td>CIS131AA</td>
<td>1</td>
<td>1</td>
<td>Doing Business on the Internet</td>
<td>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.</td>
</tr>
<tr>
<td>CIS133AA</td>
<td>1</td>
<td>2</td>
<td>Internet/Web Development Level I-A</td>
<td>Overview of the Internet and its resources. Hands-on experience with various Internet communication tools. Prerequisites: None.</td>
</tr>
<tr>
<td>CIS133DA</td>
<td>3</td>
<td>4</td>
<td>Internet/Web Development Level I</td>
<td>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.</td>
</tr>
<tr>
<td>CIS138DA</td>
<td>3</td>
<td>4</td>
<td>Desktop Design and Publishing Using Adobe InDesign</td>
<td>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.</td>
</tr>
<tr>
<td>CIS150AB</td>
<td>3</td>
<td>4</td>
<td>Object-Oriented Programming Fundamentals</td>
<td>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.</td>
</tr>
<tr>
<td>CIS151</td>
<td>3</td>
<td>4</td>
<td>Computer Game Development-Level I</td>
<td>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 development tools. Prerequisites: CIS105 or permission of Instructor.</td>
</tr>
</tbody>
</table>
CIS159
Visual Basic Programming I
Use of the Visual Basic programming language to solve problems using suitable examples from business or other disciplines. Prerequisites: CIS105 or permission of Instructor.

CIS162AB
C++ Level I
Introduction to C++ programming including general concepts, program design, development, data types, operators, expressions, flow control, functions, classes, input and output operations, debugging, structured programming, and object-oriented programming. Prerequisites: CIS105 or permission of Instructor.

CIS162AD
C#: Level I
Introduction to C# programming including general concepts, program design, development, data types, operators, expressions, flow control, functions, classes, input and output operations, debugging, structured programming, and object-oriented programming. Prerequisites: CIS105 or permission of Instructor.

CIS163AA
Java Programming: Level I
Introduction to Java programming. Includes features needed to construct Java applets, Java applications, control structures, methods, arrays, character and string manipulation, graphics, and object-oriented programming. Prerequisites: CIS105 or permission of Instructor.

CIS165
Introduction to iPhone Application Programming
Introduction to iPhone/iPad/iPod Touch programming utilizing the application XCode, and the programming language Objective-C with Cocoa Touch frameworks. Understand iPhone hardware and feature basics. Go through entire design process from concept to final product delivery. Prerequisites: CIS150, or CIS150AB, or CIS162AC, or permission of Instructor.

CIS166AA
Introduction To Javascripting
Introduction to basic JavaScript programming concepts including syntax. Covers Hypertext Markup Language (HTML), programming logic and debugging, as well as forms manipulation and animation. Prerequisites: BPC/CIS133CA, or BPC/CIS133DA, or permission of Instructor.

CIS166AC
Web Scripting With Active Server Pages (ASP), .NET
Introduction to web scripting using Microsoft’s ASP.Net (Active Server Pages). Web application development using Hypertext Markup Language (HTML), ASP.Net Web Forms, programming logic, and Structured Query Language (SQL). Prerequisites: (BPC/CIS133CA or BPC/CIS133DA) and (CIS159 or CIS162AD), or permission of Instructor.

CIS166AE
Web Scripting With PHP: Hypertext Preprocessor (PHP)
Introduction to web scripting with PHP (PHP: Hypertext Preprocessor). Web application development using Hypertext Markup Language (HTML), PHP, programming logic, and Structured Query Language (SQL). Prerequisites: BPC/CIS133CA, or BPC/CIS133DA, or permission of Instructor.

CIS197
VMware ESXI Server Enterprise
Introduction to VMware ESXI server in the enterprise. Covers many aspects of virtualization for VMware ESXI server administration. Develop knowledge and skills required to install, configure and troubleshoot a VMware ESXI Server including basic network functions. Learn basic command line and Management User Interface (MUI) using VMware vSphere Client. Prerequisites: (CIS126DL or MST150 (any module)) and (CIS190 or MST140 or CNT140) or permission of instructor.

CIS213DE
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.

CIS217AM
Advanced Microsoft Access: Database Management
Advanced database concepts including database design, primary and secondary key selection and relationships between tables. Queries, sub forms, macros, events, Visual Basic modules and Access Internet features also covered. Prerequisites: CIS117CM or CIS117DM.

CIS220DC
Flash: Advanced Animation And Actionscript
Advanced Flash programming, action scripting, tweening, advanced buttons and user input, movie clips, using dynamic sound and text, managing information flow, object-oriented programming concepts in relation to Flash. Prerequisites: BPC/CIS120DC or permission of Instructor.

CIS220DF
Adobe Photoshop Level II: Advanced Digital Imaging
Goes beyond the basic use of palettes, selections, layers, menus, and tool options, and focuses on using Photoshop software’s advanced features to manipulate and correct digital and digitally produced images. Prerequisites: BPC/CIS120DF or permission of Instructor.

CIS220DK
Advanced Digital Video Production: Premiere
Includes an in-depth study of digital video editing using Premiere, including preproduction, production and post production. Advanced techniques into a capstone project. Emphasis placed on enhanced workflow processes, integration of other applications into Premiere, multiple output formats, timesaving quick key setup and advanced production and editing tools. Prerequisites: CIS120DA, or CIS120DK, or permission of Instructor.

CIS224
Project Management Microsoft Project for Windows
Introduction to project management concepts while working with MS Project to solve complex project management networks, including creating Gantt and PERT charts, tracking project progress, planning for restrictions, and integrating MS Project with other software packages such as Excel, Word, Powerpoint, and cc Mail. Prerequisites: None.
CIS26AL  Internet/Intranet Server Administration-Linux
3 Credits 4 Periods
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  3D Studio Max: Materials
3 Credits 4 Periods
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  Internet/Web Development Level II
3 Credits 4 Periods
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  Internet/Web Development: Dreamweaver
3 Credits 4 Periods
Design and development of comprehensive and interactive websites using Dreamweaver. Hands-on experience designing, developing, testing, and publishing web documents that contain various client-side web technologies. Assists in preparing students for the Adobe Certifications related to Adobe Dreamweaver. Prerequisites: CIS132, or CIS133CA, or CIS133DA, or permission of the Instructor.

CIS234  XML Application Development
3 Credits 4 Periods
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 management of XML files. Prerequisites: BPC/CIS133CA or BPC/CIS133DA or permission of instructor.

CIS235  E-Commerce
3 Credits 4 Periods
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  Web-Based Teaching And Learning I
2 Credits 3 Periods
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  Web-Based Teaching And Learning II
3 Credits 4 Periods
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  Linux System Administration
3 Credits 4 Periods
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.

CIS239DL  Linux Shell Scripting
3 Credits 4 Periods
Linux Shell Scripting syntax and methods including the automation of system tasks as well as interpreted user-level programming. Course includes the Linux Borne Again Shell (BASH) as well as a variety of industry competitors. Prerequisites: CIS126DL or permission of Instructor.

CIS240DL  Linux Network Administration
3 Credits 4 Periods
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  Internet/Web Development Level III
3 Credits 4 Periods
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.
<table>
<thead>
<tr>
<th>COURSE</th>
<th>CREDITS</th>
<th>PERIODS</th>
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<tbody>
<tr>
<td><strong>CIS244</strong> Testing Software Tools</td>
<td>3</td>
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<tr>
<td>Overview and implementation of GUI test automation using IBM Rational Functional Test. 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.</td>
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<tr>
<td><strong>CIS246</strong> Software Quality</td>
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<tr>
<td>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.</td>
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<tr>
<td><strong>CIS247DA</strong> Cyber Forensics And Incident Handling</td>
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<td>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.</td>
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<tr>
<td><strong>CIS248</strong> Engineering Quality In Software Development</td>
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<tr>
<td>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.</td>
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<td><strong>CIS249</strong> Software Testing For Quality Assurance</td>
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<td>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.</td>
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<tr>
<td><strong>CIS250</strong> Management of Information Systems</td>
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<td>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.</td>
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<td><strong>CIS251</strong> Computer Game Development-Level II</td>
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<td>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.</td>
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<td><strong>CIS259</strong> Visual Basic Programming II</td>
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<td>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.</td>
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<td><strong>CIS262AB</strong> C++: Level II</td>
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<td>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.</td>
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<tr>
<td><strong>CIS262AD</strong> C# Level II</td>
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<td>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.</td>
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<td><strong>CIS266</strong> Network Integration Capstone</td>
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<td>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 CTN205 or CIS271DL) or associated industry certifications or permission of Instructor.</td>
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<td><strong>CIS270</strong> Essentials Of Network And Information Security</td>
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<td>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.</td>
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<td><strong>CIS271DL</strong> Linux Security</td>
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| 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
### Course Descriptions

**CNS - Construction**

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<thead>
<tr>
<th>Code</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CNS101</td>
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<td>CNS130</td>
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<td>CNS175</td>
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<td>CNS200</td>
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<td>CNS205</td>
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**CNS101  Construction And Culture**
The cultural context of construction, emphasizing the evolution and expansion of constructed environments as expressions of ethical and historical value systems. Prerequisites: None.

**CNS130  Computer Aided Design And Drafting**
Fundamental drafting and documentation topics and techniques related to construction, using both board and computer as tools. Concentration on various methods of two-dimensional and three-dimensional drawing, sketching, scaling, and dimensioning with computer and board. Prerequisites: None.

**CNS175  Working Drawing Analysis: Blueprint Reading**
Detailed analysis and interpretation of construction drawings (blueprint reading); interpretation of symbols, annotations, conventions, terms of trade; and understanding of drawing, dimensioning, plan organization, and specifications. Prerequisites: None.

**CNS180  Building Construction Methods, Materials, and Equipment**
Comprehensive study of construction methods, materials, codes, and equipment used in building construction. Prerequisites: None.

**CNS181  Cost Estimating I**
Determining quantities of material, equipment, and labor for a construction project. Includes procedures used to apply unit costs to these items in a minimum of time. Occupational Safety and Health Administration Safety Standards and their impact on construction cost. Prerequisites: None.

**CNS200  Construction Management: Field Operation**
Procedures and methods used by construction contractors to manage field operation during various phases of a project. Includes project team, job scheduling, personnel relations, use of the construction documentation on site, inspection techniques, safety issues, scope and supervision of the overall construction process. Prerequisites: CNS175 and CNS181, or permission of Department or Division.

**CNS205  Sustainable Construction/LEED Certification**
Fundamentals of major components of sustainable design and construction, including energy, health care facilities, cultural and natural resources, and other environmental and economic issues of sustainable built environments. Importance of a collaborative team effort with owner, developers, architects, engineers, and constructors will be integrated into the course. Issues impacting schedule and budgets of sustainable construction projects will be analyzed. Prepares student for the Leadership in Energy and Environmental Design (LEED) Certification Exam. Prerequisites: None.
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: None.

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: None.

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

CNS298 1-3 Credits
Special Projects (See Page 280)

CNT - Cisco Network Technology

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

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

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.

CNT205 4 Credits 6 Periods
Cisco Certified Network Associate Security
Associate-level knowledge and skills required to secure Cisco networks. Development of a security infrastructure, identification of threats and vulnerabilities to networks. Mitigation of security threats. Core security technologies. Installation, troubleshooting and monitoring of network devices to maintain integrity, confidentiality and availability of data and devices. Competency in the technologies that Cisco uses in its security structure. Prerequisites: CNT170 or CNT170AA or Certified Cisco Networking Associate (CCNA) certification or permission of Instructor.

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

COM110  Interpersonal Communication  3 Credits 3 Periods
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  Pronunciation of American Speech  3 Credits 3 Periods
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  Introduction to Communication Inquiry  3 Credits 3 Periods
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.

COM225  Public Speaking  3 Credits 3 Periods
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  Small Group Communication  3 Credits 3 Periods
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.

COM259  Communication in Business and Professions  3 Credits 3 Periods
Interpersonal, group, and public communication in business and professional organizations. Emphasis on oral communication. Prerequisites: ENG101, or ENG107, or equivalent.

COM263  Elements of Intercultural Communication  3 Credits 3 Periods
Basic concepts, principles, and skills for improving oral communication between persons from different minority, racial, ethnic, and cultural backgrounds. Prerequisites: None.

COM270  Health Communication  3 Credits 3 Periods
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  Voice and Diction  3 Credits 3 Periods
Exercises and techniques to free the voice and improve projection, resonance, and articulation. Covers international phonetic alphabet and standard stage speech. Prerequisites: None.

COM282  Service-Learning Experience in Communication  1-3 Credits 1-3 Periods
Unpaid Service-Learning (SL) experience, completed with approved community partner. Prerequisites: Permission of Instructor. COM282 may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.

COM296  Cooperative Education  1-2 Credits 5-10 Periods
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 (See Page 280)  1-3 Credits

CPD - Counseling and Personal Development

CPD102AB  Career Exploration  2 Credits 2 Periods
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  Eliminating Self-Defeating Behavior  2 Credits 2 Periods
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  Stress Management  2 Credits 2 Periods
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.

CPD103BC  2 Credits 2 Periods
African American Cultural Pride and Awareness
Develop an awareness of cultural roots, history, and traditions with emphasis on the shaping of personal identity, social, career, and educational decisions. Prerequisites: None.

CPD103BE  2 Credits 2 Periods
Native American Cultural Pride and Awareness
Develop an awareness of cultural roots, history, and traditions with emphasis on the shaping of personal identity, social, career, and educational decisions. Prerequisites: None.

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  1-3 Credits
Special Projects (See Page 280)

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.

CRW160  3 Credits 3 Periods
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  3 Credits 3 Periods
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.

CRW180  3 Credits 3 Periods
Introduction to Writing Nonfiction
Practice in writing creative nonfiction, including autobiography and biography, the essay, reviews, and humor using a process of invention and discovery, writing, analysis, evaluation, and revision. Combines lecture, discussion, and workshop, leading to the production of marketable quality creative nonfiction. Prerequisites: None. CRW150 recommended but not required.

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

CRW200  1 Credit 1 Period
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  1 Credit 1 Period
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.
COURSE COURSE DESCRIPTIONS

CRW260
Intermediate Poetry Writing
3 Credits 3 Periods
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
3 Credits 3 Periods
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
3 Credits 3 Periods
Focus on planning, structuring, and beginning a novel; prewriting, writing, analysis, evaluation, and revision of novel plans and excerpts. Prerequisites: CRW272 or permission of instructor.

CRW273
Writing the Novel
3 Credits 3 Periods
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: CRW273 or permission of instructor.

CRW274
Revising the Novel
3 Credits 3 Periods
Studio course workshop format. Requires a complete novel finished, in manuscript, ready for revision and polishing. Prerequisites: CRW273 or permission of instructor.

CSC - Computer Science

CSC100AB
Introduction To Computer Science (C++)
4 Credits 4 Periods
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)
4 Credits 4 Periods
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
4 Credits 6 Periods
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.

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

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

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

CTT - Caterpillar Technician Training

CTT110
Introduction to Caterpillar Service Industry
3 Credits 5 Periods
Introduction to the Caterpillar organization and product line, basic shop safety, and shop operation. Includes computer operations and service information systems. Prerequisites: None.

CTT111
Caterpillar Engine Fundamentals
4 Credits 8 Periods
Caterpillar Engine Fundamentals
Introduction to diesel engine theory and service procedures. Focuses on Caterpillar engine systems and applications. Prerequisites: None.

CTT112
Hydraulic Fundamentals
3 Credits 5 Periods
Hydraulic Fundamentals
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
Fuel Systems
3 Credits 5 Periods
Fuel Systems
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 Fundamentals
3 Credits 5 Periods
Basic Electrical Fundamentals
Basic electrical and electronic principles used by the technician to diagnose and repair electrical systems in Caterpillar machines. Prerequisites: None.
COURSE COURSE DESCRIPTIONS

CTT115  3 Credits 5 Periods
Air Conditioning Fundamentals
Introduction to principles, systems, components, and servicing of air conditioning systems used in Caterpillar productions. Prerequisites: None.

CTT118  3 Credits 3 Periods
Caterpillar Dealer Internship I
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  3 Credits 3 Periods
Caterpillar Dealer Internship II
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  3 Credits 5 Periods
Power Train II
Methods of transferring power. Hydraulic-driven machines and mechanical power train components, including differentials, brakes, final drives, and undercarriage. Prerequisites: None.

CTT201  3 Credits 5 Periods
Machine Electronics
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  3 Credits 5 Periods
Engine Diagnostics And Repair
In-depth study of engine diagnostics and repair techniques used to troubleshoot and repair engine problems in Caterpillar machines. Selection and use of Caterpillar diagnostic tools. Covers oil, air, cooling, and fuel systems. Prerequisites: CTT113.

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.

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 diverse cultural dance practices that have shaped American popular culture from the late 19th century to the present. Highlights issues of power, class, race, ethnicity, gender, age and sexuality. Emphasis is on revealing diverse cultural influences in U.S. popular culture. Prerequisites: None.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
<th>Periods</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAN115AA</td>
<td>Contemporary Dance Trends: Hip Hop</td>
<td>1</td>
<td>3</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>DAN125AA</td>
<td>Social Dance: Ballroom</td>
<td>1</td>
<td>3</td>
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<tr>
<td></td>
<td>Theory and practice of ballroom 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, East Coast Swing, Lindy Hop, West Coast Swing, Foxtrot, Waltz, American Tango, International Ballroom, or Ballroom Performance. Prerequisites: None. May be repeated for a total of two (2) credits.</td>
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<tr>
<td>DAN125AC</td>
<td>Social Dance: Latin</td>
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<td>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.</td>
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<tr>
<td>DAN129</td>
<td>Musical Theatre Dance I</td>
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<td></td>
<td>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.</td>
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<tr>
<td>DAN130</td>
<td>Musical Theatre Dance II</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>DAN131</td>
<td>Ballet I</td>
<td>1</td>
<td>3</td>
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<td></td>
<td>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.</td>
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<tr>
<td>DAN132</td>
<td>Modern Dance I</td>
<td>1</td>
<td>3</td>
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<td></td>
<td>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.</td>
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<tr>
<td>DAN133</td>
<td>Modern Jazz Dance I</td>
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<td>3</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>DAN134</td>
<td>Ballet II</td>
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<td></td>
<td>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.</td>
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<tr>
<td>DAN135</td>
<td>Modern Dance II</td>
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<td></td>
<td>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.</td>
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<tr>
<td>DAN136</td>
<td>Modern Jazz Dance II</td>
<td>1</td>
<td>3</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>DAN140</td>
<td>Tap Dance I</td>
<td>1</td>
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<td></td>
<td>An introduction to the theory and practice of tap dance. May be repeated for a total of two (2) semester credit hours. Prerequisites: None.</td>
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<tr>
<td>DAN141</td>
<td>Dance Workshop</td>
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<td>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.</td>
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<tr>
<td>DAN145</td>
<td>Tap Dance II</td>
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<td>3</td>
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<td></td>
<td>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.</td>
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<tr>
<td>DAN146</td>
<td>Tap Dance Ensemble</td>
<td>1</td>
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<td></td>
<td>Introduction to the process and practice of dance performance, specific to the genre of tap dance. Prerequisites: DAN140 or permission of instructor.</td>
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<tr>
<td>DAN150</td>
<td>Dance Performance I</td>
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<tr>
<td></td>
<td>An introduction to the process and practice of dance performance. May be repeated for a total of two (2) semester credit hours. Prerequisites: None.</td>
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<tr>
<td>DAN155</td>
<td>Dance Performance II</td>
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<tr>
<td></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>
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<tr>
<td>DAN231</td>
<td>Ballet III</td>
<td>1</td>
<td>3</td>
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<td></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>
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</tbody>
</table>
DAN232  Modern Dance III  1 Credit 3 Periods
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.

DAN233  Modern Jazz Dance III  1 Credit 3 Periods
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.

DAN234  Ballet IV  1 Credit 3 Periods
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.

DAN235  Modern Dance IV  1 Credit 3 Periods
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.

DAN236  Modern Jazz Dance IV  1 Credit 3 Periods
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.

DAN250  Dance Performance III  1 Credit 3 Periods
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.

DAN255  Dance Performance IV  1 Credit 3 Periods
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.

DAN264  Choreography I  3 Credits 3 Periods
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.

DAN265  Choreography II  3 Credits 3 Periods
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.

DAN280  Dance Practicum  2 Credits 6 Periods
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.

DAN282  Service-Learning Experience in Dance  1-3 Credits 1-3 Periods
Unpaid Service-Learning (SL) experience, completed with approved community partner. Prerequisites: Permission of Instructor. DAN282 may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.

DFT100  Introduction To Drafting  3 Credits 6 Periods
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  Computer Aided Drafting I: Autocad  3 Credits 6 Periods
Industrial use of AutoCAD equipment (hardware and software) in the areas of mechanical, electronic and construction drawings. Prerequisites: None.

DFT110  Technical Drafting I  3 Credits 6 Periods
Fundamentals of drafting including lettering, basic drawing concepts, geometric construction and multiview projection. Prerequisites: None.

DFT111  Technical Drafting II  3 Credits 6 Periods
Dimensioning and tolerancing, sectional views and auxiliary views. Prerequisites: DFT/MET105AA, or DFT110, or equivalent.

DFT112  Technical Drafting III  3 Credits 6 Periods
Detail and assembly drawings, dimensioning and tolerancing per current manufacturing standards. Prerequisites: (DFT111 and DFT254AA) or equivalent.

DFT113  Technical Drafting IV  3 Credits 6 Periods
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  Machine Trades Blueprint Reading  3 Credits 3 Periods
Analysis and interpretation of technical drawings common to manufacturing and the machine trades. Prerequisites: None.

DFT115  Geometric Dimensioning And Tolerancing  3 Credits 3 Periods
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.
COURSE DESCRIPTIONS

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 diagrams, 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.

**DFT296** 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.

**DHE-Dental Hygiene Education**

**DHE110** 3 Credits 3 Periods
**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.

**DHE112** 3 Credits 3 Periods
**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.

**DHE115** 2 Credits 2 Periods
**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.

**DHE117** 2 Credits 2 Periods
**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.

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

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

**DHE121** 2 Credits 3 Periods
**Dental Anatomy, Embryology and Histology**
Includes the histology and embryology of oral tissues; developmental disturbances of the face, oral cavity, and related structures; tooth composition and morphology; eruption patterns and occlusal evaluation. Use of skulls, models and multimedia resources also covered. Prerequisites: Admission to the Dental Hygiene Program.
DHE125
Dental Radiography Laboratory
1 Credit 3 Periods
Radiation safety and infection control procedures for operator and patient. Film placement, exposure, development, mounting and evaluation of dental radiographs. Operation and maintenance of X-ray and processing equipment. Interpretation of radiographic findings. Prerequisites or Corequisites: (DHE117 and admission to the Dental Hygiene Program) or permission of Instructor.

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

DHE132
Dental Hygiene Theory I
3 Credits 5 Periods
Study of the dental hygiene process of care with emphasis on assessment, planning and implementation. Topics include instrumentation, adjunct dental hygiene services, instrument sharpening, computer technology, dental specialties and professional accountability. Prerequisites: (DHE120 and admission to the Dental Hygiene Program) or permission of Instructor. Corequisites: DHE133.

DHE133
Dental Hygiene Clinic I
3 Credits 9 Periods
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
Dental Materials
2 Credits 2 Periods

DHE202
Dental Materials Laboratory
1 Credit 3 Periods
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 margining of permanent restorative materials. Prerequisites: Admission to the Dental Hygiene Program or permission of instructor. Corequisites: DHE201.

DHE212
Dental Hygiene Theory II
2 Credits 2 Periods
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
Dental Hygiene Clinic II
5 Credits 15 Periods
Application of the dental hygiene process of care with emphasis on comprehensive care planning, case presentation, clinical decision making, advanced instrumentation and improved time utilization. Prerequisites: DHE132 and DHE133 and admission to the Dental Hygiene Program. Corequisites: DHE212.

DHE219
Practice Management
2 Credits 2 Periods
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
Periodontics
3 Credits 3 Periods
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
Dental Anesthesia
1 Credit 1 Period
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
Community Oral Health
3 Credits 3 Periods
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
Dental Hygiene Theory III
2 Credits 3 Periods
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 documentation. Prerequisites: (DHE212 and DHE213), and admission to the Dental Hygiene Program. Corequisites: DHE233.

DHE233
Dental Hygiene Clinic III
5 Credits 15 Periods
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), and (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 3 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. Prerequisites: None.

ECH176 3 Credits 3 Periods
Child Development
Study of the science of human development from conception through adolescence. Includes observation skills, parent and adult roles in the lives of children, and contemporary issues. Prerequisites: None.

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.

ECH271 1 Credit 1 Period
Arranging the Environment
Exploration of the influence of the environment on the behavior of young children. Indoor and outdoor spaces considered and analysis of environments practiced. Prerequisites: None.

ECH272 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.

ECH282 1 Credit 1 Period
Discipline/Guidance of Child Groups
Exploration of techniques for guiding children in groups with focus on individual child and adult needs for a disciplined environment. 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.
### COURSE DESCRIPTIONS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Periods</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECN160</td>
<td>Economic History of the United States</td>
<td>3</td>
<td>3 Periods</td>
</tr>
<tr>
<td>ECN204</td>
<td>Macroeconomics Issues</td>
<td>3</td>
<td>3 Periods</td>
</tr>
<tr>
<td>ECN208</td>
<td>Microeconomics Issues</td>
<td>3</td>
<td>3 Periods</td>
</tr>
<tr>
<td>ECN211</td>
<td>Macroeconomic Principles</td>
<td>3</td>
<td>3 Periods</td>
</tr>
<tr>
<td>ECN212</td>
<td>Microeconomic Principles</td>
<td>3</td>
<td>3 Periods</td>
</tr>
<tr>
<td>ECN220</td>
<td>Introduction to Serving English Language Learners (ELL)</td>
<td>3</td>
<td>3 Periods</td>
</tr>
<tr>
<td>EDU111</td>
<td>Inquiry-Based Instructional Approaches for Science and Mathematics I</td>
<td>1 Credit</td>
<td>2 Periods</td>
</tr>
<tr>
<td>EDU112</td>
<td>Inquiry-Based Instructional Approaches for Science and Mathematics II</td>
<td>1 Credit</td>
<td>2 Periods</td>
</tr>
<tr>
<td>EDU120</td>
<td>Introduction To Education</td>
<td>3</td>
<td>3 Periods</td>
</tr>
<tr>
<td>EDU221</td>
<td>Introduction To The Exceptional Learner</td>
<td>3</td>
<td>3 Periods</td>
</tr>
<tr>
<td>EDU230</td>
<td>Cultural Diversity In Education</td>
<td>3</td>
<td>3 Periods</td>
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</tbody>
</table>

**ECN160 Economic History of the United States**
A description of the trends of American population, industry, and wealth through examination of major American institutions, historical events, and economic thought. Emphasis on the roles of technology and natural resources in agriculture and industry, the labor force, the monetary system, market structures, and the economic impact of government. Prerequisites: None.

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

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

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

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

**ECN298 Special Projects (See Page 280)**
1-3 Credits

**EDU111 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 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 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 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 a minimum of 30 hours of field experience in elementary or secondary classroom environment.

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

**EDU230 Cultural Diversity In Education**
Examination of the relationship of cultural values to the formation of self-concept and learning styles. Examination of the role of prejudice, stereotyping and cultural incompatibilities in education. Emphasis on teacher preparation (preservice and/or inservice) to offer an equal educational opportunity to students of all cultural groups. Prerequisites: None.
EDU233 3 Credits 3 Periods
Structured English Immersion (SEI) and English as a Second Language (ESL) Teaching Methods
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. Prerequisites: (EDU220 or EPD220 or EDU225) or permission of Department or Division.

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.

EDU270AA 3 Credits 3 Periods
Elementary Reading and Decoding
Focus on the theories, methods and models of the teaching and learning processes of reading in the elementary grades. Includes current research findings related to methods of teaching reading in the elementary school setting. Approved school-based practicum required. Prerequisites: Baccalaureate Degree and formal acceptance to a Maricopa Community College state approved post-baccalaureate teacher preparation program or permission of Department or Division.

EDU271 3 Credits 3 Periods
Phonics Based Reading and Decoding
Overview of research, curricular content, and instructional practices associated with Research Based Systematic Phonics Instruction (RBSPI) and other methods for teaching reading. Covers the history of written language, alphabetic reading, and writing systems, and implementation of effective methods for reading instruction. Approved school-based practicum required. Prerequisites: Baccalaureate Degree and formal acceptance to a Maricopa Community College state approved post-baccalaureate teacher preparation program or permission of Department or Division.

EDU282 1-3 Credits 1-3 Periods
Service-Learning Experience in Education
Unpaid Service-Learning (SL) experience, completed with approved community partner. Prerequisites: Permission of Instructor. EDU282 may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.

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.
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<tr>
<th>Course Code</th>
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<th>Periods</th>
<th>Description</th>
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<tbody>
<tr>
<td>EED222</td>
<td>3</td>
<td>3</td>
<td>Introduction To The Exceptional Young Child: Birth To Age Eight&lt;br&gt;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: EED200.</td>
</tr>
<tr>
<td>EED245</td>
<td>3</td>
<td>3</td>
<td>Early Learning: Language Acquisition and Literacy Development&lt;br&gt;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.</td>
</tr>
<tr>
<td>EED255</td>
<td>3</td>
<td>3</td>
<td>Portfolio Development And Writing For The Profession&lt;br&gt;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.</td>
</tr>
<tr>
<td>EED260</td>
<td>1</td>
<td>1</td>
<td>Early Childhood Infant/Toddler Internship&lt;br&gt;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.</td>
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<tr>
<td>EED261</td>
<td>1</td>
<td>1</td>
<td>Early Childhood Preschool Internship&lt;br&gt;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.</td>
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<tr>
<td>EED263</td>
<td>2</td>
<td>2</td>
<td>Early Childhood Internship: Preschool&lt;br&gt;Work experience with preschoolers in early care and education settings. Prerequisites: Permission of Department or Division.</td>
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<tr>
<td>EED265</td>
<td>4</td>
<td>5</td>
<td>Early Childhood Internship: K-3&lt;br&gt;Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. Prerequisites: EED100, EED200, EED212, EED215, EED220, EED222, EED270, EED275, and EED280.</td>
</tr>
<tr>
<td>EED278</td>
<td>3</td>
<td>3</td>
<td>Early Learning: Curriculum and Instruction – Birth/Preschool&lt;br&gt;Considerations and evaluations of curriculum appropriate to the developmental characteristics of learners, birth through five years. Includes how early childhood standards, philosophies, and program settings relate to the teaching, learning, and assessment process. Includes field experience. Prerequisites: EED200.</td>
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### EEE - Electrical Engineering

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<th>Periods</th>
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<tbody>
<tr>
<td>EEE120</td>
<td>4</td>
<td>6</td>
<td>Digital Design Fundamentals&lt;br&gt;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. Functions, physical circuits. Prerequisites: CSC100, or CSC110, or CSC181, or ELE181, or NET181, or equivalent, or permission of Instructor.</td>
</tr>
<tr>
<td>EEE202</td>
<td>5</td>
<td>7</td>
<td>Circuits And Devices&lt;br&gt;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).</td>
</tr>
<tr>
<td>EEE230</td>
<td>4</td>
<td>5</td>
<td>Computer Organization and Assembly Language&lt;br&gt;Assembly language programming including input/output (I/O) programming and exception/interrupt handling. Register-level computer organization, I/O interfaces, assemblers, and linkers. Processor organization and design, data path, control, pipelining, and input/output. Memory organization with cache and virtual memory. Prerequisites: (CSC100 or CSC110) and CSC/EEE120, or permission of instructor.</td>
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### ELE - Electronics

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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>ELE100</td>
<td>3</td>
<td>4</td>
<td>Concepts Of Electricity And Electronics&lt;br&gt;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.</td>
</tr>
<tr>
<td>ELE105</td>
<td>5</td>
<td>5</td>
<td>Algebra-Trigonometry For Technology&lt;br&gt;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.</td>
</tr>
<tr>
<td>ELE111</td>
<td>4</td>
<td>6</td>
<td>Circuit Analysis I&lt;br&gt;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.</td>
</tr>
</tbody>
</table>
ELE112: Circuit Analysis II (3 Credits 6 Periods)
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 (4 Credits 6 Periods)
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 (3 Credits 6 Periods)
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 (3 Credits 3 Periods)
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, soldiering, 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 (3 Credits 5 Periods)
Elementary computer programming techniques. Hands-on computer usage. Prerequisites: None.

ELE222: Solid-State Devices And Circuits II (4 Credits 6 Periods)
Theory and application of differential and operational amplifiers. Power supplies and regulators; special devices and circuits. Prerequisites: ELE121.

ELE241: Microprocessor Concepts (4 Credits 6 Periods)
Architectures of selected microprocessors. Presentation of machine and assembly language programming. Prerequisites: ELE131.

ELE243: Microprocessor Applications (3 Credits 5 Periods)
Presents the microprocessor in computing and control applications. System hardware and software used to control the microprocessor system to perform input/output operations. Prerequisites: ELE241 or ELT241.

ELE251: Electronic Measurements (3 Credits 5 Periods)
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 (4 Credits 6 Periods)
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 (4 Credits 6 Periods)
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 (See Page 280) (1-3 Credits)

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 eight-hour clinical rotations through a local emergency department scheduled during the semester outside normal class hours. Requires personal pocket mask, stethoscope, pen light, and trauma scissors. Prerequisites: Must be at least 18 years of age prior to applying to the BLS (Basic Life Support) Training Program per Arizona Revised Statutes, and must have a current validation in Basic Life Support (BLS) Health Care Provider/Professional Rescuer. Minimum ninth-grade-level reading proficiency on the Nelson-Denney Examination or appropriate Reading course placement score. Proof of TB testing or chest x-ray with a negative result within 6 months prior to registration; immunity to rubella (German measles) and rubeola.
EMT104AB  .5 Credits  .5 Periods
Refresher Course For Certified Emergency Medical Technicians
Manipulative skills testing of specific skills identified by the scope of practice for EMT Basic Students. Successful completion qualifies the student for EMT Basic Written Exam for National Certification. Prerequisites: None. Corequisites: EMT/FSC104.

EMT200  2 Credits 3 Periods
Refresher Course For Certified Emergency Medical Technicians
Designed to meet National and Arizona Department of Health Services (A-DHS) recertification for EMTs. Enhances the knowledge base of the Emergency Medical Technician (EMT) and reinforces basic skills competencies. Prerequisites: Current validation in Basic Life Support (BLS) Health Care Provider/Professional Rescuer or permission of Instructor.

EMT200AB  1 Credit 1 Period
EMT-Basic Certification Expanded Refresher Challenge
Designed to contribute to Arizona Department of Health Services (A-DHS) Bureau of Emergency Medical Services (B-EMS) recertification requirements for Emergency Medical Technician Basic (EMTB) according to the U.S. Department of Transportation (DOT) EMT-Basic National Curriculum and the Arizona EMT Basic Refresher Curriculum Guidelines. Prerequisites: Current Basic Life Support, American Heart Association Healthcare Provider CPR or equivalent, and current EMT Basic certification in the state of Arizona. Must be currently functioning as an EMT Basic.

EMT235  3 Credits 3 Periods
Emergency Cardiac Care
Designed to acquaint all levels of emergency care providers with basic electrocardiographic (ECG) rhythm analysis and interpretation and related care in a clinical and prehospital setting. Required content for the identification and treatment of cardiac emergencies. Prerequisites: EMT/FSC104 or permission of instructor.

EMT236  3 Credits 3 Periods
Pharmacology in an Emergency Setting
Designed for the Emergency Medical Technician dealing with the administration of emergency medications in the field as outlined in current paramedic legislation. In-depth coverage of medications enumerated in the algorithms of patient care as defined by the American Heart Association (AHA), Advanced Cardiac Life Support (ACLS). Coverage of medications that interact or interfere with the AHA ACLS algorithms. Indications, therapeutic effect, contraindications, toxicology, and side effects to medications. Prerequisites: EMT/FSC104 or permission of instructor. MAT082 or equivalency suggested but not required.

EMT238  2 Credits 2 Periods
Vehicular Extrication and Patient Stabilization
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.

EMT240  2 Credits 2 Periods
Advanced Cardiac Life Support
Designed to provide the healthcare professional with comprehensive information to identify emergency cardiovascular care and protocols for the patient in cardiac arrest, post-resuscitative patient management, and core cases in Advanced Cardiac Life Support (ACLS) according to current Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care 2004. Includes the ACLS approach to cardiovascular emergencies, elements of emergency cardiovascular care, ethical and legal issues, airway assessment and management, ventilation techniques, oxygen therapy, intravenous therapy, analyzing and interpreting the electrocardiogram (ECG), analyzing and interpreting the 12-lead ECG, myocardial ischemia, injury, and infarction, electrical interventions, cardiovascular pharmacology, acute coronary syndromes, emergency cardiovascular care algorithms, acute stroke and transient ischemic attack, and special resuscitation situations. Prerequisites: Current validation in Basic Life Support (BLS) Health Care Provider/Professional Rescuer and (EMT235 and EMT256, or permission of instructor).

EMT242  1 Credit 1 Period
Pediatric Advanced Life Support
Didactic and psychomotor skill education and training in techniques of Pediatric Advanced Life Support. Includes endotracheal intubation, defibrillation, arrhythmia recognition, pharmacology, and intraosseous infusion. Required for American Heart Association Provider approval and validation. Prerequisites: Current validation in Basic Life Support (BLS) Health Care Provider/Professional Rescuer and (EMT235 and EMT236, or permission of instructor).

EMT245  2 Credits 3.5 Periods
Trauma Management I
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 rom experience, or permission of department.

EMT249  .50 Credits .50 Periods
12 Lead ECG Rhythm Analysis
Designed to acquaint all level 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.
EMT265
Pediatric Education for Prehospital Providers: Advanced
1 Credit 1.43 Period
An interactive, scenario based course designed for Advanced EMTs who practice in the field. Enables providers to perform a rapid assessment of sick and injured children in variety of circumstances. Includes scene management, use of pediatric assessment triangle, developmental differences, injury prevention, airway management techniques, intravenous and in-trousseous access and monitoring, ECG arrhythmia recognition, synchronized and unsynchronized cardioversion, pediatric trauma and mechanism of injury, submersion events, children with special health care needs, child abuse and neglect, child and family interactions, use of specialized equipment, documentation of signs, symptoms, care and transportation, special issues in pediatric transportation. Treatment to children is in accordance with recommendations of the American Academy of Pediatrics. Prerequisites: Advanced cardiac life support course or emergency cardiac care course, and EMT-Paramedic certification, and current employment as an EMT Paramedic, or permission of instructor.

EMT272AA
Advanced Emergency Medical Technology
12.5 Credits 17.3 Periods
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: (IMAT102 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.

EMT272AB
Advanced Emergency Medical Technology
12.5 Credits 17.3 Periods
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: (IMAT102 or equivalent, or a satisfactory score on the ASSET, or COMPASS, or Accuplacer placement exam), ENG101, EMT235, and EMT236), or permission of Program Director. Valid Arizona certification and employment as an EMT for one full calendar year. Corequisites: EMT272AA and EMT272LL.

EMT272LL
7.5 Credits 37.5 Periods
Clinical and vehicular practicum in support of EMT272. Prerequisites or Corequisites: EMT272AA and EMT272AB.

EMT298
Special Projects (See Page 280) 1-3 Credits

ENG - English

ENG081
Basic Writing Skills
3 Credits 3 Periods
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
Fundamentals of Writing
3 Credits 3 Periods
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.

ENG100A
American-English Spelling System
1 Credit 1 Period
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.

ENG100B
Vocabulary Development
1 Credit 1 Period
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.

ENG100C
The Mechanics of Written English
1 Credit 1 Period
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.

ENG100D
Grammar and Usage
1 Credit 1 Period
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.

ENG101
First-Year Composition
3 Credits 3 Periods
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>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG102</td>
<td>3</td>
<td>3</td>
<td>First-Year Composition</td>
<td>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.</td>
</tr>
<tr>
<td>ENG107</td>
<td>3</td>
<td>3</td>
<td>First-Year Composition for ESL</td>
<td>Equivalent of ENG 101 for students of English as a Second Language (ESL). Emphasis on rhetoric and composition with a focus on expository writing and understanding writing as a process. Establishing effective college-level writing strategies through four or more writing projects comprising at least 3,000 words in total. Prerequisites: Grade of “C” or better in ENG091 or ESL097.</td>
</tr>
<tr>
<td>ENG108</td>
<td>3</td>
<td>3</td>
<td>First-Year Composition for ESL</td>
<td>Equivalent of ENG 102 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.</td>
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<tr>
<td>ENG111</td>
<td>3</td>
<td>3</td>
<td>Technical and Professional Writing</td>
<td>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.</td>
</tr>
<tr>
<td>ENG200</td>
<td>3</td>
<td>3</td>
<td>Reading and Writing About Literature</td>
<td>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.</td>
</tr>
<tr>
<td>ENG210</td>
<td>3</td>
<td>3</td>
<td>Creative Writing</td>
<td>Skills and techniques used in the production of marketable materials for contemporary publications that buy prose fiction, poetry, and expository articles. Prerequisites: ENG102 with a grade of “C”, or better, or permission of Department or Division.</td>
</tr>
<tr>
<td>ENG213</td>
<td>3</td>
<td>3</td>
<td>Introduction to the Study of Language</td>
<td>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.</td>
</tr>
<tr>
<td>ENG215</td>
<td>3</td>
<td>3</td>
<td>Strategies of Academic Writing</td>
<td>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.</td>
</tr>
<tr>
<td>ENG216</td>
<td>3</td>
<td>3</td>
<td>Persuasive Writing on Public Issues</td>
<td>Advanced course in techniques of analyzing and writing persuasive arguments addressing topics of current public interest. Papers research based. Prerequisites: ENG102.</td>
</tr>
<tr>
<td>ENG217</td>
<td>3</td>
<td>3</td>
<td>Personal and Exploratory Writing</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>ENG235</td>
<td>3</td>
<td>3</td>
<td>Magazine Article Writing</td>
<td>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.</td>
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<tr>
<td>ENG282</td>
<td>1-3</td>
<td>1-3</td>
<td>Volunteerism for English: A Service-Learning Experience</td>
<td>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.</td>
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<tr>
<td>ENG295</td>
<td>3</td>
<td>3</td>
<td>Teaching Composition in the Two-Year College</td>
<td>Overview of the theoretical and pedagogical strategies of teaching composition in the community college. Prerequisites: Bachelor’s degree and permission of instructor.</td>
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<tr>
<td>ENG298</td>
<td>1-3</td>
<td>1-3</td>
<td>Special Projects (See Page 280)</td>
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<tr>
<td>ENH - English Humanities</td>
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<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>ENH112</td>
<td>3</td>
<td>3</td>
<td>Chicano Literature</td>
<td>Introduction to the works of Mexican-American writers of the Southwest. Samples poetry, fiction, and essays viewed in their relationship to American cultural heritage and to contemporary culture. Prerequisites: None.</td>
</tr>
<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>
</tbody>
</table>
ENH190  Introduction to US Ethnic Literature  3 Credits 3 Periods
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.

ENH214  Poetry Study  3 Credits 3 Periods
Involves reading, discussing, and analyzing poetry of various forms and from selected periods. Prerequisites: None.

ENH221  Survey of English Literature Before 1800  3 Credits 3 Periods
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.

ENH222  Survey of English Literature After 1800  3 Credits 3 Periods
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.

ENH230  Introduction to Shakespeare  3 Credits 3 Periods
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.

ENH235  Survey of Gothic Literature  3 Credits 3 Periods
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.

ENH241  American Literature Before 1860  3 Credits 3 Periods
Includes literature written prior to 1860 in the United States. Prerequisites: None.

ENH242  American Literature After 1860  3 Credits 3 Periods
Includes literature written after 1860 in the United States. Prerequisites: None.

ENH252  Biblical Backgrounds of Literature  3 Credits 3 Periods
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.

ENH254  Literature and Film  3 Credits 3 Periods
Deals with genres and/or themes in reference to the Old and New Testament which are recurrent in world literature. Prerequisites: None.

ENH255  Contemporary U.S. Literature and Film  3 Credits 3 Periods
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  Modern Fiction  3 Credits 3 Periods
Includes novels and short stories of modern writers which reflect significant themes of our time. Prerequisites: None.

ENH284  19th Century Women Writers  3 Credits 3 Periods
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  Contemporary Women Writers  3 Credits 3 Periods
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.

ENH289  19th Century Women Writers  3 Credits 3 Periods
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  Banned Books and Censorship  3 Credits 3 Periods
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.

EPD272AA  3 Credits 3 Periods
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.

EPD276  3 Credits 3 Periods
The Teacher Leader
Focus on K-12 teachers’ skills as recognized teacher leaders. Includes reading, summarizing, and analyzing current educational research and theory about the teacher leader. Examination of the effect of informal and formal roles of the teacher leader in the schools. Also covers discovery of personal philosophies of leadership and plans for enacting leadership within participant’s own school sites. Prerequisites: Most hold a provisional or standard elementary or special education teaching certificate.

EPS - Entrepreneurial Studies

EPS150  3 Credits 3 Periods
Introduction to Entrepreneurship
Overview of entrepreneurship. Includes the entrepreneurial process and the skills required to be successful, including starting, planning, financing, marketing, and managing a business. Prerequisites: None.

EPS195  2 Credits 2 Periods
Business Start-Up and Planning
Development of a feasibility approach to strategic decision making concerning new venture start-up. Includes development of a business feasibility study and a preliminary business plan. Prerequisites: None.

EQS - Equine Science

EQS105  3 Credits 3 Periods
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).

EQS298  1-3 Credits
Special Projects (See Page 280)

ESL - English Second Language - General

ESL010  3 Credits 3 Periods
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.

ESL011  3 Credits 3 Periods
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.

ESL012  3 Credits 3 Periods
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.
ESL020 3 Credits 3 Periods
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).

ESL021 3 Credits 3 Periods
English As A Second Language II: Listening And Speaking
Emphasis on listening and speaking skills involving social exchange. Asking and answering questions, using tag questions. Practice with question and answer patterns. Polite questions and responses. May be repeated for a maximum of six (6) credits. Prerequisites: Appropriate ESL placement test score or ESL010 or ESL011 or ESL012 or RDG010.

ESL022 3 Credits 3 Periods
ESL II-Writing With Oral Practice
Emphasis on basic writing skills, accompanied by recitation of short writings. Sentence patterns and introduction of paragraph writing. May be repeated for a maximum of six (6) credits. Prerequisites: Appropriate ESL course placement score, or a grade of “C” or better in ESL012, or permission of Instructor.

ESL030 3 Credits 3 Periods
English As A Second Language III: Grammar
Third level of English as a Second Language (ESL). Emphasis on sentence structure and paragraph building. Extensive grammar study and writing practice. Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. May be repeated for a maximum of six (6) credits. Prerequisites: Appropriate ESL placement test score, or a grade of “P” or “C” or better in ESL020, or (ESL020AA, ESL020AB, and ESL020AC).

ESL031 3 Credits 3 Periods
English As A Second Language III: Listening And Speaking
Emphasis on listening and speaking skills related primarily to the academic environment. Asking questions, working in small groups, using college resources, informal oral presentation. May be repeated for a maximum of six (6) credits. Prerequisites: Appropriate ESL placement test score or ESL020, or ESL021, or ESL022, or RDG020.

ESL032 3 Credits 3 Periods
ESL III-Writing With Oral Practice
Emphasis on complex sentence patterns in writing and speech. Introduction to the prewriting and writing process in a college setting. May be repeated for a maximum of six (6) credits. Prerequisites: Appropriate ESL course placement score, or a grade of “C” or better in ESL022, or permission of instructor.

ESL040 3 Credits 3 Periods
English As A Second Language IV: Grammar
Fourth level of English as a Second Language (ESL). Continued emphasis on sentence structure and paragraph building. Extensive grammar study and writing practice. Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. May be repeated for a maximum of six (6) credits. Prerequisites: Appropriate ESL placement test score, or a grade of “P” or “C” or better in ESL030, or (ESL030AA, ESL030AB, and ESL030AC).

ESL041 3 Credits 3 Periods
English As A Second Language IV: Listening And Speaking
Emphasis on academic skills. Listening to lectures, notetaking, peer interaction, accessing and using media resources, formal oral presentations. May be repeated for a maximum of six (6) credits. Prerequisites: Appropriate ESL placement test score or ESL030 or ESL031 or ESL032 or RDG030.

ESL042 3 Credits 3 Periods
ESL IV-Writing With Oral Practice
Emphasis on paragraph writing and oral recitation of complex sentences and paragraphs. Introduction to the prewriting and writing process for short essays. May be repeated for a maximum of six (6) credits. Prerequisites: Appropriate ESL course placement score, or a grade of “C” or better in ESL032, or permission of Instructor.

ESL050 3 Credits 3 Periods
Pronunciation Improvement for ESL Speakers
Individualized pronunciation practice and drills for English as a second language (ESL) speakers. ESL050 may be repeated for a total of six (6) credits. Prerequisites: Appropriate ESL course placement score, or a grade of “C” or better in ESL020, or ESL021, or ESL022, or ESL/RDG026, or permission of Instructor.

ESL087 3 Credits 3 Periods
Basic Writing Skills for English Language Learners
Emphasis on basic writing skills using Standard English in sentences and short paragraphs incorporating correct, clear, and idiomatic English in preparation for college-level composition. Establish effective writing strategies through six or more writing projects. Prerequisites: Appropriate English placement score, or grade of “C” or better in ESL077, or permission of Department or Division.

ESL097 3 Credits 3 Periods
Fundamentals of Writing for English Language Learners
Emphasis on writing paragraphs and short essays using Standard English incorporating correct, idiomatic English in preparation for college-level composition with a focus on organizational skills. Developing effective writing strategies through five or more writing projects. Prerequisites: Appropriate English placement score, or a grade of “C” or better in ESL087, or permission of Department or Division.
<table>
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<tr>
<th>Course Code</th>
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<td>ETL211AA</td>
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<td>ETL211AB</td>
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<td>ETL211AC</td>
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<td>ETL287</td>
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<td>EXS101</td>
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<td>EXS112</td>
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<td>EXS138</td>
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<td>EXS205</td>
<td>Introduction to Sports Law</td>
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ETL - Excellence/Teaching/Learning

ETL102  
**Educational Application of Technology**
Principles and practice of using technological tools for teaching across the curriculum. Designed for 21st Century teaching and learning. Prerequisites: None.

ETL211AA  
**Curriculum Mapping and Instructional Design**
Emphasis on outcome-based decisions to improve teaching and learning through the use of curriculum mapping, conceptual framework, and content alignment. Includes mapping thematic units, defining critical thinking, writing measurable objectives, and aligning course materials and assessments to learning objectives. Prerequisites: Permission of Department or Division.

ETL211AB  
**Outcomes-Based Learning and Informative Assessment**
Overview of the informative assessment process. Includes rationale for ongoing outcomes-based decisions to improve teaching and learning. Prerequisites: Permission of Department or Division.

ETL211AC  
**Teaching And Learning Seminar**
Emphasis on theoretical foundations of good teaching. Includes lesson design and delivery based on effective learning strategies and best instructional practices. ETL11AC may be repeated for a total of sixteen (16) credit hours. Prerequisites: Permission of Department or Division.

ETL287  
**Teaching And Learning Seminar**
Emphasis on enhancing teaching and learning through readings, discussions, presentations and synthesis of literature related to a selected topic relevant to current issues in higher education. ETL287 may be repeated for a total of sixteen (16) credit hours. Prerequisites: Permission of Department or Division.

EXS - Exercise Science

EXS101  
**Introduction to Exercise Science, Kinesiology, and Physical Education**
Introductory course that will provide the student with a general overview of the disciplines and professions associated with the fields of Exercise Science, Kinesiology and Physical Education. Basic history, philosophy, and theory of each discipline will be examined as well as relevant career potential and options. Prerequisites: None.

EXS112  
**Professional Applications Of Fitness Principles**
Basic principles of fitness for the prospective fitness professional. Planning and teaching in a fitness program. Topics include exercise risks and safety, weight control, components of fitness, fitness assessment, and exercise programming. Prerequisites: None.

EXS125  
**Introduction to Exercise Physiology**
Principles of exercise science applied to teaching fitness/aerobics. Major factors related to the function of the human body. Emphasis on anatomy/physiology, exercise physiology, and biomechanics. Prerequisites: None. BIO160 recommended but not required.

EXS130  
**Strength Fitness-Physiological Principles And Training Techniques**
Principles and techniques of strength training including strength physiology, performance factors, training recommendations, exercise techniques, and program design and management. Prerequisites: None.

EXS132  
**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.

EXS138  
**Starting Your Own Personal Training Business**
Overview of the personal training business in the fitness industry. Skills for becoming a successful and effective personal training business owner. Prerequisites: None.

EXS145  
**Guidelines for Exercise Testing and Prescription**
Follows the current ACSM guidelines for health appraisal, risk assessment, safety of exercise, exercise testing, and exercise prescription. Prerequisites: None.

EXS146  
**Sports Nutrition for Fitness Professionals**
Advanced principles and applications in sports nutrition for fitness professionals/trainers. Topics include nutrient needs, effectiveness and usage of ergogenic aids, sports nutrition diet, and program development. Prerequisites: FON100 or permission of instructor.

EXS150  
**Introduction to Sports Management**
Introduction to the field of sports management, including sports marketing and sales, facility management, event management, professional sports, public relations, intercollegiate and interscholastic athletics. Prerequisites: None.

EXS175  
**Ethics in Sports**
Sociological and ethical issues of sports management. Focus on the ethical considerations of participating in sports, competition and fair play, gender and sexual equality in sports, and the social ethics of sport. Prerequisites: None.

EXS205  
**Introduction to Sports Law**
Application of legal principles to the sports industry. Focus on tort liability for sport administrators, managers and owners. Examines legal aspects of sports management, including laws and regulations governing player relationships, contracts, employee relations, civil rights, concessions and beverages, safety and concession product liability. Course explores how the law impacts the sports industry, both amateur and professional. Prerequisites: EXS150.
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.

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.

EXS239 1-2 Credits 1.8-3.6 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.

EXS265BB 3 Credits 3 Periods
Basketball Theory of Coaching
Reviews the principles, philosophy, strategies and theory of coaching basketball, as a competitive sport. Prerequisites: None.

EXS265FB 3 Credits 3 Periods
Football Theory of Coaching
Reviews the principles, philosophy, strategies and theory of coaching football, as a competitive sport. Prerequisites: None.

EXS281BA 3 Credits 3 Periods
Baseball 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 baseball. Prerequisites: None.

EXS281FB 3 Credits 3 Periods
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.

EXS281TF 3 Credits 3 Periods
Track Field 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 track and field. Prerequisites: None.

EXS282 1-3 Credits 1-3 Periods
Service-Learning Experience in Exercise Science
Unpaid Service-Learning (SL) experience, completed with approved community partner. Prerequisites: Permission of Instructor. EXS282 may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.

EXS290 3 Credits 3 Periods
Introduction to Evidence-Based Practice
Introduction to best practices in the acquisition, analysis, synthesis, and potential application of research in the discipline of exercise science. Specific emphasis on the application of research-based evidence for applied problem solving in exercise science. Prerequisites: EXS101 and (ENG101 or ENG107), or permission of instructor.

FLA - Foreign Language Acquisition

FLA282 1-3 Credits 1-3 Periods
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

FON100 3 Credits 3 Periods
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 Credit 1 Period
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
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
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
Overview of the global food system. Covers historical events impacting current food production model, and the effects food systems have on the environment, health, and communities. Also covers conventional agriculture and food safety concerns. Emphasis on the movement towards sustainable food systems. Prerequisites: None.

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: FON100 or FON241.

FON230
Nutrition for Special Populations
Managing and understanding the nutrition needs of special populations. These populations include people who are diagnosed with heart disease, diabetes, women who are pregnant, children who are suffering from obesity, and senior adults. Prerequisites: FON100 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.

FON241L
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.

FON247
Weight Management Theory
Comprehensive study of genetic, physiological, psychological, metabolic, and environmental influences on body weight. In-depth study of the theories of body weight with emphasis on distinguishing between behavioral and biological approaches. Focus on discovering successful healthful long-term weight management strategies. Prerequisites: FON100 or FON241 or permission of instructor.

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: FON161 or 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.
**COURSE DESCRIPTIONS**

**FRE102**  
Elementary French II  
4 Credits 4 Periods  
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  
3 Credits 3 Periods  
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  
4 Credits 4 Periods  
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**  
Intermediate French II  
4 Credits 4 Periods  
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.

**FRE225**  
Intermediate French Conversation I  
3 Credits 3 Periods  
Continued development of skills in conversational French for business or travel. Prerequisites: FRE116, or permission of Department or Division.

**FSC-Fire Science Technology**

**FSC101**  
Intro To Fire Service Selection  
3 Credits 4 Periods  
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**  
Fire Department Operations  
11 Credits 19.6 Periods  
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**  
Hazardous Materials/First Responder  
3 Credits 3 Periods  
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**  
Introduction To Fire Protection  
3 Credits 3 Periods  
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**  
Fundamentals Of Fire Prevention  
3 Credits 3 Periods  
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**  
Wildland Firefighter  
3 Credits 3 Periods  
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**  
Emergency Vehicle Driver Operator  
2 Credits 2 Periods  
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**  
Introduction To Fire Suppression  
3 Credits 3 Periods  
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**  
Fire Apparatus  
3 Credits 3 Periods  
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**  
Fire Hydraulics  
3 Credits 3 Periods  
Review of basic mathematics. Hydraulic laws and formulas as applied to the fire service. Application of formulas and mental calculations to hydraulic problems, water supply variables, and discharge requirements for pumpers. Prerequisites: None. 3 Credits 3 Periods
FSC119  Introduction Fire Service Ethics  3 Credits 3 Periods
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  Fitness For Firefighters/CPAT  1 Credit 1.5 Periods
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  Fitness And Conditioning For Firefighters  3 Credits 4.6 Periods
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  Emergency Response to Terrorism  3 Credits 3 Periods
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  Disaster Recovery Operations  3 Credits 3 Periods
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  Emergency Preparedness  3 Credits 3 Periods
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  Fundamentals of Emergency Management  3 Credits 3 Periods
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  Hazard Mitigation  3 Credits 3 Periods
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  Supervisory Training For Firefighters  3 Credits 3 Periods
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  Firefighting Tactics And Strategy  3 Credits 3 Periods
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  Command Strategies for Major Emergencies  3 Credits 3 Periods
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  Firefighter Safety and Building Construction  3 Credits 3 Periods
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.

FSC209  Fire Investigation I  3 Credits 3 Periods
Methods of determining point of fire origin, path of fire travel, and fire cause. Includes recognizing and preserving evidence; interviewing witnesses; arson laws and types of arson fires; and court testimony, reports, and records. Prerequisites: None.

FSC210  Fire Investigation II  3 Credits 3 Periods
Focus on practical skills for fire investigators. Emphasis on hands-on application with practice examining and recording the fire/arson scene. Includes classroom and field exercises on each section. Prerequisites: FSC209 or permission of instructor.

FSC211  Fire Investigation III  3 Credits 3 Periods
Focus on case building for fire investigators. Emphasis on hands-on application, practice examining and recording the fire/arson scene. Includes field exercises with arson task force to investigate a crime scene. Prerequisites: FSC210 or permission of instructor.

FSC214  Human Resource Management in Fire Service  3 Credits 3 Periods
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.
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<td>FSC224</td>
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<td>FSC258</td>
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<td>FSC282</td>
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<td>GBS107</td>
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<td>GBS110</td>
<td>Human Relations in Business and Industry</td>
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<td>GBS120</td>
<td>Workplace Communication Skills</td>
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<td>GBS124</td>
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<td>GBS126</td>
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<td>GBS131</td>
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<td>GBS132</td>
<td>Personal And Family Financial Security</td>
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<td>GBS151</td>
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<td>Business Law (UCC)</td>
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<tr>
<td>GBS207</td>
<td>Business Law (General Corporate)</td>
<td>3</td>
<td>3</td>
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<tr>
<td>GBS211</td>
<td>Legal, Ethical and Regulatory Issues of the Internet Studies</td>
<td>3</td>
<td>3</td>
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</tbody>
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**FUS - Future Studies**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Periods</th>
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</thead>
<tbody>
<tr>
<td>FUS101</td>
<td>Dimensions Of The Future</td>
<td>3</td>
<td>3</td>
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</tbody>
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**GBS - General Business**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Periods</th>
</tr>
</thead>
<tbody>
<tr>
<td>GBS104</td>
<td>Quality Telephone Techniques</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>GBS107</td>
<td>Workplace Readiness Skills</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>GBS110</td>
<td>Human Relations in Business and Industry</td>
<td>3</td>
<td>3</td>
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</tbody>
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**COURSE COURSE DESCRIPTIONS**
### GBS - Business

**GBS220**<br>Quantitative Methods In Business<br>3 Credits 3 Periods<br>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.

**GBS221**<br>Business Statistics<br>3 Credits 3 Periods<br>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.

**GBS233**<br>Business Communication<br>3 Credits 3 Periods<br>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.

**GBS238**<br>Business Journalism<br>3 Credits 3 Periods<br>Focus on reporting for and about business. Examines the nature and functions of business and the roles of business journalists. Prerequisites: JRN201 and GBS151.

**GBS261**<br>Investments I<br>3 Credits 3 Periods<br>Evaluation of various investment forms including study of inflation, taxation, government securities, stocks and bonds, real estate and retirement plans. Prerequisites: None.

**GBS270AC**<br>Business Internship<br>3 Credits 3 Periods<br>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.

**GBS282**<br>Volunteerism General Business: Service-Learning Experience<br>1-3 Credits 1-3 Periods<br>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. Prerequisites: GBS151 and permission of Instructor.

**GCU - Geography: Cultural**

**GCU102**<br>Introduction to Human Geography<br>3 Credits 3 Periods<br>Systematic study of human use of the earth. Spatial organization of economic, social, political, and perceptual environments. Prerequisites: None.

**GCU221**<br>World Geography I: Eastern Hemisphere<br>3 Credits 3 Periods<br>Description and analysis of spatial variations in culture, social, economic, and political phenomena in major world regions. Emphasis on the major cultural realms of Europe, North Africa, and Asia. Prerequisites: None.

**GCU122**<br>World Geography II: Western Hemisphere<br>3 Credits 3 Periods<br>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.

**GCU222**<br>Arizona Geography<br>3 Credits 3 Periods<br>The historical to modern development of Arizona. The interplay between the physical, cultural and economic factors affecting Arizona today. Prerequisites: None.

### GER - German

**GER101**<br>Elementary German I<br>4 Credits 4 Periods<br>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.

**GER102**<br>Elementary German II<br>4 Credits 4 Periods<br>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.

**GER201**<br>Intermediate German I<br>4 Credits 4 Periods<br>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**<br>Intermediate German II<br>4 Credits 4 Periods<br>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**<br>Introduction To Geology I: Physical Lecture<br>3 Credits 3 Periods<br>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**<br>Introduction to Geology II: Historical Lecture<br>3 Credits 3 Periods<br>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.
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Periods</th>
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</thead>
<tbody>
<tr>
<td>GLG103</td>
<td>Introduction To Geology I: Physical Lab</td>
<td>1</td>
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<tr>
<td></td>
<td>May accompany GLG101. Study of common rock-forming minerals, rocks, and maps. Prerequisites: None.</td>
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<tr>
<td>GLG104</td>
<td>Introduction to Geology II: Historical Lab</td>
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<td>3</td>
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<tr>
<td></td>
<td>May accompany GLG102. Study of geological structures and rocks, fossils, and geologic maps. May require field trips. Prerequisites: None.</td>
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<tr>
<td>GLG105</td>
<td>Introduction to Planetary Science</td>
<td>4</td>
<td>6</td>
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<td>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.</td>
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<tr>
<td>GLG110</td>
<td>Geologic Disasters and the Environment</td>
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<td>Acquaints students with the use and importance of geological studies as they apply to the interactions between people and the earth. Includes geological processes and hazards such as floods, earthquakes, and landslides; use of fossil fuels; mining of raw materials. Prerequisites: None.</td>
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<tr>
<td>GLG111</td>
<td>Geologic Disasters and the Environment</td>
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<td></td>
<td>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.</td>
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<tr>
<td>GLG121</td>
<td>Geology of the Grand Canyon</td>
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<td></td>
<td>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.</td>
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<tr>
<td>GLG220AA</td>
<td>Field Geology of the Southwest</td>
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<td></td>
<td>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.</td>
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<tr>
<td>GLG231AB</td>
<td>Special Topics in Geology</td>
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<td>Exploration of important topics in geology. Specific topic varies. Prerequisites: None.</td>
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<td>GLG280</td>
<td>Geology of Arizona Lecture</td>
<td>3</td>
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<td>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.</td>
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<tr>
<td>GLG282</td>
<td>Volunteerism for Geology: A Service-Learning</td>
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<td></td>
<td>Experience Service-learning field experience within human service organizations, government offices, public schools, or hospitals. May be repeated for a total of six (6) GLG282 credit hours; may not repeat specific agency assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in catalog. Prerequisites: Permission of Instructor.</td>
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**GLO - Global Citizenship**

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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>GLO298AA</td>
<td>Special Projects (See Page 280)</td>
<td>1-3</td>
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**GPH - Geography: Physical**

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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Periods</th>
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<tbody>
<tr>
<td>GPH111</td>
<td>Introduction to Physical Geography</td>
<td>4</td>
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<tr>
<td></td>
<td>Spatial and functional relationships among climates, landforms, soils, water, and plants. Prerequisites: None.</td>
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<td>GPH210</td>
<td>Society and Environment</td>
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<td></td>
<td>Principles of physical geography relating to environmental problems pertinent to contemporary society. Pollution, maladjusted land use, resource exploitation. Prerequisites: ENGL101, or ENG107, or equivalent.</td>
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<td>GPH212</td>
<td>Introduction to Meteorology I</td>
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<td>Atmospheric processes and elements. General and local circulation, heat exchange and atmospheric moisture. Prerequisites: None.</td>
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<td>GPH213</td>
<td>Introduction to Climatology</td>
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<td>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.</td>
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<tr>
<td>GPH214</td>
<td>Introduction to Meteorology I Laboratory</td>
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<td>Basic meteorological and climatological measurements. Prerequisites: None. Prerequisites: None. Corequisites: GPH212.</td>
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<tr>
<td>GPH215</td>
<td>Introduction to Climatology Laboratory</td>
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<td>A mathematical, statistical, and spatial analysis of climatological phenomena. Prerequisites: None. Corequisites: GPH213.</td>
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<tr>
<td>GPH219</td>
<td>Introduction to GIS Using ArcGIS</td>
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<tr>
<td></td>
<td>An introduction to desktop Geographic Information Systems (GIS) technology using ArcGIS software. Prerequisites: CIS105 or CSC180 or permission of Instructor.</td>
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<tr>
<td>GPH220</td>
<td>Intermediate GIS Using ArcGIS</td>
<td>3</td>
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<tr>
<td></td>
<td>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.</td>
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</tbody>
</table>
GPH225  3 Credits 3 Periods  
GIS: Applications in Homeland Security and Emergency Preparedness  
Designed to identify and apply spatial data management and analysis techniques to homeland security and emergency preparedness operations and scenarios. Prerequisites: 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.  

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.

GTC223  3 Credits 6 Periods
Advanced Machine Tools
Advanced machining practices; emphasis on application of machines and tool theory. Prerequisites: GTC102 or (MET101 and MET150).

GTC236  3 Credits 6 Periods
CAD/CAM Computer Numerical Control (CNC) Programming
Programming of Computer Numerical Control (CNC) machine tools such as CNC milling machines and turning centers. Utilizing computer aided drafting and computer aided manufacturing (CAD/CAM) for design and generation of part geometry. Verification of tool path using CAM graphics. Generate program media using a CAM post processor. Prerequisites: None. Prerequisites: GTC/ MET206.

GTC246  3 Credits 6 Periods
Advanced CAD/CAM CNC Programming
Programming of Computer Numerical Control (CNC) Mill, Lathe, and Wire Electrical Discharge Machine (EDM) utilizing multiaxis and three dimensional graphics input. Prerequisites: GTC236.

GTC266  3 Credits 6 Periods
Solids Modeling-Solidworks
CAD modeling, solid part generation, assembly of parts, and working drawing creation. Applications of CAD/CAM in Computer Integrated Manufacturing (CIM). Prerequisites: GTC246, DFT254, or permission of Instructor.

GTC276  3 Credits 6 Periods
Solids Programming
Parametric modeling, CNC part production, model to CAM system integration, and solid model part representation. Applied CAD/CAM in the role of Computer Integrated Manufacturing (CIM). Prerequisites: GTC266.

GTC298  1-3 Credits
Special Projects (See Page 280)

HBR - Hebrew

HBR101  4 Credits 4 Periods
Elementary Biblical Hebrew I
Introduction to the basic alphabet, grammar, pronunciation and vocabulary of classical Hebrew. Listening, speaking, reading, and writing skills. Prerequisites: None.

HBR102  4 Credits 4 Periods
Elementary Biblical Hebrew II
Continued study of grammar and vocabulary of classical Hebrew with emphasis on oral reading and interpretation skills. Prerequisites: HBR101, or equivalent.

HBR201  4 Credits 4 Periods
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

HCC130  3 Credits 3 Periods
Fundamentals In Health Care Delivery
Overview of current health care professions including career and labor market information. Health care delivery systems, third party payers, and facility ownership. Health organization structure, patient rights and quality care. Health care and life values. Definition and importance of values, ethics, and essential behaviors in the workplace. Worker rights and responsibilities. Healthful living practices to include nutrition, stress management and exercise. Occupational Safety and Health Administration (OSHA) standard precautions and facility safety. Use of principles of body mechanics in daily living activities. Basic communication skills which facilitate teamwork in the health care setting. Focus on development of personal communication skills and an understanding of how effective communication skills promote teamwork. Focus on intercultural communication strategies. Prerequisites: None.

HCC145  3 Credits 3 Periods
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.

HCR - Health Care Related

HCR210  3 Credits 3 Periods
Clinical Health Care Ethics
An introduction to health care ethics with emphasis on analysis and ethical decision making at both the clinical and health policy levels for health care professionals. Theoretical foundation of bioethics reviewed within historical and contemporary contexts. Prerequisites: ENG102.
HCR220  Introduction to Nursing and Health Care Systems  3 Credits 3 Periods
Introduction to the social, political, and economic contexts of the nursing profession and health care systems in the United States. Prerequisites: Grade of “C” or better in ENG102 or ENG108.

HCR230  Culture And Health  3 Credits 3 Periods
Relation between cultures of diverse groups and health/illness. Emphasis on cross-cultural communication, including awareness of own cultural influences and indigenous and complementary healing practices. Prerequisites: None.

HCR240  Human Pathophysiology  4 Credits 4 Periods
Chemical, biological, biochemical, and psychological processes as a foundation for the understanding of alterations in health. The structural and functional pathophysiology of alterations in health; selected therapeutics considered. Prerequisites: BIO202 or BIO205 or equivalent.

HES-Health Science & First Aid  Healthful Living  3 Credits 3 Periods
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)  0.5 Credit 0.5 Period
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  3 Credits 3 Periods
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  3 Credits 3 Periods
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  3 Credits 3 Periods
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.

HES271  Prevention And Treatment Of Athletic Injuries  3 Credits 3 Periods
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.

HES273  Athletic Training: Advanced Wrapping and Taping Techniques  2 Credits 2 Periods
Expands and enhances practical uses of basic taping and wrapping skills. Hands-on experience in the use of braces, athletic taping, and elastic wraps to care for athletic injuries. Prerequisites: HES271 or permission of instructor.

HES282  Service-Learning Experience in Health Science  1-3 Credits 1-3 Periods
Unpaid Service-Learning (SL) experience, completed with approved community partner. Prerequisites: Permission of Instructor. HES282 may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.

HIS - History  History of Western Civilization to Middle Ages  3 Credits 3 Periods
Survey of the origin and development of Western civilization and its institutions from prehistory through the Ancient World and the Middle Ages. Prerequisites: None.

HIS100  History of Western Civilization Middle Ages to 1789  3 Credits 3 Periods
Survey of origin and development of Western civilization and its institutions from the Renaissance and Reformation through Age of Enlightenment. Prerequisites: None.

HIS101  History of Western Civilization 1789 to Present  3 Credits 3 Periods
Survey of origin and development of Western civilization and its institutions from French Revolution through the present. Prerequisites: None.

HIS102  United States History to 1865  3 Credits 3 Periods
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.

HIS103  United States History 1865 to Present  3 Credits 3 Periods
The political, economic, and social development of United States from 1865 to the present time. Prerequisites: None.

HIS104  United States History 1865 to Present  3 Credits 3 Periods
The political, economic, and social development of United States from 1865 to the present time. Prerequisites: None.

HIS105  Arizona History  3 Credits 3 Periods
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.
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<th>Course Code</th>
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<th>Credits</th>
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<tr>
<td>HIS106</td>
<td>Southwest History</td>
<td>3 Credits</td>
<td>3 Periods</td>
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<tr>
<td>HIS107</td>
<td>Selected Issues in United States History</td>
<td>3 Credits</td>
<td>3 Periods</td>
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<tr>
<td>HIS108</td>
<td>United States History 1945 to the Present</td>
<td>3 Credits</td>
<td>3 Periods</td>
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<tr>
<td>HIS109</td>
<td>Mexican-American History and Culture</td>
<td>3 Credits</td>
<td>3 Periods</td>
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<tr>
<td>HIS110</td>
<td>World History to 1500</td>
<td>3 Credits</td>
<td>3 Periods</td>
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<tr>
<td>HIS111</td>
<td>World History 1500 to the Present</td>
<td>3 Credits</td>
<td>3 Periods</td>
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<tr>
<td>HIS140</td>
<td>American Indian History</td>
<td>3 Credits</td>
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<td>HIS203</td>
<td>African-American History to 1865</td>
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<td>HIS212</td>
<td>Historical Foundations of Religion</td>
<td>3 Credits</td>
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<td>HIS251</td>
<td>History of England to 1700</td>
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<tr>
<td>HIS273</td>
<td>US Experience in Vietnam 1945-1975</td>
<td>3 Credits</td>
<td>3 Periods</td>
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<tr>
<td>HIS282</td>
<td>Volunteerism for History: A Service-Learning Experience</td>
<td>1-3 Credits</td>
<td>1-3 Periods</td>
</tr>
<tr>
<td>HIS298</td>
<td>Special Projects (See Page 280)</td>
<td>1-3 Credits</td>
<td>1-3 Periods</td>
</tr>
<tr>
<td>HLR286</td>
<td>Women and Health: Body/Mind/Spirit Connection</td>
<td>3 Credits</td>
<td>3 Periods</td>
</tr>
<tr>
<td>HRM110</td>
<td>Introduction To Hospitality And Tourism Management</td>
<td>3 Credits</td>
<td>3 Periods</td>
</tr>
</tbody>
</table>

**HLR - Health Related**

**HRM - Hotel Restaurant Management**
COURSE COURSE DESCRIPTIONS

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.

HRM146  3 Credits 3 Periods
International Meetings, Conventions and Exhibitions
Introduces the planning and executing of multinational and multicultural meetings, conventions and exhibitions. Emphasizes coordination, logistics, venue selection, budgeting and cultural competencies critical to a global business environment. Prerequisites: HRM110.

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.

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, duties 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.

IBS298  1-3 Credits
Special Projects (See Page 280)

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

IGS292  3 Credits 3 Periods
Studies in Cultural Diversity
Interdisciplinary examination of selected topics in cultural diversity. Study of the interrelationships among diverse cultures within the contemporary United States. 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 drafting 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 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 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 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 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 or permission of instructor.

INT175 Custom Design
Custom design for interiors. Creative problem solving using design theory and process. Visualization of concepts through sketching. Prerequisites: INT105 and (ARC121 or INT100).

INT190 Space Planning
Study of creative, critical, analytical and strategic thinking as it relates to human behavior and the built environment. Emphasis on design theory, process, and application. Stresses creative expression through the utilization of design elements and principles. Prerequisites: INT105 and (ARC121 or INT100). Prerequisites or Corequisites: INT140 or ARC141.

INT200 Advanced CAD For Interior Design
Continued development of skills in CAD for the interior designer focusing on current technology and trends in the interior design industry. Emphasis is placed on critical thinking skills. Experience in production techniques including rendering and manipulation of two- and three-dimensional space. Prerequisites: INT140, or prior CAD experience, or permission of instructor.

INT205 Residential Design
Use of design process to create design solutions for residential spaces. Functional and aesthetic analysis of interior components. Includes kitchen and bath design; residential furnishings, fixtures and equipment (FF&E); and environment considerations. Refinement of presentation skills. Prerequisites: INT145, INT170, and INT190.

INT230 Presentation Techniques
Advanced freehand sketching and perspective drawing skills. Explores a variety of styles and techniques with emphasis on presentation type drawings and portfolio development techniques used by design professionals. Prerequisites: INT145.

INT260 Interior Codes and Regulations
Study of interior building codes, regulations, and standards and their impact on the health, safety, and welfare of the public. Emphasis on occupancy classifications, means of egress, fire protection, finish/furniture standards and testing, and Americans with Disabilities Act Accessibility Guidelines (ADAAG). Prerequisites or Corequisites: INT190 or permission of Department or Division.

INT266 Current Topics in Interior Design
Presentation of current topics related to the interior design industry. Emphasis on practical applications of historical, technical, business, social, or creative aspects of the field. Includes demonstration or in-depth description and may involve hands-on experience. Prerequisites: Permission of Department or Division.

INT271AA Interior Design Internship
Interior design work experience in the interiors industry. Required to work 240 hours. Supervised and evaluated by a faculty coordinator. May be repeated for a total of six (6) credits with department permission. Prerequisites: Permission of Department or Division.

INT271AB Interior Design Internship
Interior design work experience in the interiors industry. Required to work 160 hours. Supervised and evaluated by a faculty coordinator. May be repeated for a total of four (4) credits with department permission. Prerequisites: Permission of Department or Division.

INT271AC Interior Design Internship
Interior design work experience in the interiors industry. Required to work 80 hours. Supervised and evaluated by a faculty coordinator. Prerequisites: Permission of Department or Division.

INT282 Service-Learning Experience in Interior Design
Unpaid Service-Learning (SL) experience, completed with approved community partner. Prerequisites: Permission of Instructor. INT282 may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.

INV150 Innovation
Individual skill development for the innovation process. Includes the importance of imagination, experience, and situational awareness as well as emotional intelligence. Prerequisites: None. INV110 is recommended. INV150 may be repeated for a total of six (6) credits.
<table>
<thead>
<tr>
<th><strong>ITA - Italian</strong></th>
<th><strong>JRN - Journalism</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>ITA101 Elementary Italian I</td>
<td>JRN125 Photo Editing</td>
</tr>
<tr>
<td>4 Credits 4 Periods</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>ITA102 Elementary Italian II</td>
<td>JRN201 News Writing</td>
</tr>
<tr>
<td>4 Credits 4 Periods</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>ITA201 Intermediate Italian I</td>
<td>JRN203 Writing for Online Media</td>
</tr>
<tr>
<td>4 Credits 4 Periods</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>ITA202 Intermediate Italian II</td>
<td>JRN205 Copyediting</td>
</tr>
<tr>
<td>4 Credits 4 Periods</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><strong>JPN - Japanese</strong></td>
<td><strong>JRN215 News Production</strong></td>
</tr>
<tr>
<td>JPN100 Introduction to Japanese</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>1 Credit 1 Period</td>
<td><strong>JRN225 Photojournalism</strong></td>
</tr>
<tr>
<td>JPN101 Elementary Japanese I</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>5 Credits 6 Periods</td>
<td><strong>JRN234 Feature Writing</strong></td>
</tr>
<tr>
<td>JPN102 Elementary Japanese II</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>5 Credits 6 Periods</td>
<td><strong>JRN235 Practicum: Public Relations</strong></td>
</tr>
<tr>
<td>JPN201 Intermediate Japanese I</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>5 Credits 6 Periods</td>
<td><strong>JRN207 Textbook Writing</strong></td>
</tr>
<tr>
<td>JPN202 Intermediate Japanese II</td>
<td>Writing textbooks, with emphasis on research, writing, and editing. Includes research, interviewing, writing techniques, editing and professional concerns. Prerequisites: Placement into ENG101, or ENG107, or equivalent.</td>
</tr>
<tr>
<td>5 Credits 6 Periods</td>
<td><strong>JRN208 Technical Writing</strong></td>
</tr>
<tr>
<td>JPN203 Intermediate Japanese III</td>
<td>Emphasis on technical writing, with emphasis on research, interviewing, writing techniques, editing and professional concerns. Prerequisites: Placement into ENG101, or ENG107, or equivalent.</td>
</tr>
</tbody>
</table>
### JRN - Journalism

**JRN236**

**Advanced Practicum: Public Relations**
3 Credits 5 Periods
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.

**JRN240**

**Journalism Internship**
1-3 Credits 1-3 Periods
Journalism work experience with a newspaper or other news organization. 80 hours of designated work per credit. Maximum of 6 credits allowed. Prerequisites: JRN215.

**JRN298**

**Special Projects (See Page 280)**
1-3 Credits

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### JUD - Judicial Studies

**JUD101**

**The Courts In Arizona**
1 Credit 1 Period
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.

**JUD103**

**Role Of The Court Staff**
1 Credit 1 Period
Roles and responsibilities of court staff and other court personnel in Arizona. Prerequisites: None.

**JUD107**

**Civil Procedure In Arizona Courts**
2 Credits 2 Periods
Rules of civil procedure as applied to both standard civil actions and small claims cases found in Arizona limited jurisdiction courts. Conduct of the typical civil trials and small claims hearings, and pretrial procedures in managing a civil calendar. Prerequisites: None.

**JUD109**

**Judicial Writing**
1 Credit 1 Period
Judicial writing skills, including research skills, organization, grammar, and style. Goals and objectives of writing in courts. Prerequisites: None.

**JUD111**

**Sentencing Misdemeanants**
1 Credit 1 Period
Alternatives, methods, laws, rules and practices governing the sentencing of persons convicted of misdemeanors under Arizona law. Prerequisites: None.

**JUD113**

**Court Management**
2 Credits 2 Periods
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**

**Injunctive Actions**
2 Credits 2 Periods
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**

**Alternative Dispute Resolution**
1 Credit 1 Period
Techniques for conflict resolution. Prerequisites: None.

**JUD121**

**Appeals**
1 Credit 1 Period
Processing of appeals from limited jurisdiction to general jurisdiction courts. Prerequisites: None.

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### LAT - Latin

**LAT101**

**Elementary Latin I**
4 Credits 4 Periods
Introduction to the basic grammar and vocabulary of the Latin language. Practice reading and translating Latin into English. Prerequisites: None.

**LAT102**

**Elementary Latin II**
4 Credits 4 Periods
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.

**LAT201**

**Intermediate Latin I**
4 Credits 4 Periods
Introduction to translation technics using selections from various authors; emphasis on use of primary texts. Prerequisites: LAT102.

**LAT202**

**Intermediate Latin II**
4 Credits 4 Periods
Refinement of translation techniques using selections from Virgil’s Aeneid; emphasis on use of language and meter. Prerequisites: LAT201.

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### LBS - Library Skills

**LBS220**

**Information Literacy And The Internet**
1 Credit 1 Period
Exploration of the Internet as an informational resource. Development of basic information literacy skills. Prerequisites: None.

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### LBT - Library Technology

**LBT140**

**Multi-Media For Libraries And Information Centers**
3 Credits 3 Periods
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.
### COURSE DESCRIPTIONS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
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<tbody>
<tr>
<td>LBT160</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Library Information Systems</td>
<td>3 Credits</td>
<td>3 Periods</td>
</tr>
<tr>
<td>Introduction to information systems for libraries and the information industry, including the fundamentals of library systems such as online catalogs, computerized circulation systems, basic operating systems, LANs and networked databases. Evolution and future trends in library technology, integration of library online systems, and impact of computing on libraries and the information industry. Prerequisites or Corequisites: LBT101 or permission of Instructor.</td>
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<tr>
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<tbody>
<tr>
<td>LBT217</td>
<td>1</td>
<td>1</td>
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<tr>
<td>Serials Management</td>
<td>1 Credit</td>
<td>1 Period</td>
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<tr>
<td>Selection, acquisition, de-acquisition, cataloging, housing, reference service, automation, and financial management of serials. Prerequisites or Corequisites: LBT101 or permission of Instructor or Program Director.</td>
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<tr>
<td>LBT218</td>
<td>1</td>
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<tr>
<td>Basic Materials Repair</td>
<td>1 Credit</td>
<td>1 Period</td>
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<tr>
<td>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.</td>
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<tr>
<td>LBT219</td>
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<tr>
<td>Collection Maintenance and Shelf Management</td>
<td>1 Credit</td>
<td>1 Period</td>
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<tr>
<td>Introduction to collection management and maintenance, including ongoing collection assessment, deselection, and inventory. Effective organization and physical location of materials. Prerequisites: None.</td>
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<tr>
<td>LBT252</td>
<td>1</td>
<td>1</td>
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<tr>
<td>Customer Service and Supervision</td>
<td>1 Credit</td>
<td>1 Period</td>
</tr>
<tr>
<td>Communication, teamwork, leadership, and supervisory skills required in delivery of customer services. Working effectively with users, providing and evaluating services, working with problem patrons, and strategies for delivery of customer services. Theory and practice of supervision and types of groups to be supervised. Prerequisites: None.</td>
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<tr>
<td>LBT270</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Practicum Projects</td>
<td>1 Credit</td>
<td>5 Periods</td>
</tr>
<tr>
<td>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.</td>
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<td>LBT271</td>
<td>1</td>
<td>1</td>
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<tr>
<td>Library Information Industry Careers And Portfolio Development</td>
<td>1 Credit</td>
<td>1 Period</td>
</tr>
<tr>
<td>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.</td>
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<tr>
<td>LBT272AA</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Library Internship In Technical Services</td>
<td>1 Credit</td>
<td>5 Periods</td>
</tr>
<tr>
<td>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.</td>
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<tr>
<td>Library Internship In Public Services</td>
<td>1 Credit</td>
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<tr>
<td>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.</td>
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<tr>
<td>Library Internship In Media Services Or Information Services</td>
<td>1 Credit</td>
<td>5 Periods</td>
</tr>
<tr>
<td>Supervised work experience in media information services in a public, school, academic or special library. A daily log of activities required for discussion and evaluation of objectives in regularly scheduled group sessions and individual conferences. Prerequisites: Permission of Program Director or Instructor.</td>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>LBT274</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Independent Study In Library Information Services</td>
<td>1 Credit</td>
<td>5 Periods</td>
</tr>
<tr>
<td>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.</td>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>LBT282</td>
<td>1-3</td>
<td>1-3</td>
</tr>
<tr>
<td>Volunteerism for Library Science: A Service-Learning Experience</td>
<td>1-3 Credits</td>
<td>1-3 Periods</td>
</tr>
<tr>
<td>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.</td>
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### LDR - Leadership

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<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
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</thead>
<tbody>
<tr>
<td>LDR102</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Emerging Leaders II</td>
<td>2 Credits</td>
<td>2 Periods</td>
</tr>
<tr>
<td>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.</td>
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### MAT - Mathematics

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<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
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</thead>
<tbody>
<tr>
<td>MAT082</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Basic Arithmetic</td>
<td>3 Credits</td>
<td>3 Periods</td>
</tr>
<tr>
<td>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.</td>
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</tbody>
</table>
MAT090  Developmental Algebra  5 Credits 5 Periods
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.

MAT091  Introductory Algebra  4 Credits 4 Periods
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  Introductory Algebra  3 Credits 3 Periods
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  Mathematical Concepts/Applications  3 Credits 3 Periods
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 MAT092, or MAT102, or equivalent, or satisfactory score on District Placement exam.

MAT120  Intermediate Algebra  5 Credits 5 Periods
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  Intermediate Algebra  4 Credits 4 Periods
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  Intermediate Algebra  3 Credits 3 Periods
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  College Mathematics  3 Credits 3 Periods
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  College Algebra/Functions  5 Credits 5 Periods
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  College Algebra/Functions  4 Credits 4 Periods
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  College Algebra/Functions  3 Credits 3 Periods
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 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 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 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 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: MAT180, 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 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 (grade of “C” or better in MAT230 or MAT231). Prerequisites: Grade of B or better in MAT140, or MAT141, or MAT142, or (grade of “C” or better in MAT150, or MAT151, or MAT152), or (grade of “C” or better in MAT230 or MAT231). Emphasis on topics relevant to computer science. Prerequisites: Grade of “C” or better in CSC100 and (MAT202, or MAT206, or equivalent) or permission of Instructor.

MAT212 Brief Calculus
Introduction to the theory, techniques and applications of the differential and integral calculus of functions with problems related to business, life, and the social sciences. Students may receive credit for only one of the following: MAT212 or MAT213. Prerequisites: Grade of “C” or better in MAT150, or MAT151, or MAT152, or MAT187, or appropriate Math placement test score.

MAT218 Mathematical Analysis for Business
An introduction to the mathematics required for the study of business. Includes multivariable optimization, Lagrange multipliers, linear programming, linear algebra, probability, random variables, discrete and continuous distributions. Prerequisites: Grade of “C” or better in MAT212 or MAT213.

MAT220 Calculus with Analytic Geometry I
Limits, continuity, differential and integral calculus of functions of one variable. Students may receive credit for only one of the following MAT220 or MAT221. Prerequisites: Grade of “C” or better in [MAT182 and (MAT150, MAT151 or MAT152)], or MAT187, or appropriate Math placement test score.

MAT225 Elementary Linear Algebra
Introduction to matrices, systems of linear equations, determinants, vector spaces, linear transformations and eigenvalues. Emphasizes the development of computational skills. Prerequisites: Grade of “C” or better in MAT212 or MAT220, or MAT221, or equivalent.

MAT227 Discrete Mathematical Structures
Introduction to lattices, graphs, Boolean algebras, and groups. Emphasis on topics relevant to computer science. Prerequisites: Grade of “C” or better in CSC100 and (MAT202, or MAT206, or equivalent) or permission of Instructor.

MAT231 Calculus with Analytic Geometry II
Techniques of integration for both proper and improper integrals with applications to the physical and social sciences, elements of analytic geometry, and the analysis of sequences and series. Student may receive credit for only one of the following: MAT230 or MAT231. Prerequisites: Grade of “C” or better in MAT220, or MAT221, or equivalent.

MAT241 Calculus with Analytic Geometry III
Multivariate calculus including vectors, vector-valued functions, partial differentiation, multiple integration and an introduction to vector fields. Student may receive credit for only one of the following: MAT240 or MAT241. Prerequisites: Grade of “C” or better in MAT230 or MAT231.

MAT276 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 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 (See Page 280)
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

MET100AA 2 Credits 2 Periods
Tool Room I: Introduction to Machine Processes

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 qualifying 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  
Survey of American Music  
3 Credits 3 Periods  
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.

MHL241  
Music History and Literature to 1750  
3 Credits 3 Periods  
In-depth study of music history from the Baroque period. Prerequisites or Corequisites: MTC155 and MTC156, or permission of Instructor.

MHL242  
Music History and Literature 1750 to Present  
3 Credits 3 Periods  
In-depth study of music history from the Classical period through the Contemporary period. Prerequisites: MHL241 or permission of instructor.

MIS - Military Science

MIS101  
Introduction To The Military I  
3 Credits 5 Periods  
Overview of mission, organization and structure of the Army and its role in national defense, discussion of current military issues. Prerequisites: None.

MIS102  
Introduction To The Military II  
3 Credits 5 Periods  
Introduces problem-solving methods, critical thinking, decision making, and group cohesion as applied in a military environment. Prerequisites: None.

MIS201  
Introduction To Leadership Dynamics I  
3 Credits 5 Periods  
Introduces interpersonal dynamics involved in military team operations; theory and application of military leadership principles. Prerequisites: None.

MIS202  
Introduction To Leadership Dynamics II  
3 Credits 5 Periods  
Introduction to interpersonal dynamics involved in military team operations; theory and application of military leadership principles. Prerequisites: None.

MKT - Marketing

MKT101  
Introduction to Public Relations  
3 Credits 3 Periods  
Emphasizes public relations techniques used both within and outside the business organization, including operation of a PR counseling firm. Prerequisites: None.

MKT109  
Introduction to Fashion Merchandising  
3 Credits 3 Periods  
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.

MKT110  
Marketing and Social Networking  
3 Credits 3 Periods  
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.

MKT151  
Display and Visual Merchandising  
3 Credits 3 Periods  
Examines 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.

MKT200  
Display and Visual Merchandising  
3 Credits 3 Periods  
Examines management/buyer role in investment, pricing, planning, controlling sales and inventories. Prerequisites: None. Any BPC.CIS spreadsheet course recommended.

MKT263  
Advertising Principles  
3 Credits 3 Periods  
Introduces the advertising function within business, including media study, creative strategies, and advertising campaigns. Prerequisites: None. MKT271 suggested, but not required.

MKT268  
Merchandising  
3 Credits 3 Periods  
Surveys structure and operation of retail organizations. Emphasizes merchandising to include price, location, time, promotion and quantity. Prerequisites: None. MKT271 suggested but not required.

MKT271  
Principles of Marketing  
3 Credits 3 Periods  
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.

MKT273  
Marketing Research  
3 Credits 3 Periods  
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.

MKT274AA  
Fashion Merchandising Study Tour  
1 Credit 5 Periods  
A tour of the fashion merchandising industry outside the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance awareness of this multifaceted career. Prerequisites: Permission of Department or Division.

MKT280  
Marketing Internship  
1-3 Credits 1-3 Periods  
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.
MKT296 Cooperative Education 1-4 Credits 5-20 Periods
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.

MSP - Mortuary Science

MSP101 Orientation To Funeral Service 1 Credit 1 Period
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.

MSP282 1-3 Credits 1-3 Periods
Service-Learning Experience in Communication
Unpaid Service-Learning (SL) experience, completed with approved community partner. Prerequisites: Permission of Instructor. COM282 may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.

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 MST150X), or permission of Instructor.
<table>
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<tr>
<th>Course Code</th>
<th>Course Description</th>
<th>Credits</th>
<th>Periods</th>
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<tbody>
<tr>
<td>MST157DA</td>
<td>Active Directory Windows Server Configuration</td>
<td>4 Credits</td>
<td>5 Periods</td>
</tr>
<tr>
<td></td>
<td>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.</td>
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<tr>
<td>MST158DA</td>
<td>Windows Server Administration</td>
<td>4 Credits</td>
<td>5 Periods</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>MTC101</td>
<td>Introduction to Music Theory</td>
<td>3 Credits</td>
<td>3 Periods</td>
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<tr>
<td></td>
<td>Designed to develop written and aural skills necessary for advanced study of music theory and skills. Recommended for music majors. Prerequisites: None.</td>
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<tr>
<td>MTC103</td>
<td>Introduction To Aural Perception</td>
<td>2 Credits</td>
<td>2 Periods</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>MTC105</td>
<td>Music Theory I</td>
<td>3 Credits</td>
<td>3 Periods</td>
</tr>
<tr>
<td></td>
<td>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.</td>
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<tr>
<td>MTC106</td>
<td>Aural Perception I</td>
<td>1 Credit</td>
<td>2 Periods</td>
</tr>
<tr>
<td></td>
<td>The development of listening and performing skills through dictation, sight singing and keyboard harmony. Prerequisites: None. Corequisites: MTC105.</td>
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<tr>
<td>MTC111</td>
<td>Lyric Writing</td>
<td>1 Credit</td>
<td>1 Period</td>
</tr>
<tr>
<td></td>
<td>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.</td>
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<tr>
<td>MTC113</td>
<td>Songwriting Techniques</td>
<td>1 Credit</td>
<td>1 Period</td>
</tr>
<tr>
<td></td>
<td>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.</td>
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<tr>
<td>MTC130</td>
<td>Jazz Theory</td>
<td>2 Credits</td>
<td>2 Periods</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>MTC155</td>
<td>Music Theory II</td>
<td>3 Credits</td>
<td>3 Periods</td>
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<tr>
<td></td>
<td>A continuation of Music Theory I with emphasis on harmony and part-writing procedures. Prerequisites: MTC105. Corequisites: MTC156.</td>
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<tr>
<td>MTC156</td>
<td>Aural Perception II</td>
<td>1 Credit</td>
<td>2 Periods</td>
</tr>
<tr>
<td></td>
<td>A continuation of Aural Perception I, including harmonic practices. Prerequisites: None. Corequisites: MTC155.</td>
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<tr>
<td>MTC180</td>
<td>Computer Literacy For Musicians</td>
<td>3 Credits</td>
<td>4 Periods</td>
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<tr>
<td></td>
<td>Instruction in basic computer literacy, including generic applications and music-specific programs with hands-on experience. Ability to read music notation required. Prerequisites: None.</td>
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<tr>
<td>MTC191</td>
<td>Electronic Music I</td>
<td>3 Credits</td>
<td>4 Periods</td>
</tr>
<tr>
<td></td>
<td>An introduction to producing music with Musical Instrument Digital Interface (MIDI) configurations consisting of computers, printers, synthesizers, and other compatible MIDI instruments. Prerequisites: None.</td>
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<tr>
<td>MTC192</td>
<td>Electronic Music II</td>
<td>3 Credits</td>
<td>4 Periods</td>
</tr>
<tr>
<td></td>
<td>Continued study of the production of music with Musical Instrument Digital Interface (MIDI) configurations. Emphasis on more complex configurations and their applications in song arrangements. Prerequisites: MTC191.</td>
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<tr>
<td>MTC203</td>
<td>Jazz Composition</td>
<td>3 Credits</td>
<td>3 Periods</td>
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<td></td>
<td>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.</td>
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<tr>
<td>MTC205</td>
<td>Music Theory III</td>
<td>3 Credits</td>
<td>3 Periods</td>
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<tr>
<td></td>
<td>The study of chromatic harmony and melody, modulation techniques and expanded chords. The analysis of formal structure. Prerequisites: MTC155. Corequisites: MTC206.</td>
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<tr>
<td>MTC206</td>
<td>Aural Perception III</td>
<td>1 Credit</td>
<td>2 Periods</td>
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<tr>
<td></td>
<td>A development of listening and performing skills, including an introduction of chromatic harmonic techniques and concepts of style. Prerequisites: None. Corequisites: MTC205.</td>
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<tr>
<td>MTC240</td>
<td>Composition</td>
<td>3 Credits</td>
<td>0.60 Period</td>
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<tr>
<td></td>
<td>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.</td>
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</tbody>
</table>
### MTC - Music: Commercial/Business

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MTC255</strong></td>
<td>3</td>
<td>Periods</td>
</tr>
<tr>
<td><strong>Music Theory IV</strong></td>
<td></td>
<td>A continuation of Music Theory III, including 20th century theories and techniques. Prerequisites: MTC205. Corequisites: MTC256.</td>
</tr>
<tr>
<td><strong>MTC256</strong></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>Aural Perception IV</strong></td>
<td></td>
<td>A continuation of Aural Perception III, including extended chords. Prerequisites: None. Corequisites: MTC255.</td>
</tr>
</tbody>
</table>

**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, MUC195AA, or TCM/VPT105.

**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. Emphasis on computer assisted production using Digital Audio Workstations and sound design techniques using industry-standard equipment. Prerequisites: MUC111, and (MUC195 or MUC195AA).

**MUC122**  3 Credits 5 Periods  
**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**  3 Credits 3 Periods  
**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.

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<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
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</thead>
<tbody>
<tr>
<td><strong>MUC138</strong></td>
<td>1</td>
<td>1 Period</td>
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<tr>
<td><strong>Disc Jockey Laboratory</strong></td>
<td></td>
<td>Operation, scope, roles and responsibilities in the commercial music production process. MUC138 may be repeated for a total of six (6) credit hours Prerequisites/Corequisites: MUC135.</td>
</tr>
<tr>
<td><strong>MUC180</strong></td>
<td>3</td>
<td>3 Periods</td>
</tr>
<tr>
<td><strong>Computer Literacy for the Music Business</strong></td>
<td></td>
<td>Basic computer literacy, including business applications used in the Music Industry, with hands-on experience. Prerequisites: MUC109 or permission of instructor.</td>
</tr>
<tr>
<td><strong>MUC194</strong></td>
<td>3</td>
<td>3 Periods</td>
</tr>
<tr>
<td><strong>Introduction To Audio Mixing Techniques</strong></td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td><strong>MUC195AA</strong></td>
<td>3</td>
<td>5 Periods</td>
</tr>
<tr>
<td><strong>Studio Music Recording I</strong></td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td><strong>MUC196</strong></td>
<td>3</td>
<td>3 Periods</td>
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<tr>
<td><strong>Studio Music Recording II</strong></td>
<td></td>
<td>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.</td>
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<tr>
<td><strong>MUC197</strong></td>
<td>3</td>
<td>3 Periods</td>
</tr>
<tr>
<td><strong>Live Sound Reinforcement I</strong></td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td><strong>MUC198</strong></td>
<td>3</td>
<td>3 Periods</td>
</tr>
<tr>
<td><strong>Live Sound Reinforcement II</strong></td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td><strong>MUC209</strong></td>
<td>3</td>
<td>3 Periods</td>
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<tr>
<td><strong>Music Industry Entrepreneurship</strong></td>
<td></td>
<td>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.</td>
</tr>
</tbody>
</table>
MUC210  3 Credits 3 Periods
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  3 Credits 3 Periods
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.

MUC215  1 Credit 1 Period
Innovation in Music Technology
Seminar in Music Technology with an emphasis on current product and service innovations. Emphasis on marketing and promotional uses of new technology. MUC215 may be repeated for credit. Prerequisites: None.

MUC222  3 Credits 5 Periods
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
Special Projects (See Page 280)

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.

MUE235  2 Credits 3 Periods
Class Percussion I
Practical class with emphasis on techniques of playing and teaching percussion instruments including hand position, rudiments, stick control, and elements of reading rhythms. Prerequisites: None.

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.

MUE238  2 Credits 3 Periods
Class Woodwinds II
Continuation of Class Woodwinds I with additional emphasis on skills including ensemble performance, transposition, increasing range and literature. Prerequisites: MUE237 or permission of instructor.
### MUE240 Introduction to Choral Methods
2 Credits 3 Periods
Overview of techniques, methods, materials, style characteristics, and repertoire used in directing choral music at the secondary level including simulated teaching, conducting, and the demonstration of vocal and choral performance practices. Prerequisites: None.

### MUE250 Vocal Pedagogy/Voice Methods
2 Credits 3 Periods
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 Special Projects (See Page 280)
1-3 Credits

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### MUP - Music: Performance

#### MUP101 Private Instruction
2 Credits 1.2 Periods
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 Private Instruction
2 Credits 1.2 Periods
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.

#### MUP123AA Studio Class/Piano
0.50 Credit 0.50 Period
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.

#### MUP123AB Studio Class/Voice
0.50 Credit 0.50 Period
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.

#### MUP123AC Studio Class/Guitar
0.50 Credit 0.50 Period
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.

#### MUP123AD Studio Class: Instrumental
0.50 Credit 0.50 Period
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.

#### MUP123AE Studio Class: Jazz Styles
0.50 Credit 0.50 Period
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.

#### MUP130 Beginning Group Piano
2 Credits 3 Periods
Basic introduction to playing piano through music reading, chords, rhythm, and written activities. Designed for those with little or no piano experience. Prerequisites: None.

#### MUP131 Class Piano I
2 Credits 3 Periods
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.

#### MUP132 Class Piano II
2 Credits 3 Periods
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.

#### MUP133 Class Voice I
2 Credits 3 Periods
Introduction to the fundamentals of vocal production. Emphasis on breathing techniques, tone production and performances in class of solo vocal literature. Prerequisites: None.

#### MUP134 Class Voice II
2 Credits 3 Periods
Continuation of Class Voice I including the elements of stage presence and diction. Prerequisites: MUP133 or permission of instructor.

#### MUP140 Elementary Piano Pedagogy
2 Credits 2 Periods
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.

#### MUP141 Intermediate Piano Pedagogy
2 Credits 2 Periods
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.
MUP150  Community Chorus  1 Credit 3 Periods
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.

MUP151  Private Instruction  1 Credit 0.60 Period
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  Private Instruction  2 Credits 1.2 Periods
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.

MUP153  A Cappella Choir  2 Credits 5 Periods
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  Jazz Vocal Ensemble  1 Credit 3 Periods
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.

MUP159  Community Orchestra  1 Credit 3 Periods
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.

MUP161  Community Band  1 Credit 3 Periods
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.

MUP162  Band  2 Credits 5 Periods
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.

MUP163  Jazz Ensemble  1 Credit 3 Periods
Practical and performance experience in various jazz styles. Open to all students on the basis of auditions. May be repeated for credit. Prerequisites: None.

MUP164  Jazz Improvisation I  2 Credits 3 Periods
Theoretical and performance skills in many styles of jazz improvisation. May be repeated for a total of six (6) credit hours. Prerequisites: None.

MUP165  Jazz Improvisation II  2 Credits 3 Periods
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.

MUP166  Jazz Piano I  1 Credit 2 Periods
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.

MUP181  Chamber Music Ensembles  1 Credit 2 Periods
Practical and performance experience in instrumental, vocal, and mixed ensembles. May be repeated for credit. Prerequisites: None.

MUP182  Chamber Singers  1 Credit 3 Periods
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  Flute Choir  1 Credit 3 Periods
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  Percussion Ensemble  1 Credit 3 Periods
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; 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.
<table>
<thead>
<tr>
<th>COURSE</th>
<th>COURSE DESCRIPTIONS</th>
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<tbody>
<tr>
<td>MUP201</td>
<td>2 Credits 1.2 Periods</td>
</tr>
<tr>
<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: MUP151.</td>
</tr>
<tr>
<td>MUP202</td>
<td>2 Credits 1.2 Periods</td>
</tr>
<tr>
<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: MUP152.</td>
</tr>
<tr>
<td>MUP209</td>
<td>2 Credits 2 Periods</td>
</tr>
<tr>
<td>Elements Of Conducting</td>
<td>Essentials of conducting techniques used in choral and instrumental ensembles including terminology, interpretation, and styles. Prerequisites: None.</td>
</tr>
<tr>
<td>MUP217</td>
<td>2 Credits 3 Periods</td>
</tr>
<tr>
<td>Music Theatre: Broadway Solos</td>
<td>Study and in-class performance of scenes and solos from Broadway musical literature. Prerequisites: None. MUP217 may be repeated for credit.</td>
</tr>
<tr>
<td>MUP225</td>
<td>2 Credits 3 Periods</td>
</tr>
<tr>
<td>Class Guitar I</td>
<td>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.</td>
</tr>
<tr>
<td>MUP226</td>
<td>2 Credits 3 Periods</td>
</tr>
<tr>
<td>Class Guitar II</td>
<td>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.</td>
</tr>
<tr>
<td>MUP227</td>
<td>2 Credits 3 Periods</td>
</tr>
<tr>
<td>Class Guitar III</td>
<td>Additional fingerboard positions. Ensemble techniques and performance. Prerequisites: MUP226 or permission of instructor.</td>
</tr>
<tr>
<td>MUP228</td>
<td>2 Credits 3 Periods</td>
</tr>
<tr>
<td>Class Guitar IV</td>
<td>Advanced fingerboard positions. Duet and trio performances. Advanced ensemble techniques. MUP228 may be repeated for credit. Prerequisites: MUP227 or permission of Instructor.</td>
</tr>
<tr>
<td>MUP231</td>
<td>2 Credits 3 Periods</td>
</tr>
<tr>
<td>Class Piano III</td>
<td>Development of intermediate piano techniques including selected solo literature, transposition of harmonic patterns, and secondary dominants. Prerequisites: MUP132 or permission of instructor.</td>
</tr>
<tr>
<td>MUP232</td>
<td>2 Credits 3 Periods</td>
</tr>
<tr>
<td>Class Piano IV</td>
<td>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.</td>
</tr>
<tr>
<td>MUP233</td>
<td>2 Credits 3 Periods</td>
</tr>
<tr>
<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 Credits 3 Periods</td>
</tr>
<tr>
<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 Credits 2 Periods</td>
</tr>
<tr>
<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 Credits 2 Periods</td>
</tr>
<tr>
<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 Credit 2 Periods</td>
</tr>
<tr>
<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 Credit 2 Periods</td>
</tr>
<tr>
<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>MUP251</td>
<td>1 Credit .6 Periods</td>
</tr>
<tr>
<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: MUP201.</td>
</tr>
<tr>
<td>MUP252</td>
<td>2 Credits 1.2 Periods</td>
</tr>
</tbody>
</table>
| 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: MUP202.

MUP270 2 Credits 5 Periods
Musical Theatre Workshop
Workshop in the study and performance of Musical Theatre repertoire. Including audition techniques, talent evaluation criticism, rehearsal techniques, vocal acting styles, stage movement, and performance. May be repeated for credit. Prerequisites: None.

MUP288 2 Credits 2 Periods
Basics of Piano Accompanying vocal
Introduction to piano accompanying with emphasis on basic skills needed to accompany solo voice, choral singing, and congregational singing. Prerequisites: MUP151AD, or MUP231, or permission of instructor.

MUP29 Special Projects (See Page 280) 1-3 Credits

NAV - Navajo

NAV101 4 Credits 4 Periods
Elementary Navajo I
Basic grammar, pronunciation, and vocabulary of the Navajo language. Practice of listening, speaking, reading, and writing skills. Includes the study of the Navajo culture with participation in an off-campus Navajo cultural event. Prerequisites: None.

NAV115 3 Credits 3 Periods
Beginning Navajo Conversation I
Beginning conversational Navajo with emphasis on basic listening and speaking skills, including basic pronunciation, vocabulary, sentence structure, and cultural awareness. Prerequisites: None.

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.

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
Volunteerism For Nursing: A Service-Learning Experience
Service-learning field experience within human service organization/agency. May be repeated for a total of six (6) NCE282 credit hours; may not repeat specific agency assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in catalog. Prerequisites: Permission of Instructor.

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.
NUR151
Nursing Theory And Science I
10 Credits 15 Periods
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
Nurse Assisting
6 Credits 10 Periods
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 older 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 Health Care Provider CPR card and current Fingerprint Clearance Card) and completed Health Care Provider Signature form.

NUR171
Nursing Theory And Science II
8 Credits 16 Periods
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.

NUR187
Pharmacology and Medication Administration II
1.5 Credits 1.5 Period
Overview of selected drug classifications and categories. Emphasis on principles of drug metabolism and effects, interactions and adverse reactions, and nursing implications for safe practice. Requires application of previous knowledge of physical, biological, and social sciences. Prerequisites: Permission of Nursing Department/Division Chair.

NUR228
Registered Nurse Refresher
6 Credits 6 Periods
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
Registered Nurse Preceptorship
4 Credits 12 Periods
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
Nursing Theory And Science III
8 Credits 16 Periods
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
Nursing Theory And Science IV
7 Credits 13 Periods
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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Description</th>
</tr>
</thead>
</table>
| NUR291      | 2       | 6       | 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      | 1-3     |         | Special Projects (See Page 280) |
| NVH245      | 3       | 3       | Navajo Culture And Heritage  
Survey of the Navajo people, including their history, culture/aesthetics, education, spirituality, and language. Prerequisites: None. |
| OAS101      | 3       | 5       | Computer Typing I: Keyboarding And Formatting  
Keyboard mastery; letters, tables, and reports; office production; and manuscripts. Prerequisites: None. |
| OAS101AA    | 1       | 1.7     | Computer Typing I: Keyboard Mastery  
Incorporates correct touch typing principles. Prerequisites: None. |
| OAS108      | 3       | 3       | 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       | 1.7     | 10-Key By Touch  
Touch system of numeric keys on ten-key pads. Prerequisites: None. |
| OAS125      | 3       | 3       | Introduction to the Professional Office  
Expectations of the professional in the electronic office of today. Realistic and practical coverage of roles, responsibilities, and environment. Prerequisites: None. |
| PED101BA    | 1       | 2       | Baseball  
Basic skills and game strategy of baseball. Class emphasis on competition and drills. Prerequisites: None. PED101BA may be repeated for credit. |
| PED101BB    | 1       | 2       | Basketball  
Basic skills and game strategy of basketball. Class emphasis on competition and drills. Prerequisites: None. PED101BB may be repeated for credit. |
| PED101BC    | 1       | 2       | 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       | 2       | 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       | 2       | Belly Dance  
Practice and demonstration of basic belly dance skills and movements. Basic posture and muscularity, primary upper and lower body isolations, footwork, simple combination movements. Rhythms broken down, and at least one prop demonstrated. Basic routine, improvisation, and current styles and trends in belly dance. Belly dance etiquette and attire. Prerequisites: None. PED101BE may be repeated for credit. |
| PED101BL    | 1       | 2       | Ballet  
Basics of ballet incorporating steps, poses, and graceful movements including leaps and spins. Prerequisites: None. PED101BL may be repeated for credit. |
| PED101BP    | 1       | 2       | Backpacking  
Covers basic skills and techniques of backpacking and the application of these to wilderness travel. Prerequisites: None. PED101BP may be repeated for credit. |
| PED101BS    | 1       | 2       | Body Sculpting  
Stretch and strengthen. Emphasizes increasing fitness, muscle tone, and body flexibility. Great for reducing stress. Prerequisites: None. PED101BS may be repeated for credit. |
| PED101BW    | 1       | 2       | Bowling  
Fundamental skills of bowling, including scoring and competition. Prerequisites: None. PED101BW may be repeated for credit. |
| PED101CY    | 1       | 2       | Cycling - Indoor  
Basic skills for bike set up and proper body mechanics. Increase leg strength, lung capacity, and metabolism. Prerequisites: None. PED101CY may be repeated for credit. |
<table>
<thead>
<tr>
<th>PED101DF</th>
<th>1 Credit 2 Periods</th>
<th>Self-Defense</th>
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</thead>
<tbody>
<tr>
<td>Basic self-defense skills, ground-fighting skills, and stand-up fighting capabilities. Modified for all skill levels. Practice is based on real-life experiences and endurance enhanced drills. Develops self-confidence. Prerequisites: None. PED101DF may be repeated for credit.</td>
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<table>
<thead>
<tr>
<th>PED101FB</th>
<th>1 Credit 2 Periods</th>
<th>Football</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic skills and game strategy of football. Class emphasis on competition and drills. Prerequisites: None. PED101FB may be repeated for credit.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>PED101FE</th>
<th>1 Credit 2 Periods</th>
<th>Fencing</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
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<table>
<thead>
<tr>
<th>PED101FL</th>
<th>1 Credit 2 Periods</th>
<th>Fitness For Life</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
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<table>
<thead>
<tr>
<th>PED101FW</th>
<th>1 Credit 2 Periods</th>
<th>Fitness Walking</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
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<table>
<thead>
<tr>
<th>PED101GO</th>
<th>1 Credit 2 Periods</th>
<th>Golf</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
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<table>
<thead>
<tr>
<th>PED101HH</th>
<th>1 Credit 2 Periods</th>
<th>Hip Hop</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
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<table>
<thead>
<tr>
<th>PED101HK</th>
<th>1 Credit 2 Periods</th>
<th>Hiking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop safe and effective hiking skills. Essentials and requirements for safe hiking; proper hiking clothing and attire; impact of hiking on the environment. Prerequisites: None. PED101HK may be repeated for credit.</td>
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<table>
<thead>
<tr>
<th>PED101JR</th>
<th>1 Credit 2 Periods</th>
<th>Jogging/Running</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
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<table>
<thead>
<tr>
<th>PED101JS</th>
<th>1 Credit 2 Periods</th>
<th>Japanese Swordsmanship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vigorous martial arts swordsmanship training program utilizing historical principles that promotes the development of fitness, coordination, agility, balance, mindfulness/focus, and knowledge of strategy. Prerequisites: None. PED101JS may be repeated for credit.</td>
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<table>
<thead>
<tr>
<th>PED101KA</th>
<th>1 Credit 2 Periods</th>
<th>Karate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training emphasizes fundamentals, traditional form, and applied sparring that follows the theory of Karate. Prerequisites: None. PED101KA may be repeated for credit.</td>
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<thead>
<tr>
<th>PED101KB</th>
<th>1 Credit 2 Periods</th>
<th>Kickboxing</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
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<thead>
<tr>
<th>PED101KF</th>
<th>1 Credit 2 Periods</th>
<th>Kung Fu</th>
</tr>
</thead>
<tbody>
<tr>
<td>Techniques of one of the most comprehensive martial arts in China. Prerequisites: None. PED101KF may be repeated for credit.</td>
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<table>
<thead>
<tr>
<th>PED101LD</th>
<th>1 Credit 2 Periods</th>
<th>Latin Dancing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spicy, energetic style of dance. Cha Cha, Merengue, Salsa, Rumba, and Bolero. Partners rotate. Prerequisites: None. PED101LD may be repeated for credit.</td>
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<thead>
<tr>
<th>PED101PC</th>
<th>1 Credit 2 Periods</th>
<th>Physical Conditioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercise program with access to free weights, strength machines and cardio equipment. Prerequisites: None. PED101PC may be repeated for credit.</td>
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<thead>
<tr>
<th>PED101PS</th>
<th>1 Credit 2 Periods</th>
<th>Pilates</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
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<table>
<thead>
<tr>
<th>PED101QG</th>
<th>1 Credit 2 Periods</th>
<th>QG Qi Gong</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
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<thead>
<tr>
<th>PED101RC</th>
<th>1 Credit 2 Periods</th>
<th>Rock Climbing</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
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<thead>
<tr>
<th>PED101SA</th>
<th>1 Credit 2 Periods</th>
<th>Salsa</th>
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<tbody>
<tr>
<td>Basic moves for the popular, hot Latin dance Salsa. Partners rotate. Prerequisites: None. PED101SA may be repeated for credit.</td>
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</tr>
</tbody>
</table>
COURSE DESCRIPTIONS

PED101SB  1 Credit 2 Periods
Softball
Basic skills and game strategy of softball. Class emphasis on
competition and drills. Prerequisites: None. PED101SB may be
repeated for credit.

PED101SD  1 Credit 2 Periods
Social Dance
Introduction to various dances encountered in a social setting.
Partners rotate. Prerequisites: None. PED101SD may be repeated
for credit.

PED101SO  1 Credit 2 Periods
Soccer
Basic skills and game strategy of soccer. Class emphasis on
competition and drills. Prerequisites: None. PED101SO may be
repeated for credit.

PED101SR  1 Credit 2 Periods
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 Credit 2 Periods
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 Credits 2.5 Periods
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 Credit 2 Periods
Swing Dancing
Popular Swing dance moves and rhythms, including basic Lindy.
All students will rotate. Prerequisites: None. PED101SW may be
repeated for credit.

PED101TC  1 Credit 2 Periods
Tai Chi
Fundamentals of Tai Chi including moves, breathing and
meditation. Prerequisites: None. PED101TC may be repeated
for credit.

PED101TD  1 Credit 2 Periods
Tap Dance
Fundamentals of Tap Dance including moves, breathing and
meditation. Prerequisites: None. PED101TD may be repeated for
credit.

PED101TE  1 Credit 2 Periods
Tennis
Basic skills and game strategy of tennis. Class emphasis on
competition and drills. Prerequisites: None. PED101TE may be
repeated for credit.

PED101TF  1 Credit 2 Periods
Track and Field
Instruction and practice in track and field events, running, throwing
and jumping. Prerequisites: None. PED101TF may be repeated for
credit.

PED101TK  1 Credit 2 Periods
Taekwondo
Fundamentals of Taekwondo including the moves, rules, and
traditional discipline of the sport. Prerequisites: None. PED101TK
may be repeated for credit.

PED101VB  1 Credit 2 Periods
Volleyball
Basic skills and game strategy of volleyball. Class emphasis on
competition and drills. Prerequisites: None. PED101VB may be
repeated for credit.

PED101WT  1 Credit 2 Periods
Weight Training
Access to Olympic and free weights with a qualified instructor.
Prerequisites: None. PED101WT may be repeated for credit.

PED101WW  1 Credit 2 Periods
Weight Training For Women
Introduction for women to the use of free weights, strength
machines and cardio equipment. Prerequisites: None. PED101WW
may be repeated for credit.

PED101YG  1 Credits 2 Periods
Gentle Yoga
A gentle body-work class of floor exercises done on a soft foam
mat, with some standing postures taught after a few weeks of class.
Learn how to release tension through diaphragmatic breathing
and relaxing stretching. Prerequisites: None. PED101YG may be
repeated for credit.

PED101YK  1 Credit 2 Periods
Kundalini Yoga
Energetically guided Yoga focusing on psycho-spiritual growth
with special consideration of the spine and endocrine system.
Prerequisites: None. PED101YK may be repeated for credit.

PED101YO  1 Credit 2 Periods
Yoga
Promotion of overall health by strengthening muscles and
stimulating glands and organs. Basic postures, breathing and
relaxation techniques. Prerequisites: None. PED101YO may be
repeated for credit.

PED101YR  1 Credit 1.5 Periods
Restorative Yoga
Gentle form of Yoga poses utilizing props to create fully supported
postures; focuses on relaxation and involves non-rigorous
physical activity, providing rest and recovery and promoting the
restoration of tranquility; suitable for all levels. Prerequisites:
None. PED101YR may be repeated for credit.

PED101ZU  2 Credit 2 Periods
Zumba® Fitness
Zumba® dynamic fitness program. Features high energy, easy to
follow rhythmic moves set to energizing Latin and international
beats. Provides an enjoyable way to increase fitness level.
Prerequisites: None. PED101ZU may be repeated for four (4)
credits. The PED101ZU
<table>
<thead>
<tr>
<th>COURSE</th>
<th>CREDITS</th>
<th>PERIODS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>PED102BA</td>
<td>1</td>
<td>2</td>
<td>Baseball-Intermediate 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</td>
<td>2</td>
<td>Basketball - Intermediate 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</td>
<td>2</td>
<td>Ballroom Dancing - Intermediate Intermediate level instruction on ballroom dancing footwork, timing, techniques, and style. Partners rotate. Prerequisites: None. PED102BD may be repeated for credit.</td>
</tr>
<tr>
<td>PED102BE</td>
<td>1</td>
<td>2</td>
<td>Belly Dance - Intermediate Practice and demonstration of basic belly dance skills and movements at the intermediate level. Posture and musculature, 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.</td>
</tr>
<tr>
<td>PED102BW</td>
<td>1</td>
<td>2</td>
<td>Bowling - Intermediate To improve upon basic skills of bowling including scoring and completion. Prerequisites: None. Prior experience recommended. PED102BW may be repeated for credit.</td>
</tr>
<tr>
<td>PED102CH</td>
<td>1</td>
<td>2</td>
<td>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.</td>
</tr>
<tr>
<td>PED102FB</td>
<td>1</td>
<td>2</td>
<td>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.</td>
</tr>
<tr>
<td>PED102FE</td>
<td>1</td>
<td>2</td>
<td>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.</td>
</tr>
<tr>
<td>PED102GO</td>
<td>1</td>
<td>2</td>
<td>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.</td>
</tr>
<tr>
<td>PED102HH</td>
<td>1</td>
<td>2</td>
<td>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.</td>
</tr>
<tr>
<td>PED102JS</td>
<td>1</td>
<td>2</td>
<td>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.</td>
</tr>
<tr>
<td>PED102JZ</td>
<td>1</td>
<td>2</td>
<td>Jazz - Intermediate Intermediate dance skills for dancing Jazz. Not recommended for beginners. Prerequisites: None. Prior experience recommended. PED102JZ may be repeated for credit.</td>
</tr>
<tr>
<td>PED102KA</td>
<td>1</td>
<td>2</td>
<td>Karate - Intermediate Applied technique and theory of Karate at the intermediate level. Prerequisites: None. PED102KA may be repeated for credit.</td>
</tr>
<tr>
<td>PED102LD</td>
<td>1</td>
<td>2</td>
<td>Latin Dancing - Intermediate Incorporate intermediate dance moves while performing Latin Dance. Prerequisites: None. Prior experience recommended. PED102LD may be repeated for credit.</td>
</tr>
<tr>
<td>PED102PS</td>
<td>1</td>
<td>2</td>
<td>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.</td>
</tr>
<tr>
<td>PED102RC</td>
<td>1</td>
<td>2</td>
<td>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.</td>
</tr>
<tr>
<td>PED102SA</td>
<td>1</td>
<td>2</td>
<td>Salsa - Intermediate Learn the intermediate dance moves for Salsa. Not recommended for the beginning Salsa dancer. Prerequisites: None. PED102SA may be repeated for credit.</td>
</tr>
<tr>
<td>PED102SB</td>
<td>1</td>
<td>2</td>
<td>Softball - Intermediate 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>
</tr>
</tbody>
</table>
PED102ST  Strength Training - Intermediate  1 Credit 2 Periods
Intermediate techniques of strength training, concentrating on incorporating an exercise regiment for increased strength and endurance. Not recommended for the beginning weight lifter. Prerequisites: None. PED102ST may be repeated for credit.

PED102TC  Tai Chi - Intermediate  1 Credit 2 Periods
Intermediate level techniques of Tai Chi including moves, breathing and meditation. Prerequisites: None. Prior experience recommended. PED102TC may be repeated for credit.

PED102TD  Tap Dance - Intermediate  1 Credit 2 Periods
Tap dance steps at the intermediate level. Some experience welcomed. Prerequisites: None. Prior experience recommended.

PED102TE  Tennis - Intermediate  1 Credit 2 Periods
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.

PED102TF  Track And Field - Intermediate  1 Credit 2 Periods
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.

PED102TK  Taekwondo - Intermediate  1 Credit 2 Periods
Intermediate level training in Taekwondo. Prerequisites: None. Prior experience recommended. PED102TK may be repeated for credit.

PED102VB  Volleyball - Intermediate  1 Credit 2 Periods
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.

PED102WW  Weight Training for Women - Intermediate  1 Credit 2 Periods
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.

PED102YO  Yoga - Intermediate  1 Credit 2 Periods
Yoga for the experienced practitioner. Prerequisites: None. PED102YO may be repeated for credit.

PED103YO  Yoga  .5 Credit 1 Period
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. 0.50 Credit 1 Period

PED115  Lifetime Fitness  2 Credits 2 Periods
Increase personal fitness, strength, and vitality. Current principles of cardiovascular exercise, weight training, flexibility, and balance exercises applicable to lifetime fitness goals. Personalized fitness plans developed and implemented with support of highly trained fitness professionals. Techniques to make sessions more effective and enjoyable. Prerequisites: None. PED115 may be repeated for a total of eight (8) credit hours.

PED120AF  Special Emphasis Activities: Weight Training  2 Credits 4 Periods
Intensive experience in weight training. Prerequisites: None. PED120AF may be repeated for a total of 8 credits.

PED120TF  Special Emphasis Activities: Tennis  2 Credits 2 Periods
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.

PED201BA  Baseball - Advanced  1 Credit 2 Periods
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.

PED201BB  Basketball - Advanced  1 Credit 2 Periods
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.

PED201BD  Ballroom Dancing - Advanced  1 Credit 2 Periods
Advanced level instruction on ballroom dancing footwork, timing, techniques, and style. Partners rotate. Prerequisites: None. Prior experience at competitive level recommended. PED201BD may be repeated for credit.

PED201CH  Cheerleaders - Advanced  1 Credit 2 Periods
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.

PED201FB  Football - Advanced  1 Credit 2 Periods
Improve upon intermediate skills and game strategy of football at the advanced level. Class emphasis on competition and drills. Prerequisites: None. Prior experience at competitive level recommended. PED201FB may be repeated for credit.

PED201SA  Salsa - Advanced  1 Credit 2 Periods
Learn the advanced dance moves for Salsa. Prerequisites: None. Prior experience at competitive level recommended. PED201SA may be repeated for credit.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PED201SO</td>
<td>1</td>
<td>2</td>
<td>Softball - Advanced  &lt;br&gt; 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.</td>
</tr>
<tr>
<td>PED201TF</td>
<td>1</td>
<td>2</td>
<td>Track And Field - Advanced  &lt;br&gt; 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.</td>
</tr>
<tr>
<td>PED202BA</td>
<td>1</td>
<td>2</td>
<td>Baseball - Elite  &lt;br&gt; 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.</td>
</tr>
<tr>
<td>PED202BB</td>
<td>1</td>
<td>2</td>
<td>Basketball - Elite  &lt;br&gt; 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.</td>
</tr>
<tr>
<td>PED202FB</td>
<td>1</td>
<td>2</td>
<td>Football - Elite  &lt;br&gt; Improve upon advanced skills and game strategy of football at the elite level. Class emphasis on competition and drills. Prerequisites: None. Prior experience at competitive level recommended. PED202FB may be repeated for credit.</td>
</tr>
<tr>
<td>PED202SO</td>
<td>1</td>
<td>2</td>
<td>Soccer - Elite  &lt;br&gt; Improve upon advanced skills and game strategy of soccer at the elite level. Class emphasis on competition and drills. Prerequisites: None. Prior experience at competitive level recommended. PED202SO may be repeated for credit.</td>
</tr>
<tr>
<td>PED202TF</td>
<td>1</td>
<td>2</td>
<td>Track and Field - Elite  &lt;br&gt; 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.</td>
</tr>
<tr>
<td>PED287</td>
<td>2</td>
<td>2</td>
<td>Physical Education Of The Atypical  &lt;br&gt; Individualized activities programs for students with limited physical capacities. May be repeated for credit. Prerequisites: Permission of Instructor.</td>
</tr>
</tbody>
</table>

**PHI - Philosophy**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHI103</td>
<td>3</td>
<td>3</td>
<td>Introduction to Logic  &lt;br&gt; Informal logic, logical fallacies, elementary symbolic logic, analysis of argument forms, and construction of proofs for validity. Prerequisites: ENG101, or ENG107, or equivalent.</td>
</tr>
<tr>
<td>PHI105</td>
<td>3</td>
<td>3</td>
<td>Introduction to Ethics  &lt;br&gt; A survey of ethical theory in Western Philosophy, including the major normative theories and selected metaethical theories. Prerequisites: None.</td>
</tr>
<tr>
<td>PHI106</td>
<td>3</td>
<td>3</td>
<td>Critical Thinking and Problem-Solving  &lt;br&gt; 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.</td>
</tr>
<tr>
<td>PHI101</td>
<td>3</td>
<td>3</td>
<td>History of Ancient Philosophy  &lt;br&gt; Historical survey of the intellectual history of the Greco-Roman world, focusing on the philosophical tradition and social/historical context. Prerequisites: None.</td>
</tr>
<tr>
<td>PHI103</td>
<td>3</td>
<td>3</td>
<td>Medical and Bio-Ethics  &lt;br&gt; 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.</td>
</tr>
<tr>
<td>PHI106</td>
<td>3</td>
<td>3</td>
<td>Environmental Ethics  &lt;br&gt; 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.</td>
</tr>
<tr>
<td>PHI108</td>
<td>3</td>
<td>3</td>
<td>Philosophy of Sexuality  &lt;br&gt; 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.</td>
</tr>
<tr>
<td>PHI201</td>
<td>3</td>
<td>3</td>
<td>Plato  &lt;br&gt; The ideas of Plato and Socrates and their impact on western thought. Prerequisites: None</td>
</tr>
<tr>
<td>PHI202</td>
<td>3</td>
<td>3</td>
<td>Philosophy of Religion  &lt;br&gt; Religious language, the existence of God, miracles, and human destiny. Prerequisites: None.</td>
</tr>
</tbody>
</table>
### PHY - Physics

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Description</th>
</tr>
</thead>
</table>
| PHY101      | 4       | 6       | Introduction to Physics  
A survey of physics emphasizing applications of physics to modern life. Students may receive credit for only one of the following: PHY101 or PHY101AA. Prerequisites: Grade of “C” or better in MAT090, or MAT091, or MAT092, or MAT093, or equivalent, or satisfactory score on Math placement exam. |
| PHY111      | 4       | 6       | 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       | 6       | General Physics II  
Includes electricity, electromagnetism, and modern physics. Prerequisites: PHY105 or PHY111. |
| PHY121      | 4       | 6       | University Physics I: Mechanics  
Kinematics, Newton’s laws, work, energy, momentum, conservation laws, dynamics of particles, solids, fluids, mechanical waves, and sound. Prerequisites: MAT220, or MAT221, or department consent. One year of high school physics or PHY111 and PHY112 suggested but not required. |
| PHY131      | 4       | 6       | University Physics II: Electricity and Magnetism  
Electric charge and current, electric and magnetic fields in vacuum and in materials, and induction. AC circuits, displacement current, and electromagnetic waves. Prerequisites: MAT230, or MAT231, or department consent, and PHY121. Corequisites: MAT241 or department consent. |
| PHY282      | 1-3     | 1-3     | Volunteerism for Physical Science: A Service Learning Experience  
Service-learning field experience within human service organizations, government offices, public schools, or hospitals. May be repeated for a total of six (6) PHY282 credit hours; may not repeat specific agency assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in catalog. Prerequisites: Permission of Instructor. |

### POR - Portuguese

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Description</th>
</tr>
</thead>
</table>
| POR101      | 5       | 6       | Elementary Portuguese I  
Basic grammar, pronunciation, and vocabulary of the Portuguese language. Includes study of Lusophone culture. Practice in listening, speaking, reading, and writing skills. Prerequisites: None. |

### POS - Political Science

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Description</th>
</tr>
</thead>
</table>
| POS100      | 3       | 3       | Introduction to Political Science  
Introduction to the discipline of political science and its relation to other disciplines with emphasis on the major philosophies and institutions of government. Prerequisites: None. |
| POS110      | 3       | 3       | American National Government  
Study of the historical backgrounds, governing principles, and institutions of the national government of the United States. Prerequisites: None. |
| POS115      | 3       | 3       | Issues in American Politics  
Examination of major issues in current affairs in the fields of politics, economics, social relations, foreign affairs, aesthetics, and others through the reading and viewing of secondary information sources. Prerequisites: ENG101, or ENG107, or equivalent. |
| POS120      | 3       | 3       | World Politics  
Introduction to the principles and issues relating to the study of international relations. Evaluation of the political, economic, national, and transnational rationale for international interactions. Prerequisites: None. |
| POS125      | 3       | 3       | Issues in World Politics  
Contemporary issues and factors in international relations. Stress conditions in civil order, trade, and international institutions. May be repeated for a total of six (6) credit hours. Prerequisites: None. |
| POS130      | 3       | 3       | State and Local Government  
Survey of state and local government in the United States. Special attention on Arizona State government. Prerequisites: None. |
| POS140      | 3       | 3       | Comparative Government  
Overview and evaluation of the sub-field of comparative politics. Covers various national governments from around the world; their structure, system, method of governance. Examines methods of assessing these governments. Prerequisites: None. |
| POS180      | 3       | 3       | United Nations Studies  
Historical origins, structural makeup, political and operational characteristics, and legal activities of the United Nations. Analysis of the overall institution’s ongoing utility, productivity and creativity. Prerequisites: None. |
| POS210      | 3       | 3       | Political Ideologies  
Survey of twentieth century nondemocratic ideologies and movements with emphasis on Marx, Lenin, Mussolini, Hitler, Stalin and Mao. Prerequisites: None. |
| POS220      | 3       | 3       | U.S. and Arizona Constitution  
Examination of the United States Constitution and the constitution and government of the State of Arizona. Prerequisites: None. |
**COURSE DESCRIPTIONS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Periods</th>
</tr>
</thead>
<tbody>
<tr>
<td>POS221</td>
<td>Arizona Constitution</td>
<td>1 Credit 1 Period</td>
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<tr>
<td></td>
<td>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.</td>
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</tr>
<tr>
<td>POS222</td>
<td>U.S. Constitution</td>
<td>2 Credits 2 Periods</td>
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</tr>
<tr>
<td></td>
<td>Examination of the United States Constitution. Equivalent to the first part of POS220. May not enroll in POS220 and POS222 concurrently. Prerequisites: None.</td>
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<tr>
<td>POS223</td>
<td>Civil Rights</td>
<td>3 Credits 3 Periods</td>
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<tr>
<td></td>
<td>The historic background and current status of major civil rights issues in the United States. Prerequisites: None.</td>
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<tr>
<td>POS280</td>
<td>Internship Orientation</td>
<td>1 Credit 1 Period</td>
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<tr>
<td></td>
<td>Preparation for an internship experience and appropriate intern behavior. Prerequisites: Permission of Instructor.</td>
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</tr>
<tr>
<td>POS281</td>
<td>Public Policy/Service Internship</td>
<td>2-4 Credits 2-4 Periods</td>
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</tr>
<tr>
<td></td>
<td>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.</td>
<td></td>
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</tr>
<tr>
<td>POS282</td>
<td>Volunteerism for Political Science: A Service-Learning Experience</td>
<td>1-3 Credits 1-3 Periods</td>
<td></td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>POS298</td>
<td>Special Projects (See Page 280)</td>
<td>1-3 Credits</td>
<td></td>
</tr>
<tr>
<td>PSY101</td>
<td>Psychology</td>
<td>3 Credits 3 Periods</td>
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<tr>
<td></td>
<td>Introduction to Psychology</td>
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<tr>
<td></td>
<td>To acquaint the student with basic principles, methods and fields of psychology such as learning, memory, emotion, perception, physiological, developmental, intelligence, and social and abnormal. Prerequisites: None.</td>
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<tr>
<td>PSY102</td>
<td>Introduction to Psychology Laboratory</td>
<td>1 Credit 1 Period</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>PSY123</td>
<td>Psychology of Parenting</td>
<td>3 Credits 3 Periods</td>
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<tr>
<td></td>
<td>The demonstration and application of psychological principles to the development and guidance of children and adolescents. Prerequisites: None.</td>
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<tr>
<td>PSY132</td>
<td>Psychology and Culture</td>
<td>3 Credits 3 Periods</td>
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<td></td>
<td>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.</td>
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<tr>
<td>PSY143</td>
<td>Lesbian, Gay, Bisexual and transgndered Studies</td>
<td>3 Credits 3 Periods</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>PSY156</td>
<td>Understanding Death and Dying</td>
<td>3 Credits 3 Periods</td>
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<td>Designed to give the student an understanding of the research and theories of death, dying and the bereavement process. Prerequisites: None.</td>
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<tr>
<td>PSY210</td>
<td>Educational Psychology</td>
<td>3 Credits 3 Periods</td>
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<tr>
<td></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>
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<tr>
<td>PSY215</td>
<td>Introduction to Sport Psychology</td>
<td>3 Credits 3 Periods</td>
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<td></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>
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<tr>
<td>PSY225</td>
<td>Psychology of Religion</td>
<td>3 Credits 3 Period</td>
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<td></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 Instructors.</td>
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<tr>
<td><strong>Course</strong></td>
<td><strong>Credits</strong></td>
<td><strong>Periods</strong></td>
<td><strong>Description</strong></td>
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</tbody>
</table>
| **PSY230** | 3 Credits   | 3 Periods   | Introduction to Statistics  
An introduction to basic concepts in descriptive and inferential statistics, with emphasis upon application to psychology. Consideration given to the methods of data collection, sampling techniques, graphing of data, and the statistical evaluation of data collected through experimentation. Required of psychology majors. Prerequisites: PSY101 with a grade of “C” or better and MAT092 or equivalent, or permission of Instructor. |
| **PSY231** | 1 Credit    | 2 Periods   | Laboratory for Statistics  
Applications of inferential and descriptive statistics to computers in the field of psychology. Prerequisites: None. Corequisites: PSY230. |
| **PSY235** | 3 Credits   | 3 Periods   | Psychology of Gender  
To assess historical and psychological perspectives on women and men and to evaluate contemporary viewpoints regarding the psychology of women and men. Prerequisites: PSY101 with a grade of “C” or better, or permission of Instructor. |
| **PSY240** | 3 Credits   | 3 Periods   | Developmental Psychology  
Human development from conception through adulthood. Includes: physical, cognitive, emotional and social capacities that develop at various ages. Recommended for students majoring in nursing, education, pre-med, and psychology. Prerequisites: PSY101 with a grade of “C” or better, or permission of Instructor. |
| **PSY248** | 3 Credits   | 3 Periods   | Psychology of Adolescent Development  
Explores the highly specialized developmental stage of adolescence. Includes biological, cognitive, psychosexual, and sociocultural factors as well as current theories and research. Prerequisites: PSY101 with a grade of “C” or better, or permission of Instructor. |
| **PSY250** | 3 Credits   | 3 Periods   | Social Psychology  
The scientific study of how people’s thoughts, feelings, and behaviors are influenced by other people and situations. Includes how we think about ourselves and others, persuasion and influence, sexual and romantic attraction, friendship and helping others, aggression and prejudice. Prerequisites: PSY101 with a grade of “C” or better, or permission of Instructor. |
| **PSY260** | 3 Credits   | 3 Periods   | Psychology of Personality  
Introduction to theories of personality with emphasis upon application of specific theories towards the understanding of individuals. Prerequisites: PSY101 with a grade of “C” or better, or permission of Instructor. |
| **PSY262** | 3 Credits   | 3 Periods   | Positive Psychology  
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. |
| **PSY266** | 3 Credits   | 3 Periods   | Abnormal Psychology  
Distinguishes between normal behavior and psychological disorders. Subjects may include stress disorders, problems with anxiety and depression, unusual and abnormal sexual behavior, schizophrenia and addictive behaviors. Causes and treatments of psychological problems and disorders are discussed. Prerequisites: PSY101 with a grade of “C” or better, or permission of Instructor. |
| **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. |
| **PSY278** | 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** | 1-3 Credits |            | Special Projects (See Page 280)  
|
## RDG - Reading

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<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>RDG008</td>
<td>3</td>
<td></td>
<td>Phonic - 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).</td>
</tr>
<tr>
<td>RDG016</td>
<td>3</td>
<td></td>
<td>Reading English As A Second Language I - Designed for students who are learning English as a second language. Skills needed to become proficient readers in English. Sound symbol relationships of the English alphabet. Essential vocabulary for daily communication both in isolation and context. Development of reading comprehension skills. Prerequisites: Appropriate ESL placement test score.</td>
</tr>
<tr>
<td>RDG026</td>
<td>3</td>
<td></td>
<td>Reading English As A Second Language II - Designed for students who are learning English as a second language. Continued development of vocabulary and reading comprehension skills. Prerequisites: Appropriate ESL placement test score, or grade “C” or better in ESL/RDG016, or permission of Instructor.</td>
</tr>
<tr>
<td>RDG036</td>
<td>3</td>
<td></td>
<td>Reading English As A Second Language III - Designed for students who are learning English as a second language. Instruction for more advanced vocabulary and reading comprehension skills. Prerequisites: Appropriate ESL placement test score, or grade of “C” or better in ESL/RDG026, or permission of Instructor.</td>
</tr>
<tr>
<td>RDG046</td>
<td>3</td>
<td></td>
<td>Reading English As A Second Language IV - Developed for students of English as a second language. Development of advanced vocabulary, comprehension skills, and culture awareness. Prerequisites: Appropriate ESL placement test score, or grade of “C” or better in ESL/RDG036, or permission of Instructor.</td>
</tr>
<tr>
<td>RDG091</td>
<td>3</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>RDG095</td>
<td>6</td>
<td></td>
<td>Intensive Foundations for College Reading - Accelerated format to improve basic reading skills, study skills, and information literacy skills including vocabulary development, main idea identification, patterns of organization recognition, and comprehension improvement. RDG095 is an accelerated and intensive learning program for students and meets the requirements for RDG081 and RDG091 in one semester. Prerequisites: Appropriate reading placement test score, or grade of “B” or better in RDG071.</td>
</tr>
<tr>
<td>RDG100</td>
<td>3</td>
<td></td>
<td>College Study Skills - Analysis of learning styles and development of individual learning strategies. Introduction of library research techniques. Emphasis on learning and study techniques applicable to any college course. Prerequisites: A grade of “C” or better in RDG091 or permission of instructor.</td>
</tr>
<tr>
<td>RDG282</td>
<td>1-3</td>
<td>1-3</td>
<td>Service-Learning Experience in Reading - Unpaid Service-Learning (SL) experience, completed with approved community partner. Prerequisites: Permission of Instructor. RDG282 may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.</td>
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## REA - Real Estate

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<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>REA179</td>
<td>3</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>REA180</td>
<td>3</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>REA270</td>
<td>2</td>
<td>2</td>
<td>Basic Appraisal Principles - Overview of real property concepts and characteristics, legal considerations, value influences, real estate finance, types of value, economic principles, real estate markets and analysis, and ethics in appraisal practice. Prerequisites: None.</td>
</tr>
</tbody>
</table>
### REA - Real Estate

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<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Description</th>
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<tbody>
<tr>
<td>REA271</td>
<td>2</td>
<td>2</td>
<td>Basic Appraisal Procedures&lt;br&gt;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.</td>
</tr>
<tr>
<td>REA273</td>
<td>1</td>
<td></td>
<td>Residential Market Analysis Highest And Best Use&lt;br&gt;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.</td>
</tr>
<tr>
<td>REA274</td>
<td>1</td>
<td></td>
<td>Residential Appraiser Site Valuation And Cost Approach&lt;br&gt;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.</td>
</tr>
<tr>
<td>REA275</td>
<td>2</td>
<td>2</td>
<td>Residential Sales Comparison And Income Approaches&lt;br&gt;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.</td>
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<tr>
<td>REA276AA</td>
<td>1</td>
<td></td>
<td>Residential Report Writing And Case Studies I&lt;br&gt;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.</td>
</tr>
<tr>
<td>REA280</td>
<td>3</td>
<td>3</td>
<td>Principles of Real Estate Law&lt;br&gt;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.</td>
</tr>
<tr>
<td>REA281</td>
<td>3</td>
<td>3</td>
<td>Real Estate Finance&lt;br&gt;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.</td>
</tr>
<tr>
<td>REA285</td>
<td>3</td>
<td>3</td>
<td>Real Estate Selling&lt;br&gt;Covers obtaining listings, buyer behavior, markets, competition and psychology of sales techniques. Prerequisites: REA179 or permission of Instructor.</td>
</tr>
<tr>
<td>REA290AH</td>
<td>0.5</td>
<td>0.5</td>
<td>Real Estate Seminar: Contract Writing&lt;br&gt;Contract writing skills, techniques, and requirements. Writing of basic real estate contracts, including purchase offers, counter offers, sales listing agreements, and riders. Prerequisites: None.</td>
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### REC - Recreation

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<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Description</th>
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<tbody>
<tr>
<td>REC120</td>
<td>3</td>
<td>3</td>
<td>Leisure And The Quality Of Life&lt;br&gt;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.</td>
</tr>
<tr>
<td>REC150AA</td>
<td>1</td>
<td>2</td>
<td>Outdoor Adventure Skills Field Experience&lt;br&gt;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.</td>
</tr>
<tr>
<td>REC150AB</td>
<td>3</td>
<td>3</td>
<td>Outdoor Adventure Skills&lt;br&gt;Camping and outdoor skills including types of camping, equipment selection and use, cooking and fire building, camp programs, backpacking, and safety. Prerequisites: None.</td>
</tr>
<tr>
<td>REC155AA</td>
<td>1</td>
<td>2</td>
<td>Canyoneering&lt;br&gt;Basic canyoneering skills. Includes hydrology, navigation, safety systems, climbing and hiking skills, wading/swimming techniques and flood/weather identification. Prerequisites: None.</td>
</tr>
<tr>
<td>REC155AB</td>
<td>1</td>
<td>2</td>
<td>Caving&lt;br&gt;Basic caving skills. Includes cave ecology, navigation, safety systems, lighting systems and equipment selection. Prerequisites: None.</td>
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<tr>
<td>REC210</td>
<td>3</td>
<td>3</td>
<td>Leisure Delivery Systems&lt;br&gt;Systematic study of Delivery of Leisure Services in public, commercial, and independent sectors; particular emphasis placed on the urban setting. Prerequisites: None.</td>
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<tr>
<td>REC230</td>
<td>3</td>
<td>3</td>
<td>Programming Of Recreation Services&lt;br&gt;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.</td>
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<td>Course Code</td>
<td>Credits</td>
<td>Description</td>
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</table>
| REC250      | 3       | **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     | **Service-Learning Experience in Recreation**  
Unpaid Service-Learning (SL) experience, completed with approved community partner. Prerequisites: Permission of Instructor. REC282 may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. |
| REL - Religious Studies |        |             |
| REL151      | 3       | **Religion in the Hispanic World**  
Survey of various religious traditions within Spain and the Spanish-settled world. Considers the impact of and impact on both major world religions and indigenous traditions. Prerequisites: None. |
| REL202      | 3       | **Classics of Asian Religions**  
Academic study of selected works from Hindu, Buddhist, Taoist and Confucian traditions. Study of cultural and concepts of the world, history, culture, and human nature as represented in these works. Prerequisites: None. |
| REL203      | 3       | **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. |
| REL204      | 3       | **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. |
| REL207      | 3       | **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       | **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. |
| REL213      | 3       | **American Indian Religions**  
An examination of the historical and cultural background of diverse lifeways and worldviews belonging to the peoples indigenous to the North American continent over time, including a study of modern day American Indian beliefs and practices. Prerequisites: ENG101 or ENG107 or equivalent. |
| REL243      | 3       | **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. |
| REL250      | 3       | **Religion in Ireland: Neolithic to Early Medieval**  
Survey of the Ancient religious traditions of Ireland. Students investigate the beliefs and practices of Irish Religions in the context of their social, economical and political systems from the late Neolithic to the early Medieval periods (4000 BCE-700 CE). Prerequisites: None. |
| REL270      | 3       | **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       | **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       | **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. |
| RUS - Russian |        |             |
| RUS101      | 4       | **Elementary Russian I**  
Basic grammar, pronunciation, and vocabulary of the Russian language. Practice of listening, speaking, reading, and writing skills. Prerequisites: None. |
### SBS - Small Business Management

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<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Course Title</th>
<th>Prerequisites</th>
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</thead>
<tbody>
<tr>
<td>SBS204</td>
<td>2</td>
<td>2</td>
<td>Small Business Marketing And Advertising</td>
<td>SBS200, SBS204 or permission of Instructor</td>
</tr>
<tr>
<td>SBS213</td>
<td>1</td>
<td>1</td>
<td>Hiring And Managing Employees</td>
<td>None</td>
</tr>
<tr>
<td>SBS214</td>
<td>1</td>
<td>1</td>
<td>Small Business Customer Relations</td>
<td>None</td>
</tr>
<tr>
<td>SBS216</td>
<td>2</td>
<td>2</td>
<td>Planning For A Small Business</td>
<td>SBS200 and SBS204 or permission of Instructor</td>
</tr>
<tr>
<td>SBS230</td>
<td>2</td>
<td>2</td>
<td>Financial and Tax Management for Small Business</td>
<td>None</td>
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### SBU - Society and Business

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<tr>
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<th>Course Title</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>SBU200</td>
<td>3</td>
<td>3</td>
<td>Society and Business</td>
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### SCT – Sustainability/Career and Technical

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<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>SCT100</td>
<td>3</td>
<td>3</td>
<td>Introduction to Sustainable Built Environments</td>
<td>None</td>
</tr>
<tr>
<td>SCT271</td>
<td>1-2</td>
<td>5-10</td>
<td>Sustainable Design Internship</td>
<td>None</td>
</tr>
</tbody>
</table>

### SLC - Studies in Language and Culture

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Course Title</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLC201</td>
<td>3</td>
<td>3</td>
<td>Introduction to Linguistics</td>
<td>None</td>
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</tbody>
</table>

### SLG - Sign Language

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<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Periods</th>
<th>Course Title</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLG101</td>
<td>4</td>
<td>4</td>
<td>American Sign Language I</td>
<td>SLG103 suggested as a corequisite but not required</td>
</tr>
<tr>
<td>SLG102</td>
<td>4</td>
<td>4</td>
<td>American Sign Language II</td>
<td>SLG101, with a grade of “C” or better, or permission of department or division</td>
</tr>
</tbody>
</table>
SLG103  Introduction to Deaf Community  1 Credit 1 Period
History and development of American Sign Language (A.S.L.) and English codes. Overview of education for Deaf and Hard of Hearing children. Legal rights and common adaptive devices used by Deaf and Hard of Hearing individuals. Prerequisites: None.

SLG201  American Sign Language III  4 Credits 4 Periods
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  American Sign Language IV  4 Credits 4 Periods
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.

SLG298  Special Projects (See Page 280)  1-3 Credits

SOC - Sociology  

SOC101  Introduction to Sociology  3 Credits 3 Periods
The systematic study of social behavior and human groups, particularly the influence of culture, socialization, social structure, stratification, social institutions, differentiation by region, race, ethnicity, sex/gender, age, class, and socio/cultural change upon people’s attitudes and behaviors. Prerequisites: None.

SOC105  Introduction to American Indian Studies  3 Credits 3 Periods
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.

SOC130  Human Sexuality  3 Credits 3 Periods
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  Racial and Ethnic Minorities  3 Credits 3 Periods
Contemporary/historical racial and ethnic intergroup relations emphasizing cultural origins, developments, and problems of minority groups in the United States. Prerequisites: None.

SOC157  Sociology of Marriage and Family  3 Credits 3 Periods
The study of courtship, marriage, and family patterns, their historical development, their adaptation to a changing culture, and their impact on individuals. Prerequisites: None.

SOC212  Gender and Society  3 Credits 3 Periods
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.

SOC220  Sport and Society  3 Credits 3 Periods
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.

SOC270  The Sociology of Health and Illness  3 Credits 3 Periods
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.

SPA - Spanish  

SPA055  Fundamentals of Spanish Grammar  1 Credits 1 Periods
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.

SPA101  Elementary Spanish I  4 Credits 4 Periods
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.
### SPA 102 - Elementary Spanish II
Continued study of grammar and vocabulary of the Spanish language and study of the Spanish-speaking cultures. Emphasis on speaking, reading, and writing skills. Prerequisites: SPA 101 or permission of Department or Division.

### SPA 115 - Beginning Spanish Conversation I
Basic pronunciation, vocabulary, sentence structures, and cultural awareness, necessary to develop speaking and listening skills in Spanish. Prerequisites: None.

### SPA 117 - Health Care Spanish I
Basic conversational Spanish for health care workers or students. Emphasis on basic sentence structure, pronunciation and vocabulary used in health care settings. Prerequisites: None.

### SPA 201 - Intermediate Spanish I
Continued study of essential Spanish grammar and Spanish-speaking cultures. Continued practice and development of reading, writing, and speaking skills in Spanish. Emphasis on fluency and accuracy in spoken Spanish. Prerequisites: SPA 102, or SPA 111, or permission of Department or Division.

### SPA 202 - Intermediate Spanish II
Review of grammar, continued development of Spanish language skills with continued study of the Spanish-speaking cultures. Prerequisites: SPA 201, or permission of Department or Division.

### SPA 207 - Spanish for Business Communication
Continued development of Spanish language skills with emphasis on topics related to conducting business in Spanish-speaking cultures. Prerequisites: GBS 151 and (SPA 201 or permission of instructor).

### SPA 225 - Intermediate Spanish Conversation I
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: SPA 116, or SPA 102 or permission of Department or Division.

### SPA 265 - Advanced Spanish I
Introduction and study of Spanish and Spanish-American literature. Selected readings from most Spanish-speaking countries. All discussions, oral reports, and written assignments are in Spanish. Prerequisites: SPA 202, or permission of Department or Division.

### SPA 282 - Volunteerism for Spanish: A Service-Learning Experience
Service-learning field experience within private/public agencies, and citizen volunteer groups. May be repeated for a total of four (4) SPA 282 credit hours. Standard grading available according to procedures outlined in catalog. Prerequisites: Permission of Instructor.

### SPA 298 - Special Projects (See Page 280)
1-3 Credits

### SPH – Spanish Humanities

#### SPH 241 - Spanish and Latin American Film in Translation
A survey of Spanish and Spanish-American film as art form and as social commentary. Includes documentary, biography, and films based on works of literature. Coursework, class participation, and oral and written reports conducted in English. Prerequisites: None.

### Special Projects
The following course is available under any prefix listed in this catalog. Interested students should consult with the appropriate faculty member.

* 298 1-3 Credits
Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. Prerequisites: Permission of Program Director or Instructor.

*Prefix will be determined by departmental designation.

### SPM – Sports Management

#### SPM 120 - Sports Media Careers
Introduction to the professions, organizations, and media occupations within sports management. Examines professional and not-for-profit organizations, career opportunities in collegiate and community sports organizations, and career opportunities in the traditional and non-traditional media arenas. Includes resume writing, cover letters, career choices, interviews, and job searching strategies for sports management organizations. Prerequisites: None.

#### SPM 240 - Introduction to Sports Finance
Introduction to the theories, methodologies and analysis of economics and finance as they relate to amateur and professional sports. Examines financial management concepts, analytical techniques, and investment decision-making processes essential to sports management. Prerequisites: EXS 150.

#### SPM 270 - Introduction to Sports Marketing
Essential skills of defining a sports market, an analysis of sport promotion processes, consumer behavior, marketing and principles of athletic fund raising, developing a sports market plan, and directing personnel to follow market plan. Emphasis on marketing in the Sports industry and understanding segmentation, positioning and promotion in that market. Prerequisites: EXS 150.
### COURSE DESCRIPTIONS

**STO – Storytelling**

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<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Periods</th>
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</thead>
<tbody>
<tr>
<td>STO282</td>
<td>1-3 Credits 1-3 Periods Service-Learning Experience in Storytelling</td>
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</table>

Unpaid Service-Learning (SL) experience, completed with approved community partner. Prerequisites: Permission of Instructor. STO282 may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.

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<th>Code</th>
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<tbody>
<tr>
<td>STO290</td>
<td>3 Credits 3 Periods Irish Storytelling Tradition</td>
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</table>

Introduction to the history and practice of storytelling in Ireland. Overview of Irish myths, legends, folktale, and humorous tales. Great storytellers and story collectors of the past and present. Researching, developing, and crafting Irish stories for telling. Prerequisites: None.

**SSH – Sustainability/Social Sciences and Humanities**

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<th>Code</th>
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<tbody>
<tr>
<td>SSH111</td>
<td>3 Credits 3 Periods Sustainable Cities</td>
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</table>

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.

**SUS – Sustainability/Natural Sciences**

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<th>Code</th>
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<tbody>
<tr>
<td>SUS10</td>
<td>3 Credits 3 Periods Sustainable World</td>
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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.

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<th>Code</th>
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<tbody>
<tr>
<td>SUS130</td>
<td>3 Credits 3 Periods Chemical Dependency</td>
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Sociological, psychological and physiological aspects of chemical abuse. Consideration of a variety of treatment programs offered in community agencies. Prerequisites: None.

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<th>Code</th>
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<tbody>
<tr>
<td>SUS171</td>
<td>3 Credits 3 Periods Introduction to Social Welfare</td>
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Analysis of contemporary social welfare services and professional social work. Prerequisites: None.

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<th>Title</th>
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<th>Periods</th>
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<tbody>
<tr>
<td>SUS225</td>
<td>3 Credits 3 Periods Statistics for Social Research/Justice and Government</td>
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Introductory course in descriptive and inferential statistics for 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.

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<th>Code</th>
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<tbody>
<tr>
<td>SWU250</td>
<td>3 Credits 3 Periods Mindfulness for Stress Management</td>
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</table>

Introduction to the theory, research and practice behind mindfulness and stress management as it relates to quality of life issues and professional self-care. Focus on maintaining a healthy lifestyle and managing personal/professional stress by incorporating evidence based research on nutrition, mindfulness, communication, positive psychology, exercise, environmental factors contributing to wellness and disease; immune system support, activity management and developing practices that facilitate maintaining living in balance. Prerequisites: None.

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<th>Code</th>
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<th>Hours</th>
<th>Periods</th>
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<tbody>
<tr>
<td>SWU258</td>
<td>3 Credits 3 Periods Victimology and Crisis Management</td>
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</table>

Focuses on victimology and techniques of crisis 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.

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<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Periods</th>
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</thead>
<tbody>
<tr>
<td>SWU282</td>
<td>1-3 Credits 1-3 Periods Volunteerism for Social Work: A Service-Learning Experience</td>
<td></td>
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</tbody>
</table>

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.

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<th>Code</th>
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<th>Hours</th>
<th>Periods</th>
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<tbody>
<tr>
<td>SWU291</td>
<td>3 Credits 3 Periods Social Service Delivery Systems</td>
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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.

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<th>Periods</th>
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<tr>
<td>SWU292</td>
<td>3 Credits 3 Periods Effective Helping in a Diverse World</td>
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</table>

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.

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<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Periods</th>
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<tbody>
<tr>
<td>TEC101</td>
<td>1 Credit 1 Period Analyzing Fashion Products and Markets</td>
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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.

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<th>Hours</th>
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<tbody>
<tr>
<td>TEC102</td>
<td>2 Credits 2 Periods Strategic Fashion Business Planning</td>
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</table>

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.
COURSE DESCRIPTIONS

TEC103 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 merchandising and successful fashion business development. Prerequisites: None.

TEC105 Cultural Aspects of Clothing
Psychological, aesthetic, and economic factors applied to the selection of clothing in relation to personality and figure type. Prerequisites: None.

TEC106 History of Fashion
Consideration of historic factors influencing fashion and fashion change with special emphasis on historic costume. Prerequisites: None.

TEC109 Introduction to Fashion Merchandising
Explores the various levels and specialized segment of the fashion industry, the principles of fashion, the fundamentals of merchandising apparel, consumers’ influence on demand and marketing activities. Prerequisites: None.

TEC110 Basic Sewing Skills
Basic clothing construction techniques. Use of commercial patterns and sewing machine in the construction of basic garments. Prerequisites: None.

TEC111 Clothing Construction
Construction of garments applying basic construction principles and techniques using patterns suitable for the individuals and their capabilities. Prerequisites: None. If student has no previous sewing experience, TEC110 Basic Sewing Skills should be taken prior to and not during this course. May be repeated for a total of 12 credit hours with permission of instructor.

TEC112AB Alteration of Ready Made Garments
Knowledge, skills, and techniques of altering ready made garments for personal or professional use. Experience using a sewing machine assumed. Prerequisites: None.

TEC112AQ Pattern Alteration and Fit
Structural features of patterns and altering patterns to achieve proper fit. Includes figure irregularities, pattern style variations, fashion, and individual figure problems. Experience using a sewing machine assumed. Prerequisites: None.

TEC113 Textiles: Dyeing
Demonstrations and projects emphasizing skills and techniques in creating decorative textiles for the home and apparel; tie dye and batik. Prerequisites: None. May be repeated for a total of three (3) credits.

TEC114 Textiles: Block Printing/Silk Screening
Skills and techniques in creating decorative textiles for the home and apparel; block printing and silk screening. Prerequisites: None. May be repeated for a total of three (3) credits.

TEC115 Textiles: Hand Painting
Materials and techniques used to paint designs on textiles. Includes color theory and design development. Prerequisites: None. May be repeated for a total of three (3) credits.

TEC116 Textiles: Stitchery and Embellishment
Materials and techniques used for stitchery and embellishment on textiles. Includes color schemes and design development. Prerequisites: None.

TEC120 Intermediate Clothing Construction
Application of intermediate clothing and fitting techniques. Emphasis on improving basic construction skills. May be repeated for a total of 8 credit hours with permission of instructor. Prerequisites: TEC111 or permission of Instructor.

TEC122 Sewing with Knits
Skills and techniques used in the construction of garments made from knit fabrics. Prerequisites: None.

TEC124 Advanced Clothing Construction
Advanced garment construction techniques, pattern alteration and fit and techniques used on specialty fabrics. May be repeated for a total of 12 credit hours with permission of instructor. Prerequisites: TEC111 or permission of Instructor.

TEC125 Fashion Design
Practical techniques of fashion sketching, pattern drafting and draping. Design apparel. Prerequisites: None. TEC106 and TEC111 suggested but not required.

TEC129 Sewing with a Serger
Operation of a home serger. Use in constructing, finishing, and decorating garments and home decorations. Home serger required. Prerequisites: None.

TEC134 Fashion Illustration I
Proportions and techniques used in drawing fashion figures and clothing. Introduction of media and illustrative styles for portfolio design, trade sketches, and fashion advertisements. Prerequisites: None.

TEC135 Fashion Illustration II
Advanced study of proportion and techniques used in drawing fashion figures and flats. Continued study of garments, fabric textures and patterns. Development of skills in presentation drawing and commencing fashion design portfolio illustrations. Prerequisites: TEC134, or permission of Instructor.
TEC136  Fashion Illustration III  3 Credits 5 Periods
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.

TEC141  Fashion Design: CAD  2 Credits 2 Periods
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.

TEC143  Industrial Sewing I  2 Credits 3 Periods
Introduction to industrial sewing machine usage for straight-stitch, zigzag, over-lock, cover stitch and blind-hem machines. Use in constructing, finishing, and decorating apparel and home decor. Prerequisites: TEC111 or permission of instructor. TEC143 may be repeated for a total of six (6) credits.

TEC144  Industrial Sewing II  2 Credits 3 Periods
Advanced use of industrial sewing machines for straight-stitch, zigzag, over-lock, cover stitch and blind-hem machines. Advanced use and methods in constructing, finishing, and decorating apparel and home decor. Prerequisites: TEC143 or permission of instructor. TEC144 may be repeated for a total of six (6) credits.

TEC146  Manufacturing Sewing Methods I  2 Credits 3 Periods
Introduction to skills and techniques of sewing for apparel manufacturing ready-made-garments. Focus on applying correct clothing construction methods required to achieve the right quality level for the apparel customer using the proper commercial design and materials. Prerequisites: TEC143 or permission of instructor. TEC146 may be repeated for a total of six (6) credits.

TEC147  Manufacturing Sewing Methods II  2 Credits 3 Periods
Advanced skills and techniques of sewing for apparel manufacturing ready-made-garments. Advanced application of correct clothing construction methods required to achieve the right quality level for the apparel customer using the proper commercial design and materials. Prerequisites: TEC146 or permission of instructor. TEC147 may be repeated for a total of six (6) credits.

TEC151  Display and Visual Merchandising  3 Credits 4 Periods
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.

TEC161  Digital Machine Embroidery Laboratory  1 Credit 2 Periods
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.

TEC200  Retail Buying  3 Credits 3 Periods
Examines management/buyer role in investment, pricing, planning, controlling sales and inventories. Prerequisites: None. Any BPC/CIS spreadsheet course recommended.

TEC221  Computer-Assisted Fashion Design  3 Credits 5 Periods
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  Textiles  3 Credits 3 Periods
Study of textile fibers and fabrics, their properties, identification, selection, use and care. Prerequisites: None.

TEC223  Tailoring  3 Credits 6 Periods
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  Pattern Design I  3 Credits 5 Periods
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  Draping for Fashion Design  3 Credits 5 Periods
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  Couture Sewing  3 Credits 5 Periods
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  Advanced Draping for Fashion Design  3 Credits 5 Periods
Advanced draping techniques for fashion design. Includes draping jackets, coats, slacks, and trousers in woven fabrics and draping a variety of garments in knit fabrics. Drape and construct an original design. Prerequisites: TEC226 or permission of Instructor. Corequisites: TEC225, TEC226 or permission of Instructor.

TEC229  Advanced Serging  2 Credits 2 Periods
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.
**Course Course Descriptions**

**TEC230  Pattern Design II**  
3 Credits 5 Periods  
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  Pattern Grading**  
3 Credits 5 Periods  
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  Computer-Assisted Pattern Making**  
3 Credits 5 Periods  
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  Portfolio Development**  
1 Credit 1.5 Periods  
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.

**TEC240  Apparel Production Management**  
2 Credits 3 Periods  
Overview of apparel production management for the global marketplace examining component details of the technical package, tech-pack, which include specifications and costing in the most time-efficient manner. TEC240 may be repeated for a total of six (6) credit hours. Prerequisites: None.

**TEC241  Advanced Computer-Assisted Fashion Design**  
3 Credits 5 Periods  
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.

**TEC244  Industrial Sewing III**  
2 Credits 3 Periods  
Mastery study of industrial sewing machine usage for straight-stitch, zigzag, over-lock, cover stitch and blind-hem machines. Use in detailed or complex constructing, finishing, and decorating apparel and home decor. TEC244 may be repeated for total of six (6) credit hours. Prerequisites: TEC144 or permission of instructor.

**TEC245  Wardrobe Strategies**  
3 Credits 3 Periods  
Methods of clothing selection, coordination, evaluation, and planning to meet men’s and women’s wardrobe needs. Prerequisites: None.

**TEC247  Manufacturing Sewing Methods III**  
2 Credits 3 Periods  
Mastery knowledge, skills, and techniques of sewing for apparel manufacturing ready-made-garments. Mastery level application of correct clothing construction methods required to achieve the right quality level for the apparel customer using the proper commercial design and materials. TEC247 may be repeated for a total of six (6) credit hours. Prerequisites: TEC147 or permission of instructor.

**TEC250  Apparel Quality Analysis**  
3 Credits 3 Periods  
Quality analysis of construction components that affect the appearance, function, and cost of ready-to-wear apparel. Prerequisites: None.

**TEC255  Fashion Retail Merchandising**  
3 Credits 3 Periods  
Surveys the structure and operation of retail organizations. Emphasizes the global nature of fashion merchandising and techniques of merchandising for the fashion merchandising major. Prerequisites: MKT/TEC109.

**TEC260  Fashion Sales Management**  
3 Credits 3 Periods  
Emphasizes the fashion aspects of sales, and the application and management of a sales force for the fashion industry. Prerequisites: MKT/TEC109.

**TEC270  Design Studio**  
1 Credit 1 Period  
Design of an original garment for a line/collection. Includes sketching design, developing pattern for design, selecting fabrics for design, and construction of design. Prerequisites: TEC225 or TEC226.

**TEC271  Fashion Design Internship**  
1-3 Credits 5-15 Periods  
Work experience in fashion design business or industry. Five hours of work weekly. Supervision and evaluation by an internship coordinator. May be repeated for a total of three (3) credits. Prerequisites: Permission of Department or Division.

**TEC272  Retail Merchandising Internship**  
1-3 Credits 1-3 Periods  
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.

**TEC274  Fashion Merchandising Study Tour**  
1-3 Credits 5-15 Periods  
A tour of the fashion merchandising industry outside the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance awareness of this multifaceted career. Prerequisites: Permission of Department or Division.

**TEC275  Image Consultant Internship**  
1-3 Credits 1-3 Periods  
Image consultant work experience in a fashion retail business or industry. Supervision and evaluation by an internship coordinator. Eighty hours of designated work per credit per semester.
Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student’s academic or career goals (student’s present job may qualify); or permission of Instructor.

**TEC277**  
**Alteration Internship**  
Alteration work experience in a business or industry. Supervision and evaluation by an internship coordinator. Eighty hours of designated work per credit per semester. Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student’s academic or career goals (student’s present job may qualify); or permission of Instructor.

**TEC278**  
**Custom Design and Production Internship**  
Costume Design and Production work experience in a business or industry. Supervision and evaluation by an internship coordinator. Eighty hours of designated work per credit per semester. Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student’s academic or career goals (student’s present job may qualify); or permission of Instructor.

**THE - Theatre-Performing Arts**

**THE111**  
**Introduction to Theatre**  
A survey of theatre, including basic elements and principles of production, styles, and/or historical perspectives of theatre, dramatic literature, and criticism. Prerequisites: None.

**THE118**  
**Playwriting**  
Practice and study of theories and techniques of writing for the stage; creating characters, dialogue, and plot for monodramas, scenes, and plays. Prerequisites: None.

**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.

**THP - Theatre Performance/Production**

**THP112**  
**Acting I**  
Fundamental techniques and terminology of acting through physical and vocal expression, improvisation, and monologue and scene work. Emphasis on characterization. Prerequisites: None.

**THP115**  
**Theatre Makeup**  
Purposes, materials, and techniques of theatrical makeup. 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.

**THP212**  
**Acting II**  
Fundamental techniques of acting through script analysis, rehearsal, and performance. Prerequisites: THP112 or permission of Department or Division.

**THP213**  
**Introduction To Technical Theatre**  
Procedures of technical theatre production and demonstration. Topics include design and construction of scenery; lighting and properties. Prerequisites: None.

**THP217**  
**Introduction To Design Scenography**  
The role of the theatre designer in creating scenic, lighting, costume, sound, and multimedia effects for stage productions. Elements of the design process and communication of dramatic themes and visions to the audience. Prerequisites: THP213 or permission of Instructor.
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.

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. Performance of monologues, scenes, and one-act plays. Prerequisites: THP281, or permission of Department or Division.

THP298 1-3 Credits  
Special Projects (See Page 280)

TQM - Total Quality Management

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 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 1 Credit 1 Period  
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

WED100 2 Credits 2 Periods  
Personal Wellness  
Overview of wellness and its relationship to personal health. Understanding of personal wellness through lifestyle assessments. Introduction to wellness and health-related topics including fitness, relationships, nutrition, self-care, abusive behaviors, mind/body connection, and other current issues in health. Prerequisites: None.

WED110 3 Credits 3 Periods  
Principles Of Physical Fitness And Wellness  
Stress basic, lifetime health and skill-related components of fitness to achieve total wellness. Topics include nutrition, weight control, exercise and aging, cardiovascular and cancer risk reduction, stress management, prevention of sexually transmitted diseases, substance abuse control, and overall management of personal health and lifestyle habits to achieve the highest potential for well-being. Prerequisites: None.

WED124 3 Credits 3 Periods  
Environmental Wellness  
Overview of critical global environmental challenges and the impacts of these issues to human health. Topics to be covered include issues such as transportation options, alternative energy, food production, and air and water issues. Acquire skills, knowledge and wisdom specific to sustainability which may be applied in many professions, occupations, social institutions, or organizations. At an individual level, learn specific ways to conserve energy, protect your health, and help create sustainable living practices. Prerequisites: None.

WED152 3 Credits 3 Periods  
Comparative Healing Techniques  
Comparative approaches to healing, including allopathy, homeopathy, chiropractic, osteopathy, Chinese medicine, Ayurveda, Shamanism, and therapeutic touch. Contrast explanations for causation of disease, diagnostic procedures and healing methodology. Prerequisites: None.

WED155 3 Credits 3 Periods  
Introduction to Chinese Medicine  
Basic theories, principles and methods that constitute the backbone of Chinese Medicine. Explores concepts of Yin, Yang, the Five Elements (Wood, Fire Earth, Metal, and Water), and the Five Vital substances (Qi, Blood, Body Fluids, Jing, and Shen). Overview of the physiology of the major internal organs (Five Zang and Six Fu) with a focus on their various interrelationships. Prerequisites: None.
**COURSE DESCRIPTIONS**

**WED162**
**Meditation And Wellness**
Physiology of meditation and its effects on physical and mental health; scholastic abilities and interpersonal relationships; differentiation between meditation and other relaxation techniques. Prerequisites: None.

**WED165**
**Overview of Massage Therapy**
History of massage; overview of bodywork systems; benefits and indications of massage; legal requirements for practice in Arizona. Prerequisites: None.

**WED172**
**Overview Of Herbal Remedies**
History and evolution of herbs for healing applications. Preparation, usage, and effects of certain herbs used for healing purposes. Basic literature review skills in the area of herbal medicine. Prerequisites: None.

**WED218**
**Aromatherapy**
Physiology of aromatherapy; methods of use; preparation of oils; uses in sports, beauty care, massage, child care, health care, at work, and in the home. Prerequisites: None.

**WLD - Welding**

**WLD101**
**Welding I**
Principles and techniques of electric arc and oxyacetylene welding and cutting. Provides technical theory and basic skill training in these welding processes. Prerequisites: None.

**WLD102**
**Basic Welding Metal Sculpture**
Practical training for welders in artistic welding and metal sculpture with emphasis on oxy-acet welding, arc welding, and metal inert gas (MIG) welding. Prerequisites: None.

**WLD103**
**Basic Blacksmithing And Metal Shaping**
Selection and safe use of blacksmithing and metal shaping tools and equipment. Material selection and conditioning, practical forging techniques, metal shaping experience, and finishing processes. Prerequisites: None.

**WLD106**
**Arc Welding**
Electric welding with emphasis on metallic arc welding in out-of-position practice and procedures. Prerequisites: None.

**WLD206**
**Advanced Welding: Heliarc And Wire Feed**
Instruction in theory and practice on tungsten inert gas and wire feed welding. Welding procedures on ferrous and nonferrous metals. Set up and operation of all types of machines used in tig and mig welding. Prerequisites: WLD106, or permission of Department or Division.

**WLD208**
**Advanced Arc Welding: Certification**
Advanced metallic arc welding emphasizing out-of-position welding in preparation for certification. Includes various test methods. Provides training on machine flame cutting and gouging and arc air cutting and gouging. Prerequisites: WLD106 or permission of Instructor.

**WLD225**
**Welding Inspection And Quality Control**
Welding inspection and quality control standards and practices in the construction and fabrication industries. Welding inspector certification requirements and functions performed in industry. Prerequisites: WLD206, or WLD208, or AWS certificate, or permission of Instructor.

**WLD296**
**Cooperative Education**
Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. Prerequisites: Completed at least 12 credits, min 2.6 GPA, and able to obtain a position related to student’s academic/career goals or permission of Instructor. Corequisites: Enrolled in at least 1 class related to major/career interest or permission of Instructor.

**WST - Women’s Studies**

**WST100**
**Introduction to Women’s and Gender Studies**
Introduction to critical issues in women’s studies. Prerequisites: None.

**WST161**
**American Women Since 1920**
Continuation of the history of women in America from 1920 to the present, based on a feminist perspective. Includes discussion of the roles and status of immigrant and ethnic minority women. Prerequisites: None.

**WST209**
**Women and Films**
Analysis of images of women in films from both historical and contemporary perspectives. Prerequisites: None.

**WST282**
**Volunteerism for Women’s Studies: A Service-Learning Experience**
Service-learning field experience within private/public agencies and citizen volunteer groups. Students will develop writing skills, analysis, and synthesis in an on-site volunteer experience. May be repeated for a total of six (6) WST282 credit hours. Standard grading available according to procedures outlined in catalog. Prerequisites: WST100 and permission of Instructor.

**WST284**
**19th Century Women Writers**
Investigates major themes in literature by women writing in the 19th century including the nature of women’s lives in the family, in work situations, and in society. Poetry, prose, essays and drama are examined with an emphasis on common themes. Prerequisites: None.
WST285 3 Credits 3 Periods
Contemporary Women Writers
Explores twenty-first 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.
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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 descaminará 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, orientacion 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 prohíbe descriminación en base de orientación sexual en la admisión y tratamiento de estudiantes, en sus programas y actividades y en la contratación, tratamiento, promoción/ascensos, evaluación y despido de empleados.

**Declaración de Igualdad de Oportunidad** Es la póliza de los Colegios Comunitarios del Condado de Maricopa proveer igualdad en las oportunidades de empleo mediante un programa continuo positivo. Esto significa que Maricopa no descaminará o tolerará descriminación en contra de ningún aplicante o empleado debido a su raza, color, religión, genero, orientacion sexual, origen 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, orientacion sexual, origen nacional, ciudadania, edad, incapacidad, estado de veteran/a o informacion genesica.
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 aplicante o empleado debido a su desabilidad/incapacitación física o mental referente a cualquier posición para la cuál el aplicante o empleado ha calificado. Maricopa promete tomar acción afirmativa para emplear, dar ascenso en empleo y tratar a dichos individuos con incapacidades sin hacer incapazie en sus incapacidades físicas o mentales en la selección de recursos humanos y prácticas decisivas como son las siguientes: anuncios, beneficios, compensación, disciplina (incluyendo período de prueba, suspensión, y/o terminación de empleo por causa de paro forzoso), facilidades para empleados, evaluación de trabajo, reclutamiento, programas sociales/recreacionales, y entrenamiento. Maricopa continuará llevando a cabo éstas prácticas de no discriminar por razones de raza, color, religión, sexo, orientación sexual, origen nacional, ciudadanía, edad, incapacidad estado de veteran/a o información genésica. Maricopa promete anunciar todas las oportunidades de empleo disponibles en la oficina local del servicio de empleo del Estado donde el empleo esté disponible. Esto incluye empleo de tiempo completo, temporal de más de tres días de duración y empleo de tiempo medio. Finalmente, todos los aplicantes y empleados están protegidos en contra de coacción, intimidación, interferencia o discriminación por quejas o por ayudar en una investigación cubierta sobre este Acto.

Declaración de Póliza de Acción Afirmativa para Otros Veteranos Elegibles, Veteranos con Incapacitación Especial y Veteranos de la Era Vietnamita

Conforme a la ley de Reajuste y Asistencia para los Veteranos de la Era Vietnamita de 1974, acta de Oportunidades de Empleo para Veteranos de 1998 y reglamentos de implementación, 41 CFR 60-250(k), el Distrito de Colegios Comunitarios del Condado de Maricopa no discriminará ni tolerará discriminación en contra de ningún aplicante o empleado veterano o veterano de la Era Vietnamita con desabilidad/incapacitación especial referente a cualquier posición la cual dicho aplicante o empleado califique. Maricopa promete aplicar acción afirmativa para emplear, ascender en empleo y tratar a dichos veteranos incapacitados y de la Era Vietnamita que califiquen sin discriminar base a su desabilidad/incapacitación o condición de veterano en todas las áreas de recursos humanos y decisiones como son las siguientes: anuncios, beneficios, compensación, disciplina (incluyendo período de prueba, suspensión, y/o despido por causa o paro forzoso), facilidades para empleados, evaluación de trabajo, reclutamiento, programas sociales/recreacionales y entrenamiento. Maricopa continuará llevando a cabo estas prácticas sin discriminar por razones de raza, color, religión, sexo, orientación sexual, origen nacional, ciudadanía, edad, incapacidad estado de veteran/a o información genésica.

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 the commonwealth of the Northern Mariana Islands (CNMI) and who 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 way of 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>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition and Fees</td>
<td>$7,810</td>
</tr>
<tr>
<td>Living Expenses</td>
<td>$10,140</td>
</tr>
<tr>
<td>Books</td>
<td>$1,100</td>
</tr>
<tr>
<td>Health Insurance</td>
<td>$1,036</td>
</tr>
<tr>
<td>Total</td>
<td>$20,410</td>
</tr>
</tbody>
</table>

4. Dependent Financial Guarantee
Evidence of financial support for dependents of F-1 and M-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 and M-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 and M-1 students is highly recommended. The Maricopa Community Colleges contracts with an insurance provider annually to offer a health insurance plan for F-1 and M-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 2012-2013 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 and rental rates. Assumes books are sold at the end of the semester.
4. Based on the 2012-2013 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. Applicants for in-state tuition status and other public benefits must demonstrate lawful presence in the United States by presenting one of the documents listed in this regulation, under the section “Demonstrating Lawful Presence.”

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 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 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 not lawfully present in the United States 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 lawful presence is received in the office of admissions and records/enrollment services and (eligibility for) residency is determined. Documentation must be provided prior to the end of the term in which residency classification is being required. Documentation received after the end of the term will be used for residency determination in subsequent terms.

C. In establishing domicile, the alien must not hold a visa that prohibits establishing domicile in this state. After meeting other domicile requirements, students holding valid, unexpired visas in the following categories may be classified as in-state students:

   A. Foreign Government Official or Adopted Child of a Permanent Resident
E. Treaty Traders
G. Principal Resident Representative of Recognized Foreign Member Government to International Staff
K. Spouse or Child of Spouse of a U.S. Citizen, Fiancé or Child of Fiancé of U.S. Citizen
L. Intracompany Transferee, or Spouse or Child
N6. NATO-6
V. Spouses and Dependent Children of Lawful Permanent Residents

D. 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. Exception: in the event that an alien student’s parent is allowed to claim the student as an exemption for state or federal tax purposes (3C.1.2.A) (E.G., the student is under 23 and emancipated), this student’s residence is deemed to be the same as the parent’s. If the parent holds a visa that is not listed in section 3 above, he or she would not be eligible to establish residency. In such circumstances, the student would likewise be barred notwithstanding his or her own filing of an I-485.

Proving Lawful Presence in the United States
All applicants for instate tuition (and other public benefits) must first show at least one of the following documents in accordance with ARS 1-502 to demonstrate that they are lawfully present in the United States by presenting to the registrar at least one of the following documents:

- An Arizona driver’s license issued after 1996 or an Arizona nonoperating identification license
- A birth certificate or delayed birth certificate issued in any state, territory or possession of the United States
- A United States certificate of birth abroad
- A United States passport
- A foreign passport with a United States visa
- An I-94 form with a photograph
- A United States citizenship and immigration services employment authorization document (work permit) or refugee travel document
- A United States certificate of naturalization
- A United States certification of citizenship
- A tribal certificate of Indian blood
- A tribal or bureau of Indian affairs affidavit of birth

Tribal members*, the elderly and “persons with disabilities or incapacity of the mind or body,” may submit certain types of documentation under section 1903 of the federal social security act (42 United States code 1396B, as amended by section 6036 of the federal deficit reduction act of 2005)**

*A document issued by a federally recognized Indian Tribe evidencing membership or enrollment in or affiliation with, such tribe.

**If you think this may apply, please contact the legal services department for assistance.

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) Ownership of real property  
j) 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 (AR2.2.4)
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:
   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.

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:

a. The evaluation of a course a second time;
b. The evaluation of a course while currently enrolled in the course;
c. To establish credit in a previously completed course; and
d. 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/equivalency</th>
</tr>
</thead>
<tbody>
<tr>
<td>English-Language and Composition</td>
<td>5 or 4</td>
<td>6 credit hrs. ENGI01, ENGI00, AA, AC, AD</td>
</tr>
<tr>
<td>English-Literature and Composition</td>
<td>5 or 4</td>
<td>6 credit hrs. ENGI01 ENGI10</td>
</tr>
</tbody>
</table>

**Math AP Recommendation:**

<table>
<thead>
<tr>
<th>Exam</th>
<th>Score</th>
<th>Credit Hours/equivalency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math-Calculus AB</td>
<td>5, 4 or 3</td>
<td>MAT221</td>
</tr>
<tr>
<td>Math-Calculus BC</td>
<td>5, 4 or 3</td>
<td>MAT 221 or MAT 231</td>
</tr>
<tr>
<td>Computer Science A</td>
<td>4 or 5</td>
<td>CSC100 or CSC110</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.

**College Composition:**

<table>
<thead>
<tr>
<th>Exam</th>
<th>Score</th>
<th>Credit Hours/equivalency</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Composition</td>
<td>50</td>
<td>with essay qualifies for ENGI01 (3) &amp; ENGI297 (1)</td>
</tr>
</tbody>
</table>

The Maricopa Community Colleges do not award credit for ENGI02 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 Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>50-54</td>
<td>50-54</td>
<td>39-45</td>
</tr>
<tr>
<td>102</td>
<td>55-65</td>
<td>55-61</td>
<td>46-50</td>
</tr>
<tr>
<td>201</td>
<td>66-67</td>
<td>62-65</td>
<td>51-59</td>
</tr>
<tr>
<td>202</td>
<td>68-80</td>
<td>66-80</td>
<td>60-80</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;
- 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: Changes to exams and scores are determined by the respective statewide articulation task force (ATF). The credit awarded and equivalent courses are established by MCCCD Instructional Councils (ICS). Disclaimer: Text scores are continually reviewed and may be updated at anytime. Changes will be noted as they occur.

<table>
<thead>
<tr>
<th>Examination General</th>
<th>Score</th>
<th>MCCC'D Sem. Hrs.</th>
<th>Equivalency</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Composition</td>
<td>50 (July 1, 2001 or later), 600 (1986 version), 500 (1978 version)</td>
<td>With essay, qualifies for ENG101 &amp; ENG297</td>
<td></td>
</tr>
<tr>
<td>College Composition-Modular</td>
<td>0</td>
<td>No credit</td>
<td></td>
</tr>
<tr>
<td>Humanities</td>
<td>50 (July 1, 2001 or later), 500 (prior to July 1, 2001)</td>
<td>Elective Credit</td>
<td></td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>50 (July 1, 2001 or later), 500 (prior to July 1, 2001)</td>
<td>Elective Credit*</td>
<td></td>
</tr>
<tr>
<td>Social Sciences &amp; History</td>
<td>50 (July 1, 2001 or later), 500 (prior to July 1, 2001)</td>
<td>Elective Credit</td>
<td></td>
</tr>
</tbody>
</table>

Subject

<table>
<thead>
<tr>
<th>Subject</th>
<th>Score</th>
<th>MCCC'D Sem. Hrs.</th>
<th>Equivalency</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Government</td>
<td>ACE Score</td>
<td>3</td>
<td>POS110</td>
</tr>
<tr>
<td>American Literature</td>
<td>ACE Score</td>
<td>6</td>
<td>ENH241, 242</td>
</tr>
<tr>
<td>Analyzing &amp; Interpreting Literature</td>
<td>ACE Score</td>
<td>3</td>
<td>Elective Credit</td>
</tr>
<tr>
<td>Biology</td>
<td>ACE Score</td>
<td>8</td>
<td>BIO Elective Credit*</td>
</tr>
<tr>
<td>Calculus (Previously Calculus with Elem Functions)</td>
<td>ACE Score</td>
<td>4</td>
<td>MAT221</td>
</tr>
<tr>
<td>Chemistry</td>
<td>50 or higher</td>
<td>4</td>
<td>CHM151/CHM151LL</td>
</tr>
<tr>
<td>College Composition (Replaces English Composition with Essay)</td>
<td>50</td>
<td>4</td>
<td>for ENG101, ENG297</td>
</tr>
<tr>
<td>English Literature</td>
<td>ACE Score</td>
<td>3</td>
<td>Elective Credit</td>
</tr>
<tr>
<td>Financial Accounting</td>
<td>50</td>
<td>3</td>
<td>Elective Credit</td>
</tr>
<tr>
<td>French Language, Level I</td>
<td>50-54</td>
<td>4</td>
<td>FRE101</td>
</tr>
<tr>
<td>(Previously French Language)</td>
<td>55-61</td>
<td>8</td>
<td>FRE101, 102</td>
</tr>
<tr>
<td>French Language, Level II</td>
<td>62-65</td>
<td>12</td>
<td>FRE101, 102, 201</td>
</tr>
<tr>
<td>(Previously French Language)</td>
<td>66-80</td>
<td>16</td>
<td>FRE101, 102, 201, 202</td>
</tr>
<tr>
<td>Germain Language, Level I</td>
<td>39-45</td>
<td>4</td>
<td>GER101</td>
</tr>
<tr>
<td>(Previously German Language)</td>
<td>46-50</td>
<td>8</td>
<td>GER101, 102</td>
</tr>
<tr>
<td>German Language, Level II</td>
<td>51-59</td>
<td>12</td>
<td>GER101, 102, 201</td>
</tr>
<tr>
<td>(Previously German Language)</td>
<td>60-80</td>
<td>16</td>
<td>GER101, 102, 201, 202</td>
</tr>
<tr>
<td>Human Growth &amp; Development</td>
<td>50 or higher</td>
<td>3</td>
<td>CFS2005</td>
</tr>
<tr>
<td>Information Systems &amp; Computer Applications</td>
<td>ACE Score</td>
<td>3</td>
<td>CIS Elective Credit</td>
</tr>
<tr>
<td>Intro to Educational Psychology</td>
<td>ACE Score</td>
<td>3</td>
<td>EDU Elective Credit</td>
</tr>
<tr>
<td>Introductory Business Law</td>
<td>50</td>
<td>3</td>
<td>Elective Credit</td>
</tr>
<tr>
<td>Introductory Psychology</td>
<td>ACE Score</td>
<td>3</td>
<td>PSY101</td>
</tr>
<tr>
<td>Introductory Sociology</td>
<td>50 or higher</td>
<td>3</td>
<td>SOC101</td>
</tr>
<tr>
<td>Macroeconomics, Principles of (Replaces Introductory Macroeconomics)</td>
<td>ACE Score</td>
<td>3</td>
<td>ECN211</td>
</tr>
<tr>
<td>Management, Principles of</td>
<td>50</td>
<td>0</td>
<td>No Credit</td>
</tr>
<tr>
<td>Marketing, Principles of</td>
<td>50</td>
<td>0</td>
<td>No Credit</td>
</tr>
<tr>
<td>Mathematics, College</td>
<td>ACE Score</td>
<td>3</td>
<td>MAT142</td>
</tr>
<tr>
<td>Microeconomics, Principles of (Replaces Introductory Microeconomics)</td>
<td>ACE Score</td>
<td>3</td>
<td>ECN212</td>
</tr>
<tr>
<td>Spanish Language, Level I</td>
<td>50-54</td>
<td>4</td>
<td>SPA101</td>
</tr>
<tr>
<td>(Previously Spanish Language)</td>
<td>55-65</td>
<td>8</td>
<td>SPA101, 102</td>
</tr>
<tr>
<td>Spanish Language, Level II</td>
<td>66-67</td>
<td>12</td>
<td>SPA101, 102, 201, 202</td>
</tr>
<tr>
<td>(Previously Spanish Language)</td>
<td>68-80</td>
<td>16</td>
<td>SPA101, 102, 201, 202</td>
</tr>
<tr>
<td>Precalculus</td>
<td>50 or higher</td>
<td>5</td>
<td>MAT187</td>
</tr>
<tr>
<td>Trigonometry</td>
<td>ACE Score</td>
<td>3</td>
<td>MAT182</td>
</tr>
<tr>
<td>U.S. History I – Early Colonization to 1877</td>
<td>ACE Score</td>
<td>3</td>
<td>HIS103</td>
</tr>
<tr>
<td>U.S. History II – 1865 to the Present</td>
<td>ACE Score</td>
<td>3</td>
<td>HIS104</td>
</tr>
<tr>
<td>Western Civilization I – Ancient Near East to 1648</td>
<td>ACE Score</td>
<td>6</td>
<td>HIS100, 101</td>
</tr>
<tr>
<td>Western Civilization II – 1648 to the Present</td>
<td>ACE Score</td>
<td>3</td>
<td>HIS102</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: Changes to exams and scores are determined by the respective statewide articulation task force (ATF). The credit awarded and equivalent courses are established by MCCCD Instructional Councils (ICS).

<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 (3-D Design)</td>
<td>5 or 4</td>
<td>ART115</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>4</td>
<td>CHM151/151LL</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>CHM151 &amp; CHM152 &amp; 152LL</td>
<td>8</td>
</tr>
<tr>
<td>Calculus AB</td>
<td>5, 4, or 3</td>
<td>MAT221</td>
<td>4</td>
</tr>
<tr>
<td>Calculus BC</td>
<td>5 or 4</td>
<td>MAT221 &amp; MAT231</td>
<td>8</td>
</tr>
<tr>
<td>(Previously Mathematics-Calculus BC)</td>
<td>5, 4, or 3</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>5 or 4</td>
<td>CSC100 or CSC110</td>
<td>3</td>
</tr>
<tr>
<td>Computer Science A</td>
<td>5 or 4</td>
<td>ECN211</td>
<td>3</td>
</tr>
<tr>
<td>Economics -Macroeconomics</td>
<td>5 or 4</td>
<td>ECN212</td>
<td>3</td>
</tr>
<tr>
<td>Economics -Microeconomics</td>
<td>5 or 4</td>
<td>ENG100AA, AC, AD and ENG101</td>
<td>6</td>
</tr>
<tr>
<td>English – Language &amp; Composition</td>
<td>5 or 4</td>
<td>ENG101 and ENH110</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, 202</td>
<td>20</td>
</tr>
<tr>
<td>(Previously Japanese-Language)</td>
<td>4</td>
<td>JPN101, 102 and 201</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>JPN101 and 102</td>
<td>10</td>
</tr>
<tr>
<td>Latin: Vergil (Previously Latin Language)</td>
<td>5</td>
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<td>3</td>
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<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>
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<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>
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<tr>
<td>Spanish–Literature</td>
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<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>5 or 4</td>
<td>POS110</td>
<td>3</td>
</tr>
<tr>
<td>(Previously Political Science– American Government)</td>
<td>5 or 4</td>
<td>HIS103, HIS104</td>
<td>6</td>
</tr>
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</table>
International Baccalaureate Diploma/Certificate Credit

F. International Baccalaureate Diploma/Certificate Credit

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>
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<tbody>
<tr>
<td>Biology</td>
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<td>8</td>
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<td>4 or 5</td>
<td>4</td>
<td>BIO100 or equivalent</td>
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<td>Business &amp; Management</td>
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<td>3</td>
<td>Elective Credit</td>
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<tr>
<td>Chemistry</td>
<td>7, 6 or 5</td>
<td>8</td>
<td>CHM151 &amp; 151LL</td>
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<tr>
<td></td>
<td>4</td>
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<td>CHM152 &amp; 152LL</td>
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<tr>
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<td>ECN111, 212</td>
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<td>ENG101, ENG100AB, AC, AD</td>
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<td>3</td>
<td>ENG100AB, AC, AD</td>
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<tr>
<td>English B</td>
<td>No credit</td>
<td></td>
<td>None</td>
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<tr>
<td>Foreign Language</td>
<td>7, 6 or 5</td>
<td>8</td>
<td>Foreign Language 201, 202</td>
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<td>A or B</td>
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<td>8</td>
<td>Foreign Language 101, 102</td>
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<td>(Previously Human-5 Geography) or higher</td>
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<td>GCU102</td>
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<td>History</td>
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<td>(Previously History-4 American)</td>
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<td>3</td>
<td>HIS103</td>
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<tr>
<td>History</td>
<td>7, 6 or 5</td>
<td>6</td>
<td>HIS101, 102</td>
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<td>(Previously History-4 European)</td>
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<td>3</td>
<td>HIS101</td>
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<td>Mathematics HL</td>
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<tr>
<td>Mathematics Studies SL</td>
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<tr>
<td>Further</td>
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<td></td>
<td></td>
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<tr>
<td>Mathematics SL</td>
<td>(Previously Mathematics)</td>
<td></td>
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<td>5</td>
<td>3</td>
<td>PHY111</td>
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<td>Social and Cultural</td>
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<td>5 or 4</td>
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</tr>
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<td>Visual Arts</td>
<td>7, 6, or 5</td>
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<td>(Previously Art/Design)</td>
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<td>3</td>
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</tr>
</tbody>
</table>

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 (ICAN). 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;
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 aztransfer.com website is the official source of information for the statewide articulation agreements between the Arizona public community colleges and universities (Arizona State University, Northern Arizona University, and University of Arizona). Included on aztransfer.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/ccta/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 aztransfer.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 AND NEW STUDENT ORIENTATION (AR 2.2.6)
Academic Advising
Students who will be attending college for the first time, and intend to earn an Associate’s Degree or to transfer onto a college/university to complete a Bachelor’s Degree, will be required to meet with an academic advisor prior to the start of their first semester at a MCCCDD college. (Recent high school students who received MCCCDD credits through dual/concurrent enrollment, ACE, Hoop of Learning, or any MCCCDD early outreach program are considered first time to college.)

New Student Orientation
Students who will be attending college for the first time, and intend to earn an Associate’s Degree or transfer to a
college/university to complete a Bachelor’s Degree, will be required to attend new student orientation prior to the start of their first semester at a MCCCD college. (recent high school students who received MCCCD credits through dual/concurrent enrollment, ACE, Hoop of Learning, or any MCCCD early outreach program are considered first time to college.)

STUDENT ASSESSMENT COURSE PLACEMENT (AR 2.2.7)

A. Testing for Course Placement

1. Testing for Course Placement
   
   A. Students will be required to complete a course placement test under any one of the following conditions:
   
   1) The student is taking his or her first college credit English, reading or math course, or any college course for which English, reading or math is a prerequisite.
   
   2) The student is pursuing a degree or transfer pathway 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 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.

   B. Course placement scores, will be valid for two years.

   C. Reading placement scores that indicate “exempt from CRE101” do not expire.

   D. Students will be permitted one re-test in English, reading or math level at least a 24-hour waiting period. One additional re-test is permitted no sooner then three months from the oldest valid score date at any course placement testing site.

   E. 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.

   F. Students will 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 from a regionally accredited college.

   2) The student has earned college credits from a regionally accredited college in English, reading, and math with a grade of C or higher.

   3) The student has currently valid district approved course placement scores on file.

   G. The student who is exempt from a course placement test must fulfill the minimum graduation requirements.

2. Course Placement

   A. Students who enroll in English, reading or math will be advised and placed into courses based on valid district approved scores.

   B. Student who test into course(s) that are below college level (i.e., below 100-level) will be advised and placed into the course(s) within the first two semesters enrolled

   C. A department/division chair or designee may grant a course placement waiver under special circumstances. 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 will be valid for two years.

   D. Reading placement scores that indicate “exempt from CRE101” do not expire.

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.

**Class Registration Deadline:**

A. For classes with published start dates and meeting times, registration in the class must be completed before the first official class meeting date and time. Students may not register for a class once it has started. Self-service registration for a class through my.maricopa.edu will end at 11:59 pm on the day before the class starts. Registration for a class on the date it starts must be done in person or on the phone, and must be completed before the class start time.

B. For classes without published meeting times (for example online classes, special projects), registration in the class must be completed by 11:59 pm on the day before the class starts.

C. Exceptions

1. Exceptions to class registration deadlines require permission of appropriate instructor(s) and approval of the appropriate department/division chair or designee.
2. Exceptions are limited to:
   a. Courses requiring permission of instructor.
   b. Courses requiring auditions or try-outs.
   c. Courses for special populations or cohorts
   d. Enrollment in an alternate section of a course taught by the same instructor.
   e. Enrollment in an alternate section of a course taught by a different instructor.
   f. Course level changes
   g. Students dropped for non-payment during the 100% refund period may be reinstated if they attended since the first class meeting.
   h. Students dropped due to human or system errors may be reinstated if they attended since the first class meeting.
   i. Other exceptions may be granted after faculty consultation with the student.

**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, 2013 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 2013-2014 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>2013-2014</th>
<th>Maricopa County Resident (In County)</th>
<th>In County Resident Audit Rate</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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</thead>
<tbody>
<tr>
<td><strong>IN-STATE</strong></td>
<td><strong>OUT-OF-STATE</strong></td>
<td><strong>C</strong></td>
<td><strong>D</strong></td>
<td><strong>E</strong></td>
<td><strong>F</strong></td>
<td><strong>G</strong></td>
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<tr>
<td>Credit Hours</td>
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<td>B</td>
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<td>D**</td>
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</tr>
<tr>
<td>15</td>
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<td>5010.00</td>
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<td>5796.00</td>
<td>3618.00</td>
<td>3870.00</td>
<td>2142.00</td>
</tr>
</tbody>
</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.

4. There may also be additional course fees for classes; please refer to the college schedule for course fees.

5. If you choose to audit a class, add an additional fee of $25 per credit hour.

6. 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.

7. 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: $6.00 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. Maricopa Community College services may be withheld pending payment of debt (at designated college office) with cash, certified check or money order or online with debit or credit card or in person with credit card. Student may be withdrawn from classes.

   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 only in limited instances 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.

   Admission criteria to attend a college within the Maricopa County Community College District (MCCCD) is determined in accordance with state law (ARS §15-1805 and 15-1821) and regulations of the Maricopa Community Colleges Governing Board and the Chancellor. As such, participants enrolled in courses as part of third party agreements are also subject to the same admissions criteria. This includes the participant resolving any current enrollment or administrative holds that are unrelated to the third party in an existing student account, but that otherwise impact his/her eligibility to enroll in courses or participate in programs delivered by MCCCD faculty or staff.
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.

Length of Class Official Withdrawal Deadlines for 100% Refund*

<table>
<thead>
<tr>
<th>Length of Class</th>
<th>Deadline</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 for recognition of special talents and achievements. Additional procedural information on financial assistance is available in Appendix S-5.  

Appendix S-5: Student Financial Assistance  
The Maricopa Community Colleges provide students financial assistance to enable access to higher education. Student financial assistance shall be awarded on the basis of demonstrated financial need except where funds are specified for recognition of special talents and achievements. 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 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.

Repeated Coursework and Financial Aid Enrollment Status
Federal regulations regarding repeated coursework may impact your financial aid eligibility and awards. Federal regulations specify that students may receive federal financial aid funding for one repetition of a previously passed course. A passed course is defined as one in which a grade of A, B, C, D, or P is received. If you enroll in a course in which you have previously received passing grades twice, the course will not be counted towards your enrollment level for financial aid purposes. You may repeat a failed course until it is passed. Your enrollment for financial aid purposes will be calculated accordingly.

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.

Award Amount and Level of Enrollment
Award amount is determined, in part, on the level of enrollment. Federal student aid recipients are advised to register at the same time for all classes they intend to take during a semester to maximize award. Some federal aid may not be awarded for classes added at a later date. Contact the college Office of Student Financial Aid for more information.
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).

<table>
<thead>
<tr>
<th>Total Credits Attempted*</th>
<th>Min CGPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;15.75</td>
<td>1.60</td>
</tr>
<tr>
<td>16-30.75</td>
<td>1.75</td>
</tr>
<tr>
<td>31-45.75</td>
<td>1.90</td>
</tr>
<tr>
<td>46+</td>
<td>2.00</td>
</tr>
</tbody>
</table>

*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

**Vaccinations (as required by 20 USC §1092(a)(1)(V))**

The Maricopa County Community College District does not require that students receive vaccinations prior to enrollment. Certain professional or occupational programs do require particular vaccinations for participation in those programs. More information about these programs can be found on college websites.
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

<table>
<thead>
<tr>
<th>Credit Hours (A, B, C, D, F, and Y)</th>
<th>Minimum Grade Point Average Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-15</td>
<td>1.60</td>
</tr>
<tr>
<td>16-30</td>
<td>1.75</td>
</tr>
<tr>
<td>31-45</td>
<td>1.90</td>
</tr>
<tr>
<td>46+</td>
<td>2.0</td>
</tr>
</tbody>
</table>

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. Half-time is 6–8.9 credit hours. Fewer than six (6) credit-hours is considered less than half-time. Academic load for summer and special terms may be defined differently. Contact the Admissions and Records Office/Office of Student Enrollment Services for clarification. As provided in the Reduced Course Load administrative regulation, a student may be deemed a full-time student carrying fewer than twelve credit hours pursuant to an accommodation of a disability.

Courses may vary in length, and begin and end throughout the year. A credit hour indicates the value of an academic credit. Standards for the awarding of credit hours may
be time based or competency based. To obtain credit, a student must be properly registered and must pay fees for the course. The fall and spring semesters are typically sixteen (16) weeks in length. Summer sessions are typically five or eight weeks in length.

Students desiring to take more than eighteen (18) credit hours must obtain approval from the designated college official. Ordinarily, only students with a grade point average of 3.0 or higher for the preceding semester or first semester students who were in the upper quarter of their high school graduating class are permitted to carry more than eighteen (18) credit hours.

Students participating in extra-curricular or co-curricular activities or receiving financial assistance may be required to maintain a specified minimum academic load.

Students who are working, have considerable extra-curricular or co-curricular activities, or have been reinstated from academic suspension/probation should plan their academic load accordingly.

Schedule Changes
Students may change their schedule by following the designated procedures at their college of enrollment. It is the student’s responsibility to notify the college if he/she will no longer be attending the class (see Appendix S-7 for Withdrawal Procedures).

ATTENDANCE (AR 2.3.2)
Only persons who are registered for a class at any of the Maricopa Community Colleges may attend that class. Attendance requirements are determined by the course instructor. Students who do not meet the attendance requirement as determined by the course instructor may be withdrawn.

Students who fail to attend the first scheduled class meeting, or to contact the instructor regarding absence before the first scheduled class meeting may, at the option of the instructor, be withdrawn.

At the beginning of each course, each faculty member will provide students with written attendance requirements. It is the student’s responsibility to consult with the instructor regarding official or unofficial absences. Absences begin to accumulate with the first scheduled class meeting.

Students bear the responsibility of notifying the Admissions and Records Office/Office of Student Enrollment Services when they discontinue studies in a course or at the college. Please refer to Appendix S-7 for Withdrawal Procedures.

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 special 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>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
</tr>
<tr>
<td>B</td>
<td>Above Average</td>
</tr>
<tr>
<td>C</td>
<td>Average</td>
</tr>
<tr>
<td>D</td>
<td>Passing</td>
</tr>
<tr>
<td>F</td>
<td>Failure</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete</td>
</tr>
<tr>
<td>IP</td>
<td>Course In Progress</td>
</tr>
<tr>
<td>N</td>
<td>Audit</td>
</tr>
<tr>
<td>P</td>
<td>Credit</td>
</tr>
<tr>
<td>W</td>
<td>Withdrawn, passing</td>
</tr>
<tr>
<td>Y</td>
<td>Withdrawn, failing</td>
</tr>
<tr>
<td>Z</td>
<td>No Credit</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”.

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## 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>12th Calendar Day</td>
<td>2nd Calendar Day</td>
<td>1st Day of Class</td>
<td>5th Calendar Day</td>
</tr>
<tr>
<td>Four Weeks (22 to 28 days)</td>
<td>9th Calendar Day</td>
<td>17th Calendar Day</td>
<td>17th Calendar Day</td>
<td>3rd Calendar Day</td>
<td>2nd Calendar Day</td>
<td>7th Calendar Day</td>
</tr>
<tr>
<td>Five Weeks (29 to 35 days)</td>
<td>12th Calendar Day</td>
<td>23rd Calendar Day</td>
<td>23rd Calendar Day</td>
<td>4th Calendar Day</td>
<td>2nd Calendar Day</td>
<td>9th Calendar Day</td>
</tr>
<tr>
<td>Six Weeks (36 to 42 days)</td>
<td>14th Calendar Day</td>
<td>29th Calendar Day</td>
<td>29th Calendar Day</td>
<td>5th Calendar Day</td>
<td>3rd Calendar Day</td>
<td>11th Calendar Day</td>
</tr>
<tr>
<td>Seven Weeks (43 to 49 days)</td>
<td>17th Calendar Day</td>
<td>35th Calendar Day</td>
<td>35th Calendar Day</td>
<td>5th Calendar Day</td>
<td>3rd Calendar Day</td>
<td>12th Calendar Day</td>
</tr>
<tr>
<td>Eight Weeks (50 to 56 days)</td>
<td>20th Calendar Day</td>
<td>41st Calendar Day</td>
<td>41st Calendar Day</td>
<td>6th Calendar Day</td>
<td>3rd Calendar Day</td>
<td>15th Calendar Day</td>
</tr>
<tr>
<td>Nine Weeks (57 to 63 days)</td>
<td>23rd Calendar Day</td>
<td>46th Calendar Day</td>
<td>46th Calendar Day</td>
<td>7th Calendar Day</td>
<td>4th Calendar Day</td>
<td>17th Calendar Day</td>
</tr>
<tr>
<td>Ten Weeks (64 to 70 days)</td>
<td>26th Calendar Day</td>
<td>52nd Calendar Day</td>
<td>52nd Calendar Day</td>
<td>8th Calendar Day</td>
<td>4th Calendar Day</td>
<td>19th Calendar Day</td>
</tr>
<tr>
<td>Eleven Weeks (71 to 77 days)</td>
<td>29th Calendar Day</td>
<td>58th Calendar Day</td>
<td>58th Calendar Day</td>
<td>9th Calendar Day</td>
<td>5th Calendar Day</td>
<td>21st Calendar Day</td>
</tr>
<tr>
<td>Twelve Weeks (78 to 84 days)</td>
<td>32nd Calendar Day</td>
<td>63rd Calendar Day</td>
<td>63rd Calendar Day</td>
<td>10th Calendar Day</td>
<td>5th Calendar Day</td>
<td>23rd Calendar Day</td>
</tr>
<tr>
<td>Thirteen Weeks (85 to 91 days)</td>
<td>35th Calendar Day</td>
<td>70th Calendar Day</td>
<td>70th Calendar Day</td>
<td>10th Calendar Day</td>
<td>5th Calendar Day</td>
<td>25th Calendar Day</td>
</tr>
<tr>
<td>Fourteen Weeks (92 to 98 days)</td>
<td>38th Calendar Day</td>
<td>76th Calendar Day</td>
<td>76th Calendar Day</td>
<td>11th Calendar Day</td>
<td>6th Calendar Day</td>
<td>27th Calendar Day</td>
</tr>
<tr>
<td>Fifteen Weeks (99 to 105 days)</td>
<td>41st Calendar Day</td>
<td>82nd Calendar Day</td>
<td>82nd Calendar Day</td>
<td>12th Calendar Day</td>
<td>6th Calendar Day</td>
<td>28th Calendar Day</td>
</tr>
</tbody>
</table>

Deadlines are based on calendar days and begin with the first day of class.
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 Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-15</td>
<td>1.60</td>
</tr>
<tr>
<td>16-30</td>
<td>1.75</td>
</tr>
<tr>
<td>31-45</td>
<td>1.90</td>
</tr>
<tr>
<td>46 +</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 must be initiated no later than sixty (60) calendar days 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, has the right to appeal according to the approved procedures.

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 grievance with the Department/Division Chairperson and appropriate administrative officer at the college/center. This written grievance 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 grievance, 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 grievance which is not in writing and which, when appropriate, did not have specific documentation including dates, times, materials, etc. The written grievance 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 the written grievance with an explanation of the action taken to the vice president of academic affairs or designee, a copy of the original written grievance and an explanation of the 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.
5. Instructional grievances are resolved at the college level the district office is not an avenue of appeal for the instructional grievance process.

Note: The grievance process for grades must be initiated no later than sixty (60) calendar days 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

Non-Instructional Complaint Resolution Process (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.

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 vice president of student affairs or designee 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)

STUDENT WITHDRAWAL PROCEDURES
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—computed in the grade point average as a failing grade) or Y (withdrawn, failing—not computed in the grade point average) 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* of classes. Withdrawals completed after this time will result in a grade of W (withdrawn, passing – not computed in the grade point average) or Y (withdrawn, failing – computed in the GPA as a failing grade).

*The prescribed time limits are for full semester classes. Time limits for classes which meet fewer than sixteen (16) weeks are adjusted accordingly. See Important Deadlines for Students. Failure to file an official withdrawal form may result in failing grades and responsibility for course tuition and fees. Refunds will only be processed within the refund period.

**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.

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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.

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)
• Nonattendance - Spring ’03 (Inactive)
• Readmitted & Earned Course Credit at a Public Community College - Summer ’03 (Active)
• Nonattendance - Fall ’03, Spring ’04 (Inactive)
• Transferred to a University - Fall ’04 (2002 or Any Subsequent Catalog)

*Students are not obligated to enroll and earn course credit during summer terms, but summer enrollment may be used to maintain continuous enrollment status.

3. Students admitted or readmitted to a public Arizona community college or university during a summer term must follow the requirements of the catalog in effect the following fall semester or of any single catalog in effect during subsequent terms of continuous enrollment.

EXAMPLE
• Admitted & Earned Course Credit at a Public Community College or University - Summer ’04 (Active)
• Continued at a Public Community College - Fall ’04, Spring ’05 (Active)
• Nonattendance - Fall ’05 (Inactive)
• Readmitted & Earned Course Credit at a Public Community College - Spring ’06 (Active)
• Transferred to a University - Summer ’06 (2004 or Any Subsequent Catalog)

4. Students transferring among Arizona public higher education institutions must meet the admission requirements, residency requirements, and all curricular and academic requirements of the degree-granting institution.

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).

Sexual Harassment Policy for Employees and Students 5.1.8
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.

Examples of Policy Violations 5.1.9
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.

Additional Policy Violations 5.1.10
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.

Responsibility for Policy Enforcement 5.1.11
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.

Complaints 5.1.12
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 MCCC 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 MCCC 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 MCCC 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.

Confidentiality 5.1.13
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.

Violations of Law 5.1.14
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.

False Statements Prohibited 5.1.15
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.

Retaliation Prohibited 5.1.16
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/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 as well as criminal penalties, which may include fines and even incarceration.

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 resources system by attempting to prevent or circumvent access, or using unauthorized data protection schemes.

12. Performing any act that would disrupt normal operations of computers, workstations, terminals, peripherals, or networks.

13. Using technology resources in such a way as to wrongfully hide the identity of the user or pose as another person.

14. Allowing any unauthorized access to Maricopa’s technology resources.

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 other persons, against another student, and in which both of the following apply:
   A. The act was committed in connection with an initiation into, an affiliation with or the maintenance of membership in any club/organization that is affiliated with Maricopa Community Colleges; and,
   B. The act contributes to a substantial risk of potential physical injury, mental harm or personal degradation, or causes physical injury, mental harm or personal degradation.
3. Any solicitation to engage in hazing is prohibited.
4. Aiding and abetting another person who is engaged in hazing is prohibited.
5. Victim consent is not a defense for violation of the Maricopa Community Colleges Hazing Prevention Regulation.
6. All students, faculty, and staff must take reasonable measures within the scope of their individual authority to prevent violations of the Maricopa Community Colleges Hazing Prevention Regulation.
7. Hazing activities and situations include, but are not limited to, the following:
   A. Pre-pledging, illegal pledging or underground activities.
   B. Acts of mental and physical abuse, including, but not limited to: paddling, slapping, kicking, pushing, yelling, biting, duck-walking, line-ups, tuck-ins, belittling, excessive exercise, beating or physical abuse of any kind, and the potentially forced consumption of any food or beverage that contributes to or causes physical injury, mental harm, or personal degradation.
   C. Sleep deprivation (activities that deprive prospective and/or current students and/or members of the opportunity of a minimum of six hours sufficient sleep each day).
   D. Encouraging or forcing use of alcohol or drugs.
   E. Any type of student club/organization scavenger hunt, quest, road trip or activity that would physically or psychologically endanger prospective and/or current students and/or members or others.
   F. Stroking or physically touching in an indecent or inappropriate manner. See Sexual Harassment policy 5.1.8
G. Student club/organization activities that subject prospective and/or current students and/or members or others to public nuisance or spectacle.

H. Aiding or abetting theft, fraud, embezzlement of funds, destruction of public, personal or private property, or academic misconduct.

I. Being required to wear odd or look-alike apparel that contributes to or causes physical injury, mental harm, or personal degradation.

J. Personal services that contribute to or cause physical injury, mental harm, or personal degradation.

8. Alleged violations of this regulation by students or student organizations can be reported to the vice president of student affairs’ office for investigation by any member of the college community. The vice president of student affairs’ office will investigate the complaint in accordance with the student disciplinary code, all other college and Maricopa Community Colleges policies, and local and state laws. Alleged violations of the Maricopa Community Colleges hazing prevention regulation or interference with an investigation under this regulation by students or student organizations are subject to sanctions under the student disciplinary code. The student disciplinary code shall govern all proceedings involving such a complaint. Decisions arrived at as outcomes of the proceedings shall be final, pending the normal appeal process.

9. Alleged violations of the Maricopa Community Colleges hazing prevention regulation by any faculty or staff member can be reported to the vice president of student affairs’ office for investigation by any member of the college community. The vice president of student affairs’ office will investigate the complaint in accordance with college and Maricopa Community Colleges policies, and local and state laws. Any Maricopa Community Colleges faculty or staff member who knowingly permitted, authorized or condoned the alleged hazing activity is subject to disciplinary action in accordance with college and Maricopa Community Colleges policies, and local and state laws.

10. If the vice president of student affairs’ office receives a report or complaint of an alleged hazing activity involving physical injury, threats of physical injury, intimidation, harassment or property damage, or any other conduct that appears to violate Arizona state law, the college will report such conduct to the appropriate college safety office. The said college safety office will investigate, respond to and report on the alleged hazing activity in accordance with all college, district, local, state and federal guidelines, policies and laws.

11. Should the proceedings outlined above substantiate an occurrence of hazing activity—where students or student organizations knowingly permitted, authorized, or condoned the hazing activity—the college can recommend the following sanctions against student clubs/organizations:

A. Censure: Censure can include the required completion of a program designed with the intent of eliminating the hazing activity. The programs will be devised with the cooperation of all involved parties and monitored by the vice president of student affairs’ office.

B. Probation: The student club(s)/organization(s) will be placed on probation for a specified period of time. Conditions of probation will be determined by the vice president of student affairs’ office and outlined in writing to the student club(s)/organization(s). The probationary term will be monitored by the vice president of student affairs’ office.

C. Suspension: The student club(s)/organization(s) will be suspended. The terms of the suspension can be defined in the sanction, including criteria the student club(s)/organization(s) must meet within a specified time to be considered for admission or renewal of college recognition status.

D. Revocation: The student club(s)/organization(s) will have its status revoked, with the loss of all college associations, recognitions and privileges. The national or international office of an organization, if so affiliated, will be requested to revoke the charter of an organization.

12. The Maricopa Community Colleges hazing prevention regulation is not intended to prohibit or sanction the following conduct:

A. Customary athletic events, contests, or competitions that are sponsored by any of the Maricopa Community Colleges.

B. Any activity or conduct that furthers the goals of a legitimate educational curriculum, a legitimate co-curricular experience, or a legitimate military training program.

13. For the purposes of the Maricopa Community Colleges hazing prevention regulation:

“Organization” is defined as an athletic team, association, order, society, corps, cooperative, club, or other similar group that is affiliated with Maricopa Community Colleges, whose membership
consists primarily of students enrolled at Maricopa Community Colleges and that may also be classroom-related or co-curricular in nature.

ABUSE-FREE ENVIRONMENT (AR 2.4.7)
See the AUXILIARY SERVICES Section of the Administrative Regulations for Tobacco-Free Environment.

1. Substance Abuse/Misuse Statement
Drug abuse and misuse has become a national issue and is receiving national attention, particularly in the academic community. The insidious effects of the abuse of these agents are also felt by all walks of life and economic levels. Therefore, as an education providing institution, we are responsible to provide knowledge and guidelines about prevention, control, and treatment of the abuse/misuse of alcohol, illegal and legal drug uses, and misuses. Annual acknowledgments for students and employees are provided through the online messaging accounts.

Students who experiment with drugs, alcohol, and illegal substances or use them recreationally may develop a pattern of use that leads to abuse and addiction. Maricopa Community Colleges recognized drug and alcohol abuse as an illness and a major health problem as well as a potential safety and security issue.

Part of the educational mission of the Maricopa Community Colleges, is to educate students about positive self-development, the benefits of a healthy lifestyle and the health risks associated with substance abuse. This mission closely aligns with the drug-free school and communities act of 1989, and other relevant substance abuse laws.

2. Student Program to Prevent Illicit Use of Drugs and Abuse of Alcohol
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, apossession or distribution of controlled substances or illegal drugs.

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.

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.

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 Sanctions
Local, state, and federal law prohibit the unlawful possession, use or distribution of illicit drugs and alcohol. Conviction for violating these laws can lead to imprisonment, fines, probation, and/or assigned community service. Persons convicted of a drug - and/or alcohol related offense will be ineligible to receive federally funded or subsidized grants, loans, scholarships, or employment.

Any employee is subject to disciplinary action, up to and including employment termination, for any of the following: reporting to work under the influence of alcohol and/or illegal drugs or narcotics; the use sale, dispensing, or possession of alcohol and/or illegal drugs or narcotics on MCCC premises, while conducting MCCC business, or at any time which would interfere with the effective conduct of the employee’s work for the MCCC; and use of illegal drugs.

E. MCCC Program Standards
The Maricopa Community College District is committed to establishing a preventative substance abuse program at each college designed to affect positively th eproblems 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. Identify a key individual, at each college, to provide
emergency services and/or to contact and work with outside agencies that provide drug and alcohol counseling, treatment or rehabilitaiton programs that may be available to students and employees.

Support 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.

Establish 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.

3. Alcoholic Beverages-Usage Regulation (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.

D. 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.

E. Service restrictions required by law.

An event approved under Paragraph 4 must, by law, comply with the all of the following restrictions:

1. 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.
2. The gathering must be by invitation only, and not open to the public;
3. The gathering may not exceed 300;
4. Invitees may not be charged any fee for either the event or the beer or wine; and
5. 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.
F. 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.

G. 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:

1. 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;
2. 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;
3. The entity provides a certificate of insurance demonstrating that it has liquor liability coverage and that it adds the District as an additional insured;
4. The entity agrees in writing to indemnify the District from any claims of any kind arising out of the event;
5. 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;
6. The contractor provides all of the beverages served and well as the servers or bartenders;
7. 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
8. The contractor agrees in writing to indemnify the District regarding the service of the beverages.

H. 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:

1. 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
2. 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.

I. 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).

J. 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.

K. Personal Responsibility.
The personal or individual purchase of alcoholic beverages by individuals attending District-approved functions held in places serving alcoholic beverages is a personal and individual responsibility. Administrative discretion shall be exercised in the approval of the location of such activities, as such decision pertains to the nature of the group involved.
L. Miscellaneous Usage Issues.
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 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 (Proposition 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.

**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 academic adjustments 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 requesting or receiving any academic adjustment.

**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.
  - **Academic adjustment:** an academic adjustment is a modification of a non-essential academic requirement, an examination, or an institutional rule that is necessary to avoid discriminating on the basis of handicap against qualified students with disabilities. Modifications may include changes in the length of time permitted for the completion of degree requirements, substitution of specific course required for the completion of degree requirements, and adaptation of the manner in which specific courses are conducted.

**Special Considerations**

Any employee who receives a request for academic adjustment must refer the student to the DRS office. The DRS office alone is responsible for evaluating documentation and determining eligibility and academic adjustments. All situations shall be considered on an individual, case-by-case basis, and all requests for academic adjustments from qualified students with a disability shall be considered by DRS. DRS may exercise its right to require additional documentation.

Academic adjustments are determined by the DRS office through an interactive exchange with the eligible student. The DRS office will give priority to the request of the student, but will also consider the instructor’s perspective when it is offered. The interactive exchange may continue during the course of the year, and the DRS may make reasonable alterations in approved academic adjustments based on input from the student and the faculty member. Academic adjustment determined by the DRS office are required except when the institution subsequently determines that an adjustment would alter an academic requirement that essential to the instruction being pursued by the student, or to a directly licensing requirement. MCCCD is not required to provide “best” or “most desired” accommodations but rather a reasonable accommodation sufficient to meet accessibility needs.

In the event the instructor believes the modification determined by the DRS would alter an academic requirement that is essential to the instruction being pursued by the student, or to a directly related licensing requirement, the instructor will first meet with the director of the DRS office within three working days of receipt of the determination and attempt to resolve the issue informally. If the faculty member’s concern remains unresolved, within three days of the above meeting he or she may submit a written request to the college’s chief academic officer (or a comparably qualified administrator designated by the college president) for his or her academic judgment on the question.

Any change in the DRS office’s initial recommendation resulting from the above meeting or the chief academic officer’s decision will be communicated to the student by the DRS office. The interactive exchange with the student will continue in an effort to achieve a mutually satisfactory outcome.

If a student is not satisfied with the academic adjustment provided, he or she may file a complaint under the discrimination complaint procedures for students. In such cases, the vice president for student affairs will assign an investigator whose qualifications and experience include curriculum development and educational accommodations for students with disabilities.
In all cases in which academic adjustments are in controversy, whether as a student discrimination complaint or a faculty member’s appeal to the chief academic officer, the ultimate decision will be informed by consultation with the duly appointed faculty representatives who serve in the development of the curriculum for the institution and the program. The committee will study the requested academic adjustment and alternatives, their feasibility, cost and effect on the academic program, and come to a rationally justifiable conclusion as to whether the available alternatives would result either in lowering academic standards or requiring substantial program alteration. This conclusion will be submitted in writing to the chief academic officer, who will consult with the vice chancellor and the office of general counsel before making the final determination.

Nothing in this policy prohibits a faculty member from making minor, commonsense alterations in the manner in which a course is presented. A student who asks the instructor to change the color of chalk used because he is colorblind may be so accommodated without registering with dso. However, the faculty member must report making such accommodations to dso.

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
      ii. Academic Achievement: evaluation must contain a comprehensive achievement battery with all sub-tests and standard scores reported.
      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:

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, 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 functional 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:
   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

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.
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:
      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 afforded a reduced academic load as an accommodation for a disability shall nevertheless be deemed a full-time student. Such certification shall be solely to enable the student to seek eligibility for health insurance benefits and to seek eligibility to comply with mandates of the National Junior College Athletic Association. The college DRS professional will certify that a student may be deemed a full-time student as provided under this regulation only on a semester-by-semester basis.

The appropriate college offices will receive documentation of the DRS professional’s certification from the professional or the student. An incoming student may apply for such certification upon acceptance to the college. Requests for certification must be made prior to the beginning of each semester. Every attempt will be made to accommodate these requests.

The following criteria also apply:
1. Students taking a reduced course load must register for at least 6 credit hours (based on DRS approval) during the regular fall and spring semesters. It is recommended that students register for at least three (3) credit hours during the summer to offset the impact of academic eligibility.
2. Students taking a reduced course load must maintain satisfactory academic progress standards as defined by the College catalog.
3. The reduced credit load may result in an adjusted financial aid package. There may be additional ramifications including, but not limited to, extra time to complete college, insurance coverage, Vocational Rehabilitation funding, etc.
4. Eligibility for Federal Stafford Loans may be reduced according to the total number of credit hours taken in the full academic year. A student, taking a reduced course load, must be at least half time in a semester (6 credits) in order to receive a Stafford Loan.
5. The amount of Federal Financial Aid (Title IV) awarded is based on the actual number of 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 who submits a charge alleging that a student violated this Student Conduct Code. When a student believes that he/she has been a victim of another student’s misconduct, the student who believes he/she has been a victim will have the same rights under this Student Conduct Code as are provided to the complainant, even if another member of the college community submitted the charge itself.
7. “Day” means calendar day at a time when college is in session, and shall exclude weekends and holidays.
8. “Disruptive behavior” means conduct that materially and substantially interferes with or obstructs the teaching or learning process in the context of a classroom or educational setting.
9. “District” means the Maricopa County Community College District.
10. “Faculty member” means any person hired by the college or District to conduct classroom or teaching activities or who is otherwise considered by the college to be a member of faculty.
11. “May” is used in the permissive sense.
12. “Member of the college community” means any person who is a student, faculty member, college official, or any other person employed by the college or center. A person’s status in a particular situation shall be determined by the college president.
13. “Organization” means any number of persons who have complied with the formal requirements for college recognition.
14. “Policy” is defined as the written regulations of the college and/or District as found in, but not limited to, this Student Conduct Code and Governing Board policy.
15. “Shall” is used in the imperative sense.
16. “Student” means any person taking courses at the college whether full-time or part-time. Persons who are not officially enrolled for a particular term but who have a continuing relationship with the college are considered “students”.
17. “Student Conduct Administrator” means a college official authorized on a case by case basis by the college official responsible for administration of the Student Conduct Code to impose sanctions upon students found to have violated this Student Conduct Code. A Student Conduct Administrator may serve simultaneously as a Student Conduct Administrator and the sole member or one of the members of a Student Conduct Board. The college official responsible for administration of the Student Conduct Code may authorize the same Student Conduct Administrator to impose sanctions in all cases.
18. “Student Conduct Board” means any person or persons authorized by the college president to determine whether a student has violated this Student Conduct Code and to recommend sanctions that may be imposed when a violation has been committed.
19. “Threatening behavior” means any written or oral statement, communication, conduct, or gesture directed toward any member of the college community, which causes a reasonable apprehension of physical harm to self, others, or property. It does not matter whether the person communicating the threat has the ability to carry it out, or whether the threat is made on a present, conditional or future basis.
Article II: Judicial Authority

1. The college official responsible for administration of the Student Conduct Code shall determine the composition of Student Conduct Board and determine which Student Conduct Administrator, Student Conduct Board, and appellate board shall be authorized to hear each case.

2. The college official responsible for administration of the Student Conduct Code shall develop procedures for the administration of the judicial program and rules for the conduct of hearings that are consistent with provisions of this Student Conduct Code.

3. Decisions made by a Student Conduct Board and/or Student Conduct Administrator shall be final, pending the normal appeal process.

Article III: Prohibited Conduct

1. Jurisdiction of the College

The Student Conduct Code shall apply to conduct that occurs on college or District premises, or at college- or District-sponsored activities that adversely affects the college community and/or the pursuit of its objectives. Each student shall be responsible for his 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 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.

3. Conduct - Rules and Regulations

Any student found to have committed the following misconduct is subject to the disciplinary sanctions outlined in Article IV:

- 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.

- 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.

- 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.

- 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.

- 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.

- Unauthorized possession, duplication or use of keys to any college premises, or unauthorized entry to or use of college premises.

- 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.

- Violation of federal, state, or local law.

- Use, possession, manufacturing, or distribution of illegal or other controlled substances except as expressly permitted by law.

- Illegal use, possession, manufacturing, or distribution of alcoholic beverages or public intoxication.

- 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,
theses, 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 (see also FERPA explanation)
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 eligible students certain rights with respect to their education records. (An “eligible student” under FERPA is a student who is 18 years of age or older or who attends a postsecondary institution.) These rights include:

A. The right to inspect and review the student’s education records within 45 days after 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 is 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. The FERPA appeal process is also outlined in the student handbook and in Appendix [X] of the MCCCD administrative regulations.

C. The right to provide written consent to disclosures of personally identifiable information contained in the student’s education records, except to the extent that FERPA authorizes disclosure without consent.
Conditions of disclosure without consent

FERPA permits the disclosure of personally identifiable information (pii) from students’ education records, without consent of the student, if the disclosure meets certain conditions found in §99.31 of the FERPA regulations. Except for disclosures to school officials, disclosures related to some judicial orders or lawfully issued subpoenas, disclosures of directory information, and disclosures to the student, §99.32 of FERPA regulations requires the institution to record the disclosure. Eligible students have a right to inspect and review the record of disclosures. A postsecondary institution may disclose pii from the education records without obtaining prior written consent of the student:

1. To other school officials, including instructors, administrators, supervisors, governing board members, academic or support staff, law enforcement and health staff, within the mcccd whom the college or district has determined to have legitimate educational interests. 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 responsibilities. This includes contractors, attorneys, auditors, collection agents, consultants, volunteers, or other parties to whom the college has outsourced institutional services or functions, provided that the conditions listed in §99.31(a)(1)(i)(b)(1) – (a)(1)(i)(b)(2) are met. (§99.31(a)(1))

2. To officials of another school where the student seeks to or intends to enroll, or where the student is already enrolled if the disclosure is for purposes related to the student’s enrollment or transfer, subject to the requirements of §99.34. (§99.31(a)(2))

3. To authorized representatives of the us comptroller general, the us attorney general, the us secretary of education, or state and local educational authorities, such as the a state postsecondary authority that is responsible for supervising the college’s state-supported education programs. Disclosures under this provision may be made, subject to the requirements of §99.35, in connection with an audit or evaluation of federal- or state-supported education programs, or for the enforcement of or compliance with federal legal requirements that relate to those programs. These entities may make further disclosures of pii to outside entities that are designated by them as their authorized representatives to conduct any audit, evaluation, or enforcement, or compliance activity on their behalf. (§§99.31(a)(3) and 99.35)

4. In connection with financial aid for which the student has applied or which the student has received, if the information is necessary to determine eligibility for the aid, determine the amount of the aid, determine the conditions of the aid, or enforce the terms and conditions of the aid. (§99.31(a)(4))

5. To organizations conducting studies for, or on behalf of, the college, in order to: (a) develop, validate, or administer predictive tests; (b) administer student aid programs; or (c) improve instruction. (§99.31(a)(6))

6. To accrediting organizations to carry out their accrediting functions. (§99.31(a)(7))

7. To parents of an eligible student if the student is a dependent for irs tax purposes. (§99.31(a)(8))

8. To comply with a judicial order or lawfully issued subpoena. (§99.31(a)(9))

9. To appropriate officials in connection with a health or safety emergency, subject to §99.36. (§99.31(a)(10))

10. Information the college has designated as “directory information” under §99.37. (§99.31(a)(11))

11. To a victim of an alleged perpetrator of a crime of violence or a non-forcible sex offense, subject to the requirements of §99.39. The disclosure may only include the final results of the disciplinary proceeding with respect to that alleged crime or offense, regardless of the finding. (§99.31(a)(13))

12. To the general public, the final results of a disciplinary proceeding, subject to the requirements of §99.39, if the school determines the student is an alleged perpetrator of a crime of violence or non-forcible sex offense and the student has committed a violation of the college’s rules or policies with respect to the allegation made against him or her. (§99.31(a)(14))

13. To parents of a student regarding the student’s violation of any federal, state, or local law, or of any rule or policy of the school, governing the use or possession of alcohol or a controlled substance if the school determines the student committed a disciplinary violation and the student is under the age of 21. (§99.31(a)(15))

Students who believe that the MCCCD or an agent of the college has disclosed information contrary to the provisions outlined in this section may submit a grievance via the non-instructional complaint resolution process. The process is posted at:

www.maricopa.edu/publicstewardship/governance/adminregs/appendices/s-8.php

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 20202-5920

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. Disclosure to Parents
In accordance with federal law, college officials may disclose educational records 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.

FERPA APPEAL PROCESS
In instances where the college decides not to amend an education record as requested by the student, the college will notify the student of the decision and advise him/her of the right to an appeal hearing according to the following process:

- The student must have first presented the issue in writing to the college’s Admissions/Enrollment Office or designee identifying the records that he/she wishes to have amended and provided any supporting documentation. Note: With the exception of clerical errors, requests that are expressly related to grade disputes are not subject to this process and must be vetted through the Instructional Grievance Process.
- If the request to change the record was deemed unsubstantiated by the college designee and the institution was able to demonstrate that the record was accurate, the student will be informed of the right to a formal appeal hearing.
- Students must request a formal hearing within 10 business days from the date they are informed of the right to an appeal hearing.
- The request for a formal hearing must be in writing and delivered to the [Dean of Admissions/Enrollment Services, Vice President of Student Affairs] or designee.
- The college official who receives the formal hearing request will either review the case personally or designate a hearing committee if the issue involves a matter not clearly established by current policy or administrative regulation.
- A written decision will be delivered to all parties summarizing the evidence and stating the reason(s) for the decision. If the decision is in favor of the student, the education record will be amended. If the decision is for the record to remain the same, the student may place a statement commenting on or disagreeing with the decision in the education record.
Governing Board Members
Mr. Doyle W. Burke, President
Mr. Randolph E. Lumm, Member
Mr. Ben Miranda, Member
Mrs. Debra Pearson, Member
Mr. Dana G. Saar, Secretary
Residential Faculty and Administrators

ACHS, Carol J. (1975)  Dean of Instruction  B.S., M.A., Central Michigan University

ADAMS, Heidi-Christa (1992)  Counseling  B.S., University of Wisconsin, Whitewater; M.S., University of Wisconsin, Milwaukee; Ed.D., Arizona State University; Graduate Study: University of Hawaii, Manoa; Northern Arizona University

AHN, Emi Ochiai (2000)  World Language  B.A., Japan Women’s University; M.A., Michigan State University

AL-HASHIMI, Basil (2000)  Social Science/Economics  M.A., University of Wisconsin

ALDRIDGE, Mary E. (2002)  English  B.A., B.A., M.A., University of New Orleans; Ph.D., University of Tulsa


ARENSON, Barron R. (1970)  Physical Science/Physics  B.A., St. Olaf College, Minnesota; M.S., Rensselaer Polytechnic Institute Graduate Study: University of Oklahoma, Texas A&M University, Arizona State University


AVILEZ, Adam C. (2002)  Mathematics  B.S., University of Southern California; M.S., Ohio State University

BALDWIN, Andrew S. (2003)  Chairperson, Life Science  B.S., University of North Carolina at Charlotte; M.S., Appalachian State University; Ph.D., University of Texas at Arlington


BASS, Steve (1994)  Cultural Science/Geography  B.S., Arizona State University; M.A., Michigan State University

BAYE, Glenn J. (2006)  Nursing  A.S.N., Harper College; B.S.N., California State University, Hayward; M.P.A., University of San Francisco

BECKMAN, Christine M. (2000)  Communication  B.S., Northern Arizona University; M.A., University of California, Davis; Ed.D., Northern Arizona University


BENSON, Philip (1990)  Social Science/Economics  B.A., M.A., Mankato State University; Graduate Study: Arizona State University

BERNING, Gretchen Mary (2003)  English/Journalism  B.J., University of Missouri; M.B.A., University of Phoenix


BITTER, Debra (1994)  Chairperson, Nursing  B.S., M.S.N., Arizona State University


BOORSE, Graham C. (2009)  Life Science  B.S., Pepperdine University; Ph.D., University of Michigan


BORMAN, Derek G. (2003)  Psychological Science  B.S., Brigham Young University; M.A., Humboldt State University; Ph.D., Utah State University

BOROS, Barbara (2007)  Dean, Enrollment Services  B.A., Ursuline College; M.A., John Carroll University; Ph.D., Argosy University; (MCCCD 2004)
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<tr>
<th>Name</th>
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<td>BOWLING, Evonne M. (2006)</td>
<td>Fashion Merchandising/Design B.S., California State University, Chico; M.S., Oklahoma State University</td>
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<tr>
<td>BROWN, Peter (1995)</td>
<td>Life Science B.S., University of Maine; M.S., Ph.D., Penn State</td>
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<td>BULLEN, Diana (2009)</td>
<td>Business &amp; Information Systems B.A., Brigham Young University; M.A., Chapman University- BYU</td>
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<td>BURROWS, Christopher M. (2013)</td>
<td>Fire Science A.A.S., Scottsdale Community College</td>
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<td>CALL, Wynn (1990)</td>
<td>Psychological Science B.S., Utah State University; M.Ed., Brigham Young University; Ph.D., Arizona State University</td>
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<td>CARLTON, Bruce F. (2009)</td>
<td>Computer Science/Electrical Engineering 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>CASE, Jeffrey S. (2005)</td>
<td>Fire Science/EMT B.S., Ottawa University</td>
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<td>CHAVIRA, Maria Romo (1997)</td>
<td>Psychology B.S., M.A., Ph.D., University of Arizona</td>
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<td>Biology B.A., University of California, Santa Barbara; M.S., San Diego State University; Ph.D., University of Maryland</td>
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<td>CHILLOCK, Cynthia (2009)</td>
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<td>COLE, George R. (1991)</td>
<td>Mathematics B.S., Towson State University; M.S., Michigan State University; Ph.D., Arizona State University</td>
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<td>CRANSWICK, Harold (1989)</td>
<td>Social Science B.S., M.S., Arizona State University</td>
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<td>CSIKAR, Elizabeth (2012)</td>
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<td>Nursing A.A.S., Glendale Community College; B.S.N., M.N., University of Phoenix</td>
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<td>DILLE, Brian (2000)</td>
<td>Social Science/Political Science B.A., Brigham Young University; M.A., Ph.D., Arizona State University</td>
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<td>HARRISON, Pamela K.</td>
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<td>HAUPTLI, Tawn</td>
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<td>HEALY, Kevin</td>
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<td>HEDSTROM, Denise</td>
<td>B.S., Ph.D., Virginia Polytechnic Institute and State University Graduate Study: Massachusetts Institute of Technology, Sun Health Research Institute</td>
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<td>NEGLIA, Joseph D.</td>
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B.S., Grambling State University; M.S., Ph.D., Arizona State University (MCCCD 1986)

LATIMORE, Denver L. (1989-2013) Exercise Science
B.S., Arkansas State University; M.Ed., Wichita State University

B.A., University of Wisconsin; M.Ed., Arizona State University; M.A., University of Arizona Graduate Study; University of Wisconsin, Arizona State University (MCCCD 1989)

O’BRIEN, Patrick (1995-2013) Mathematics
B.S., B.S.Ed., University of Wisconsin; M.A.T., Aurora University

PAYNE, John T. (1990-2013) Mathematics
A.S., Kansas City Junior College; B.S., M.S.T., University of Missouri, Columbia; Ed.D., Arizona State University

RAUSCHER, Joseph (1999-2013) Technology/Automotive
A.A., Indiana Vocational Technical College (MCCCD 1989)

RICE, Linda Lou (2001-2013) Nursing
B.S.N., University of Nebraska; M.A., Northern Illinois University (MCCCD 1993)

ROSS, Hubert A. (2001-2013) Counseling
A.A., Phoenix College; B.A., Arizona State University; M.A., Northern Arizona University

SVOBODA, Diane B. (1989-2013) English
B.A., Queens College; M.A., State University of New York, Albany

B.S., M.A., Brigham Young University (MCCCD 1987)
Emeritus Faculty and Administrators

ALF, Stanley Nels (1966-1992)  Technology
ALLISON, Margaret L. (1963-1988)  English
AL-SALEH, Mary (2004-2013)  Nursing
AVILA, Alex L. (1990-2013)  Social Science/Poitical Science
BOWMAN, Margaret (1973-1994)  Nursing
BRUNS, Ramon O.* (1965-1989)  Life Science
BURKE, Doyle (1969-2002)  Chairperson, English, Humanities, Journalism
BYDALEK, David (1990-2000)  Business
CAMPBELL, Marilyn* (1972-1994)  Chairperson, Nursing
CAMPBELL, Overton C. (1965-1987)  Technology
CARRION, Jesus V. (1976-2011)  Chairperson, Mathematics/Computer Science
CASEY, Bernard L. (1966-1994)  Social Science
CASTRO, Donald F. (1983-2010)  English
CHAVEZ, Antonio E.* (1972-2001)  Counseling
CHOICE, Donald (1971-1997)  English
CHRISTENSEN, Lot B. (1963-1986)  Physical Education
CLARIDGE, James D. (1967-1996)  Agriculture
COHEN, Roy (1988-2007)  Psychology
CONWAY, Douglas (1990-2010)  Social Science/Economics
DENEUI, Sandy (1971-1996)  Physical Education
EBERLE, Donella (1976-2007)  Chairperson, English, Humanities, Journalism
ELIAS, Sanford (1990-2005)  Speech/Theatre
ELLSWORTH, Barbara Grace (1966-2012)  Business & Information Systems
ESHELMAN, Myrna (1980-2006)  Chairperson, Nursing
FALK, Edwin (1967-1987)  English
FANNING, Ron (1973-2000)  English
FAY, Carolyn (1992-2012)  Communication
FERGUSON, Jerrell J. (1967-1994)  Chairperson, Psychology
FERREIRA, Mary Grace (1976-1996)  Physical Science
FRIDELL, Margaret (1984-2009)  Nursing
FRYE, James (1969-1994)  Physical Education
GARcia, Robert J. (1979-2002)  English
GORDON, Deborah A. (1967-1992)  Physical Education
GROW, Arnette C. (1984-2011)  Social Science/Economics
HAGGARD, Bill (1967-1993)  Business
HANNON, John J. (1975-1997)  Cultural Science
HARTSHORN, Robert (1968-1989)  Library
HENDRICKS, James* (1965-1990)  Chairperson, Music
HERNANDEZ-RODARTE, Rebecca (1978-2001)  Counseling
HERTZLER, Betsy (1984-2013)  Social Science/History
HERRICK, Ron (1975-2003)  Business
HOLT, William A. (1967-1996)  Dean of Instruction
HUFFAKER, Jerry (1968-1992)  English, Humanities
IKEDA, Susan (1976-2000)  Business
KEYWORTH, Fred J. (1964-1989)  Chairperson, Social Science
KIRKPATRICK, Richard (1968-1992)  Dean of Students
KNOll, Lester J. (1966-1992)  Counseling
KROELINGER, Sally C. (1981-2013)  Interior Design
LUHTALA, Shirley (1965-1992)  Physical Education
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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

BANNER BOSWELL
The Banner Boswell/Mesa Nursing Education Program is the program site of the Maricopa Community College District Nursing Program (MCCDNP). Sun Health and Mesa Community College developed the partnership in 1982 to provide nursing education to students in the northwest valley.

Location
10484 West Thunderbird Boulevard
Sun City, AZ 85351
623-974-7835
• Portions of our campus are currently under construction
• Items in red in the legend indicate new or temporary locations
• For the most current updates please visit mesacc.edu/maps or the Office of Student Life & Leadership in the KSC building
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# 2013-2014 Academic Calendar

Colleges/Counties 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.

## 2013 Summer Semester

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<tr>
<td>Tues</td>
<td>May 28</td>
<td>First 6-Week/8-Week Sessions Begin</td>
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<tr>
<td>Thur</td>
<td>Jun 27</td>
<td>First 5-Week Session Ends</td>
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<tr>
<td>Mon</td>
<td>Jul 1</td>
<td>Second 5-Week Session Begins</td>
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<tr>
<td>Thur</td>
<td>Jul 4</td>
<td>Observance of Independence Day</td>
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<tr>
<td>Thur</td>
<td>Jul 18</td>
<td>8-Week Session Ends</td>
</tr>
<tr>
<td>Thur</td>
<td>Aug 1</td>
<td>Second 6-Week Session Ends</td>
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*Note: Subject to the 2013-2014 Catalog*

## 2013 Fall Semester

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<td>*</td>
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<td>Registration*</td>
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<tr>
<td>Sat</td>
<td>Aug 17</td>
<td>Classes Begin Thu., Aug 22</td>
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<tr>
<td>Mon</td>
<td>Sept 2</td>
<td>Observance of Labor Day</td>
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<td>*</td>
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<td>Application for December 2013 Graduation*</td>
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<tr>
<td>Mon</td>
<td>Nov 11</td>
<td>Last Day for Withdrawal without Instructors Signature</td>
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<tr>
<td>Thur-Sun</td>
<td>Nov 28-Dec 1</td>
<td>Observance of Veterans' Day</td>
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<td>Sun</td>
<td>Dec 8</td>
<td>Thanksgiving Holiday</td>
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<tr>
<td>Mon-Thu</td>
<td>Dec 9-12</td>
<td>Last Day Student Initiated Withdrawal Accepted</td>
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<td>Fri</td>
<td>Dec 13</td>
<td>Mid-Year Recess Begins for Students</td>
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<tr>
<td>Fri</td>
<td>Dec 13</td>
<td>Fall Semester Ends Tues., Dec 17</td>
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Winter Break (Campus Closed) Dec 26 through Jan 1

## 2014 Spring Semester

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<td>Sat</td>
<td>Jan 11</td>
<td>Classes Begin Mon., Jan 13</td>
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<td>Mon</td>
<td>Jan 20</td>
<td>Observance of ML King Birthday</td>
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<td>Mon</td>
<td>Feb 17</td>
<td>Observance of Presidents' Day</td>
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<td>Mon-Sun</td>
<td>Mar 10-16</td>
<td>Last Day for Withdrawal without Instructors Signature</td>
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<td>Sun</td>
<td>May 4</td>
<td>Spring Break March 9-16</td>
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<td>Mon-Thu</td>
<td>May 6-8</td>
<td>Last Day of Regular Classes</td>
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<td>Fri</td>
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<td>May 9</td>
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<td>May 13</td>
<td>Spring Semester Ends Tues., May 13</td>
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<tr>
<td>Mon</td>
<td>May 26</td>
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## 2014 Summer Semester

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<tr>
<td>Tues</td>
<td>May 27</td>
<td>First 6-Week/8-Week Sessions Begin</td>
</tr>
<tr>
<td>Thur</td>
<td>Jun 26</td>
<td>First 5-Week Session Ends</td>
</tr>
<tr>
<td>Tues</td>
<td>Jul 1</td>
<td>Second 5-Week Session Begins</td>
</tr>
<tr>
<td>Thur</td>
<td>Jul 3</td>
<td>Observance of Independence Day</td>
</tr>
<tr>
<td>Thur</td>
<td>Jul 17</td>
<td>8-Week Session Ends</td>
</tr>
<tr>
<td>Thur</td>
<td>Jul 31</td>
<td>Second 6-Week Session Ends</td>
</tr>
</tbody>
</table>

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

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

*Give your student schedule to registration personnel for the Last Day to Withdraw without 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: 480-461-7000
In Person: Administration Office – Bldg 85

Red Mountain Campus
By Phone: 480-854-7600
In Person: Enrollment Services – Mesquite Bldg

Online
mesacc.edu/checklist

MCC has multiple class locations and options to better serve our community

Southern and Dobson Campus
1633 West Southern Ave
Mesa, AZ 85202
480-461-7000

Red Mountain Campus
7110 East McKellips Rd
Mesa, AZ 85207
480-854-7600

Downtown Center
165 North Centennial Way
Mesa, AZ 85201
480-461-9000

Phoenix-Mesa Gateway Center
7440 East Wiltse Ave
Mesa, AZ 85212
480-885-8001

MCC eLearning
mesacc.edu/elearning

mesacc.edu  480-461-7000  1-866-532-4983