## 2017-2018 CATALOG




## 2017-2018 ACADEMIC CALENDAR

Colleges/Centers may modify start dates in order to meet special needs. Dates listed below which are directly related to instruction refer to the traditional academic year. Some courses may be offered over time periods for which these dates are not applicable.

## FALL SEMESTER 2017

Note: Subject to the 2018-2019 Catalog

| Saturday, August I9 | Classes Begin |
| :--- | :--- |
| Monday, September 4 | Observance of Labor Day |
| Monday, October 2 | Spring 2018 Priority Registration for Currently Enrolled Students |
| Monday, October 9 | Spring 2018 Open Registration Begins |
|  | Application for Dec 2017 Graduation* |
| Friday, November IO | Last Day for Withdrawal without Instructor's Signature ${ }^{+}$ |
| Thursday - Sunday <br> November 23-26 | Thanksgiving Holiday |
| Sunday, December IO | Last Day Student-Initiated Withdrawal Accepted ${ }^{++}$ |
| Monday - Thursday <br> December II - I4 Classes |  |
| Friday, December I5 | Final Exams** |
| Friday, December I5 | Mid-Year Recess Begins for Students |

SPRING SEMESTER 2018

| Saturday, January I3 | Classes Begin |
| :---: | :---: |
| Monday, January 15 | Observance of Martin Luther King, Jr. Holiday |
| Monday, February 19 | Observance of Presidents' Day |
| Monday, March 5 | Fall 2018 Priority Registration for Currently Enrolled Students |
|  | Application for May 2018 Graduation* |
|  | Last Day for Withdrawal without Instructor's Signature ${ }^{+}$ |
| Monday - Sunday March I2-I8 | Spring Break |
| Monday, March 19 | Fall 2018 Open Registration Begins |
|  | Last Day Student-Initiated Withdrawal Accepted ${ }^{++}$ |
| Sunday, May 6 | Last Day of Classes |
| Monday - Thursday May 7-IO | Final Exams** |
| Friday, May II | Commencement |
| Friday, May II | Spring Semester Ends |
| Monday, May 28 | Observance of Memorial Day |

* For specific information concerning the last day to apply for graduation, individual class start dates and final exams, consult the college of intended enrollment.
** Classes meeting on Friday evening only, Saturday only, or Sunday only will have final examinations during their last regular class meeting. Refer to your course syllabus for exact dates and times.
+ See your student schedule in my.maricopa.edu for the Last Day to Withdraw without an Instructor Signature for each class in which you are enrolled.
++ Refer to the Important Deadlines for Students section of the student handbook to determine the last day for student initiated withdrawal.


## SUMMER SEMESTER 2018

| Tuesday, May 29 | Summer Semester Begins |
| :--- | :--- |
| Wednesday, July 4 | Observance of Independence Day |
| Thursday, August 2 | Summer Semester Ends |




Career and Technical Education


Online Degrees and Certificates


Exceptional Value

Highly
Regarded Faculty


Two Convenient
Campuses

## ENROLLMENT STEPS

## Chandler-Gilbert | Estrella Mountain | GateWay | Glendale | Mesa | Paradise Valley | Phoenix | Rio Salado | Scottsdale | South Mountain

## EXPLORE PAYING FOR COLLEGE:

maricopa.edu/paying-for-college

Complete the FAFSA
fafsa.gov

Apply for Scholarships

Your Name: $\qquad$ Fall 20 $\qquad$ Spring 20 $\qquad$ Summer 20 $\qquad$

## GET ADMITTED

Create MEID Account and Apply for Admission maricopa.edu/admissions

To complete STEP 1, submit proof of identification to the college at which you applied.

## TAKE THE

PLACEMENT TEST
Prepare, Study, and Schedule Test maricopa.edu/testing

## SEEK ACADEMIC

 ADVISEMENTSchedule Advisement Session maricopa.edu/advisement (Individual or group advisement may vary from college to college. Check your college for details.)

REGISTER FOR CLASSES maricopa.edu/register My first day of class is on:

ATTEND NEW STUDENT ORIENTATION
Schedule Orientation maricopa.edu/ new-student-orientation My orientation is on:

## PAY TUITION AND FEES

Explore Payment Options maricopa.edu/paying-for-college

MEID :

- You will use it to log on to all Maricopa student tools.

Student ID Number:

- You will use it for registration and academic support.

Maricopa Email:

- Activate your email at: google.maricopa.edu
- Make a note of your password in a secure place.


## MY TEST SCORES

MATH $\qquad$ ENGLISH $\qquad$ READING $\qquad$

THINGS TO DISCUSS WITH YOUR ADVISOR:

- Review Test Scores
- Review Degrees and Certificates
- Develop your Academic Plan



## GET ADMITTED maricopa.edu/admissions

- Complete the FAFSA and scholarship applications at: maricopa.edu/paying-for-college.
- Provide proof of identity to the college at which you applied.
- For tuition purposes, verify your residency status by providing a government issued ID.
- Submit prior education (if applicable) i.e. High School and/or College/University official transcript.
- Undecided on a Major? Connect with Counseling and Career Services at your college.
- Visit the campus to familiarize yourself with the services and resources.


## TAKE THE PLACEMENT TEST maricopa.edu/testing

- Prepare by reviewing the sample questions at: maricopa.edu/testing.
- Placement test will ensure appropriate level of classes for enrollment.
- The Placement Test is not a pass/fail exam.
- The Placement Test is untimed and FREE.
- Bring your government issued photo ID on the day of testing.

- To review your test score results, ask for a Course Placement Chart.



## SEEK ACADEMIC ADVISEMENT maricopa.edu/advisement

- Advisors will help with identifying courses and creating an Educational Plan to meet your academic goals.
- Meet with an advisor every semester prior to class registration.
- Advisement sessions may vary from college to college. Check your college for details.
- Services available in-person, via telephone, email, and more.
- Ask your advisor about: College Success Classes, Associate Degrees, Certificates, Transfer options, and Resources and Services.


## REGISTER FOR CLASSES \& ATTEND

 NEW STUDENT ORIENTATION maricopa.edu/new-student-orientationDON'T FORGET!
1 HOUR OF CLASS TIME = 2 HOURS OF STUDY TIME.

- Register for classes early to: Ensure the best schedule, maximize financial aid options, and to get prepared for a successful semester.
- Know when your tuition is due.
- All New to College Students must attend New Student Orientation. Research shows that those who participate, have higher rates of attaining their goals.


## 4

## PAY TUITION AND FEES maricopa.edu/paying-for-college

- Write your tuition balance and due date on the front of this handout.
- Monitor your Student Center for current balance and pay on or before due date.
- Explore paying for college at: maricopa.edu/paying-for-college.
- Complete the Free Application for Federal Student Aid (FAFSA) at fafsa.gov.
- Explore college websites for scholarships, such as the Presidents' Scholarship and more.



## Welcome to Mesa Community College

Thank you for choosing MCC to pursue your educational dreams. You will find that student success is the central focus of MCC's faculty and staff.

How do we measure success? Our success is measured by the degree to which we change and improve students' lives, and it is exemplified by the professional and personal accomplishments of our alumni.

MCC's alumni are entrepreneurs and CEOs, superior court judges and public servants, teachers at all levels of education, health and dental professionals, professional athletes and Olympic competitors, authors and NASA scientists. This is just a sampling; the list of accomplished alumni is limitless and spans all professions.

I look forward to adding your name to the list of accomplished MCC alumni. To support you in your endeavors, we offer a wide variety of services - most of which are free. We also offer a rich array of student life and leadership development programs to complement your classroom experiences.

MCC's commitment to changing lives through exceptional education is recognized nationally. The Aspen Institute College Excellence Program named MCC as one of the nation's top 150 community colleges. Additionally, MCC is one of only 16 community colleges in the country to receive the Community Engagement Classification from the Carnegie Foundation for the Advancement of Teaching.

I encourage you to become familiar with and take advantage of the resources available to you. MCC's faculty, staff, and I are here to support and guide you!

Wishing you great success,
Sasan Poureetezadi
Interim President, Mesa Community College

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## ABOUT MCC



## HISTORY AND DESCRIPTION OF MESA COMMUNITY COLLEGE

As an educational, economic, cultural and workforce engine for the East Valley, Mesa Community College has contributed to individual and community success for more than half a century. The largest of 10 colleges in the Maricopa County Community College District of metropolitan Phoenix, MCC delivers an affordable and quality opportunity to earn degrees, certificates and workforce training to advance career goals as well as transfer to four-year institutions via state, national and international education partnerships.
Accredited by the Higher Learning Commission, MCC's more than 30,000 students are served annually online and on two campuses -- Southern \& Dobson and Red Mountain. In addition to academic excellence, MCC offers a full collegiate experience with acclaimed athletics, student government, study abroad, international scholars and student clubs. MCC students enrich the community with nearly 22,000 service-learning volunteer hours each year.
Meeting the needs of the business community with exemplary employees, MCC offers Career and technical Education (CTE) programs that equip students with the knowledge and skills for today's jobs. Partnering with government, business, high tech and advanced manufacturing companies, CTE programs are cutting edge, in-demand, innovative and strategically networked with employers.
Contributing to the community cultural scene, the Arts at MCC present acclaimed dance, theatre and musical performances as well as multidisciplinary art exhibits. Planetarium shows and many other free educational and
entertainment activities are enjoyed by the general public.
The Maricopa County Community College District (MCCCD), now serving more than 200,000 students annually, began with Phoenix Junior College in 1920. In 1960, the Arizona Legislature established county junior college districts 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. The MCCCD Governing Board created three extensions of Phoenix College - one in northeast Phoenix, one in northwest Phoenix and one in Mesa. In 1963, students began attending classes in an old church building at the corner of Main Street and Extension Road. 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. In 2001 a second full-service campus - MCC at Red Mountain - was established in northeast Mesa at Power and McKellips roads.
More than 46 percent of students attending MCC in 2016 were Mesa residents. As the largest of the MCCCD colleges, MCC remains dedicated to enriching lives and serving the community locally and globally by providing education of the highest quality, at the most affordable cost

## MCC CAMPUSES

## SOUTHERN AND DOBSON CAMPUS

A source of outstanding transfer, career and service programs for the East Valley of metro Phoenix for more than 50 years, the Southern and Dobson Campus has an urban flair featuring academic excellence and an inviting collegiate experience. Average class sizes of 22 students provide opportunities for interactions with engaged, quality faculty.

## Location:

1833 West South Avenue Mesa, AZ 85202 480-461-7000

## RED MOUNTAIN CAMPUS MCC

On 98 acres of vibrant Sonoran Desert in northeast Mesa, the Red Mountain Campus offers a focus on successful university transfer with state-of-the-art classrooms, scientific community partnerships and outdoor teaching spaces. Average class sizes of 22 students provide opportunities for interactions with engaged, quality faculty.

## Location

7110 East McKellips Road Mesa, AZ 85207 480-6547200

## MCC VISION, MISSION, AND VALUES

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

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

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

- Innovation- MCC delivers cutting-edge instruction and service.
- Integrity- MCC upholds the highest standards of ethics and public stewardship.
- Learning- MCC champions individual student success that reflects the highest academic standards.
- Service Excellence- MCC makes a positive difference in the lives of our students, community members, and each other through meaningful relationships.


## ACCREDITATION

Mesa Community College is accredited by The Higher Learning Commission and is a member of the North Central Association: www.ncahigherlearningcommission. org Telephone: 312-263-0456.
Accreditation Commission for Education in Nursing (ACEN) at 3343 Peachtree Road, NE Suite 850, Atlanta, GA 30326. State approval for the Nursing Programs is provided by the Arizona State Board of Nursing (AZBN) at 4747 N. 7th St. Suite 200, Phoenix, AZ 85014, 602.771.7800.

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 (COD).

## 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.

## ABOUT MCC

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 below100 -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

Our civic responsibility is expressed through our commitments to nurturing the next generation of leaders and meeting community needs through student, faculty and staff volunteerism. MCC has partnered with Mesa Public Schools to place full-time, college counselors in eight MPS high schools to guide individual students and broaden family awareness of the importance of college completion. MCC is actively engaged with local, state and national governments, not-for-profit organizations and school systems to enhance lifelong learning prospects and increase the quality of life for all.

## 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

## 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 23 -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 U.S. 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) nonprofit 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 provides courses that use internet technology to enable innovation and quality educational experiences. MCC Online represents the college's dedication to enriching and expanding access to higher education.
MCC has the following Online options:
100\% Online Programs: MCC offers over 20 degrees and certificates in 100\% online format. Online classes in
these programs are conducted exclusively via the Internet but may require proctored exams. Browse our online programs here: http://www.mesacc.edu/programs/online
Online Classes: If you aren't pursuing an online degree, you may still desire the flexibility of taking an online class along with your on-campus classes. Each semester, MCC offers over 500 courses online.

Hybrid Classes: These types of courses combine reduced, regularly scheduled classroom meetings with required learning activities conducted via the internet. In other words you may only meet once per week on campus, but will be required to do assignments online which require 5-10 hours per week during a traditional three-credit 16-week course. More time is required for accelerated courses.

Web-Enhanced: Web-Enhanced classes are face-to-face lecture classes incorporating Internet tools and required learning activities conducted via the Internet. These courses aren't noted as Web-Enhanced in the schedule, but you are encouraged to contact the instructor to inquire about the technological requirements. Many classes at MCC are Web-Enhanced.

## Online Support Services

Free online tutoring: www.mesacc.edu/students/tutoring/ online-tutoring
Ask a librarian - online librarians: www.mesacc.edu/ library/services/ask-librarian
MCC HelpCenter - 24/7 technical support: 480-461-7217
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 Online at MCC, go to the website at www.mesacc.edu/online or call 480-461-7222.

Getting Started: If you are new to online learning at MCC, take advantage of the Getting Started information on the Online website: www.mesacc.edu/online/getstarted.

## 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

## ABOUT MCC

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 480-4617493.

- Computer Technology Courses
- Community Service Projects
- Studio Art Groups
- 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



STUDENT SUPPORT CONTACTS
Admissions 461-7600
Advisement/Transfer Registration Services
$461-7222$
Alumni Relations 461-7792
American Indian Institute 461-7931
Athletics 461-7542
Bookstore 461-7225
Career Services 461-7592
Cashier Services 461-7400
Children's Center 461-7082
Community Education/Lifelong Learning
461-7493
Counseling 461-7588
Disability Resources and Services 461-7447
Early Alert Referral System (EARS) 461-7449
Early College Programs (ACE, Hoop of
Learning Dual/Concurrent Enrollment 461-7705
Enrollment Services at Red Mountain 654-7600
ESL Support Services 461-7898
Financial Aid 461-7441
Fitness Center 461-7555
Group Activity Center 461-7578
Health Improvement Center 461-7556
Information - MCC at Red Mountain 654-7200
Information - MCC at Southern and Dobson
461-7000

| International Education | $461-7756$ |
| :--- | ---: |
| Learning Enhancement Center (Tutoring) $461-7678$ |  |
| Library Reference Desk | $461-7682$ |
| Lost and Found | $461-7046$ |
| Multicultural Affairs \& Student Success | $461-7288$ |
| Multi-Use Computer Lab | $461-7098$ |
| Outreach \& Recruitment | $461-6200$ |
| Public Safety | $461-7046$ |
| Records | $461-7659$ |
| Registration | $461-7700$ |
| Student Life and Leadership | $461-7285$ |
| Testing Center Information Services | $461-7336$ |
| Veterans' Services | $461-7425$ |
| Writing Center | $461-7513$ |
| Ara |  |

Area code for all numbers is 480

## ADVISEMENT, CAREER, AND TRANSFER 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 meet with an academic advisor prior to registration of classes. Continuing students are encouraged to meet with an advisor each semester.
For more information, at the Southern and Dobson campus please visit:
www.mesacc.edu/advisement, call 480-461-7222, or visit an advisor in person at Enrollment Center.
For more information at the Red Mountain campus please visit: http://www.mesacc.edu/students/red-mountain-enrollment-services, call 480-654-7600 or visit Enrollment Services.
The Advisement office 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 at either the Southern and Dobson or Red Mountain campuses.

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/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/career.
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 AND REGISTRATION

The Office of Admissions, Records and Registration Assist with guiding students through the enrollement process.
Services include, but not limited to processing and verifying applications, prior education and name changes. Other functions include, verifying residency, name changes, and transcript evaluations. mesacc.edu/admissions-records
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 in order to minimize transition difficulties a student may encounter when leaving his/her home area.
Services provided include: academic advisement, educational planning, enrollment, retention, club advisement, peer support, personal growth experiences, study groups, and participation in cultural events. The Institute 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/american-indianinstitute.

## 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. mesaccshop.com
The MCC Bookstore offers a textbook rental program as well as digital textbooks.
Visit Rental Information for more details on our rental program.
Visit Digital Content for more details on our digital
textbook program.
MCC Bookstore at Southern \& Dobson 480-461-7225
MCC Bookstore at Red Mountain 480-654-7696

## 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 https://chancellor.maricopa.edu/ public-stewardship/governance/administrative-regulations/2-students/2.2-admission-registration-enrollment/2.2.10-refund-policy. For additional information about services call 480-4617400 or visit www.mesacc.edu/students/cashiers/ index.html.

## CENTER FOR COMMUNITY \& CIVIC ENGAGEMENT

## 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 servicelearning 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 servicelearning 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.

## Civic Engagement

Definition: Civic engagement encompasses actions to promote the quality of life in the community through both political and non-political processes.

1. Inclusiveness - demonstrate an ability to engage respectfully with others in a diverse society
2. Application of knowledge - apply the knowledge of one's own study and experiences to active and ethical participation in civic life.
3. Demonstration of civic identity and commitment - provide evidence of experience in and reflection on civic engagement activities.
4. Civic communication - communicate and list to others in order to establish personal and professional relationships to further civic actions.
5. Engagement in civic action and reflection - demonstrate the ability to deliberate and collaborate on issues and problems to achieve a civic aim.
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.

The Children's Center at Southern and Dobson provides quality childcare 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 are an important and vital component of the total educational experience at Mesa Community College. Students may participate in programs that
encourage interaction with their peers by attending leadership programs, educational field trips and various other events. Clubs and organizations at the college 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 information, please contact the Office of Student Life and Leadership at 480-461-7285 (Southern and Dobson campus) or 480-654-7759 (Red Mountain campus).
Active clubs are listed here: www.mesacc.edu/ students/asmcc/check-out-our-cool-clubs.

## COMMUNITY OUTREACH CENTER

The Community Outreach Center is the first point of entry for prospective students, families, and community members to learn about MCC programs and services in an informative and highly engaged environment.

The center provides educational support services such as college access, pre-enrollment counseling, financial literacy guidance, college financial planning for incoming students, and completiion support services. It also provides educational pathways such as GED to MCC, ESL to ELL, Early college programs, and College Outreach and Recruitment Engagement. In support of local engagement, the Center offers Hispanic community outreach programs and services, community referrals and resources support. Call 480-461-6200 for more information or visit www.mesacc.edu/outreach.

## 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
Library LB11, Second Floor
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 <br> English 480-461-7643 <br> Reading 480-461-7020 <br> DISABILITY RESOURCES AND SERVICES

The Office of Disability Resources and Services (DRS) provides assistance to students with disabilities, including those with learning, physical, psychological, and other disabilities. Services include advisement, registration, academic accommodations, and coordination with campus and community services. For more information, call our

Southern and Dobson campus at 480-461-7447 or fax 480-461-7907. For DRS information at our Red Mountain campus, please call 480-654-7771. www.mesacc.edu/students/disability.
Some of the services offered, depending upon individual need, include the following: scribes and note takers, interpreters, specialized adaptive equipment, emergency wheelchair loan, classroom assistants, special testing arrangements, community referral, academic advisement, and registration assistance. To receive services and accommodations through Disability Resources and Services, students need to provide documentation stating a diagnosis or disability. This documentation must be obtained from a licensed psychologist, psychiatrist, or medical doctor and printed on official letterhead of that person's office. The documentation is submitted to Disability Resources and Services. The documentation is confidential and will be used for the sole purpose of determining which accommodations are appropriate. Please call 480-461-7447, fax 480-461-7907, or visit www.mesacc.edu/students /disability.
For more information published by the Maricopa Community College District on this topic, please see the "MCCCD Policies and Procedures" section of this catalog.
The Adaptive Lab, located on the first floor of the Paul A. Elsner Library on the Southern and Dobson campus, is a unit of the MCC Disability Resources \& Services Department. The Lab provides ADAcompliant 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 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."

## EARLY COLLEGE PROGRAMS

Early College programs at MCC provide students with an opportunity to earn college credit while they are in high school. ACE (Achieving a College Education) and Hoop of Learning Programs are scholarship programs designed to improve access to higher education and improve success once enrolled in college. Applications for the ACE and HOL programs are accepted during the fall of a student's sophomore year in high school. Dual enrollment is the opportunity to take college courses at the students home high school, while concurrent enrollment gives students full exposure to a college course by enrolling in a course on our campus
with other college students. Call 480-461-7705 for more information or visit: www.mesacc.edu/ earlycollege.

## 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 on the main floor of Kirk Student Center 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 480-461-7441 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: http://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, step mills, 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 for the Red Mountain campus, call 480-654-7726.

## GED EXAMS

The GED is a High School Equivalency Test
GED preparation classes are offered through our Community Outreach Center:
https://www.mesacc.edu/outreach/get-your-gedhse
For information regarding GED preparation classes in either English or Spanish, please call 480-4616200

## GRADUATION

Students must meet all requirements for graduation. Graduation requires a minimum grade point average. Specific programs have higher graduation requirements. It is the student's responsibility to be aware of the program requirements.
Graduation with Honors is determined after all courses used to fulfill graduation requirements, including courses transferred from other accredited institutions. Students are eligible for 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
mesacc.edu/graduation

## 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 students 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 mat work, 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) is at Southern \& Dobson only. The HIC offers a workout experience in functional resistance training through the use of free motion exercise machines. Sorinex weight lifting platforms, free weights, and dumbbells. Cardio-respiratory fitness can be developed through the use of treadmills, step mills, Precor elliptical runners and Precor cycles. For more information contact: Jim Haggerty at 480-461-7556.

## HONORS

The Honors Program provides funds to help defray the costs of attending college. The Presidents' Honors Scholarship currently covers in-state/incounty tuition up to 15 credit hours (plus the $\$ 15$ registration fee) per semester, but does not apply to summer sessions. To be eligible, students must enroll at Mesa Community College within the academic year (two academic semesters) following high school graduation without having attended another accredited college or university before enrolling. Students who graduate in the top 20 percent of an NCA-accredited Maricopa County high school class and have either tested into at least ENG101, MAT120, and CRE101 or have successfully completed the requisite work to be prepared for placement into those courses are eligible to receive the scholarship. Students may also test into the program if they had a final cumulative high school grade point average of 3.0 or higher and tested into the placement tests (WritePlacer score of 6 or higher; Exemption from CRE101; Placement in MAT120 or higher). 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 the Honors Achievement Award of up to $\$ 325.00$ each semester. These students will be identified as Honors Students and will be eligible to take honors classes and participate in all honors activities and opportunities.
Honors students may register for classes at this location. Call for the registration schedule at 480-461-7079. The Honors Co-Coordinators are: Shereen Lerner at 480-461-7306 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.

## 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 provide 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 480-6547759 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 480-461-7756.

## F-1 International Students

The International Education Office provides Admissions services to future 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 480-461-7756. You can also email us at the following email addresses:
Prospective F-1 Students: intladmissions@mesacc. edu
Current F-1 Students: ie@mesacc.edu

Study Abroad Student Inquires: studyabroad@ mesacc.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 $100-\mathrm{level}$. 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.

## 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 for additional information)
Parking permits are issued with proper identification at Southern \& Dobson campus Enrollment Center (Bldg. 39) or Enrollment Services, Red Mountain campus.
mesacc.edu/student-life/services/student-id-parking-stickers.

## 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 U.S. 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.
State-accredited police officers and civilian security personnel staff the Public Safety Department. 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 smokefree. 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 in the Enrollment Center in the Kirk Center 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 ensure 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, provides enrollment verification, and determines graduation and student athletic eligibility. mesacc.edu/students/admissions
Transcripts are issued upon request. Students must request an official transcript when transfering to another institution, including another Maricopa Community College. There is no fee for an unofficial transcript and a $\$ 5.00$ fee for official transcripts. Transcripts are ordereed and paid though my.maricopa.edu.

## Payment Options

- Pay the fee with the Cashier in the Enrollment Center (Bldg. 39) (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 Office and pay over the phone 480-461-7400 (credit card or debit card).
There are Three Ways to Request Transcripts
- Online: my.maricopa.edu
- In Person: Visit the Southern \& Dobson Campus Enrollment Center (Bldg. 39) with a valid photo ID.
- 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, and include the $\$ 5.00$ fee. You may pay by check, credit card, or money order.
Official transcripts will not be issued to students having outstanding debts to any of the Maricopa Community Colleges. For further information, visit www.mesacc.edu/students/advisetransfer/ transcripts.
For more information published by the Maricopa Community College District on this topic, please see the "MCCCD Policies and Procedures" section of this catalog.

## RECRUITMENT

The primary goal of the Office of Student Outreach 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, and coordinated campus visits, tours, and open houses, all of which are delivered through an 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 classeswithin 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. mesacc.edu/cashier-services/refunds.

## SCHOLARSHIPS

Mesa Community College offers a variety of scholarships for new and continuing students. Scholarships are not linked to financial aid and require separate applications. Information, applications, resources, and helpful hints for scholarships are available in the Student Financial Services Office, which is located in Building \#42. Also visit www.mesacc.edu/financial-aid/typesaid/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.

## SMOKE-FREE POLICY

Effective July 1, 2012, MCCCD becomes smokefree. 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 health insurance information, volunteer projects, 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 are available at the MCC bookstore through the MCCCD 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 a limited number of 30 -day passes each semester, on a first-come first serve basis. Semester passes are sold during the first week prior to the start of the semester. For more information about the Maricopa Community College District reduced fair bus passes, please visit www.maricopa.edu/trip/ busticket.php.
The Valley Metro Bus is available for Dobson Road, north and southbound travel and Southern Avenue, east and westbound travel. Valley Metro bus service is also available to the Red Mountain campus. Bus route 184 (north and southbound Power Road) stops at the circle between Mesquite and Desert Willow buildings.
For specific bus route information, obtain a Bus Book in the Student Life and Leadership information counter located in the Kirk Center or at the MCC Library. You can also refer to their website at www. valleymetro.org. ASU shuttle services are no longer offered.
Reduced Fares: Reduced local fares are also available for youth (ages 6-18), seniors (age 65 and older), persons with disabilities and Medicare cardholders.

Students should be ready to provide proof of eligibility upon boarding. Call the Valley Metro Customer Service at 602-253-5000 for information on how to apply for a Reduced Fare Certification Card.
Leadership Opportunities. The Office of Student Life and Leadership offers various opportunities for leadership development for currently enrolled MCC students. Opportunities include a variety of one-day, weekend and weeklong leadership retreats and programs. For more information, contact the Office of Student Life and Leadership in the Kirk Student Center or the Mesquite Building at the Red Mountain campus. Information on various leadership training opportunities can also be found at www. mesacc.edu/students/life/opp or call 480-4617285.

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 Executive Board appoints the ASMCC Cabinet and Secretariat. 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 tina.rangel@ 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. Vocal and instrumental soloists make recitals, competitions, and public appearances. 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; ChandlerGilbert 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, and Soccer Spring: Baseball, Golf, Tennis, and Track/Field

The women's athletic program includes:
Fall: Basketball, Cross Country, Volleyball, and Soccer
Spring: Softball, Tennis, Track/Field, and Golf.
Please visit www.athletics.mesacc.edu/

## STUDENT IDENTIFICATION (ID) CARD

All new students will be provided identification cards upon registration at no charge, with verification of enrollment and a valid photo ID, such as a driver's license or another school ID. This is a permanent MCC ID that provides access to college services and activities. Replacements will be provided for a $\$ 5.00$ fee. Student IDs are available in the Enrollment Center, located in the Kirk Center or in Enrollment Services at the Red Mountain campus. For information about Student ID cards, please call 480-461-7000 or 480-654-7600 at the Red Mountain campus.
For more information published by the Maricopa Community College District on this topic, please see the "MCCCD Policies and Procedures" section of this catalog.

## STUDENT INSURANCE

Every registered MCC student who is enrolled in an approved credit and/or non-credit class or is engaged in school-sponsored, supervised, approved, and calendared activities in a college of the Maricopa County Community Colleges District is covered during the policy term. This plan applies only to college-related accidents. The student is automatically insured, and the cost is covered in the campus activity fee. Information on filing a claim, detailed brochures, and medical insurance information is available in the lobby of the Kirk Student Center and from the Dean of Student Affairs office located on the top floor of the Kirk Student Center at MCC at Southern and Dobson or in the Office of Student Life and Leadership in the Mesquite Building at the Red Mountain campus.
MCC students are also eligible to purchase an injury and sickness insurance plan for themselves and their family. Brochures can be obtained in the Office of Student Life in the Kirk Student Center or in the Mesquite Building at the Red Mountain campus. You can also view the brochure or enroll online at www. renstudent.com $/ \mathrm{mcccd}$. For more information, please call 480-461-7285 or 480-654-7759 at the Red Mountain campus.

## TECHNOLOGY SUPPORT

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

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

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

## TESTING SERVICES AND PLACEMENT TESTING

Students must create a student account and apply for college admissions prior to taking their placement tests. New students can apply for admissions in person at any of the MCC campuses, or online 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 on our website: www.mesacc.edu/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.)

The HESI A2 exam is required as part of the Nursing Program application process. It is offered at either our Red Mountain (480-654-7811) or our Southern and Dobson (480-461-7480) locations. The cost is \$40. Valid photo ID is required to take the HESI A2 exam. Visit our website for more information specific to the HESI A2 exam. www.mesacc.edu/testing.

## TESTING SERVICES HOURS

Monday - Thursday 8:00 AM - 6:00 PM
(summer hours are 8:00 AM - 6:00 PM)
(Testing Services is closed on Fridays during the summer months)
(The last test is given out one hour before the office closes)
Red Mountain location is Enrollment Services, Mesquite Building 480-654-7811.
Southern/Dobson location is Testing Services Building 38 480-461-7336.
For more information published by the Maricopa Community College District on this topic, please see the "MCCCD Policies and Procedures" section of this catalog.
Instructor 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.
Private testing rooms, visual enlargers, and other services are available for students with special needs and arranged through the Disability Resources and Services. 480-461-7447.

## 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 Stage Door Players is the student theatre club at MCC. It is devoted to developing, promoting, and publicizing the theatre events at the college. Working on the Theatre Department productions attains membership. 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. Students without the approval of their advisor(s) will make no deviations to the schedule.
- 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.


## 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 veterans or $100 \%$ permanently disabled veterans. To secure benefits, the student must apply through the Veteran 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. 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 - Thursday, and from 8:00 AM to 4:00 PM on Friday; Summer Monday - 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.

## ACADEMIC DEPARTMENTS



## ADMINISTRATION OF JUSTICE

Department Telephone: 480-461-7080
Building SC 14
https://www.mesacc.edu/departments/administrationjustice

## The Administration of Justice Department offers courses and programs in the following areas:

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 (AJS)
- Police Science
- Judicial Studies
- Victimology
- Forensic Investigation
- Legal Studies

For specific degree and certificate requirements, see Career and Technical Programs.

Mesa Community College's Administration of Justice Studies (AJS) Program provides a comprehensive approach to students who seek an understanding of both the theories of law and their application to the criminal justice discipline. The AJS program at Mesa Community College meets the needs of the most rapidly growing academic and professional fields in the United States.

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 barbara.lyne@mesacc.edu to schedule an advisement appointment or request a packet of information.

## Carrying Concealed Weapon (CCW) Class AJS

151 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.

## Degrees/Certs Offered through Administration of Justice

- AAS Administration of Justice Studies
- AAS Police Science
- AAS Judicial Studies
- Certificate in Forensic Investigation
- Certificate in Police Science
- Certificate in Victimology
- Certificate in Legal Studies
- Certificate in Judicial Studies


## APPLIED SCIENCES \& TECHNOLOGY

Department Telephone: 480-461-7144 Building TC 50
https://www.mesacc.edu/departments/applied-sciences-and-technology

The Applied Sciences \& Technology Department offers courses and programs in the following areas:

- Architecture \& Construction


## ACADEMIC DEPARTMENTS

- Automation Technology
- Automotive Performance
- Dental Hygiene
- Electrical Mechanical Drafting
- Electronics Technology
- Interior Design
- Machinist Technology
- Manufacturing
- Micro Circuit Mask Design
- Sustainable Agriculture
- Urban Horticulture
- Veterinary Technology
- Welding Technology

Applied Science \& Technology is making progress through our relentless commitment to excellence, we prepare students to graduate with the knowledge, skills, and behaviors needed to provide long-term workplace success. Through meaningful dialog with our advisory committees, partnerships with local industry leaders, and continuous labor market scanning, we endeavor to grow and adapt our CTE programs to meet the workforce needs of today and anticipate the emerging opportunities for the future.

- Partnering with industry to create a seamless transfer for students,
- Incorporating service-learning into programs,
- Developing culturally sensitive educators responsive to the needs of a global society, and
- Providing a solid foundation of academic coursework and field experience.


## ART

Department Telephone: 480-461-7524
Building AC 30
https://www.mesacc.edu/departments/art

## The Art Department offers courses and programs in the following areas:

- Art (ART)
- Art History (ARH)
- Digital Arts (ART)

The mission of the Art Department is to support a learning environment that encourages visual literacy, promotes the aesthetics of cultural diversity, enhances the quality of life, and provides our students with the opportunity to develop the skills and techniques necessary to be successful in the field of art.
Art exhibitions will be on display in the new campus

Art Gallery. Exhibitions will include the annual Art Student Show, the Art Faculty Show, and exhibits by nationally known artists. Lectures and workshops are held throughout the year for our students and the public. Empty Bowls is an annual fundraiser organized by ceramics faculty and students, which raises money for local food banks.

Each spring the Art Department collaborates with departments across campus to present the "Festival of the Arts," featuring artists, musicians, theatre performances, dancers, poets and storytellers, fashion designers, DJs, and student clubs and organizations.
If you plan to major in art, you can choose between degrees in Fine or Digital Art. We also offer certificates of completion.

## https://www.mesacc.edu/programs/fine-arts

https://www.mesacc.edu/programs/digital-arts
It is recommended that students planning to transfer as art majors to a four-year college or university take a planned set of courses leading to an Associate in Arts, Fine Arts. The AA-FA is a general degree that includes special requirements enabling art majors to graduate from MCC after earning 63 credit hours. The basic studio art courses required for most art majors planning to transfer to a four-year institution include:

- ARH101 Prehistoric Through Gothic Art
- ARH102 Renaissance Through Contemporary Art
- ART111 Drawing 1
- ART112 Two Dimensional Design
- ART113 Color
- ART115 Three Dimensional Design

Students planning to specialize or major in the following areas of art should take the following classes in addition to the foundation courses:

Ceramics - Ceramics I
Life Drawing -- Life Drawing 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.

## Degrees/Certs Offered through Art

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


## BUSINESS \& INFORMATION SYSTEMS

Department Telephone: 480-461-7711

## BP Building 43A

https://www.mesacc.edu/departments/business-information-systems

The Business \& Information Systems Department offers courses and programs in the following areas:

- Accounting (ACC)
- Business (BIS)
- Computer Information Systems (CIS)
- Entrepreneurial Studies (EPS)
- Fashion Merchandising \& Design (TEC)
- International Business (IBS)
- Management (MGT)
- Marketing (MKT)
- Multimedia \& Game Technology
- Networking \& Security (MST/CNT/BPC/CIS)
- Organizational Management
- Total Quality Management (TQM)
- Real Estate \& Real Estate Appraisal (REA)
- Small Business Management (SBS)
- Web Technology

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 department also offers courses in Computer Information Systems (CIS), Business and Personal Computers (BPC), Fashion Merchandising and Design (TEC). 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 https:// www.mesacc.edu/programs/networking-security.

Faculty advisement is available by appointment and drop-in.
The department has computer labs available for student use at the 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 - 10:00 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.

## COMMUNICATION, THEATRE \& FILM ARTS

Department Telephone: 480-461-7524
Building AC 30
https://www.mesacc.edu/departments/communication-theatre-film-arts

The Communication, Theatre \& Film Arts Department offers courses and programs in the following areas:

- Communication (COM)
- Theatre Arts (THE)
- Theatre Production (THP)
- Cinema (THE)


## Communication, Theatre and Film Arts

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.

Theatre courses allow you to meet the human need for personal development, self-assurance, and confidence.

## ACADEMIC DEPARTMENTS

It is recommended that theatre majors enroll in a wide range of theatre courses in order to ensure a total grasp of the field. The Theatre \& Film Arts program presents three to four major main stage productions per year. Open auditions are available. The program is active in the Kennedy Center American College Theatre Festival and participates in the AriZoni Awards.

## COUNSELING

Department Telephone: 480-461-7588 Southern and Dobson, Campus Building 37 N Red Mountain Campus, Palo Verde Building Office 212, 480-654-7210
https://www.mesacc.edu/departments/counseling
The Counseling Department offers courses, services, and programs in the following areas:

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 confidential cost-free services to help achieve their full potential. Students are encouraged to make an appointment to arrange for quality personalized sessions; however, in crisis situations no appointment is necessary.
Services provided by the Counseling Department include:

- Academic Counseling
- Career Counseling
- Personal Counseling
- Academic Interventions
- Behavioral Interventions
- Conflict Resolution
- Crisis Intervention
- STEM Success Activities
- Successful-Year Experience Programs
- Customized Workshops for Learning Communities
- Campus-wide Workshops
- Substance Abuse Prevention
- Substance Abuse Intervention
- Community Resource Counseling
- Group Counseling
- Classroom Instruction
- Peervention Volunteer Program
- Campus \& Community Volunteer Opportunities
- Special events, seminars, workshops, and programs to promote personal safety, well being, and enhance student success

The Counseling Department offers courses designed to assist students identify their academic, career, and personal goals.

- Advancing Academic Achievements (AAA)
- 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.

If you are interested in going into the field of counseling you should make an appointment and speak to a counselor about your pathway. The following courses are offered by the Counseling Department for all students:

- CPD150 - Strategies for College Success
- CPD160 - Introduction to Multiculturalism
- CPD102AB - Career Exploration
- CPD102AD - Eliminating Self-Defeating Behavior
- CPD102AH - Stress Management
- CPD103BC - African American Cultural Pride
- CPD103BE - Native American Cultural Pride
- CPD282AC - Volunteerism
- CPD282AB - Volunteerism
- CPD282AA - Volunteerism
- AAA115 - Creating College Success
- AAA150 - Strategies for College Success


## CULTURAL SCIENCE

Department Telephone: 480-461-7060
Building SC 14
https://www.mesacc.edu/departments/cultural-science

## The Cultural Science Department offers courses and programs in the following areas:

- Anthropology
- Ethnic Studies (including African American Studies, American Indian Studies, and Chicano/a Studies)
- Geography
- Geographic Information Systems
- Social Work


## ACADEMIC DEPARTMENTS

- Sociology
- Sustainability
- Women and Gender Studies

The Cultural Science Department educates students to become culturally aware global citizens. We provide a supportive learning environment in which students examine current cultural issues and evaluate the relevance of those issues to their lives and to the world around them. From the perspectives of a variety of cultural sciences, students use scientific methodology to analyze problems faced by people around the world and throughout time, developing an understanding of culture, cultural variation, and historical factors that influence modern problems. The Department includes the Ethnic Studies program (American Indian Studies, African American Studies, Chicano Studies); Geography; Geographic Information Systems; Anthropology; Sociology; Social Work; Women \& Gender Studies; and Sustainability.

## Degrees and Certificates offered through the Cultural Science Department

## Academic Certificates:

- African American Studies
- Global Citizenship
- Women's Studies
- Sustainability


## Associate of Applied Sciences:

- Geospatial Technologies

Certificate of Completion:

- Applications in Geospatial Technologies


## EDUCATION STUDIES

Department Telephone: 480-461-7904 Building ES 9
https://www.mesacc.edu/departments/educationstudies

## The Education Studies Department offers courses and programs in the following areas:

- (CFS) Child/Family Studies - https://www.mesacc. edu/departments/education-studies/degrees-certificates/cfs-child-family-studies
- (ECH) Early Childhood
- (EDU) Education
- (EED) Early Education
- (EPD) Education Professional Development
- (ETL) Excellence in Teaching and Learning
- (GST) Game Studies

The Education Studies Department serves the needs of pre-service educators, paraprofessionals, and certified teachers. Programs and training to serve grades $\mathrm{P}-12$ are available in the areas of early childhood, elementary, special, and secondary education.

The Education Studies Department provides comprehensive support for aspiring and practicing educators by:

- Partnering with educational institutions to create a seamless transfer for students,
- Incorporating service-learning into programs,
- 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.

Degrees/Certs Offered through Education Studies: https://www.mesacc.edu/departments/education-studies/degrees-certificates

## ENGLISH

## Department Telephone: 480-461-7636

Building LA 3
www.mesacc.edu/programs/departments/english

## The English Department offers courses and programs in the following areas:

- Composition (ENG)
- Literature (ENH)
- Humanities (HUM)
- English as a Second Language (ESL)
- Creative Writing (CRW)
- Journalism (JRN) and Mass Communications (MCO)

MCC's English faculty help students acquire the critical literacy skills they need to succeed. Courses in composition help students to improve their communication, while classes in literature, film, and interdisciplinary humanities help them to see their world in new ways. English as a Second Language courses assist non-native speakers as they acquire

## ACADEMIC DEPARTMENTS

written and spoken fluency in English. In journalism courses students learn the foundations of reportage in multiple media.

- Accelerated Learning Program
- Film
- Study Abroad Britain
- Writing Center


## 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 writing.

If you want to pursue a bachelor's degree in English or a related program, Arizona's public universities offer many options for transfer. Meet with the English Department Chair to discuss your options.

The following courses (and others) are appropriate for the prospective English major:

## EXERCISE SCIENCE

Department Telephone: 480-461-7551
Building: ES-9
https://www.mesacc.edu/departments/exercise-science
The Mesa Community College (MCC) Exercise Science Department offers courses and programs in the following areas

- Kinesiology
- Exercise and Wellness.

Kinesiology draws from a body of knowledge in physiological, biomechanical, neural, and psychological sciences in preparation for post-graduate careers in, for example, physical / occupational therapy, medicine, physician assistant, cardiac rehabilitation, sport performance, strength and conditioning, and athletic training.

Exercise Science/Kinesiology focuses on the mechanical, neural, physiological, and psychological mechanisms underlying human movement and consists of four subdisciplines: Exercise Physiology,

Motor Behavior, Biomechanics, and Health Psychology.

The major 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 Exercise Science
- GCU BS Exercise Science (emphasis PrePhysical Therapy)

The following are transfer courses for Exercise Science/Kinesiology major at ASU Downtown:

- EXS101 Introduction to Exercise Science, Kinesiology, and Physical Education
- EXS290 Introduction to Evidence-Based Practice
- HES100/WED110 Healthful Living/Principles of Physical Fitness/Wellness (satisfies SB General Education Requirement)

Exercise and Wellness provides students with the knowledge, skills, and abilities requisite to comprehensively support individuals in adopting health- and fitness-enhancing lifestyles that include a foundational commitment to a physically-active lifestyle. Professional pursuits include, for instance, health promotion/fitness careers with communitybased organizations, private health/fitness clubs as well as clinical/medical rehabilitation.

Exercise and Wellness focuses on physical activity and healthy lifestyle prescriptions, promotion, and program design and delivery in a variety of fitness, community, worksite, organizational, and healthcare settings.

Careers include worksite fitness programs, commercial fitness centers/multipurpose clubs, planned community fitness/recreation, hospital-based fitness centers, college/university fitness and wellness, strength and conditioning, sports medicine clinics or graduate study in physical therapy, medical school, or clinical exercise physiology.

There is a Health Education and Health Promotion BS, located under Exercise and Wellness.
ASU Downtown BS Health Education and Health Promotion: See Maricopa-ASU Pathway Partnership

## ACADEMIC DEPARTMENTS

(MAPP) in Exercise and Wellness Also see (Health Educator/Health Promotion) under Exercise and Wellness.

## The following are transfer courses for the Exercise and Wellness major at ASU Downtown:

- EXS214 Instructional Lab - Flexibility and Mind/ Body Exercises
- EXS216 Instructional Lab - Exercises Strength and Conditioning
- EXS 218 Instructional Lab - Cardiorespiratory
- HES100 / WED110 Healthful Living or Principles of Fitness and Wellness
- FON241 Principles of Human Nutrition

The department also offers a broad range of activity classes; please refer to PED prefix courses in order to review a list of activity classes offered at MCC.

## Pathways offered at Mesa Community College: Maricopa-ASU Pathway Partnership (MAPP):

## Kinesiology - ASU Downtown

- Exercise and Wellness

Associate of Applied Science Degree (AAS):

- Exercise Science and Personal Training degree

Associate Degrees:

- Associate in Science: Emphasis Exercise Science / Kinesiology
- Associate of Arts: Emphasis Exercise and Wellness


## Certifications (CCL):

- Personal Training Specialist Certificate
- Nutrition for Fitness and Wellness Professionals (See Career and Technical Programs)


## FIRE SCIENCE/EMERGENCY MANAGEMENT TECHNOLOGY

## Department Telephone: 480-461-6300

Office: Downtown Center
https://www.mesacc.edu/departments/fire-science-emt

## The Fire Science/EMT Department offers courses and programs in the following areas:

The Fire Science/EMS program offers theory and certification-based training and education courses and programs for aspiring and current industry professionals. Our Emergency Medical Services programs (EMT and Paramedicine) offer unique
pathways to obtain didactic, practical, and clinical experience necessary to advance your education and career opportunities inside and outside of the emergency response profession. Fire Science offers career readiness programs for aspiring firefighters and emergency managers. 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:

- Paramedic (initial and refresher training)
- Emergency Medical Technician (initial and refresher training)
- CPR
- Candidate Physical Ability Test (CPAT)
- Fire Science and Fire Operations
- Fire Officer Leadership
- Emergency Management
- Hazardous Materials
- Wildland Firefighter

Students may earn an AAS degree in Emergency Response \& Operations with an emphasis in Fire Science, Fire Operations, Paramedic, or Emergency Management.

The certificates of completion include the following: Emergency Medical Technology

- Paramedicine
- Fire Science
- Fire Operations
- Emergency Vehicle Driver/Operator
- Fire Officer Leadership
- Emergency Management

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. 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 an opportunity to participate in service-learning. Servicelearning volunteers may work for various public or private entities performing duties such as assistance to citizens who have suffered loss of clothing, shelter, or food due to fire, natural disaster, or other emergency situation. Participants can earn college credit for volunteerism by enrolling in FSC282. For information, contact the Fire Science Department at 480-461-6300, or visit the MCC Service Learning website www. mesacc.edu/community-civic-engagement.

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.

To ensure selection of appropriate academic pathways, please contact our Academic Adviser at 480-461-6304 or visit us at the MCC Downtown Center. You may also meet with a resident faculty adviser upon request. Please contact us for information about transfer to baccalaureate and graduate programs.

## If you plan to major in Fire Science/EMT

 A suggested Course Pathway to fulfill all of the requirements for an AAS degree in Fire Operations is available upon request in the department. Suggestions for Humanities and Social/Behavioral classes are also listed.Contact darlene.vasquez@mesacc.edu for more information (480-461-6304).

## LIBRARY SCIENCE

## Department Telephone: 480-461-7671 <br> Building LB 11 <br> https://www.mesacc.edu/library

The Library Science Department offers courses and programs in the following areas:
Information Literacy (IFS)

## LIFE SCIENCE

Department Telephone: 480-461-7115
Building NU 6
https://www.mesacc.edu/departments/life-science

## The Life Science Department offers courses and programs in the following areas: Biology (BIO)

Biology is a lab-based natural science, so most courses have a laboratory component. Any student pursuing careers in wildlife, sustainability, biotechnology or health-related fields require strong foundations in biology. Students of any major are required to take lab science classes to gain a well-rounded college experience. We offer a variety of exciting non-majors options to satisfy this requirement. All courses transfer to universities. Our department maintains live animal collections, sponsors summer study-abroad programs, has student study labs that provide access to lab materials for independent study and tutoring, and sponsors a variety of student clubs.

- Biotechnology
- Majors
- Non-Majors
- Departmental Clubs
- Holycross Expedition
- Study Abroad with Life Science

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
- BIO201 Human Anatomy and Physiology I
- BIO202 Human and Anatomy and Physiology II
- BIO205 Microbiology

The three public Arizona universities offer a wide range of baccalaureate programs for students who wish to major in 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


## ACADEMIC DEPARTMENTS

- 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


## MATHEMATICS AND COMPUTER SCIENCE

Department Telephone: 480-461-7728 Building MC 5 https://www.mesacc.edu/departments/mathematics-computer-science

## The Mathematics and Computer Science Department offers courses and programs in the following areas:

- Computer Science (CSC)
- Mathematics (MAT)

The Mathematics/Computer Science Department offers courses and programs in Mathematics (MAT) and Computer Science (CSC). At MCC, you can take all of the courses required for the first two years of any public Arizona university math or computer science program.

Courses are offered in traditional classroom settings, at different campuses and sites, and in flexible formats such as hybrid and distance learning. If you wish to take a math and/or computer science course, you must first take a Math Placement Test at one of our Testing Centers. Prior to the start date of the course, you must have satisfied the prerequisite.

## STEAM Conference

There are many academic and professional opportunities open to those who want to study Mathematics and/or Computer Science. All three public Arizona universities (ASU, NAU and UofA)
offer bachelor's degree programs in Mathematics and Computer Science.

## MUSIC

Department Telephone: 480-461-7575
Building MU 43
https://www.mesacc.edu/departments/music
The Music Department offers courses and programs in the following areas:

- Music: Commercial Business (MUC)
- Music: Education (MUE)
- Music: Performance (MUP)
- Music: Theory/Composition (MTC)

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.

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 480-4617575.

- Auditions
- Audio Production Technologies
- Instrumental Music
- Music Business
- Music Theatre
- Music Theory and Composition
- Private Instruction
- Vocal Music

It is recommended that students planning to transfer as music majors to a baccalaureate-granting college or

## ACADEMIC DEPARTMENTS

university take a planned set of courses leading to the Associate in Arts (AA). The AA is a general degree that includes special requirements enabling music majors to graduate from MCC after earning 64 credit hours.

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

## ASU

- BA Music
- BM Secondary Education (Choral/Instrumental) Performance, Music Therapy, Music Theory and/or Composition


## NAU

- BA Music
- BM Performance, Secondary Music Education, Choral/Instrumental
UA
- BA Music
- BM Secondary Education (Choral/Instrumental) Performance
- BFA Music Theatre - Theatre Arts

The MCC Music Department in partnership with Ottawa University offers a Music Education degree in Elementary and Secondary Music. Students complete their freshman and sophomore music and general education coursework, and their junior and senior performance ensembles and private instruction with MCC. Upper-division education courses are taken through Ottawa University.

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

- MTC105/106 Music Theory and Aural Perception I
- MTC155/156 Music Theory and Aural Perception II
- MTC205/206 Music Theory and Aural Perception III
- MTC255/256 Music Theory and Aural Perception IV
- MUE137 Class Brass I
- MUE138 Class Brass II
- MUE235 Class Percussion I
- MUE236 Class Percussion II
- MUE237 Class Woodwinds I
- MUE238 Class Woodwinds II
- MUP123 Studio Class/Piano, Voice, Guitar, Instrumental,
- Jazz Styles (. 5 credits 6 semesters)
- MUP131 Class Piano I
- MUP132 Class Piano II
- MUP133 Class Voice I
- MUP134 Class Voice II
- MUP166 Jazz Piano I
- MUP167 Jazz Piano II
- MUP209 Conducting
- MUP231 Class Piano III
- MUP232 Class Piano IV
- MHL241 Music History
- MHL242 Music History
- Private instruction(2 credits 6 semesters)
- Performing ensemble
- Small (1 credit 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


## NURSING

Department Telephone: 480-461-7106
Building HW 8
https://www.mesacc.edu/departments/nursing

## The Nursing Department offers courses and programs in the following areas:

- Nursing Science: Basic (NUR)
- Nursing: Continuing Education (NCE)
- Health Core Curriculum (HCC)
- Health Care Related (HCR)
- Health Related (HLR)


## Nursing Programs/Pathways:

The Associate in Applied Science (AAS) in Nursing program is available at eight of the Maricopa Community Colleges. Clinical experiences are provided in a variety of healthcare settings. Nursing Program graduates are eligible to apply for the national exam for the registered nurse license.

The Certificate of Completion (CCL) in Nurse Assisting prepares students for entry level employment in various health care settings as a nursing assistant. Students who complete the program

## ACADEMIC DEPARTMENTS

are eligible to take a written and practical certification examination and work as a Certified Nursing Assistant or a Licensed Nursing Assistant

## The Certificate of Completion (CCL) in Nursing

Refresher program provides registered nurses with a review and update of nursing theory and practice. 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).

The Nursing Theory and Science Transition (Paramedic Bridge) course is intended for experienced paramedics seeking advanced placement into the AAS in Nursing Program.

Prospective students must apply to their desired program of study and meet all of the requirements listed 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 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.

- Advising and Information
- Students Connect Here
- Registered Nurse
- Nurse Assisting
- Paramedic to RN
- Nursing Refresher


## PHILOSOPHY AND RELIGIOUS STUDIES

Department Telephone: 480-461-7860 Building BP 43A
https://www.mesacc.edu/departments/philosophy-religious-studies

The Philosophy and Religious Studies Department offers courses and programs in the following areas:

- Philosophy (PHI)
- Religious Studies (REL)

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.

## Projected Course Offerings <br> The Philosophy Club <br> CGTE: The Engagement

Arizona's three state universities 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, ethics consultant, or researcher, or a track through Law School. In addition, businesses find philosophy majors very valuable. Lastly, several comedians were Philosophy majors. We recommend you visit with one of our Philosophy faculty to discuss becoming a major. The universities' Philosophy major requires

- PHI101 Introduction to Philosophy
- PHI 103 Introduction to Logic
- PHI105 Introduction to Ethics

Arizona's three state universities offer B.A. degrees in Religious Studies. ASU 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. 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 Religious Studies also serves well to prepare students for graduate work in law, archaeology, linguistics, literature, and public administration

- REL100
- REL205


## PHYSICAL SCIENCE

Department Telephone: 480-461-7015

## Building PS 15

https://www.mesacc.edu/departments/physical-science
The Physical Science Department offers courses and programs in the following areas:

- Astronomy (AST)
- Chemistry (CHM)
- Engineering (ECE and EEE)
- Geology (GLG)
- Physics (PHY)

Astronomy appeals to science majors or anyone wanting to understand the Universe.
Chemistry supports healthcare, medicine, science and engineering, and fulfills general education requirements.
Engineering students transfer to civil, mechanical, chemical, electrical, and others types of engineering programs.
Geology offers face-to-face, internet, and field courses for Earth Science majors, or to satisfy a science requirement. Geology classes have no prerequisites. Physical Science (PHS) and Physics (PHY) courses fulfill general education requirements, and are essential for those majoring in physics or other sciences.
Check with a program advisor at your transfer institution if you plan to major in any Physical Science.

## PSYCHOLOGY

Department Telephone: 480-461-7032
Building BP 43A
https://www.mesacc.edu/departments/psychologicalscience

## The Psychology Department offers courses and programs in the following areas:

## Psychology (PSY)

The Department of Psychological Science has what you need to ensure that the best two years of your four-year degree happen at MCC. We offer a range of courses and educational experiences to expand students' understanding of human behavior. Our vast, Psychology Instructional Resource Center supports successful learning with free resources like tutoring services, interactive psychology apps, textbooks and learning manipulates. Our nationally-recognized, Psi

Beta Honor Society encourages professional growth through leadership, outreach and opportunities to work closely with faculty. An understanding of human behavior will help to prepare you for work in a variety of careers. If you want to see more of your world, then it helps to think like a psychologist!

- PIRC Lab
- PSI Beta
- What It Can Do for You

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. 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.

Arizona State University and University of Arizona require the following courses for psychology majors:

- PSY101 Introduction to Psychology
- PSY230/231 Introduction to Statistics
- PSY290 Research Methods

Northern Arizona University requires the following courses for psychology majors:

- PSY101 Introduction to Psychology
- PSY230 Introduction to Statistics


## READING

Department Telephone: 480-461-7032
Building AD 42
https://www.mesacc.edu/departments/psychologicalscience

## The Reading Department offers courses and programs in the following areas: <br> - Critical Reading (CRE101) <br> - Reading (RDG)

The Reading Department embraces the philosophy
that each individual should be respected and valued. Therefore, each individual must be afforded the opportunity to develop skills and talents through an accessible, student-oriented learning environment. 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 Reading Department computer lab is located in EF4E. The Academic Skills Center, another lab with tutoring services, is available for ESL reading classes as well as RDG081 and RDG100 series. 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 Academic Skills Center.

The department offers the Milly Olsen Memorial Scholarship. See the Financial Services website or visit the office for more information about these scholarships.

## SOCIAL SCIENCE

Department Telephone: 480-461-7860
Building SC 14
https://www.mesacc.edu/departments/social-science

## The Social Science Department offers courses and programs in the following areas:

- Economics (ECN)
- History (HIS)
- Political Science (POS)

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. 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 Office

- Model United Nations
- Social Science Scholarships

All three Arizona State universities require or accept the following courses as requirements for each major
Economics Majors

- MAT212 Brief Calculus
- GBS221 Business Statistics
- OR MAT167 Elements of Statistics
- ECN211 Macroeconomics
- ECN212 Microeconomics


## History Majors

- HIS100 History of Western Civilization to Middle Ages
- AND HIS101 History of Western Civilization Middle Ages to 1789
- AND HIS102 History of Western Civilization, 1789 to Present
- HIS103 United States History to 1865
- HIS104 United States History, 1865 to Present


## Political Science Majors

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


## WORLD LANGUAGES

Department Telephone: 480-461-7031 Building 41
www.mesacc.edu/programs/departments/worldlanguages

The mission of the World Languages Department is to help prepare our students to develop the language, intercultural, and life skills necessary to be an active and contributive member in our local and global community. We promote language learning, multiculturalism, and building community in order to enrich students' lives and broaden their frame of reference. We aim to provide excellence in our service and advisement in order to make a positive difference in the lives of our students.

## ACADEMIC DEPARTMENTS

The World Languages Department offers courses and programs in the following areas:

- American Sign Language (SLG)
- Arabic (ARB)
- Chinese (CHI)
- French (FRE)
- German (GER)
- Japanese (JPN)
- Navajo (NAV)
- Russian (RUS)
- Spanish (SPA)

The foundational courses (courses numbered 101, 102, 201, and 202) fulfill language requirements for specific degree programs. They are prerequisites for advanced language courses at the community college and 300 and 400 -level language courses at 4 -year institutions. These university equivalent courses emphasize the four language skills: listening, speaking, reading, and writing. Course 101 has no prerequisite. These courses are offered in a variety of formats (hybrid, face-to-face, and online).

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 industry-specific courses (courses numbered $117,118,119,120,109,169$, and 209) 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, 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-theart 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.

## GRADUATION POLICIES AND REQUIREMENTS



## MCCCD DEGREES

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)
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
Nonattendance

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
Transferred to a University
Fall 04 (Active)
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<br>Transferred to a University

Spring ’06 (Active)
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. 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.
The exception is the Nursing program. Students must apply for graduation from the college where they have successfully completed Block 4 of the Associate in Applied Science in Nursing.
4. Have a minimum cumulative grade point average of 2.000 at the college granting the degree.
5. Have a minimum cumulative grade point average of 2.000 in all courses used to fulfill degree requirements

Some specific programs have higher grade requirements. It is the student's responsibility to be aware of these program requirements.
6. Have removed, thirty (30) days after the anticipated graduation date, all deficiencies on the record to use those courses toward program completion.
7. Have removed any indebtedness to any MCCCD college /center.
8. Have paid required degree or certificate application fee.

See fee schedule for charges.
See Graduation with Honors for information on honors designation.

## CERTIFICATES/DEGREES

The Maricopa Community Colleges offer Certificates of Completion as well as Associate Degrees, one of which is conferred on each student who has completed a program of study. These certificates and degrees are as follows: (1) Certificate of Completion (Career Program Specified); (2) Academic Certificate; (3) General Education Certificate; (4) Associate in Arts; (5) Associate in Science; (6) Associate in Business; (7) Associate in General Studies; (8) Associate in 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 Course Equivalency Guide (CEG) within AZ Transfer, is valid for the term in which the student is awarded credit on the transcript. A course evaluation and/or general education designation may be subject to change. Given that curriculum is dynamic at both MCCCD and the institutions to which MCCCD students transfer, students have the option to petition for general education evaluations and/or general education designations.
The college reserves the right to make necessary course and program changes in order to meet current educational standards.

## ARIZONA GENERAL EDUCATION CURRICULUM (AGEC) A, B, S

## Description

The Maricopa County Community College District Arizona General Education Curriculum (MCCCD 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.
There are three types of AGECs in MCCCD. They are the AGEC-A, the AGEC-B, and the AGEC-S. As described below, these AGECs are also a component of most MCCCD Associate degrees and comparable degrees at other Arizona public community colleges. The AGEC-A is the general education block of the five different MCCCD Associate in Arts (AA) degrees, the AGEC-B is part of the two MCCCD Associate in Business (ABUS) degrees, and the AGEC-S defines the general education requirements in MCCCD Associate in Science (AS) degree.
As described in more detail below, all AGECs require designated Core courses in First Year Composition [FYC], Literacy and Critical Inquiry [L], Mathematical Studies [MA/CS] (Exception: The AGEC-S does not require CS.), Social-Behavioral Sciences [SB], Humanities, Design and Fine Arts [HU], and Natural Science [SQ/SG]. Students must satisfy two Awareness areas: Cultural Diversity in U.S. and either Global Awareness or Historical Awareness.

## Purpose of the AGECs

AGECs were designed to articulate with different academic majors, and their particular requirements vary accordingly. In some majors students are allowed to choose from a broad list of courses to satisfy the AGEC requirements; for others the courses are more restricted or even specified. 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 an Associate in Arts degree (e.g., social sciences, fine arts, humanities, elementary education). AGEC-A requires a minimum of college mathematics or college algebra to satisfy the Mathematics [MA] requirement.
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 such as many in the sciences, technology, engineering and mathematics. 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 either university chemistry, university physics or general biology for majors 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 their major.

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

- Requires completion of $35-38$ credit hours in courses numbered 100 and above and that a minimum of 12 of those credits be taken at one or any combination of the MCCCD colleges.
- All courses applied to the AGEC must be completed with a grade of "C" or better.
- A single course can simultaneously count toward a Core Area and one or more Awareness Areas. For example, a course in world geography can be used to satisfy [SB] and [G] requirements. While multiple requirements can be met with a single course, the credits for that course are only counted one time toward the required minimum total for the AGEC. Except as detailed below for the AGEC-S, a single course cannot be used to satisfy more than one AGEC Core Area.
- The General Education Requirements for these certificates may be completed in as few as 35 credits provided that courses selected for the Awareness Areas can also be counted toward Core Areas.


## Transfer Credit:

From any institutions outside of MCCCD:

- Credits transferred from outside of MCCCD must have a grade of "C" ( 2.0 on a 4.0 scale) or better.
- Transfer credit graded pass/fail or pass/no credit may be used to satisfy AGEC requirements if documentation collected by the community college indicates that this was the only grading option available and that the Pass grade (" P ") is equivalent to a "C" or better.

External courses either with AGEC designations (from an AGEC granting/accepting institution at which they were taken) or evaluated as equivalent to an MCCCD course with one or more AGEC designations may be applied toward the minimum credits for certificate completion. A course evaluation and/or general education designation may be subject to change. The AGEC designations are determined by how they are listed in AZTransfer's Arizona Course Equivalency Guide (CEG) for the semester in which the courses were completed. Given that curriculum is dynamic at both MCCCD and the institutions from or to which MCCCD students transfer, students have the option to petition for exceptions to official course evaluations and/or general education designations.

## Credit for Prior Learning

- Credit awarded at a Maricopa Community College for prior learning in non-traditional setting is transferable to the other colleges in the MCCC district but is not necessarily transferable to other colleges and universities. No more than 20 such assessed semester credit hours may be applied toward AGEC.


## Completion and Transfer

- Completion of the AGEC with a minimum grade point average of at least 2.0 on a 4.0 scale for Arizona residents and 2.50 for non-residents meets Arizona public university general admission requirements. It does not ensure admission to specific university majors or programs with selective admission processes and/or limited enrollment.
- Students planning to transfer to another college or university are urged to refer to university requirements and academic advisors from both institutions to be certain that all their selected coursework is applicable to the requirements of their intended transfer degree. For some majors, the statewide Common Course matrix, AZTransfer Pathway Guides and/or University Transfer Guides posted on the AZTransfer website can also provide some guidance. For appropriate course selection, students should consult with an academic advisor.


## AGEC Requirements

The 35-38 semester credits required for each of the three AGECs follow. Descriptions and definitions of each requirement area follow. View specific course information via the following website: https://asa.maricopa.edu/ departments/center-for-curriculum-transfer-articulation by clicking on the statewide AGEC link. The lists provided for AGEC-A, -B, -S, and AGEC Matrix identify the courses in alpha-order by prefix as well as the different

Core Areas and/or Awareness Areas where each course will apply.

## AGEC-A Requirements

(Note that for students pursuing majors in the Fine Arts (Art, Theatre, Dance) or Elementary Education the required courses for some of the Core and/or Awareness Areas are much more prescriptive. Students in these majors should consult corresponding specialized Associate in Arts degree requirements and/or an academic advisor for guidance in the selection of their general education course work to minimize loss of credits).

Credits

## A. Core Areas:

 35Some of these courses also have Awareness Areas designations and can be used to satisfy [C], [G] and/or [H] requirement(s) as well as their respective Core Area. (See AGEC matrix for current course values.)

1. First-Year Composition (FYC) 6
2. Literacy and Critical Inquiry [L] 3
3 Mathematics [MA] 3-5

Requires a course in college mathematics (MAT140, MAT141, 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 pre-requisite.)
4. Computer/Statistics/Quantitative Applications [CS]
5. Humanities, Arts and Design [HU]

Students are encouraged to choose courses from more than one discipline
6. Social-Behavioral Sciences [SB]

Students are encouraged to choose courses from more than one discipline
7. Natural Sciences [SQ/SG]

The lecture course(s) selected for Natural Sciences must include or be accompanied by the corresponding laboratory course for a total of 4 credits each. Credits for lecture and lab components may be combined or each may carry separate credit. At least four (4) credits must be designated as SQ. Eight (8) credits of SG will not satisfy this requirement.
B. Awareness Areas: 0-6

Some courses may be used to satisfy both a Core Area and one or more Awareness Area(s). (See AGEC matrix for current course values.)

1. Cultural Diversity in the United States [C]
2. Global Awareness [G] OR Historical Awareness [H] 0-3

## AGEC-B Requirements

## A. Core Areas:

Credits
35
Some of these courses also have Awareness Areas designations and can be used to satisfy [C], [G] and/or [H] requirement(s) as well as their respective Core Area. (See AGEC matrix for current course values.)

1. First-Year Composition (FYC)
6
2. Literacy and Critical Inquiry [L]
3
3. Mathematics [MA]
3-5

Requires a course in brief calculus (MAT212) or a higher level mathematics course such as MAT220, or MAT221 or any course for which these courses are prerequisites.
4. Computer/Statistics/Quantitative Applications [CS] CIS105Survey of Computer Information Systems 5. Humanities, Arts and Design [HU]

Students are encouraged to choose courses from more than one discipline
6. Social-Behavioral Sciences [SB]

Students are encouraged to choose courses from more than one discipline
7. Natural Sciences [SQ/SG]

The lecture course(s) selected for Natural Sciences must include or be accompanied by the corresponding laboratory course for a total of 4 credits each. Credits for lecture and lab components may be combined or each may carry separate credit.At least four (4) credits must be designated as SQ. Eight (8) credits of SG will not satisfy this requirement.

## B. Awareness Areas:

Some courses may be used to satisfy both a Core Area and one or more Awareness Area(s).
(See AGEC matrix for current course values.)

1. Cultural Diversity in the United States [C] 0-3
2. Global Awareness [G] OR Historical Awareness [H] 0-3

## AGEC-S Requirements

## Credits

## A. Core Areas:

Some of these courses also have Awareness Areas designations and can be used to satisfy [C], [G] and/or [H] requirement(s) as well as their respective Core Area(s).
(See AGEC matrix for current course values.)
$\begin{array}{ll}\text { 1.First-Year Composition (FYC) } & 6 \\ \text { 2.Literacy and Critical Inquiry [L] } & 3\end{array}$
Students are strongly encouraged to choose an [L] course that also has [HU] or [SB] designation It may also have
been approved to satisfy one or more Awareness Areas ([C], [G], [H]). (See AGEC matrix for current course values.)
3. Mathematics [MA]] 3-5

Requires the first semester of calculus courses designed for scientists and engineers (MAT220 or MAT221) or any other [MA] designated course for which Calculus I is a pre-requisite.
4. Humanities, Arts and Design [HU]

For the AGEC-S, a single course with both [HU] and [L] designations may satisfy both Areas. (See AGEC matrix for current course values.)
5. Social-Behavioral Sciences [SB] 6

For the AGEC-S, a single course with both [SB] and [L] designations may satisfy both Areas. (See AGEC matrix
for current course values.)
6. Natural Sciences [SQ/SG]

Students must complete eight (8) credits of General
Chemistry, University Physics or General Biology for
Majors. Consult specific requirements of university transfer major for guidance.
(CHM150 or CHM151) \& CHM151LL General
Chemistry I and CHM152 \& CHM152LL General
Chemistry II
OR
PHY115 \& PHY116 University Physics I and II
OR
PHY121 \& PHY131 University Physics I: Mechanics and
II: Electricity and Magnetism
OR
BIO181 \& BIO182 General Biology (Majors) I and II 7. Subject Options (Subject based on major) 6-8 Use a transfer guide to select six (6)-ten (10) additional math and/or science credits that meet requirements for selected major.
Mathematics course(s) [MAT] above Calculus I and/or
Computer Science course(s) [CSC] and/or
Science course(s) from the following disciplines:
Astronomy, Biology, Botany, Chemistry, Engineering,
Environmental Science, Geology, Physical Geography, Physics, Zoology (MCCCD prefixes AST, BIO, CHM, EEE, ECE, ENV, GLG, GPH, and/or PHY)
B. Awareness Areas:

Some courses may be used to satisfy both a Core Area and one or more Awareness Area(s). (See AGEC matrix for current course values.)

1. Cultural Diversity in the United States [C]
2. Global Awareness [G] OR Historical Awareness [H] 0-3

AGEC Area Requirements Descriptions/Definitions

## CORE AREAS

## First-Year Composition (FYC)

First-Year Composition courses emphasize skills necessary for college-level expository writing, including correct grammar and punctuation, logical organization of ideas, and identification of supporting documentation.

## Literacy and Critical Inquiry [L]

In the [L] course students, typically at the sophomore level, 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.

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 FirstYear Composition courses, the Literacy and Critical Inquiry [L] requirement sustains and extends students' ability to thoughtfully use and critically analyze written and/or spoken language.

## Mathematical Studies [MA]

The Mathematical Studies requirement is intended to ensure that students have requisite skill in mathematics appropriate for their discipline and can apply mathematical analysis in their chosen fields.

## Computer/Statistics/Quantitative Applications [CS]

AGEC-A and AGEC-B require a course that emphasizes the use of statistics, other mathematical methods, computer programming languages and/or software in the interpretation of data and in describing and analyzing quantitative relationships.

## Humanities, Arts and Design [HU]

The study of the humanities and the disciplines of art and design deepen awareness of the complexities of the human condition and its diverse histories and cultures. Courses in the humanities are devoted to the production of human thought and imagination, particularly in philosophical, historical, religious and artistic traditions. Courses with an emphasis in fine arts and design are devoted to the study of aesthetic experiences and the processes of artistic creation. They may also feature a design emphasis in which material culture is studied as a product of human thought and imagination.

## Social-Behavioral Sciences [SB]

The Social-Behavioral Sciences Core area provides scientific methods of inquiry and empirical knowledge about human behavior, both within society and within individuals. This area of emphasis in general education curriculum may include study of such disciplines as anthropology, economics, history, political science, psychology, or sociology. The courses in this area address the challenge of understanding the diverse natures of individuals and cultural groups who live together in a complex and evolving world.

## Natural Sciences [SQ/SG]

In addition to an understanding of basic scientific principles and concepts, courses in the Natural Sciences Core area are designed to help students appreciate, from firsthand laboratory and/or field research experience, the nature of science as a process that embraces curiosity, inquiry, testing, and communication to better understand natural phenomena At least one of the two natural science courses must include an introduction to the fundamental behavior of matter and energy in physical or biological systems.

## 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. U.S. 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 one. Awareness of cultural diversity and its multiple sources can illuminate the collective past, present, and future and can help to foster greater mutual understanding and respect.

The objective of the Cultural Diversity area requirement is to promote awareness of and appreciation for cultural diversity within the contemporary United States. This is
accomplished through the study of the cultural, social, or scientific contributions of women and minority groups, examination of their experiences in the United States, or exploration of successful or unsuccessful interactions between and among cultural groups.

## Global Awareness [G]

Human organizations and relationships have evolved from being family and village centered to the modern global interdependence that is apparent in many disciplines-for example, contemporary art, business, engineering, music, and the natural and social sciences. Many serious local and national problems are world issues that require solutions which exhibit mutuality and reciprocity. These problems occur in a wide variety of activities, such as food supply, ecology, health care delivery, language planning, information exchange, economic and social developments, law, technology transfer, and even philosophy and the arts. The Global Awareness Area recognizes the need for an understanding of the values, elements, and social processes of cultures other than the culture of the United States. The Global Awareness Area includes courses that recognize the nature of other contemporary cultures and the relationship of the American cultural system to generic human goals and welfare.

Courses that satisfy the global awareness option in the requirements are of one or more of the following types:

1. Area studies that are concerned with an examination of culture-specific elements of a region of the world

## 2. The study of a non-English language

3 Studies of international relationships, particularly those in which cultural change is facilitated by such factors as social and economic development, education, and the
transfer of technology; and
4. Studies of cultural interrelationships of global scope such as the global interdependence produced by problems of world ecology.

## Historical Awareness [H]

The Historical Awareness Area option in the requirements aims to develop a knowledge of the past that can be useful in shaping the present and future. Because historical forces and traditions have created modern life and lie just beneath its surface, historical awareness is an aid in the analysis of present-day problems. Also, because the historical past is a source of social and national identity, historical study can produce intercultural understanding by tracing cultural differences to their origins. Even the remote past may have instructive analogies for the present.

The Historical Awareness Area consists of courses that are historical in method and content. In this area, the term "history" designates a sequence of past events or a narrative whose intent or effect is to represent such a sequence.

The requirement presumes that these are human events and that 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)

## Description

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 general university graduation requirements of the majors that align with the Associate in Arts degree; however, students need to be aware of any specific requirements of their intended major at the university to be sure they select courses that will meet them. Information regarding the articulation of the Associate in Arts with majors at the Arizona public universities can be accessed via the following website: www.aztransfer.com.

## Degree Requirements

The 60-64 semester credits required for the Associate in Arts follow. The following websites identify the courses that apply to the different General Education Core and Awareness Areas: AGEC-A and the AGEC matrix. Courses available for both Areas during a current or upcoming semester can also be found using the "Find A Class" tool on each MCCCD college's website.

## I. MCCCD General Education

 35-47AGEC-A

1. Core Areas:

Note that some of these courses also have Awareness Areas designations and can be used to satisfy [C], [G] and/or [H] requirement(s) as well as their respective Core Area. (AGEC designations are subject to change. See AGEC matrix for each course's value(s) in the semester it is taken.)
a. First-Year Composition (FYC)

ENG101 OR ENG107 AND
ENG102 OR ENG108
b. Literacy and Critical Inquiry [L]
c. Mathematics [MA]

Requires a course in college mathematics (MAT140, MAT141, MAT142) or college algebra (MAT150, MAT151, MAT152) or pre calculus (MAT187) or any other [MA] designated course for which college algebra is a pre-requisite.
d. Computer/Statistics/Quantitative Applications [CS]
e.Humanities, Arts and Design [HU]

Students are encouraged to choose course work from
more than one discipline
f. Social-Behavioral Sciences [SB]

Students are encouraged to choose course work from more than one discipline
g. Natural Sciences [SQ/SG]

The lecture course(s) selected for Natural Sciences must include or be accompanied by the corresponding laboratory course for a total of 4 credits each. Credits for lecture and lab components may be combined or each may carry separate credit.
At least four (4) credits must be designated as SQ. Eight (8) credits of SG will not satisfy this requirement.

## 2. Awareness Areas:

Some courses may be used to satisfy both a Core Area and one or more Awareness Area(s). (See AGEC matrix for current course values.)
a. Cultural Diversity in the United States [C] 0-3
b. Global Awareness [G] OR Historical Awareness [H]

MCCCD Additional Requirements 0-6
As noted below, courses in this area may also be applied towards AGEC-A Core Area requirements..

1. Oral Communication

COM100 [SB] Introduction to Human Communication OR
COM110 [SB] Interpersonal Communication OR
COM225 [L] Public Speaking OR
COM230 [SB] Small Group Communication (3 credits)
OR
COM100AA \& COM100AB \& COM100AC [SB] (3 credits) OR
COM110AA \& COM110AB \& COM110AC [SB] (3 credits)
2. Critical Reading

Students may demonstrate proficiency through assessment.
CRE101 [L] Critical Reading OR
equivalent as indicated by assessment

## II.General Electives 13-29

Select courses 100-level or higher to complete a minimum of 60 semester credits but no more than a total of 64 semester credits. Ideally students should select courses that meet requirements for their major/area of interest and transfer institution. See General Associate Degree

Academic Policies for further details, limitations and guidelines.
Maricopa courses and external courses evaluated as Maricopa equivalents, departmental electives (e.g., HISELC for a history elective), or general electives (GENELC) that are numbered 100 level or higher, and completed with a grade of "C" or higher, may be applied in the elective area, regardless of potential transferability to other institutions. It is recommended, however, that students planning to transfer to a baccalaureate-granting institution meet these general elective requirements with courses that are transferable and applicable to their intended university degree. Transfer and major guides are accessible on the following websites: aztransfer. com, maricopa.edu/transfer/partners, as well as those of individual universities. For appropriate course selection, students should consult with an advisor.
Associate in Arts Total Credits:
60-64

## ASSOCIATE IN SCIENCE (AS)

## Description

The Maricopa County Community College District Associate in Science degree requires 60-64 semester credits for the program of study. The degree includes the following components:

## I. General Education:

## Arizona General Education Curriculum for Science (AGEC-S)

## MCCCD Additional Requirements

## II. General Electives

## Purpose of the Degree

The Associate in Science degree is designed for students planning to transfer to four-year colleges and universities. In general, the components of the degree meet requirements for majors with more stringent mathematics and mathematics-based science requirements. Generally, the degree will transfer as a block without loss of credit to Arizona's public universities and other institutions with district-wide articulation agreements.
In most cases, courses used to satisfy the MCCCD Associate in Science will apply to general university graduation requirements of the majors that align with Associate in Science degree; however, students need to be aware of any specific requirements of their intended
major at the university to be sure they select courses that will meet them. Information regarding the articulation of the Associate in Science with majors at the Arizona public universities can be accessed via the following website: www.aztransfer.com.
It is recommended that students select courses that meet more than one general education and/or awareness area requirement. Doing so will maximize the number of math and science electives the student can take as part of his/ her Associate in Science degree.

Special Academic Policies that Govern the Associate in Science Degree
The AGEC-S does not require a course with [CS] Computer/Statistics designation.

Unlike the AGEC-A and AGEC-B, the same course is allowed to satisfy the ([L] and [HU]) or ([L] and [SB]) areas of the AGEC-S's Core Area. The credits for such a "shared" course are only counted one time toward the required minimum for the degree.

## Degree Requirements

The 60-64 semester credits required for the Associate in Science follow. The following websites identify the courses that apply to the different General Education Core and Awareness Areas: AGEC-S and the AGEC Matrix. Courses available for both Areas during a current or upcoming semester can also be found using the "Find A Class" tool on each MCCCD college's website.

## I. MCCCD General Education

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

| I.MCCCD General Education | $\mathbf{3 6 - 5 6}$ |
| :--- | ---: |
| AGEC-S | $36-50$ |
| 1. Core Areas: | $36-44$ |
| a.First-Year Composition (FYC) | 6 |
| ENG101 OR ENG107 AND |  |
| ENG102 OR ENG108 |  |
| b. Literacy and Critical Inquiry [L] | $0-3$ |

Students are strongly encouraged to choose an [L] course that also has [HU] or [SB] designation or to use CRE101 or COM225 from the Maricopa Additional Requirements Area to satisfy the [L] requirement. It may also have been
approved to satisfy one or more Awareness Areas ([C],
[G], [H]). (AGEC designations are subject to change. See AGEC matrix for each course's value(s) in the semester it is taken.)
c. Mathematics [MA]

Requires the first semester of calculus courses designed for scientists and engineers (MAT220 or MAT221) or any other [MA] designated course for which Calculus I is a pre-requisite.
d.Humanities, Arts and Design [HU]

For the AGEC-S, a single course with both [HU] and [L] designations may satisfy both Areas. Note that some of these courses also have Awareness Areas designations and can be used to satisfy [C], [G] and/or [H] requirement(s) as well as their respective Core Area(s). (AGEC designations are subject to change. See AGEC matrix for each course's value(s) in the semester it is taken.)
e. Social-Behavioral Sciences [SB]

For the AGEC-S, a single course with both [SB] and [L] designations may satisfy both Areas. Note that some of these courses also have Awareness Areas designations and can be used to satisfy [C], [G] and/or [H] requirement(s) as well as their respective Core Area(s). (AGEC designations are subject to change. See AGEC matrix for each course's value(s) in the semester it is taken.)

## f. Natural Sciences [SQ/SG]

Students must complete eight (8) credits of General Chemistry, University Physics or General Biology for Majors. Consult specific requirements of university transfer major for guidance.
(CHM150 or CHM151) \& CHM151LL General Chemistry I and
CHM152 \& CHM152LL General Chemistry II
OR
PHY115 \& PHY116 University Physics I and II
OR
PHY121 \& PHY131 University Physics I: Mechanics and II: Electricity and Magnetism
OR
BIO181 \& BIO182 General Biology (Majors) I and II
g. Subject Options - Math/Science:

Refer to transfer resources, including academic advisement and transfer guides, to select six (6)-ten (10) additional math and/or science credits that meet requirements for selected major.
Select Mathematics course(s) [MAT] above Calculus I and/or
Computer Science course(s) [CSC] and/or
Science courses from the following disciplines: Astronomy, Biology, Botany, Chemistry, Engineering,

Environmental Science, Geology, Physical Geography, Physics, Zoology (MCCCD prefixes AST, BIO, CHM, EEE, ECE, ENV, GLG, GPH, and/or PHY)

## 2. Awareness Areas:

Some courses may be used to satisfy both a Core Area and one or more Awareness Area(s). (AGEC designations are subject to change. See AGEC matrix for each course's value(s) in the semester it is taken.)
a. Cultural Diversity in the United States [C] 0-3
b. Global Awareness [G] OR Historical Awareness [H]

0-3
MCCCD Additional Requirements 0-6
As noted below, individual courses in this area may be used to satisfy both an MCCCD requirement and an AGEC-S Core Area requirements.

1. Oral Communication

COM100 [SB] Introduction to Human Communication OR
COM110 [SB] Interpersonal Communication OR
COM225 [L] Public Speaking OR
COM230 [SB] Small Group Communication (3 credits) OR
COM100AA \& COM100AB \& COM100AC [SB] (3 credits) OR
COM110AA \& COM110AB \& COM110AC [SB] (3 credits)
2. Critical Reading

Students may demonstrate proficiency through assessment.
CRE101 [L] Critical Reading OR
equivalent as indicated by assessment.

## II. General Electives

Select courses 100-level or higher to complete a minimum of 60 semester credits but no more than a total of 64 semester credits. Ideally students should select courses that meet requirements for their major/area of interest and transfer institution. See General Associate Degree Academic Policies for further details, limitations and guidelines.

Maricopa courses and external courses evaluated as Maricopa equivalents, departmental electives (e.g., HISELC for a history elective), or general electives (GENELC) that are numbered 100 level or higher, and completed with a grade of "C" or higher, may be applied in the elective area, regardless of potential transferability to other institutions. It is recommended, however, that students planning to transfer to a baccalaureate-granting institution meet these general elective requirements with courses that are transferable and applicable to their intended university degree. Transfer and major guides are accessible on the following websites: aztransfer. com, maricopa.edu/transfer/partners, as well as those of individual universities. For appropriate course selection, students should consult with an advisor.

Associate in Science Total Credits:
60-64

## ASSOCIATE IN ARTS ELEMENTARY EDUCATION (AA-EE)

## Description

The MCCCD Associate in Arts in Elementary Education (AAEE) requires the student to complete a total of 60-63 semester credits in the program of study. The degree has two major components:

## I. General Education:

## Arizona General Education Curriculum for Arts (AGEC-A) <br> MCCCD Additional Requirements

## II. Elementary Education Requirements

## Education Foundations

## Restricted Electives

## 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, and in most cases, its required courses apply to graduation requirements for these Education majors.
Degree Requirements

## Credits

I. MCCCD General Education 35-41

AGEC-A 35-38

1. Core Areas 35
a. First-Year Composition (FYC) 6

ENG101 OR ENG107 AND
ENG102 OR ENG108
b. Literacy and Critical Inquiry [L] 3

COM225 Public Speaking
c. Mathematics [MA]

Requires a course in college mathematics (MAT140, MAT141, MAT142) or college algebra (MAT150, MAT151, MAT152) or pre calculus (MAT187) or any other [MA] designated course for which college algebra is a pre-requisite.
(Note that MAT256, MAT257, MAT182, and MAT206 are excluded)
d. Computer/Statistics/Quantitative Applications [CS]

BPC110 Computer Usage and Applications OR
CIS105 Survey of Computer Information Systems
e. Humanities, Arts and Design [HU]

Note that some of these courses also have Awareness Areas designations (see section 2 below) and can be used to satisfy [G] and/or [H] requirement as well as [HU]. (AGEC designations are subject to change. See AGEC matrix for each course's value(s) in the semester it is taken.)

1) Select one of the following ARH, DAH, MHL or THE courses :
ARH100 Introduction to Art OR
ARH101 Prehistoric through Gothic Art OR
ARH102 Renaissance through Contemporary Art OR
DAH100 Introduction to Dance OR
DAH201 World Dance Studies OR
DAH250 Dance in Popular Culture OR
MHL140 Survey of Music History OR
MHL145 American Jazz and Popular Music OR
MHL146 Survey of Broadway Musicals OR
MHL153 Rock Music and Culture OR
THE111 Introduction to Theatre OR

## THE220 Modern Drama

AND
2) Select one of the following EDU, ENH or HUM courses:
EDU/ENH291 Children's Literature OR
ENH110 Introduction to Literature OR
ENH241 American Literature Before 1860 OR
ENH242 American Literature After 1860 OR
HUM250 or
HUM251 Ideas and Values in the Humanities
f.Social-Behavioral Sciences [SB]

Note that some of these courses also have Awareness Areas designations (see section 2 below) and can be used to satisfy [G] and/or [H] requirement as well as [SB]. (AGEC designations are subject to change. See AGEC matrix for each course's value(s) in the semester it is taken.)

1) Select one of the following US History/Government courses
These courses satisfy the United States Constitution requirement for state teacher certification.
HIS103 United States History to 1865 OR
POS110 American National Government OR
GCU/POS113 (GCU/POS227 if taken prior to Fall 2016) United States and Arizona Social Studies
AND
2) Select one of the following CFS, ECH, GCU, ECN, HIS or PSY courses
CFS205 Human Development OR
ECH/CFS176 Child Development OR
GCU121 World Geography I: Eastern Hemisphere OR
GCU122 World Geography II: Western Hemisphere OR
ECN211 Macroeconomic Principles OR
ECN212 Microeconomic Principles OR
HIS104 United States History 1865 to Present OR
PSY101 Introduction to Psychology
g. Natural Sciences [SQ/SG]

The lecture course(s) selected for Natural Sciences must include or be accompanied by the corresponding laboratory course for a total of 4 credits each. At least four (4) credits must be designated as SQ. Eight (8) credits of SG will not satisfy this requirement.

1) Life Sciences: Select four (4) credits of SQ or SG in Biology (BIO)

AND
2) Physical Sciences or Earth/Space Sciences: Select four (4) credits of SQ or SG from one of the following prefixes: AGS, ASM, AST, CHM, GPH, GLG, PHS, or PHY
Note: Students are advised to check with the university they plan to attend as specific requirements for lab sciences may vary.
2. Awareness Areas: 0-3
a. Cultural Diversity in the United States [C]

Met by Elementary Education Requirements below. No additional coursework required.
b. Global Awareness [G] OR Historical Awareness [H] 0-3
May be met by [HU] and/or [SB] course depending on specific courses selected. (AGEC designations are subject to change. See AGEC matrix for each course's value(s) in the semester it is taken.)
MCCCD Additional Requirements

1. Oral Communication

Met by COM225 required as part of AGEC Core. No additional coursework required.
2. Critical Reading

Students may demonstrate proficiency through assessment.
CRE101 Critical Reading OR
equivalent as indicated by assessment
3. Elementary Education Requirements
A. Education Foundations

Complete all of the following:
EDU221 Introduction to Education
EDU222 Introduction to the Exceptional Learner
EDU230 Cultural Diversity in Education
MAT256 Investigating Quantity: Number, Operations and Numeration Systems
MAT257 Investigating Geometry, Probability and Statistics
B. Electives for Arizona Professional Teacher Standards

A total of 8 semester credits are required to satisfy the Electives for Arizona Professional Teacher Standards: 3 credits in an additional Education course and 5 credits in Content Area Electives.

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

## Additional Education Course Requirement

Select any EDU course(s) (except EDU221, EDU222, EDU230 and EDU250) to satisfy this requirement.

## 2. Content Area Electives

Courses must transfer to all public Arizona universities as Elective Credit, Departmental Elective, or Equivalent to a university course as indicated in the Arizona Course Equivalency Guide in effect when the course is taken. Courses identified as Non-transferable in the Arizona Course Equivalency Guide cannot be used to satisfy this requirement.
Choose any combination from the following list of courses and prefixes to total five (5) credits of additional coursework. Course(s) selected must be different from those counted toward AGEC-A or Education Foundations requirements.
See note below regarding Arizona Constitution requirement for state certification.
Any ARH, ART, CIS, ECN, BPC, ENG, ENH, GCU, GPH, HIS, MHL, MTC, POS, THF, THE, and THP prefixed course(s)
Any EDU course(s) (except EDU221, EDU222, EDU230 and EDU250)
Any MAT (courses numbered higher than 142 except MAT256 and MAT257)
Any Foreign Language course(s)
Any Natural Science course(s)
CFS/ECH176 Child Development
CFS205 Human Development
EED215 Early Learning: Heath, Safety, Nutrition and Fitness

## AAA/CPD115 Creating College Success

Associate in Arts Elementary Education Total Credits: 60-66

NOTE: State certification requirements include courses on the constitutions of U.S. and Arizona. Taking GCU/ POS113 for [SB] fulfills this requirement completely. Students who instead take HIS103 or POS110 for [SB] may want to consider taking POS221 as a Content Area Elective so they have completed study of both constitutions. POS220 meets state certification requirements for both constitutions but does not meet [SB].

## ASSOCIATE IN ARTS, FINE ARTS - DANCE (AAFA)

## Description

The Maricopa County Community College District Associate in Arts, Fine Arts - Dance degree requires a minimum of 65 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.
In most cases, courses used to satisfy the MCCCD Associate in Arts, Fine Arts - Dance will apply to general university graduation requirements of the majors that align with AAFA-Dance degree; however, students need to be aware of any specific requirements of their intended focus at the university to be sure they select courses that will meet them. Information regarding the articulation of the AAFA-Dance degree with majors at the Arizona public universities can be accessed via the following website: www.aztransfer.com

## Degree Requirements

The 65-74 semester credits required for the Associate in Arts, Fine Arts - Dance degree follow. The following websites identify the courses that apply to the different General Education Core and Awareness Areas: AGEC-A and the AGEC Matrix. Courses available for both Areas during a current or upcoming semester can also be found using the "Find A Class" tool on each MCCCD college's website.

## I. MCCCD General Education 35-44 <br> AGEC-A 35-38

Note that some of these courses also have Awareness Areas designations and can be used to satisfy [C], [G] and/or [H] requirement(s) as well as their respective Core Area. (AGEC designations are subject to change. See AGEC matrix for each course's value(s) in the semester it is taken.)

1. Core Areas:
a. First-Year Composition (FYC)

ENG101 OR ENG107 AND
ENG102 OR ENG108
b.Literacy and Critical Inquiry [L]
c. Mathematics [MA]

Requires a course in college mathematics (MAT140, MAT141, MAT142) or college algebra (MAT150, MAT151, MAT152) or pre-calculus (MAT187) or any other [MA] designated course for which college algebra is a pre-requisite.
d. Computer/Statistics/Quantitative Applications [CS]

3
e. Humanities, Arts and Design [HU]

DAH100 Introduction to Dance
AND
Any additional Humanities, Art and Design course [HU]
The following options are recommended:
DAH201 World Dance Studies OR
DAH250 [C] Dance in Popular Culture OR
DAH255 [C] Hip Hop: Arts, Aesthetic and Culture
f. Social-Behavioral Sciences [SB]

Students are encouraged to choose course work from more than one discipline
g. Natural Sciences [SQ/SG]

The lecture course(s) selected for Natural Sciences must include or be accompanied by the corresponding laboratory course for a total of 4 credits each. Credits for lecture and lab components may be combined or each may carry separate credit.
BIO160 [SG] Introduction to Human Anatomy and Physiology OR
BIO201 [SG] Human Anatomy and Physiology I
AND
Any [SQ] course
2. Awareness Areas: 0-3
a. Cultural Diversity in the United States [C]

May be met by [HU] or [SB] course depending on specific courses selected.
b. Global Awareness [G] OR Historical Awareness [H]

MCCCD Additional Requirements
As noted below, courses in this area may also be applied towards AGEC-A Core Area requirements.

1. Oral Communication

0-3
COM100 [SB] Introduction to Human Communication OR
COM110 [SB] Interpersonal Communication OR
COM225 [L] Public Speaking OR
COM230 [SB] Small Group Communication (3 credits) OR
COM100AA \& COM100AB \& COM100AC [SB] (3 credits) OR
COM110AA \& COM110AB \& COM110AC [SB] (3 credits)
2. Critical Reading 0-3
Students may demonstrate proficiency through assessment.
CRE101 [L] Critical Reading OR equivalent as indicated by assessment
II. Fine Arts Requirements - Dance 30

1. Part I: Foundation

Complete all of the following:
DAN150 Dance Performance I
DAN210 Dance Production I
DAN221 Rhythmic Awareness I
DAN264 Choreography I
DAN280 Dance Practicum
2. Part II: Performance Standards 9

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:

> Credits

Ballet I-IV: (maximum of 2 credits each) DAN131 (1), 134 (1), 231 (1), 234 (1)

1-2
$\begin{array}{ll}\text { Ballet III and IV [Intensive]: (max of } 4 \text { credits each) } \\ \text { DAN231AA (2), 234AA (2) } & 2-4\end{array}$
Ballet Pointe: DAN237 (1) 1
Modern I-IV: (maximum of 2 credits each) DAN132 (1), 135 (1), 232 (1), 235 (1) 1-2
Modern III and IV [Intensive]: (max of 4 credits each)
DAN232AA (2), 235AA (2) 2-4
Jazz I-IV: (maximum of 1 credit each) DAN133 (1), 136 (1), 233 (1)

Jazz III and IV [Intensive]: (max of 2 credits each) DAN233AA (2), 236AA (2)

Dance Conservatory I-III: DAN290++, 291++, 292++ (any)

1-3

## 3. Part III: Restricted Electives

0-3
Students can choose to complete a combination of up to three credits in Part III and the remaining credits in Part IV; or students can opt to complete all Elective credits in Part IV. No more than three credits may be selected from the following DAN prefixed courses:
$\begin{array}{lr}\text { Hip Hop (any) DAN102++, 202++ } & 1 \text { each } \\ \text { Break Dancing: DAN103++, 203++ } & 1 \text { each } \\ \text { Ballroom: DAN104++, 204++ } & 1 \text { each } \\ \text { Swing: DAN105++, 205++ } & 1 \text { each } \\ \text { Latin: DAN106++, 206++ } & 1 \text { each } \\ \text { Country: DAN107++, 207++ } & 1 \text { each } \\ \text { Tango: DAN108++, 208++ } & 1 \text { each } \\ \text { Contemporary: DAN115++ } & 1 \text { each } \\ \text { World: DAN120++ } & 1 \text { each } \\ \text { Social: DAN125++ } & 1 \text { each } \\ \text { Musical Theatre Dance I-IV: DAN129, 130, 229, } 230 \\ & \text { each }\end{array}$

Ballet I-IV: DAN131 (1), 134 (1), 231 (1), 234 (1) 1
Ballet III and IV [Intensive]: DAN231AA (2), 234AA (2)
Ballet Pointe: DAN237 (1) 1
Modern I-IV: DAN132 (1), 135 (1), 232 (1), 235 (1) 1
Modern III and IV [Intensive]: DAN232AA (2), 235AA
2 Jazz I-IV: DAN133 (1), 136 (1), 233 (1), 236 (1) 1
Jazz III and IV [Intensive]: DAN233AA (2), 236AA (2)
Tap I-IV: DAN140 (1), 141 (1), 240 (1), 245(1)
Tap III and IV [Intensive]: DAN233AA (2), 236AA (2)
Tap Ensemble: DAN146 (1)
2

Improvisation: DAN164
Dance Workshop: DAN141(1)
Dance Performance I-IV: DAN150, 155, 250, $255 \quad 1$
Multimedia Performance Ensemble: DAN/MUP285AA
1
Dance Conservatory I-IV: DAN290++, DAN291++, DAN292++ 1-3
*Special Projects: DAN298++ 1-3
4. Part IV: Restricted Electives: Dance Theory Electives: 6-9
Students can choose to complete a combination of up to three (3) credits in Part III and the remaining credits in Part IV; or students can opt to complete all nine (9) Elective credits in Part IV
DAH classes cannot be used as an AGEC-A core area requirement and as a Dance Theory Elective (Part IV). They may be counted toward designated [G], [H] and/or [C] Awareness area(s).

Credits
DAH110 Dance in Film 3
DAH190 Discovering Dance Careers 1
DAH201 World Dance Studies 3
DAH210 History of Ballet and Modern Dance 3
DAH250 Dance in Popular Culture 3
DAH255 Hip Hop Arts, Aesthetic and Culture 3
DAN138 Dance Seminar I 1
DAN170 Dance Kinesiology 3
DAN201++ Special Topics: Dance (any) 1-3
DAN211 Dance Production II 3
DAN222 Rhythmic Awareness II 3
DAN238 Dance Seminar II 1
DAN241 Dance Notation I 3
DAN265 Choreography II 3
DAN272 Dance Technology 3
DAN275 Choreography for Film and Video 3
DAN282++ Service-Learning Experience in Dance (any)
DAN293 Teaching Dance in Elementary Education 3
DAN294 Teaching Dance in Secondary Education 3
DAN295 Teaching and Management of Studio Dance 3
*DAN296++ Cooperative Education (any) 1-4
*DAN298++ Special Projects (any) 1-3

* Selection of DAN296 or 298 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:


## ASSOCIATE IN ARTS, FINE ARTS - AA (AAFA) - ART

## Description

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

## I. General Education:

## Arizona General Education Curriculum for Arts (AGEC-A) <br> MCCCD Additional Requirements

## II. Fine Arts Requirements - Art

## Purpose of the Degree

The Associate in Arts, Fine Arts - Art (AAFA-Art) degree is designed for students planning to transfer to four-year colleges and universities. In general, the components of the degree meet requirements for majors in the Fine Arts. The degree is designed to prepare students to meet selective admission criteria for programs such as the Bachelor of Fine Arts, which may require a portfolio or performance requirement.
In most cases, courses used to satisfy the MCCCD Associate in Arts, Fine Arts - Art will apply to general university graduation requirements of the majors that align with AAFA-Art degree; however, students need to be aware of any specific requirements of their intended focus at the university to be sure they select courses that will meet them. Information regarding the articulation of the AAFA-Art degree with majors at the Arizona public universities can be accessed via the following website: www.aztransfer.com.

## Degree Requirements

The 60-69 semester credits required for the Associate in Arts, Fine Arts - Art degree follow. The following websites identify the courses that apply to the different General Education Core and Awareness Areas: AGEC-A and the AGEC Matrix. Courses available for both Areas during a $n$ upcoming semester can also be found using the "Find A Class" website at each MCCCD college.

## I. MCCCD General Education

AGEC-A

## 1. Core Areas: 35

Note that some of these courses also have Awareness Areas designations and can be used to satisfy [C], [G] and/or [H] requirement(s) as well as their respective Core Area. (AGEC designations are subject to change. See AGEC matrix for each course's value(s) in the semester it
is taken.)
a. First-Year Composition (FYC)

ENG101 OR ENG107 AND
ENG102 OR ENG108
b. Literacy and Critical Inquiry [L]
c. Mathematics [MA]

Requires a course in college mathematics (MAT140, MAT141, MAT142) or college algebra (MAT150, MAT151, MAT152) or pre-calculus (MAT187) or any other [MA] designated course for which college algebra is a pre-requisite.
d. Computer/Statistics/Quantitative Applications [CS]
e. Humanities, Arts and Design [HU] 6

ARH101 [H] Prehistoric Through Gothic Art AND
ARH102 [H] Renaissance Through Contemporary Art
f. Social-Behavioral Sciences [SB]

Students are encouraged to choose course work from more than one discipline.
g. Natural Sciences [SQ/SG]

The lecture course(s) selected for Natural Sciences must include or be accompanied by the corresponding laboratory course for a total of 4 credits each. Credits for lecture and lab components may be combined or each may carry separate credit.
At least four (4) credits must be designated as SQ. Eight (8) credits of SG will not satisfy this requirement.

| 2. Awareness Areas: | $\mathbf{0 - 6}$ |
| :--- | :--- |
| a. Cultural Diversity in the United States [C] | $0-3$ |
| May be met by [HU] or [SB] course depending on  <br> specific courses selected. (See AGEC matrix for current  <br> course values.)  <br> b. Global Awareness [G] OR Historical Awareness [H]  <br>  0 |  |

Met by ARH101 and ARH102 required as part of AGECCore. No additional coursework required.
MCCCD Additional Requirements
As noted below, courses in this area may also be applied towards AGEC-A Core Area requirements..

1. Oral Communication

COM100 [SB] Introduction to Human Communication OR
COM110 [SB] Interpersonal Communication OR
COM225 [L] Public Speaking OR
COM230 [SB] Small Group Communication (3 credits)

## OR

COM100AA \& COM100AB \& COM100AC [SB] (3 credits) OR
COM110AA \& COM110AB \& COM110AC [SB] (3 credits)
2. Critical Reading

Students may demonstrate proficiency through assessment.
CRE101 [L] Critical Reading OR equivalent as indicated by assessment
II. Fine Arts Requirements - Art 25

1. Fine Art Foundations

Complete all of the following:
ART111 Drawing I
ART112 Two-Dimensional Design
ART113 Color
ART115 Three-Dimensional Design
ART255AB The Portfolio
2. Fine Art Electives

Choose any combination from the following list of courses totaling a minimum of twelve (12) credits of additional coursework.
ART116 Life Drawing I
ART122 Drawing and Composition II
ART131 Photography I
ART151 Sculpture I
ART161 Ceramics I
ART165 Watercolor Painting I
ART167 Painting I
ART250 Introduction to Printmaking
Associate in Arts, Fine Arts - Art Total Credits:
ASSOCIATE IN ARTS, FINE ARTS - THEATRE (AAFA)

## Description

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 (AAFA
-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.
In most cases, courses used to satisfy the MCCCD Associate in Arts, Fine Arts - Theatre will apply to general university graduation requirements of the majors that align with AAFA-Theatre degree; however, students need to pay attention to any specific requirements of their intended focus at the university to be sure they select courses that will meet them. Information regarding the articulation of the AAFA-Theatre degree with majors at the Arizona public universities can be accessed via the following website: www.aztransfer.com
The 60-64 semester credits required for the Associate in Arts, Fine Arts - Theatre degree follow. The following websites identify the courses that apply to the different General Education Core and Awareness Areas: AGEC-A and the AGEC Matrix. Courses available for both Areas during a current or upcoming semester can also be found using the "Find A Class" tool on at each MCCCD college's website.

Credits

## I. MCCCD General Education 35-44 <br> AGEC-A 35-41

Note that some of these courses also have Awareness Areas designations and can be used to satisfy [C], [G] and/or $[\mathrm{H}]$ requirement(s) as well as their respective Core Area. (AGEC designations are subject to change. See AGEC matrix for each course's value(s) in the semester it is taken.)
Core Areas: 35
a. First-Year Composition (FYC) 6

ENG101 OR ENG107 AND
ENG102 OR ENG108
b. Literacy and Critical Inquiry [L] 3

THE220 Modern Drama
c. Mathematics [MA]

3
Requires a course in college mathematics (MAT140, MAT141, MAT142) or college algebra (MAT150, MAT151, MAT152) or pre-calculus (MAT187) or any other [MA] designated course for which college algebra is a pre-requisite.
d. Computer/Statistics/Quantitative Applications [CS]
e. Humanities, Arts and Design [HU]

HUM/THF205 Introduction to Cinema AND
THE111 Introduction to Theatre
f. Social-Behavioral Sciences [SB]

Students are encouraged to choose course work from more than one discipline.
g. Natural Sciences [SQ/SG]

The lecture course(s) selected for Natural Sciences must include or be accompanied by the corresponding laboratory course for a total of 4 credits each. Credits for lecture and lab components may be combined or each may carry separate credit.
At least four (4) credits must be designated as SQ. Eight (8) credits of SG will not satisfy this requirement.
2. Awareness Areas: 0-6
a. Cultural Diversity in the United States [C]

0-3
May be met by [SB] course depending on specific courses selected.
b. Global Awareness [G] OR Historical Awareness [H]

0-3
May be met by [SB] and/or [SQ/SG] course depending on specific courses selected.
MCCCD Additional Requirements
As noted below, courses in this area may also be applied towards AGEC-A Core Area requirements.

1. Oral Communication

0-3
COM100 [SB] Introduction to Human Communication (3) OR
COM110 [SB] Interpersonal Communication (3) OR
COM225 [L] Public Speaking (3) OR
COM230 [SB] Small Group Communication (3) OR
COM100AA \& COM100AB \& COM100AC [SB] (3) OR COM110AA \& COM110AB \& COM110AC [SB] (3)
2. Critical Reading 0-3
Students may demonstrate proficiency through assessment. CRE101 [L] Critical Reading (3) OR equivalent as indicated by assessment.
II. Fine Arts Requirements - Theatre 25-29

1. Theatre Foundations

Complete all of the following:
THF115 Makeup for Stage and Screen
THP112 Acting I
THP213 Introduction to Technical Theatre
THP214 Directing Techniques
e 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.
HUM/THF206 Introduction to Television Arts 3
HUM/THF210 Contemporary Cinema 3
THE118 Playwriting 3
THF120AA Audition Techniques for Stage and Screen: Prepared Monologue

1
THF120AB Audition Techniques for Stage and Screen:
Cold Readings
THF130 Combat for Stage and Screen 3
THF209 Acting for the Camera 3
THF219 Advanced Acting for the Camera 3
THP131 Stage Movement 3
THP151 Theatre for Youth 3
THP211 Creative Drama 3
THP212 Acting II 3
THP216 Beginning Stage Lighting 3
THP219 Introduction to Puppetry 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 and Theatre
3
THP268 Opportunities in Production 3
THP269 Technical Theatre Portfolio Development 1
MUP/THP270 Musical Theatre Workshop 2
COM/THP271 Voice and Diction 3
THP281 Production and Acting I 3
THP298AA-AC Special Projects 1-3
Associate in Arts, Fine Arts - Theatre Total Credits:
60-64

## ASSOCIATE IN BUSINESS GENERAL REQUIREMENTS (ABUS-GR)

## Description

The Maricopa County Community College District Associate in Business General Requirements (ABUS-GR) degree requires a total of 62-71 semester credits for the program of study. The degree has three major components:

## I. General Education

## Arizona General Education Curriculum for Business (AGEC-B)

## II. Common Lower Division Program Requirements <br> \section*{III. General Electives}

## Purpose of the Degree

The Associate in Business General Requirements (ABUSGR) degree is designed for students who plan to transfer to four-year colleges and universities. In general, the components of this degree meet requirements for the various business majors (except Computer Information Systems) at Arizona's public universities. Computer Information Systems majors should follow the Associate in Business Special Requirements (ABUS-SR) pathway instead. Generally, the degree transfers as a block without loss of credit to Arizona's public universities and other institutions with district-wide articulation agreements.
Special Academic Policies that Govern the ABUS-GR Degree
The ABUS-GR does not include any MCCCD Special Requirements for Oral Communication and/or Critical Reading like the other Associate degrees. (However, some university programs have a speech requirement; consult your advisor or transfer guide to verify the specifics for your program.)
A single course can be used to satisfy multiple areas within the degree simultaneously (AGEC-B Core Area and/ or Awareness Area(s) and/or Common Lower Division Program Requirements).

## Degree Requirements

The 62-71 semester credits required for the Associate in Business General Requirements follow. The following websites identify the courses that apply to the different General Education Core and Awareness Areas:
AGEC-B and the AGEC Matrix.Courses available for both Areas during a current or upcoming semester can also be found using the "Find A Class" tool on each MCCCD college's website.
I. MCCCD General Education

35-41

AGEC-B

1. Core Areas:

Note that some of these courses also have Awareness Areas designations and can be used to satisfy [C], [G] and/or
$[\mathrm{H}]$ requirement(s) as well as their respective Core Area. (AGEC designations are subject to change. See AGEC matrix for each course's value(s) in the semester it is taken.)
a. First-Year Composition (FYC)

ENG101 OR ENG107 AND
ENG102 OR ENG108
b. Literacy and Critical Inquiry [L]
(Note: Students planning to attend ASU W.P. Carey will be required to take COM225.)
c. Mathematics [MA]

MAT212 Brief Calculus or higher mathematics course
d. Computer/Statistics/Quantitative Applications [CS]

CIS105 Survey of Computer Information Systems
e. Humanities, Arts and Design [HU]

6
Students are encouraged to choose course work from more than one discipline.
f. Social-Behavioral Sciences [SB]

Students are encouraged to choose course work from more than one discipline.
g. Natural Sciences [SQ/SG]

The lecture course(s) selected for Natural Sciences must include or be accompanied by the corresponding laboratory course for a total of 4 credits each. Credits for lecture and lab components may be combined or each may carry separate credit.
At least four (4) credits must be designated as SQ. Eight (8) credits of SG will not satisfy this requirement.

Note: Students transferring to ASU in Accountancy should take two of the following courses in meeting the general education requirements: a transfer course in Sociology; Psychology; COM230 or COM225. If students do not take these prior to transfer, they may need to take additional hours to meet ASU graduation requirements.

## 2. Awareness Areas:

Some courses may be used to satisfy both a Core Area and one or more Awareness Area(s). (AGEC designations are subject to change. See AGEC matrix for each course's value(s) in the semester it is taken.)
a. Cultural Diversity in the United States [C] 0-3
b. Global Awareness [G] OR Historical Awareness [H]

0-3

## II. Common Lower Division Program Requirements

18-30

## Accounting

ACC111 Accounting Principles I AND
ACC230 Uses of Accounting Information I AND
ACC240 Uses of Accounting Information II
OR
ACC21 Financial Accounting AND
ACC212 Managerial Accounting
OR
ACC111 Accounting Principles I AND
ACC112 Accounting Principles II AND
ACC212 Managerial Accounting
Some of the following courses can be used to satisfy both this requirement and an AGEC-B Core Area. (AGEC designations are subject to change. See AGEC matrix for each course's value(s) in the semester it is taken.)
ECN211 [SB] Macroeconomic Principles
ECN212 [SB] Microeconomic Principles
GBS205 Legal, Ethical, and Regulatory Issues in Business

GBS221 [CS] Business Statistics
Quantitative Methods
GBS220 Quantitative Methods in Business OR
*MAT217 Mathematical Analysis for Business OR
*MAT218 Mathematical Analysis for Business
*Students planning to attend ASU W.P. Carey will be required to take MAT217 or MAT218.
Business Electives:
Select from the following options:
Some courses may be used to satisfy both Business Elective and Core Area requirements, as indicated in the AGEC matrix. (AGEC designations are subject to change. See AGEC matrix for each course's value(s) in the semester it is taken.)
CIS114DE Excel Spreadsheet
CIS133DA Internet/Web Development Level I
CIS162AD C\#: Level I
GBS110 Human Relations in Business and Industry OR
MGT251 Human Relations in Business
GBS151 Introduction to Business
GBS233 [L] Business Communication
GBS220 Quantitative Methods in Business (If course used to satisfy Common Lower Division Program Requirements, it can not be used to satisfy Business Electives.)
IBS101 Introduction to International Business

REA179 Real Estate Principles I
REA180 Real Estate Principles II
MKT271 Principles of Marketing
PAD100 21st Century Public Policy and Service

## SBU200 Society and Business

## III. General Electives

 0-9Select courses 100-level or higher as needed to complete a minimum of 62 semester credits but no more than a total of 71 semester credits. Ideally students should select courses that meet requirements for their major/ area of interest and transfer institution. For appropriate course selection, students should consult with an academic advisor. See General Associate Degree Academic Policies for further details, limitations and guidelines.
Maricopa courses and external courses evaluated as Maricopa equivalents, departmental electives (e.g., HISELC for a history elective), or general electives (GENELC) that are numbered 100 level or higher, and completed with a grade of "C" or higher, may be applied in the elective area, regardless of potential transferability to other institutions. It is recommended, however, that students planning to transfer to a baccalaureate-granting institution meet these general elective requirements with courses that are transferable and applicable to their intended university degree. Transfer and major guides are accessible on the following websites: aztransfer. com, maricopa.edu/transfer/partners, as well as those of individual universities. For appropriate course selection, students should consult with an advisor.

## Associate in Business General Requirements Total <br> Credits: 62-71

## ASSOCIATE IN BUSINESS SPECIAL REQUIREMENTS (ABUS - SR)

## Description

The Maricopa County Community College District Associate in Business, Special Requirements
(ABUS-SR) degree requires a total of 62-71 semester credits for the program of study. The degree has three major components:

## I. General Education

Arizona General Education Curriculum for Business (AGEC-B)
II. Common Lower Division Program Requirements
III. General Electives

## Purpose of the Degree

The Associate in Business General Requirements (ABUSSR ) degree is designed for students who plan to transfer to four-year colleges and universities. In general, the components of this degree meet requirements for Business' Computer Information Systems majors at Arizona's public universities. Other Business majors should follow the Associate in Business General Requirements (ABUS-GR) pathway instead. Generally, the degree transfers as a block without loss of credit to Arizona's public universities and other institutions with district-wide articulation agreements.
Special Academic Policies that Govern the ABUS-SR Degree
The ABUS-SR does not include any MCCCD Special Requirements for Oral Communication and/or Critical Reading like the other Associate degrees. (However, some university programs have a speech requirement; consult your advisor or transfer guide to verify the specifics for your program.)
A single course can be used to satisfy multiple areas within the degree simultaneously (AGEC-B Core Area and/ or Awareness Area(s) and/or Common Lower Division Program Requirements).

## Degree Requirements

The 62-71 semester credits required for the Associate in Business Special Requirements follow. The following websites identify the courses that apply to the different General Education Core and Awareness Areas:
AGEC-B and the AGEC Matrix. Courses available for both Areas during a current or upcoming semester can also be found using the "Find A Class" tool on the MCCCD college's website. www.classes.sis.maricopa.edu

## I. MCCCD General Education

## AGEC-B

## 1. Core Areas:

35Note that some of these courses also have Awareness Areas designations and can be used to satisfy [C], [G] and/or [H] requirement(s) as well as their respective Core Area. (AGEC designations are subject to change. See AGEC matrix for each course's value(s) in the semester it is taken.)
a. First-Year Composition (FYC)

ENG101 OR ENG107 AND
ENG102 OR ENG108
b. Literacy and Critical Inquiry [L]
(Note: Students planning to attend ASU W.P. Carey will be required to take COM225.)
c. Mathematics [MA]

MAT212 Brief Calculus or higher mathematics course
d. Computer/Statistics/Quantitative Applications [CS]

CIS105 Survey of Computer Information Systems
e. Humanities, Arts and Design [HU]

Students are encouraged to choose course work from more than one discipline.
f. Social-Behavioral Sciences [SB]

Students are encouraged to choose course work from more than one discipline.
g. Natural Sciences [SQ/SG]

The lecture course(s) selected for Natural Sciences must include or be accompanied by the corresponding laboratory course for a total of 4 credits each. Credits for lecture and lab components may be combined or each may carry separate credit.
At least four (4) credits must be designated as SQ. Eight (8) credits of SG will not satisfy this requirement.
2. Awareness Areas: 0-6

Some courses may be used to satisfy both a Core Area and one or more Awareness Area(s). (AGEC designations are subject to change. See AGEC matrix for each course's value(s) in the semester it is taken.)
a. Cultural Diversity in the United States [C] 0-3
b. Global Awareness [G] OR Historical Awareness [H]
I. Common Lower Division Program Requirements 21-30
Accounting 6-9
ACC111 Accounting Principles I AND
ACC230 Uses of Accounting Information I AND
ACC240 Uses of Accounting Information II
OR
ACC21 Financial Accounting AND
ACC212 Managerial Accounting
OR
ACC111 Accounting Principles I AND
ACC112 Accounting Principles II AND
ACC212 Managerial Accounting
Some of the following courses can be used to satisfy both this requirement and an
AGEC-B Core Area. (AGEC designations are subject to change. See AGEC matrix for each course's value(s) in the semester it is taken.)
ECN211 [SB] Macroeconomic Principles 3
ECN212 [SB] Microeconomic Principles
GBS205 Legal, Ethical, and Regulatory Issues in Business

GBS221 [CS] Business Statistics
Programming I:
CIS162AD C\#: Level I
Programming II:
CIS250 Management of Information Systems
Quantitative Methods
GBS220 Quantitative Methods in Business OR
MAT217 Mathematical Analysis for Business OR
MAT218 Mathematical Analysis for Business
(Note: Students planning to attend ASU W.P. Carey will be required to take MAT217 or MAT218)

## III. General Electives

Select courses 100-level or higher as needed to complete a minimum of 62 semester credits but no more than a total of 71 semester credits. Ideally students should select courses For appropriate course selection, students should consult with an academic advisor. See General Associate Degree Academic Policies for further details, limitations and guidelines.
Maricopa courses and external courses evaluated as Maricopa equivalents, departmental electives (e.g., HISELC for a history elective), or general electives (GENELC) that are numbered 100 level or higher, and completed with a grade of "C" or higher, may be applied in the elective area, regardless of potential transferability to other institutions. It is recommended, however, that students planning to transfer to a baccalaureate-granting institution meet these general elective requirements with courses that are transferable and applicable to their intended university degree. Transfer and major guides are accessible on the following websites: aztransfer. com, maricopa.edu/transfer/partners, as well as those of individual universities. For appropriate course selection, students should consult with an advisor.

Associate in Business Special Requirements Total Credits:

## ASSOCIATE IN GENERAL STUDIES (AGS)

## Description

The Maricopa County Community College District Associate in General Studies degree requires 60-64 semester credits in courses numbered 100 and above. The degree includes the following components:

## I. General Education (minimum of 38 credits)

Core curriculum (requires a grade of "C" or better)
Distribution courses (requires a grade of "D" or better)
II. General Electives (enough additional courses numbered 100 or above, passed with a grade of " $D$ " or better, to bring total credits to at least 60)

## Purpose of the Degree

The Associate in General Studies (AGS) degree is recommended for students whose educational goals require flexibility. The AGS allows students to apply any course numbered 100 or above, including some that are not transferable to a state university, toward the credits required for the degree. Therefore, for students who intend to transfer to another college or university in the future to pursue a bachelor's degree, this degree may be less appropriate than other Associate degrees offered (Associate in Arts (AA, AAEE, AAFA), Associate in Business (ABUS-GR, ABUS-SR) or Associate in Science (AS) ) by the Maricopa Community Colleges.
Students who demonstrate skills comparable to those in Critical Reading 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:
The graduation policies within the general catalog must be satisfied.
A single course can simultaneously count towards a Core Area and a Distribution requirement. Courses that meet this criterion are bold print and underscored in the Core areas and Distribution areas (on the course list at the conclusion of this document). For example, CRE101 may be used to satisfy both the Literacy and Critical Inquiry requirement [L] of Distribution area and the Core Curriculum's Critical Reading area. While multiple requirements can be met with a single course, the credits are only counted one time toward the required minimum for the degree.
Credits transferred from outside of MCCCD must be at a grade of "C" ( 2.0 on a 4.0 scale) or better. Transfer credit graded pass/fail or pass/no credit may be transferred if documentation collected by the community college indicates that this was the only grading option available to the student and that the Pass grade ("P") is equivalent to a "C" or better.
Completion of the AGS with a minimum Grade Point Average of at least 2.0 on a 4.0 scale for Arizona residents and 2.50 for non-residents meets Arizona public university general admission requirements. However, meeting all AGS minimums does not ensure admission to specific university majors or programs
with selective admission processes and/or limited enrollment. Furthermore, because the AGS is not designed to align with the requirements for bachelors degrees, not all credits may be transferable and students may have deficiencies in lower division (100- and 200-level) courses for a particular major.

## Summary of Degree Requirements:

Details on how to identify courses approved for each of the different categories is described following the outline.

## I. MCCCD General Education

38-45
Core Areas

1. First-Year Composition

ENG101 OR ENG107 AND
ENG102 OR ENG108
2. Mathematics
3. Computer Usage

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.
4. Oral Communication

COM100 Introduction to Human Communication OR
COM110 Interpersonal Communication OR
COM225 Public Speaking OR
COM230 Small Group Communication (3 credits) OR
COM100AA \& COM100AB \& COM100AC (3 credits) OR
COM110AA \& COM110AB \& COM110AC (3 credits)
5 .Critical Reading
Students may demonstrate proficiency through assessment.
CRE101 Critical Reading OR
equivalent as indicated by assessment
Distribution Areas

1. Humanities, Arts and Design

Students are encouraged to choose course work from more than one discipline.
2. Social-Behavioral Sciences

Students are encouraged to choose course work from more than one discipline.
3. Natural Sciences

Two lecture courses and one corresponding laboratory course are to be selected. Credits for lecture and lab components may be combined or each may carry separate credit. For appropriate course selection students should consult with an advisor.
4. Literacy and Critical Inquiry
II. General Electives

Select additional courses 100 -level or higher to complete a minimum of 60 semester credits but no more than a total of 64 semester credits.

## Associate in General Studies Total Credits:

All courses listed meet AGS requirements as specified. Courses in Purple Italic Underline also meet Arizona General Education Curriculum AGEC requirements.
Courses in bold print and underscored simultaneously count towards a Core Area and a Distribution requirement.

## Degree Requirements

General Education Core (16 credits - grade of "C" or better)
First-Year Composition (6 credits)

1. ENG English
[101, 107] \& [102, 108]
2. Oral Communication (3 credits)

COM Communication 100, 100AA \& 100AB \& 100AC, $110,110 \mathrm{AA} \& 110 \mathrm{AB} \& 110 \mathrm{AC}, 225,230$

3 Critical Reading (3 credits)
CRE Critical Reading 101 or Equivalent as indicated by assessment.
Mathematics (3 credits)
MAT Mathematics 112, 120, 121, 122, 122AA \& 122AB\& $122 \mathrm{AC}, 140,141,142,150,151,151 \mathrm{AA} \& 151 \mathrm{AB}$ \& 151AC \&151AD, 152,172,182, 187, 206, 212, 213, 220, 221, 230, 231, 240, 241, 256, 257, 261, 262, 276, 277, Equivalent course/Satisfactory completion of a higher level Mathematics course.

## Computer Usage (1 credit)

Computer-related course or demonstration of comparable computer skills. Additional courses may be approved by individual colleges. Students should contact their advisor for college-specific courses satisfying the requirement.
ACC Accounting 115
ADA Advertising Arts $169,175,177,183,283,283 A A$, 289
AJS Administration of Justice Studies 205
AMS Automated Manufacturing System 150
ARC Architecture 243, 244, 245
ART Art 100, 169, 170, 173, 175, 177, 179, any 180++ course, 183, 283, 289

BIO Biology 283
BPC Business-Personal Computers Any BPC Course(s), including 110
CIS Computer Information Systems Any CIS Course(s), including $105,162 \mathrm{AB}, 162 \mathrm{AD}, 163 \mathrm{AA}$ (and except 159 , 162, 162AC, 169, 183AA, 217AM, 259, 262)
CSC Computer Science Any CSC Course(s), including
$100 \mathrm{AA}, 100 \mathrm{AB}, 110,110 \mathrm{AA}, 110 \mathrm{AB}, 120,150,150 \mathrm{AA}$, $180180 \mathrm{AA}, 180 \mathrm{AB}, 181,181 \mathrm{AA}, 181 \mathrm{AB}, 182,182 \mathrm{AA}$, 205, 205AA, 205AB, 205AC, 205AD, 283 (and except
$200,200 \mathrm{AA}, 200 \mathrm{AB}, 210,210 \mathrm{AA}, 210 \mathrm{AB}$ )
CTR Court Reporting 101, 102
DFT Drafting Technology 105AA**, 251, 254AA, 256AA
**Must be taken with CSC100AA or AB to meet AGEC value
ECH Early Childhood Education 238
EEE Electrical Engineering 120
ELE Electronic 131, 181, 241, 243, 245
ELT Electronic Technology 131, 241, 243
ENG English 100AE
FON Food \& Nutrition 100
GBS General Business 221
GIS Geographic Information Science 205, 211
GPH Physical Geography 220
HRM Hotel Restaurant Management 126
JRN Journalism 133
LAS Paralegal Studies 229
MAT Mathematics 206
MET Manufacturing Technology 264
MTC Music Theory/Composition 180, 191
NET Networking Technology 181
OAS Office Automation Systems 111AA/111AB/113/ 119/130DK
PSY Psychology 230
SBS Small Business 211
SWU Social Work 225
TVL Travel Agent Technology 203
VPT Video Production Technology 106

## GENERAL EDUCATION DISTRIBUTION AREAS

## (28-29 credits)

## Humanities, Arts and Design

(9 credits)
Students are encouraged to choose courses from more than one discipline.
AHU Arabic Humanities 245
AIS American Indian Studies 213
AJS Administration of Justice Studies 123
ARH Art Humanities Any ARH Course(s), including 100, $101,102,109,110,112,115,118,131,145,201,203,204$, 217, 216, 240, 250

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, 255
EDU Education 291, 292, 294
ENG English 200, 213, 218
ENH English Humanities Any ENH Course(s), including
110, 111, 112, 113, 114, 117, 130, 190, 200, 201, 202, 204,
206, 214, 221, 222, 230, 231, 232, 235, 241, 242, 245,
$251,252,253,254,255,256,259,260,275,277,277 \mathrm{AA}-$
AK, 280, 284, 285, 291, 294, 295 (and except 250)
FRE French 265
HCR Health Care Related 210
HIS History 101, 102, 103, 108, 110, 111, 113, 114, 203, 212, 251, 253, 254, 252, 275
HUM Humanities Any HUM course(s), including 100, $101,105 \mathrm{AA}, 107,108,190 \mathrm{AA}, 190 \mathrm{AB}, 190 \mathrm{AC}, 190 \mathrm{AD}$, 190AE, 190AF, 190AG, 190AH, 190AI, 201, 202, 205, $206,209,210,211 \mathrm{AA}, 211 \mathrm{AE}, 212,213,214,215,216$, 220, 245, 250, 251, 260, 261, 292, 295 (and except 120, 225)

INT Interior Design 115, 120, 225
LAT Latin 201, 202
MHL Music: History/Literature 140, 143, 145, 146, 153, 155, 194, 204, 241, 242, 295
PHI Philosophy Any PHI Course(s), including 101, 102, $103,104,105,106,113,201,212,213,214,215,233 \mathrm{AC}$, 216, 218, 224, 233AA, 233AB, 234AC, 244, 245, 250, 251, 282AA-AC
REL Religious Studies Any REL Course(s), 100, 101, 151, 200, 202, 203, 205, 206, 207, 210, 211, 212, 213, 214, 218, $223,225,230,240,244,245,248,250,251,271,277$, 292, 294, 295, 282AA-AC, 290, 291
SLC Studies in Language \& Culture 201
SPA Spanish 241, 242, 265, 266
SPH Spanish Humanities 241, 245
SSH Sustainability/Social Sciences and Humanities 111
STO Storytelling 292, 294
TCM Telecommunications 107
THE Theater 111, 220
THF Theatre and Film 205, 206, 210
THP Theater/Performance/Production 241
WST Women's Studies 209, 284, 285, 290

## Social-Behavioral Sciences

(9 credits)
Students are encouraged to choose courses from more than one discipline.

## GRADUATION POLICIES AND REQUIREMENTS

AFR African American Studies 202
AIS American Indian Studies 101, 140, 141,160
AJS Administration of Justice Studies 101, 119, 200,225, 258, 259, 270
ASB Anthropology 100, 102, 202, 211, 222, 223, 226, 230, 235, 252
ASM Anthropology 104/275
CCS Ethnic Relations 202
CFS Child/Family Studies 112, 157, 159, 176, 205, 235, 259
COM Communication 100, 100AA\&100AB\&100AC, 110, 110AA\&110AB\&110AC, 163, 230, 250, 263
ECH Early Childhood Education 176
ECN Economics 160, 211, 212, 213, 250
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 Technology 258
FUS Future Studies 101
GCU Cultural Geography 102, 113, 121, 122, 141, 221
HES Health Science 100
HIS History any HIS Course(s), including $100,101,102$, $103,104,105,106,108,109,113,114,140,145,173,190$, 201, 203, 204, 209, 240, 241, 242, 273, 275, 277, 282AA-
AC (and except $111,170,251,252,253,254$ )
HON Honors 201
IBS International Business 109
IFS Research in Global Society 210
MCO Mass Communications 120
MGT Management 229, 230
PAD Public Administration 200
POS Political Science Any POS course(s), including 100, $101,110,113,115,120,125,130,140,180,210,212,221$, 222, 223, 230, 270, $281 \mathrm{AB}, 282 \mathrm{AA}-\mathrm{AC}, 285$
PSY Psychology 101, 123, 132, 156, 157, 215, 218, 225, 235, 240, 241, 243, 250, 260, 266, 277, 280, 292
REC Recreation 120
SBU Society and Business 200
SLC Studies in Language \& Culture 201
SOC Sociology Any SOC course(s), including 101, 110, 130, 141, 157, 180, 212, 220, 241 251, 266 (and except 143, 245, 253, 265, 270)
SSH Sustainability/Social Sciences and Humanities 111

SUS Sustainability/Natural Sciences 110
SWU Social Work 102, 171, 250, 258, 292
WED Wellness Education 110
WST Women's Studies 100, 161
YAQ Yaqui Indian History and Culture 100
Natural Sciences
(7-8 credits)
Two lecture courses and one corresponding laboratory course are to be selected. The lecture and corresponding laboratory course(s) may carry separate credit. For appropriate course selection students should consult with an advisor.

AGS Agricultural Science 164, 260
ASB Anthropology 231
ASM Anthropology 104, 265, 275
AST Astronomy 101\&102, 106\&107, 111\&113, 112\&114
BIO Biology 100, 101, 102, 105, 107, 108, 109, 111, 145,
149AF, 149AH, 149AK, 149AL, 149AM, 149AN, 156, 156XT, 160, 181, 181XT, 182, 201, 202, 205, 241, 245
CHM Chemistry 107\&107LL, 130\&130LL, 130AA, 150\&151LL,150AA, 151\&151LL, 151AA, 152\&152LL, 152AA, 154\&154LL, 230\&230LL

ENV Environmental Sciences 101
FON Food and Nutrition 241\&241LL
FOR Forensic Science 105, 106, 275
GLG Geology 101\&103, 102\&104, 105, 106\&107, $110 \& 111121,140,229 \mathrm{AB}-\mathrm{AC}, 230 \mathrm{AA}-\mathrm{AC}, 231 \mathrm{AA}-\mathrm{AD}$, 280, 281, 282AA

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
Literacy and Critical Inquiry
AIS American Indian Studies 213
BIO Biology 294
COM Communication 222, 225, 241
CPD Counseling and Personal Development 160
CRE Critical Reading 101
CUL Culinary Arts 223
DAH Dance Humanities 255
EDU Education 282AC
ENG English 111, 200, 215, 216, 217, 218
ENH English Humanities 241, 254, 255

EXS Exercise Science 290
GBS General Business 233
GPH Physical Geography 267
HUM Humanities 225, 250, 251
IFS Information Studies 201
JRN Journalism 201, 215, 234
MCO Mass Communications 220
MGT Management 230
MHL Music: History/Literature 204
PHI Philosophy 103, 106, 218, 244
POS Political Science 115
PSY Psychology 290AB, 290AC

## ASSOCIATE IN APPLIED SCIENCE (AAS)

## Description

The degree includes the following components:

## I. General Education:

## Arizona General Education Curriculum for Arts (AGEC-A)

## MCCCD Additional Requirements

## II. Required Courses (Major Courses)

The Associate in Applied Science (AAS) degree requires at least 60 credits in its program of study. The exact number of credits for a specific degree is identified as part of the presentation of its requirements on the web or in the college catalog.

## 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 in a particular workforce-related area of study. The AAS degree options vary at the different MCCCD colleges. Students can find other listings of AAS degree options sorted either alphabetically or by area of interest. Requirements for each degree can be found on the linked webpages or in the corresponding college(s)'s catalog.

## 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 (see exception, next paragraph). For those shared programs with less than six credit hours, the total hours for the program must be completed at the college awarding the certificate. The minimum of six credit hours in the certificate or degree curricula may be in the Required Courses area and/or the Restricted Electives. Courses from the General Education Core and Distribution areas are excluded;
The exception is the Nursing program. 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:

1. First-Year Composition (6 credits)

ENG English [101/107] \& [102/108/111]
2. Oral Communication (3 credits)

COM Communication 100/100AA \& 100AB \& 100AC/110/110AA \& 110AB \& 110AC/225/230
Critical Reading (3 credits)

## GRADUATION POLICIES AND REQUIREMENTS

3. CRECritical Reading 101/111/Equivalent as indicated by assessment
4. Mathematics (3 credits)

MAT Mathematics 103AA\&103AB/112/120/121/122/ 122AA/122AB/122AC/140/141/142/150/151/151AA/151 $\mathrm{AB} / 151 \mathrm{AC} / 151 \mathrm{AD} / 152 / 172 / 182 / 187 /$

206/212/213/220/221/230/231/240/241/256/257/261/262
/276/277/equivalent course/Satisfactory completion of a higher level mathematics course

## GENERAL EDUCATION DISTRIBUTION AREAS (9-10 credits)

## Humanities, Arts and Design

(2-3 credits)
Students are encouraged to choose courses from more than one discipline.
AHU Arabic Humanities 245
AIS American Indian Studies 213
AJS Administration of Justice Studies 123
ARH Art Humanities Any ARH Course(s)
ART Art 131
ASB Anthropology 211/214/220/222/223/253
CCS Chicana and Chicano Studies 101
CNS Construction 101
COM Communication 241
DAH Dance Humanities 100/201/250/255
EDU Education 291/292/294
ENG English 200/213/218
ENH English Humanities Any ENH Course(s) (except 250)

FRE French 265
HCR Health Care Related 210
HIS History 101/102/103/108/110/111/113/114/203/212/2 51/252/275

HUM Humanities Any HUM course(s) (except 120, 225)
INT Interior Design 115/120/225
LAT Latin 201/202
MHL Music: History/Literature 140/143/145/146/153/155/ 194/204/241/242/295
PHI Philosophy Any PHI Course(s)
REL Religious Studies Any REL Course(s)
SLC Studies in Language \& Culture 201
SPA Spanish 241/242/265/266
SPH Spanish Humanities 241, 245

SSH Sustainability/Social Sciences and Humanities 111
STO Storytelling 292/294
TCM Telecommunications 107
THE Theatre 111/220
THF Theatre and Film 205/206/210
THP Theatre Performance/Production 241
WST Women's Studies 209/284/285/290
Social-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
AJS Administration of Justice Studies
101/200/225/258/259/270
ASB Anthropology 100/102/202/211/222/223/226/230/23 5/252

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 102/113/121/122/141/221
HES Health Science 100
HIS History Any HIS course(s) (except 111,170, 251, 252, 253, 254)
HON Honors 201
IBS International Business 109
IFS Information Studies 210
MCO Mass Communications 120
PAD Public Administration 200
POS Political Science Any POS course(s)
PSY Psychology 101/123/132/156/157/215/218/ 225/
235/240/241/243/250/260/266/277/280/292
REC Recreation 120
SBU Society and Business 200

SLC Studies in Language \& Culture 201
SOC Sociology Any SOC course(s) (except 143, 245, 253, 265, 270)
SSH Sustainability/Social Sciences and Humanities 111
SUS Sustainability/Natural Sciences 110
SWU Social Work 102/171/250/258/292
WED Wellness Education 110
WST Women's Studies 100/161
YAQ Yaqui Indian History and Culture 100

## Natural Sciences (4 credits)

The lecture course(s) selected for Natural Sciences must include or be accompanied by the corresponding laboratory course. The lecture and corresponding laboratory course(s) may carry separate credit. Students should consult with an advisor for appropriate course selection.
AGS Agricultural Science 164, 260
ASB Anthropology (Soc/Behv. Science) 231
ASM Anthropology (Science/Math) 104/265/275
AST Astronomy 101\&102/106\&107/111/112/113/114
BIO Biology 100/101/102/105/107/108/109/111/145/
149AN/156/156XT/160/181/181XT/182/201/201XT/202/
205/241/245
CHM Chemistry 107\&107LL/130\&130LL/130AA/ 150AA/150\&151LL/151AA/151\&151LL/152AA/ 152\&152LL/154\&154LL/230\&230LL

ENV Environmental Sciences 101
FON Food and Nutrition 241\&241LL
FOR Forensic Science 105/106/275
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

The Maricopa Community College District Academic Certificate (AC) is a defined and coherent program of study that is recommended for students who wish to gain additional expertise in a specific area of emphasis in an academic discipline. While this program of study can result in proficiency in specified skills and competencies, as well as mastery of a body of knowledge, it is not designed to prepare someone for employment in a specific occupation. The coursework for an Academic Certificate may be from a variety of disciplines or it can be discipline specific. There is no required general studies component to an Academic Certificate; however, the program may include some courses that have specific general studies designations such as Humanities, Arts and Design [HU], Social-Behavioral Sciences [SB], Literacy and Critical Inquiry [L], or Cultural Awareness [C]. (See AGEC matrix for current course values.)

## Academic Policies that Govern the Academic Certificate:

Although, the program of study for an Academic Certificate (AC) does not have a mandated minimum number of credit hours, most ACs require approximately 12-39 credit hours in courses numbered 100 and above;
Requires a cumulative GPA of 2.0 or better in required courses for completion;
Follows the graduation policies listed in the college's general catalog for the appropriate catalog year;
Any course cross-referenced under another prefix(es) (for example ENH291/EDU291/STO291-Children's Literature) covers identical content and its credits can only be counted once toward certificate requirements;.
Although ACs may include a subset of coursework required in particular transfer degree, the intent of an AC is not to align with any specific university major. There is no presumption of block transfer to another college or university;
May have admission criteria established by the college if and when appropriate;
Generally offered at a limited number of colleges. For a listing of all ACs available in the district and their affiliated college(s) see the CCTA web site.
Are not Eligible for Title IV Financial Aid

## ACADEMIC CERTIFICATE (AC) IN AFRICAN-AMERICAN STUDIES

Total Credits: $15-18$
Major Code: 6226 N

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

+ 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)
Core Area:
Humanities (HU)
Social and Behavioral Sciences (SB)

Program Prerequisites: None
Required Courses
Credits: 6
AFR110 Introduction to African-American Studies (SB, C) 3

AFR/ASB/CCS202 Ethnic Relations in the United States (SB, C, H) 3

## Restricted Electives

Credits: 9-12

+ AFR203 African-American History: The Slavery Experience (SB, C, H) 3
+ AFR204 African-American History: Reconstruction to the Present (SB, C, H) 3
CPD103BC African-American Cultural Pride and Awareness (AFS Department Elective) 2
ENH114 African-American Literature (HU, C) 3
HIS203 African-American History I (SB, C, H) 3
+ HIS204 African-American History II (SB, C, H) 3
HUM214 African-Americans in Film (HU, C) 3
REL225 African-American Religions (HU, C) 3
SOC143 Sociology of African American Problems (SB, C) 3

ACADEMIC CERTIFICATE (AC) IN CHILD AND FAMILY PROFESSIONAL DEVELOPMENT
Total Credits: 16
Major Code: 6238N
Description: The Academic Certificate (AC) in Child and Family Professional Development 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 resource 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.
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.
Individuals may be required to meet current state/local regulatory requirements such as fingerprint clearance, health/immunization record and/or CPR certificate.

Program Prerequisites: None
Required Courses
Required Core: 3
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
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
+ ITD210 Early Attachments, Relationships, and Families: Birth to Age Three 3
+ ITD220 Cognition and Communication: Birth to Age Three 3


## Preschool

ECH128 Early Learning: Play and the Arts 3
EED205 The Developing Child: Prenatal to Age Eight 3
EED212 Guidance, Management and the Environment 3
EED215 Early Learning: Health, Safety, Nutrition and Fitness 3

+ EED261 Early Childhood Preschool Internship 1


## Home Visitor

CFS190 Home-Based Visitation 3
CFS205 Human Development 3
CFS220 Introduction to Parenting and Family
Development 3
CFS225 Foundations of Parent Education 3

+ FCS260 Family and Consumer Science Internship 1


## School Age

CFS167 School-Age Child Care Provider 3
CFS/ECH176 Child Development 3
CFS206 Child and Family Organizations: Management and Administration 3
EED215 Early Learning: Health, Safety, Nutrition and Fitness 3

+ FCS260 Family and Consumer Science Internship 1


## ACADEMIC CERTIFICATE (AC) IN COMMUNICATION COMPETENCE IN THE WORKPLACE

Total Credits: 30-33
Major Code: 6219 N
Description: The Academic Certificate (AC) in Communication Competence in the Workplace is an interdisciplinary program of study that provides intensive study of written and oral communication skills in different contexts including interpersonal communication, small group interaction, team-building, problem solving, public speaking and presentation skills, conflict resolution, assertiveness, and leadership. Students develop skills to enhance their professional, social, and personal interactions, and become more competitive and effective in the workforce.

Program Notes:

+ indicates course has prerequisites and/or corequisites.
Students must earn a grade of "C" or better for all courses within the Required Courses area.
Program Prerequisites: None

> Required Courses

Credits: 18-21
COM110 Interpersonal Communication 3

+ COM225 Public Speaking 3
+ COM230 Small Group Communication 3
+ COM282AC Service-Learning Experience in Communication 3
CRE101 College Critical Reading (3) OR
Equivalent as Indicated by Assessment 0-3
+ ENG101 First Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) 3
+ ENG102 First Year Composition (3) OR
+ ENG108 First Year Composition for ESL (3) 3
Restricted Electives
Credits: 9
If choosing BPC110 or CIS105 only one can be applied
BPC110 Computer Usage and Applications 3
CIS105 Survey of Computer Information Systems 3
+COM259 Communication in Business and Professions 3
COM263 Elements of Intercultural Communication 3
+ENG111 Technical and Professional Writing 3
+GBS233 Business Communication 3
IBS109 Cultural Dimension for International Trade 3
+SWU292 Effective Helping in a Diverse World 3
Free Electives
Credits: 3
Any approved General Education course in the Cultural Awareness (C) value (3) OR
COM+++++ Any COM communication course (3) except courses used to satisfy Required Courses or Restricted

Electives areas. 3

## ACADEMIC CERTIFICATE (AC) IN COMMUNICATION SKILLS FOR NON-NATIVE ENGLISH SPEAKERS

Total Credits: 30
Major Code: 6222
Description: The Academic Certificate (AC) in Communication Skills for Non-Native English Speakers is an interdisciplinary program of study designed to extend traditional ESL coursework. It provides Non-Native
English Speakers with oral and written communication skills including interpersonal communication, small group interaction, team-building, problem solving, public speaking and presentation skills, conflict resolution, assertiveness, and leadership. Students develop skills to enhance their professional, social, and personal interactions, and become more competitive and effective in the workforce.
Program Notes:
Students must earn a grade of "C" or better for all courses within the Required Courses area.

+ indicates course has prerequisites and/or corequisites.

Program Prerequisites: None
Required Courses
Credits: 21
COM120 Pronunciation of American Speech 3

+ COM221 Oral Fluency in American Speech 3
+ COM282AC Service-Learning Experience in
Communication 3

COM100 Introduction to Human Communication (3) OR COM110 Interpersonal Communication (3) 3

CRE101 Critical and Evaluative Reading I (3) OR
Equivalent as Indicated by Assessment 3

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

ENG102 First Year Composition (3) OR

ENG108 First Year Composition for ESL (3) 3

## Restricted Electives

Credits: 9
If choosing BPC110 or CIS105 only one can be applied BPC110 Computer Usage and Applications 3
CIS105 Survey of Computer Information Systems 3

+ COM230 Small Group Communication 3
+ COM259 Communication in Business and Professions 3
+ ENG111 Technical Writing 3
+ GBS233 Business Communication 3
IBS109 Cultural Dimension for International Trade 3
+ SWU292 Effective Helping in a Diverse World 3

Any approved General Education course in the cultural awareness [C] value (3) OR
COM+++++ Any COM Communication course (3) 3

## ACADEMIC CERTIFICATE (AC) IN CREATIVE WRITING

Total Credits: 24
Major Code: 6224 N
Description: The Academic Certificate (AC) in Creative Writing program is designed to provide students and professional writers with access to a community of writers and creative writing activities, instruction and guidance from established authors, and ongoing support in improving their writing skills and marketing their work. As students take courses in the program, they will build a portfolio of original work that may be 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/suffixed courses.

Admission Criteria: Students wishing to enroll in the Creative Writing program must complete a formal application; contact Program Director.
Program Prerequisites: None

> Required Courses

Credits: 21
ENG210 may be substituted for CRW150 with permission of Program Director.
CRW150 Introduction to Creative Writing 3
CRW200 must be repeated for a total of two (2) credits.

+ CRW200 Readings for Writers (1) 2
+ CRW201 Portfolio 1

Students must complete six (6) credits from Series I and nine (9) credits from Series II in consultation with a Program Director.

## Series I: Credits: 6

Students must complete two (2) of the following courses for a total of six (6) credits.
CRW120 Introduction to Writing Children`s Literature 3
CRW160 Introduction to Writing Poetry 3
CRW170 Introduction to Writing Fiction 3
CRW172 Introduction to Comic Book Writing 3
CRW180 Introduction to Writing Nonfiction 3
CRW190 Introduction to Screenwriting 3
THE118 Playwriting 3

## Series II: Credits: 9

Students must complete three (3) of the following courses for a total of nine (9) credits.

+ CRW202 The Writer as Witness 3
+ CRW203 Dialogue 3
+ CRW204 Journaling 3
+ CRW220 Intermediate Writing Children`s Literature 3
CRW251 Topics in Creative Writing 3
+ CRW260 Intermediate Poetry Writing 3
+ CRW261 Topics in Writing: Poetry 3
+ CRW270 Intermediate Fiction Writing 3
+ CRW271 Topics in Writing: Fiction 3
+ CRW272 Planning and Structuring the Novel 3
+ CRW273 Writing the Novel 3
+ CRW274 Revising the Novel 3
+ CRW281 Topics in Writing: Non-Fiction 3
+ CRW290 Intermediate Screenwriting 3
+ CRW291 Topics in Writing: Plays 3


## Restricted Electives

Credits: 3

+ CRW+++++ Any CRW Creative Writing prefixed course not listed under Required Courses area. 1-3
ENG235 Magazine Article Writing 3
ENG/THE260 Film Analysis 3
+ ENH+++++ Any ENH English Humanities prefixed course 3

HUM/THF210 Contemporary Cinema 3

## ACADEMIC CERTIFICATE (AC) IN ELECTRONIC MUSIC

Total Credits: 40
Major Code: 6231N
Description: 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 bachelors-level music program.

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

+ indicates course has prerequisites and/or corequisites.


## Program Prerequisites

Credits: 2-3
MTC100 Fundamentals of Music (2) OR
MTC101 Introduction to Music Theory (3) OR

## GRADUATION POLICIES AND REQUIREMENTS

Permission of instructor 2-3
Required Courses
Credits: 40
Students are required to complete a total of six (6) credits of MTC240.

+ MTC105 Music Theory I 3
MTC106 Aural Perception I 1
+ MTC155 Music Theory II 3
MTC156 Aural Perception II 1
+ MTC205 Music Theory III 3
MTC206 Aural Perception III 1
+ MTC255 Music Theory IV 3
MTC256 Aural Perception IV 1
MTC191 Electronic Music I 3
+ MTC192 Electronic Music II 3
+ MTC193 Computer-Based Sound Synthesis 3
+ MTC240 Composition (3) 6
+ MTC291 Electronic Music III 3
MUC195 Studio Music Recording I 3
+ MUC196 Studio Music Recording II (3) OR
MUC197 Live Sound Reinforcement I (3) 3


## ACADEMIC CERTIFICATE (AC) IN GLOBAL CITIZENSHIP

Total Credits: 16
Major Code: 6212 N
Description: 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.
Program Notes:
Students must earn a grade of "C" or better in all courses
within the program.

+ indicates course has prerequisite and/or corequisites.

Program Prerequisites: None
Required Courses
Credits: 7
GLO298AA Special Projects 1
Select six (6) credits from the following courses:
ASB102 Introduction to Cultural Anthropology (3)
COM263 Elements of Intercultural Communication (3)
ECN213 The World Economy (3)
GCU121 World Geography I: Eastern Hemisphere (3)
GCU122 World Geography II: Western Hemisphere (3)
REL100 World Religions (3)
POS120 World Politics (3)
PSY132 Psychology and Culture (3)

Restricted Electives
Credits: 9-10
Students will choose 9-10 credits from one (1) of the four (4) tracks.

Select any prefixed course(s) except courses used to satisfy Required Courses area.

## Track 1: Impact of Diverse Cultures on American Life: Credits: 9

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: Credits: 9Courses for Track 2 must be selected form 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: Credits: 9

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: Credits: 9-10

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 (AC) IN LANGUAGE AND LITERARY CULTURE OF THE USA

Total Credits: 22-25
Major Code: 6221 N
Description: The Academic Certificate (AC) in Language and Literary Culture of the USA is a course of study designed to provide students a strong foundation in the oral and written structure and vocabulary of North American English, academic and professional reading and writing, and knowledge and appreciation of representative literature and culture of the USA in all its diversity.

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

+ indicates course has prerequisites and/or corequisites.
Program Prerequisites: None


## Required Courses

Credits: 13-16
+ENG101 First-Year Composiion (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
+ENG298AA Special Projects (1) OR
+ESL298AA Special Projects (1) 1
Restricted Electives
Credits: 9
Complete three courses from the following disciplines:
ASB Any ASB Anthropology course(s)
COM Any COM Communication course(s)
EDU Any EDU Education course(s)
ENG Any ENG English course(s) expect courses used to satisfy Required Courses area.

ENH Any ENH English Humanities course(s)
HIS Any HIS History course(s)
HUM Any HUM Humanities course(s)
IBS Any IBS International Business course(s)
IGS Any IGS Integrated Studies course(s)
MUP Any MUP Music: Performance course(s)
PSY Any PSY Psychology course(s)
REL Any REL Religious Studies course(s)
SOC Any SOC Sociology course(s)

## ACADEMIC CERTIFICATE (AC) IN LANGUAGE STUDIES

Total Credits: 12-18
Major Code: 6237 N
Description: The Academic Certificate (AC) in Language Studies is designed to provide students with a foundation in the study of culture, language, and linguistic structures. Students will have the opportunity to develop oral and
written communication skills in a language other than English.
Program Notes:
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/suffixed courses.
Program Prerequisites
Credits: 0-15
201-level proficiency in a language other than English as indicated by assessment or coursework.

> Required Courses

Credits: 6-8
SLC201 Introduction to Linguistics 3
AND
Students must choose 3-5 credits in 202 or higher-level coursework in the language used to satisfy the program prerequisites.

## Restricted Electives

Credits: 6-10
Students must choose two (2) courses from the list below. Prerequisites may not be used to satisfy the Restricted Electives:

AFR/ASB/CCS202 Ethnic Relations in the United States (3) OR

SOC241 Racial and Ethnic Minorities (3) 3

COM263 Elements of Intercultural Communication 3
AHU+++ Any AHU Arabic Humanities course
ARB+++ Any ARB Arabic course
CHI+++ Any CHI Chinese course
FLA+++ Any FLA Foreign Language Acquisition course
FRE+++ Any FRE French course
GER+++ Any GER German course
GRK+++ Any GRK Greek course
HBR+++ Any HBR Hebrew course
HEB+++ Any HEB Hebrew course
IPP+++ Any IPP Interpreter Preparation Program course
ITA+++ Any ITA Italian course
ITH+++ Any ITA Italian Humanities course
JPN+++ Any JPN Japanese course
LAT+++ Any LAT Latin course

NAV+++ Any NAV Navajo course
NVH+++ Any NVH Navajo Humanities course
PIM+++ Any PIM Pima course
POR+++ Any POR Portuguese course
RUS+++ Any RUS Russian course
SLC+++ Any SLC Studies in Language and Culture course

SLG+++ Any SLG Sign Language course
SPA+++ Any SPA Spanish course
SPH+++ Any SPH Spanish Humanities course
TRS+++ Any TRS Translation and Interpretation course

## ACADEMIC CERTIFICATE (AC) IN NEXT GENERATION EDUCATOR

Total Credits: 10
Major Code: 6241N
Description: The Academic Certificate (AC) in Next Generation Educator includes coursework for crossdisciplinary faculty to develop knowledge and skills to effectively promote learning for the 21st century learner. Coursework focuses on best practices for teaching 21st Century learners, with an emphasis on effective course/ curriculum design aligned to competencies/standards, outcomes-based assessment, and educational applications of technology.
Program Notes:
Students must earn a grade of "C" or better for all courses within the program.

+ indicates course has prerequisite and/or corequisites.
++ indicates any module/suffixed courses.

Track II: ECH/EDU298++ course requires Science, Technology, Engineering, Mathematics (STEM) focus and approval of Instructor.

Program Prerequisites
Credits: 0
Permission of Department Chair.

## Required Courses

Credits: 3
ETL211AA Curriculum Mapping and Instructional Design 1
ETL211AB Outcomes-Based Learning and Informative Assessment 1
ETL211AC Lesson Design and Delivery 1
Restricted Electives
Credits: 7

ETL102 Educational Applications of Technology 1
+ETL287 Teaching and Learning Seminar 1
Select six (6) credits from one of the following two (2) tracks:
Track I: ESL/Dual Language Credits: 6
+EPD244 Reading and Writing in SEI/ESL/Bilingual Settings 3
+EPD246 Teaching and Assessment of English Language Learners (ELL) 3
SPA119 Spanish for Educational Settings I 3
+SPA120 Spanish for Educational Settings II 3

Select any 3-6 credits from the following language courses at the 100 level or above:
ARB+++ Any ARB Arabic courses OR
FRE+++ Any FRE French courses OR
GER+++ Any GER German courses OR
HEB+++ Any HEB Hebrew courses OR
ITA+++ Any ITA Italian courses OR
JPN+++ Any JPN Japanese courses OR
RUS+++ Any RUS Russian courses OR
SPA+++ Any SPA Spanish courses OR
SLG+++ Any SLG Sign Language courses 3-6

## Track II: STEM Credits:

EDU111 Inquiry-Based Instructional Approaches for Science and Mathematics I 1
+EDU112 Inquiry-Based Instructional Approaches for Science and Mathematics II 1
+EPD250 Teaching Elementary Number Sense and Operations Grades K-8 6
+EPD251 Teaching Geometry and Measurement Grades K-8 3
+EPD252 Teaching Patterns, Algebra and Functions Grades K-8 6
+EPD253 Teaching Data Analysis, Probability and Discrete Mathematics Grades K-8 3
+EPD254 Mathematics Classroom Assessment 3
+EPD255 Research-Based Practices, Pedagogy, and Instructional Leadership in Mathematics 3

+ ECH/EDU298++ Special Projects (any suffixed course) 1-3


## ACADEMIC CERTIFICATE (AC) IN ORAL COMMUNICATION FLUENCY FOR NON-NATIVE ENGLISH SPEAKERS

Total Credits: 15
Major Code: 6223
Description: The Academic Certificate (AC) in Oral Communication Fluency for Non-Native English Speakers is a concentrated program of study in communication and oral fluency designed to extend traditional ESL coursework. It provides Non-Native English Speakers with intense practice in pronunciation and fluency of American speech as well as experience in all communication contexts including interpersonal communication, small group interaction, problem solving, and public speaking. Students develop skills to enhance their professional, academic, and social interactions to become more competitive and effective in the academic environment and in the workplace.
Program Notes:

+ indicates course has prerequisites and/or corequisites.
Students must earn a grade of "C" or better for all courses within the Required Courses area.
Program Prerequisites: None
Required Courses
Credits: 12
COM110 Interpersonal Communication 3
COM120 Pronunciation of American Speech 3
+ COM221 Oral Fluency in American Speech 3
+ COM282AC Service-Learning Experience in
Communication 3
Restricted Electives
Credits: 3
Any approved General Education course in the cultural awareness [C] value


## ACADEMIC CERTIFICATE (AC) IN SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS (STEM) EDUCATION FOR K-12

Total Credits: 18
Major Code: 6244 N
Description: The Academic Certificate (AC) in Science, Technology, Engineering, and Mathematics (STEM) Education for K-12 Educators program is designed to provide K-12 teachers with the foundation to incorporate STEM education into their classrooms. Courses will cover state and national academic standards for STEM and
best practices. K-12 teachers will have opportunities to develop knowledge and skills in inquiry-guided, problembased, and project-based learning as well as strategies for practical application of STEM education into any K-12 classroom.
Program Notes:
Students must earn a grade of "C" or better for all courses within the program.

+ indicates course has prerequisites and/or corequisites.

> Program Prerequisites

Credits: 0
Must hold a Career or Technical Education (CTE), provisional or standard elementary, secondary, or special education certificate.

Required Courses
Credits: 18

+ EPD205 Science, Technology, Engineering, and Mathematics (STEM) Education 3
+ EPD256 Science, Technology, Engineering, and Mathematics (STEM) Education and Technology 3
+ EPD257 Science, Technology, Engineering, and Mathematics (STEM) Education and Science 3
+ EPD258 Science, Technology, Engineering, and Mathematics (STEM) Education and Engineering 3
+ EPD259 Science, Technology, Engineering, and Mathematics (STEM) Education and Mathematics 3
+ EPD287 Science, Technology, Engineering, and Mathematics (STEM) Education Capstone Project 3


## THE ACADEMIC CERTIFICATE (AC) IN SPANISH AND SPANISH CULTURE

Total Credits: 25
Major Code: 6243 N
Description: The Academic Certificate (AC) in Spanish and Spanish Culture is designed to provide students with the essential language skills and vocabulary to communicate with confidence in diverse communicative situations. Instruction in the diverse cultural context will help students to understand the complex interdependence of language and culture.

## Program Notes:

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

+ indicates course has prerequisites and/or corequisites.
++ indicates any module/suffixed courses.

Program Prerequisites: None
Required Courses
Credits: 16
SPA101 Elementary Spanish I 4
+SPA102 Elementary Spanish II 4
+SPA201 Intermediate Spanish I 4
+SPA202 Intermediate Spanish II 4
Restricted Electives
Credits: 9
Select a minimum of 6 (six) credits taught in Spanish and 3 (three) credits taught in English.
FLA240 Foreign Language Teaching Methods 3
GCU223 Geography of Latin America 3
HIS145 History of Mexico 3
MHL156 Music in Latin America and the Caribbean 3
SLC201 Introduction to Linguistics 3
SPA115 Beginning Spanish Conversation I 3
+SPA116 Beginning Spanish Conversation II 3
SPA117 Health Care Spanish I 3
+SPA118 Health Care Spanish II 3
SPA119 Spanish for Educational Settings I 3
+SPA120 Spanish for Educational Settings II 3
+SPA205 Spanish for Medical Interpretation I 3
+SPA206 Spanish for Medical Interpretation II 3
+SPA217 Spanish for Business Communication 4
+SPA225 Intermediate Spanish Conversation I 3
+SPA226 Intermediate Spanish Conversation II 3
+SPA235 Advanced Spanish Conversation I 3
+SPA236 Advanced Spanish Conversation II 3
+SPA241 Spanish and Spanish-American Film I 3
+SPA242 Spanish and Spanish-American Film II 3
+SPA251 Spanish Civilization 3
+SPA265 Advanced Spanish I 3
+SPA266 Advanced Spanish II 3
+SPA282++ Volunteerism for Spanish: A Service Learning
Experience (any suffixed course) 1-3
+SPA298++ Special Projects (any suffixed course) 1-3
SPH245 Hispanic Heritage in the Southwest 3
SPH298++ Special Projects (any suffixed course)1-3

## ACADEMIC CERTIFICATE (AC) IN SUSTAINABILITY

Total Credits: 15-17
Major Code: 6240N
Description: The Academic Certificate (AC) in Sustainability is interdisciplinary and builds a strong academic expertise along one of five 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 five 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, coupled human-environment interactions, and entrepreneurship for transforming ideas for sustainable products/services into viable businesses.

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.

> Program Prerequisites

Credits: 0-6
Student selecting GPH211 or GPH210 must complete the following prerequisites:
ENG101 First-Year Composition (3) or
ENG107 First-Year Composition for ESL (3) or equivalent 3

Student selecting HRM290 must complete the following prerequisites:
HRM110 Introduction to Hospitality and Tourism Management 3

## Required Courses

Credits: 6
SSH111 Sustainable Cities 3
SUS110 Sustainable World 3
Restricted Electives
Credits: 9-11
Students must select one (1) of the following five (5) tracks:

Track I: Sustainability: Earth Systems Credits:
Credits 10-11
Students will choose two (2) to three (3) courses from the following list:

+ AGS260 Soils 4

BIO105 Environmental Biology 4
BIO108 Plants and Society 4

+ BIO181 General Biology (Majors) I 4
+ BIO182 General Biology (Majors) II 4

GLG110 Geological Disasters and the Environment (3) and
GLG111 Geological Disasters and the Environment Lab
(1) 4

GLG140 Introduction to Oceanography 3

GPH111 Introduction to Physical Geography 4

+ GPH211 Landform Processes 4

GPH213 Climate and Weather (3) and

+ GPH215 Climate and Weather Laboratory (1) 4

CHM107 Chemistry and Society (3) and

+ CHM107LL Chemistry and Society Laboratory (1) 4

ASM104 Bones, Stones, and Human Evolution 4
Students will choose one (1) course from the following list:
ASB226 Human Impacts on Ancient Environments 3
COM263 Elements of Intercultural Communication 3
ENH206 Nature and Environmental Literature 3
ENH260 Literature of the Southwest 3
GCU102 Introduction to Human Geography 3
GCU141 Introduction to Economic Geography 3
HUM201 Humanities: Universal Themes 3
PHI216 Environmental Ethics 3
POS120 World Politics 3

+ RDG112 Successful College Reading for Life Sciences, Mathematics, Physical Sciences or Technology 3
SBU200 Society and Business 3
SOC251 Social Problems 3
SUS100 Introduction to Sustainability 3


## Track II: Sustainability: Soical, Political, Economic Treatment of the Earth: Credits 9-10

Students will choose two (2) courses from the following list:

ASB102 Introduction to Cultural Anthropology 3
SUS100 Introduction to Sustainability 3
COM263 Elements of Intercultural Communication 3
ECN212 Microeconomic Principles 3

+ ECN263 The Economics of Natural Resources, Population and the Environment 3
GCU102 Introduction to Human Geography 3
GCU141 Introduction to Economic Geography 3
+ HRM290 Ecotourism 3
POS120 World Politics 3
PSY132 Psychology and Culture 3
SBU200 Society and Business 3
SOC180 Social Implications of Technology 3

Students will choose one (1) to two (2) courses from the following list:
BIO105 Environmental Biology 4

+ BIO181 General Biology (Majors) I 4
+ BIO182 General Biology (Majors) II 4

CHM107 Chemistry and society (3) and

+ CHM107LL Chemistry and society Laboratory (1) 4

ENH206 Nature and Environmental Literature 3
ENH260 Literature of the Southwest 3

GLG110 Geological Disasters and the Environment (3) and
GLG111 Geological Disasters and the Environment Lab (1) 4

+ GPH210 Society and Environment 3
HUM201 Humanities: Universal Themes 3
PHI216 Environmental Ethics 3
Track III: Sustainability: Coupled Human-Environment Systems Credits: 9-10
Students will choose two (2) courses from the following list:
ASB102 Introduction to Cultural Anthropology 3
SUS100 Introduction to Sustainability 3

ASB222 Buried Cities and Lost Tribes: Old World 3 OR

ASB223 Buried Cities and Lost Tribes: New World 3

ASB226 Human Impacts on Ancient Environments 3
COM263 Elements of Intercultural Communication 3
ENH206 Nature and Environmental Literature 3
ENH260 Literature of the Southwest 3
HUM201 Humanities: Universal Themes 3
PHI216 Environmental Ethics 3
REC150AB Outdoor Adventure Skills 3

Students will choose one (1) to two (2) course from the following list:
ASM104 Bones, Stones, and Human Evolution 4
BIO105 Environmental Biology 4
BIO108 Plants and Society 4

+ BIO181 General Biology (Majors) I 4
+ BIO182 General Biology (Majors) II 4
CHM107 Chemistry and Society (3) and
+ CHM107LL Chemistry and Society Laboratory (1) 4

GLG110 Geological Disasters and the Environment (3) and
GLG111 Geological Disasters and the Environment Lab (1) 4

+ GPH210 Society and Environment 3
PHI104 World Philosophy 3
POS120 World Politics 3
Track IV: Sustainability: Human Transformation of
the Earth Credits:
Credits $\mathbf{9 - 1 1}$
Students will choose 9-11 credits from the following list:
ASB100 Introduction to Global Health 3
ASB226 Human Impacts on Ancient Environments 3
CNS205 Sustainable Construction/LEED Certification 3
ECE101 Origins of Science and Engineering 3
ECE111 Bioengineering Systems 3
FON135 Sustainable Cooking 3
FON143 Food and Culture 3
FON161 Sustainable Food Production Systems 3
HES210 Cultural Aspects of Health and Illness 3
+ INT170 Interior Materials 3
SCT100 Introduction to Sustainable Built Environments 3
+ SCT271AA Sustainable Design Internship (1) OR
+ SCT271AB Sustainable Design Internship (2) 1-2

SOC180 Social Implications of Technology 3
WED124 Environmental Wellness 3

## Track V: Sustainability: Business and Entrepreneurship Credits:

Credits 10-11
Students will choose one (1) option from the following list:

EPS150 Introduction to Entrepreneurship (3) and EPS195 Business Start-Up and Planning (2) 5

MGT253 Owning and Operating a Small Business 3 and

+ MGT298AA Special Project (1) or
+ SSH298AA Special Project(1) 4

Students will choose one (1) option from the following list:

GBS151 Introduction to Business (3) OR
GBS205 Legal, Ethical, and Regulatory Issues in Business (3) 3

Students will choose one (1) option from the following list:

ECN212 Microeconomic Principles (3) OR
SBU200 Society and Business (3) 3

## ACADEMIC CERTIFICATE (AC) IN SUSTAINABILITY AND ECOLOGICAL LITERACY

Total Credits: 16
Major Code: 6232N
Description: The interdisciplinary Academic Certificate (AC) 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.

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

Program Prerequisites
Credits: 3

+ ENG101 First Year Composition (3) OR
+ ENG107 First Year Composition for ESL (3) 3
Required Courses
Credits: 7
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) 4

## Restricted Electives

Credits: 9
Humanities, Social Science and Wellness: Credits: 9
Students will choose 2 different courses from the following list:

+ ECN263 The Economics of Natural Resources, Population and the Environment (3)
ENH206 Nature and Environmental Literature (3)
ENH260 Literature of the Southwest (3)
HUM201 Humanities: Universal Themes (3)
REC150AB Outdoor Adventure Skills (3)
SBU200 Society and Business (3) 6
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) 3


## ACADEMIC CERTIFICATE (AC) IN TEACHING SECOND LANGUAGE ACQUISITION THROUGH STEM

Total Credits: 15

Major Code: 6242N
Description: The Academic Certificate (AC) in Teaching Second Language Acquisition through STEM promotes high quality teaching and learning for the 21st Century learner through a focus on research-based best practices for academically and linguistically diverse learners. Coursework includes Structured English Immersion Endorsement requirements, Provisional English as a Second Language Endorsement requirements, as well as courses that support inquiry-based STEM education.

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

+ indicates course has prerequisite and/or corequisites.
++ indicates any module/suffixed courses.
ECH/EDU298++ requires Science, Technology,
Engineering, Mathematics (STEM) focus and approval of Program Director or Department Chair.

Program Prerequisites: None
Required Courses
Credits: 9

## EDU101AA Tutor Training and Practicum 1

EDU111 Inquiry-Based Instructional Approaches for
Science and Mathematics I 1
+EDU112 Inquiry-Based Instructional Approaches for Science and Mathematics II 1
EDU220 Introduction to Serving English Language Learners 3
+EDU233 Structured English Immersion, English as a Second Language, and Bilingual Teaching Methods 3

## Restricted Electives

Credits: 6
Select any 3-6 credits from the following language courses at the 100 level or above:
ARB+++ Any ARB Arabic courses OR
FRE+++ Any FRE French courses OR
GER+++ Any GER German courses OR
HEB+++ Any HEB Hebrew courses OR
ITA+++ Any ITA Italian courses OR
JPN+++ Any JPN Japanese courses OR
RUS+++ Any RUS Russian courses OR
SPA+++ Any SPA Spanish courses OR

SLG+++ Any SLG Sign Language courses 3-6

EDU230 Cultural Diversity in Education 3
+EDU282++ Service-Learning Experience in Education (any suffixed course) 1-3

+ ECH/EDU298++ Special Projects (any suffixed course) 1-3

ETL102 Educational Applications of Technology 1

## ACADEMIC CERTIFICATE (AC) IN WOMEN'S STUDIES

Total Credits: 15
Major Code: 6225 N
Description: The Academic Certificate (AC) in Women`s Studies is 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.
Program Notes:

+ indicates course has prerequisites and/or corequisites.
Program Prerequisites: None


## Required Courses

Credits: 3
WST100 Introduction to Women`s and Gender Studies 3
Restricted Electives
Credits: 12
ASB211 Women in Other Cultures 3
ENH/WST284 19th Century Women Writers 3
ENH/WST285 Contemporary Women Writers 3
HIS201 History of Women in America 3
HLR/WST286 Women and Health: Body/Mind/Spirit/ Connection 3

HUM/WST209 Women and Films 3

+ PSY235 Psychology of Gender 3
REL/WST290 Women and World Religion 3
SOC212 Gender and Society 3


## WST120 Gender, Class, and Race 3 <br> WST128 Law and Violence Against Women 3 WST160 Women and the Early American Experience 3 <br> WST161 American Women Since 19203 WST200 Essential Feminist Writing 3 <br> ACADEMIC CERTIFICATE (AC) IN WRITING, RHETORIC, AND COMPOSITION

Total Credits: 10
Major Code: 6239N
Description: 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.

## Program Notes: <br> Students must earn a grade of "C" or better for all courses within the program. <br> + indicates course has prerequisite and/or corequisites. Program Prerequisites

+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 Required Courses
+ENG270 Workplace Writing 3
+ENG297 Writing Program Portfolio 1
Restricted Electives
+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) 3

## MCCCD OCCUPATIONAL PROGRAMS

The Maricopa County Community College Occupational Program Matrix identifies all programs currently available for offering within the 10 community colleges and two skill centers of the district. The programs are grouped under broad occupational areas as requested by the colleges. For specific information regarding individual programs, contact the college(s) listed as participating institutions.

## Agriculture, Food, and Natural Resources

Equine Science. ..... SC
Environmental and Natural Resource Conservation. ..... PC
Environmental and Natural Resource Sustainability ..... PC
Landscape Aide. .....  MC
Landscape Specialist ..... MC
Sustainable Agriculture ..... MC
Landscape Horticulture .....  MC
Veterinary Technology ..... MC
Architecture and Construction
Air Conditioning/Refrigeration/Facilities ..... GW
Architectural Technology ..... SC
Building Inspection ..... MC
Construction Trades: Carpentry ..... GW
Construction Trades: Construction Management ..... GW
Construction Trades: Millwrighting. ..... GW
Construction Trades: Painting and Drywalling. ..... GW
Construction Trades: Pre-Apprenticeship. ..... GW
Construction Trades: Electricity ..... GW
Construction Trades: Heat and Frost Insulation. ..... GW
Construction Trades: Ironworking ..... GW
Construction Trades - Mechanical Trades: Plumbing ..... GW
Construction Trades - Mechanical Trades: Pipefitting ..... GW
Construction Trades - Mechanical Trades: Sheet Metal ..... GW
Construction Trades: General Construction Worker ..... GW
Computer Aided Drafting ..... MC
Computer Aided Design and Drafting CADD Level I ..... MC
Construction Management ..... MC
Construction Trades: Heavy Equipment Operations ..... GW
Mechanical Drafting ..... MC
Power Plant Technology ..... EM
Residential and Light Commercial Air Conditioning ..... GW
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
Adult Development and Aging ..... GC, RS
Alteration Specialist ..... MC
Apparel Construction ..... PC
Audio Production Technologies GC, MC, PC, PV, SC
Beginning Piano Pedagogy ..... MC
Intermediate Piano Pedagogy ..... MC
Costume Design and Production ..... MC
Costuming ..... PC
Computer Graphic Design ..... PC
Dance Technology ..... SC
Disc Jockey Techniques ..... MC, SC
Digital Media Arts ..... GC
Family Life Education ..... GC, RS
Fashion Design ..... PC
Fashion Design Level I ..... PC
Fashion Design Level II ..... PC
Fashion Illustration ..... PC
Fashion Merchandising ..... PC
Fashion Merchandising \& Design ..... MC
Fashion Design Entrepreneurship ..... PC
Graphic Design: Visual Communication ..... SC
Interior Merchandising. MC, PC, EM
Interior Design ..... MC, PC, SC
Interior Design: Advanced ..... MC
Image Consultant ..... MC
Journalism and New Media Studies ..... GC, PV, MC, SC
Music Business .CG, GC, MC, PC, PV, SC, SM
Photography ..... GC, PC
Parent Education ..... GC, RS
Pattern Design Level I ..... PC
Pattern Design Level II ..... PC
Workforce Development: Graphic Arts Level I ..... RS
Workforce Development: Graphic Arts Level II ..... RS
Business, Management, and Administration
AccountingGC, PC, GW, RS, SM, CG, EM
Accounting - Specialized Para-Professional ..... PV
Accounting Paraprofessional ..... GC
Administrative Professional ..... PV
Administrative Technology ..... GW
Administrative Professional ..... PC, MC
Automobile Insurance: Customer Service ..... RS
Automobile Insurance Claims: Customer Service ..... RS
Broadband Telecommunications: Account Services ..... RS
Broadband Telecommunications ..... RS
Broadband Telecommunications: Field Operation ..... RS
Broadband Telecommunications: Technical Support Services. ..... RS
Bookkeeping ..... SC
Business ..... MC, SC
Business (Fastrack) ..... SC
Business Management ..... SM
Business Technology Specialist ..... GW
Business Office Assistant ..... GC
Computer Applications ..... PC
Court Reporting: Judicial ..... GW
Credit Counseling: Customer Service ..... RS
Entrepreneurial Studies Level I , PV, RS, S
Entrepreneurial Studies Level II GW, MC, PV, RS, SM
General Business CG, GC, MC, PC, RS, SC, SM
General Business Specialized ..... PV
Human Resources Management ..... PC
Human Services-Assistance: Public Assistance Eligibility ..... RS
Human Services-Specialist: Customer Service. ..... RS
Human Services - Unemployment Insurance: Customer Service.. ..... RS
Insurance Studies .GC, MC, RS
International Business ..... PV
International Trade ..... MC
Management ..... PC, MC, PV
Middle Management ..... GC, PV
Military Leadership ..... RS
Motor Vehicle: Customer Service ..... RS
Office Technology ..... GW
Organizational Leadership .......... CG, GC, EM, GW, MC, PV, RS
Organizational Management CG, GC, EM, GW, MC, RS
Pharmacy: Customer Service ..... SM
Paralegal Studies ..... PC
Project Management ..... MC
Quality Customer Service ..... RS
Realtime Reporting Scoping ..... GW
Public Relations ..... MC, GC
Retail Management CG, GC, GW, MC, PC, RS, SM, SC
Retail Sales Manager ..... MC
Retail Pharmacy: Customer Service ..... RS
Small Business ..... MC
Small Business Entrepreneurship GC, SM, GW
Small Business Management ..... EM, GW
Small Business Start-Up CG, MC, PC, PV, RS, SM
Sports Management ..... PV, SC
Social Media Marketing CG, MC, SC, SM
Supervision and Management I ..... SM
Supervision and Management II ..... SM
Supervision ..... GC
Technology Support Analyst ..... MC
Utilities Customer Service ..... RS
Water Services: Customer Service ..... RS
Education and Training
Adult Learning and Development ..... RS
Adult Learning and Coaching Development ..... RS
Bilingual Education/Dual Language Immersion (BE/DLI) ..... MC
Child and Family Organizations Management and AdministrationGC, RS
Child and Family Organizations Management and Administration ..... GC, RS
Child Development Associate (CDA) Preparation
GC, PVC, SM, EM
Curriculum for Young Children ..... PC
Early Care Specialist ..... MC
Early Childhood Development ..... SM
Early Childhood Education and Administration: Birth through Age Five ..... PC
Early Childhood Classroom Management ..... PC
Early Childhood Education ..... PV, GC, EM
Early Childhood Administration and Management GC, RSC
Early Learning and Development CG, MC, RS, SM
Family Child Care Management ..... RS, SM
Foundations of Student Services ..... EM
Gifted Education ..... EM
Instructional Assistance ..... MC, SM
Infant and Toddler Development ..... RS, SM
Reading Specialist ..... MC
Workforce Development and Community Re-Entry ..... RS
Workforce Development: Trim Plumbing. ..... RS
Environmental Technology
Environmental Science Technology ..... GW
Energy Systems Technology ..... RS
Geospatial Technologies ..... MC
Occupational Safety and Health Technology ..... GW
Safety, Health and Environmental Studies ..... PV
Wastewater Treatment ..... GW
Water Resources Technologies ..... GW
Water Treatment ..... GW
Finance
Banking and Finance ..... PC
Bank Account Management: Customer Service ..... RS
Certified Residential Appraiser ..... MC
Licensed Real Estate Appraiser ..... MC
Real Estate ..... PC
Real Estate: Prelicense ..... MC, SM
Residential Appraisal Trainee ..... MC
Government and Public Administration
Public Administration ..... RS
Public Administration: Legal Services ..... RS
Tribal Development ..... SC
Health Science
Advanced Behavioral Health Sciences ..... GC, SM
Advanced Emergency Medical Technology (Paramedic) ..... PC, PV
Basic Behavioral Health ..... GC, SM
Computed Tomography ..... GW
Community Emergency Response Team (CERT): Level I ..... PC
Clinical Dental Assisting ..... RS
Community Dental Health Coordination ..... RS
Developmental Disabilities Specialist ..... GC
Diagnostic Medical Sonography ..... GW
Dental Assisting ..... PC
Dental Hygiene ..... PC, RS, MC
Dental Assisting Technology ..... RS
Diagnostic Medical Sonography: Vascular Technology ..... GW
Electroneurodiagnostic (END) Technology ..... GW
Emergency Communications and Deployment. ..... PC
Fast Track Practical Nursing ..... GW
Health Care Insurance. ..... RS
Healthcare Regulatory Compliance ..... GW
Health Information: Long Term Care Settings ..... PC
Health Information Technology ..... PC
Health Services Management ..... GW
Health Unit Coordinating/Patient Care Associate ..... GW
Histologic Technology ..... PC
Hospital Central Service Technology ..... GW
Laboratory Assisting ..... PC
Magnetic Resonance Imaging ..... GW
Medical Laboratory Sciences ..... PC
Medical Assisting ..... PC
Medical Coding: Hospital-Based ..... PC
Medical Billing and Coding: Physician-Based ..... PC
Medical Radiography ..... GW
Nursing CG, EM, GC, GW, MC, PC, PV, SC
Nurse AssistingGW, MC, PC, PV, EMNursing RefresherGW, MC
Phlebotomy ..... PC, SM
Physical Therapist Assisting ..... GW
Polysomnographic Technology ..... GW
Practical Nursing CG, GC, GW, MC, PV, SC, EM
Recovery Support ..... SM
Respiratory Care ..... GW
Speech Language Pathology Assistant ..... EM
Surgical Technology ..... GW
Surgical Technology for the Operating Room Nurse ..... GW
Hospitality and Tourism
Airline Operations ..... RS
Airline Operations: Ground Operations ..... RS
Airline Operations: Passenger Services ..... RS
Airline Operations: Reservations and Ticketing Services ..... RS
Baking and Pastry ..... EM, PC
Commercial Food Preparation ..... PC
Commercial Bakery and Pastry Arts ..... SC
Culinary Arts ..... SC
Culinary Studies ..... EM, PC
Culinary Fundamentals ..... SC, SM
Culinary Principles. ..... EM
Dietetic Technology ..... CG, PV
Food Service Administration ..... PC
Hospitality and Tourism/Golf Management ..... SC
Hospitality and Tourism/Hotel Management ..... SC
Hospitality and Tourism/Restaurant Management ..... SC
Hospitality and Tourism/Spa and Wellness Center Management.. ..... SC
Hospitality/Hotel Management ..... EM
Hospitality and Tourism/Tourism Development and Management ..... SC
Sustainable Food Systems. ..... MC, RS
Human Services
Addictions and Substance Use Disorders Level I ..... RS
Addictions and Substance Use Disorders Level II ..... RS
Addictions and Substance Use Disorders ..... RS
Adolescent Studies ..... PC
Clinical Research Coordinating ..... GW
Deaf Studies ..... PC
Exercise Science and Personal Training ..CG, GC, MC, PV, SCSMFamily Development................................................................PC
Family Support ..... PC
Group Fitness Instructor ..... MC
Interpreter Preparation ..... PC
Nutrition for Fitness and Wellness ..... GC, MC, SC
Massage Therapy ..... CG, PC
Personal Trainer ..... GC, MC
Professional Addictions Counseling ..... RS
Personal Training Specialist CG, GC, MC, PV, SC, SMRecreation ManagementMC, SC
Teaching, Healing, Meditation for Stress Management ..... PV
Yoga Instruction ..... SC
Yoga Therapy ..... SC
Information Technology
Advanced Computer Usage and Applications ..... RS
Advanced Web Designer ..... MC
Applications in Geospatial Technologies ..... MC
Adobe Foundations .GC, MC, SM, PV
Adobe Creative Suite in Business: Master Suite Applications Specialist ..... MC
Adobe Creative Suite in Business: Print and Web Applications Specialist ..... MC, PV
Adobe Creative Suite in Business: Production Applications Specialist ..... MC, SM
Business Office Computer Applications ..... GC
Comic and Sequential Art ..... PC
Computer and Information Technologies ..... SM
Computer Applications Technology. ..... EM
Computer Applications: Microsoft Office Specialist/Advanced....MC
Computer Applications: Microsoft Office Specialist/Basic. ..... MC
Computer Applications: Office Specialist/Core Level. ..... CG
Computer Applications: Office Specialist/Expert Level ..... CG
Computer Business Applications ..... CG
Computer Hardware and Desktop Support ..... CG, EM
Computer Hardware and Network Support ..... SC
Computer Information Systems ..... GC, GW, PC, PV
Computer Information Systems Technologies ..... SC
Computer Information Technology ..... PV
Computer Networking Technology ..... PV
Computer Programming ..... MC
Computer Systems Maintenance. ..... PV
Computer Technology ..... RS
Computer Usage and Applications. ..... RS
Digital Arts ..... MC
Digital Design ..... RS
Digital Photography ..... PC
Digital Arts: Digital Illustration ..... MC
Digital Arts: Digital Photography ..... MC
Digital Arts: Graphic Design ..... MC
Database Development ..... SC
Desktop Publishing ..... EM
Digital Cinema Arts ..... GC
Editing. ..... SC
eLearning Design Specialist ..... RS
Game Technology ..... MC, GC
Healthcare Technology Systems ..... GC, PV
Information Security ..... GC
Information Security Technology ..... GC
Information Technology ..... CG
Information Technology: Android/iOS Programming ..... SM
Information Technology: Cisco Networking ..... SM, MC
Information Technology: Computer Applications Specialist ..... SM
Information Technology: Microsoft Programming ..... SM
Information Technology: Network Server ..... SM
Information Technology: Network Security ..... SM
Information Technology: Programming and Mobile DevelopmentSM
Information Technology Support ..... SM
IT and Power Systems Security ..... EM
Linux Associate CG, EM, MC
Linux Networking Administration ..... EM, GC, MC
Linux Professional CG, EM, GC, GW, PC, SC ..... , MC, PV
Microsoft Desktop Support Technology ..... EM, GC, PV
Microsoft Networking Technology ..... EM, GC, GW, PV
Microsoft Technical Specialist ..... EM, GW, PV
Microsoft Server Administration ..... EM, GC
Microsoft Certified Information Technology Professional (MCITP) Administrator ..... EM, GW
Mobile Apps Programming ..... EM, PV, RS, SM
Multimedia and Business Technology ..... MC
Media Arts: Computer Art/Illustration ..... CG, PC
Media Arts: Digital Animation ..... PC
Media Arts: Digital Imaging ..... CG, PC
Media Arts: Web Design ..... PC
Motion Picture/Television Production ..... SC
Multimedia Technology ..... MC
Network Administration ..... SC
Network Administration: CISCO Network Professional MC, SM
Network Administration: Microsoft Windows Server .....CG, GW,MC, SMNetworking: Design and System SupportRS
Networking Administration: Cisco ...CG, EM, GC, GW, SM, MC
Networking System Administration ..... MC
Networking Technology: Cisco ..... CG, EM, GC, GW
Oracle Database Operations ..... CG
Production Film ..... SC
Production Television ..... SC
Programming ..... RS, EM, SM
Programming and System Analysis CG, EM, GC, MC,PC, PV,
SC, SC
Software Development ..... SC
Screenwriting ..... SC
Technical Theatre ..... PC, SCC
Web Application Development ..... SM
Web Design GC, PV, EM, PC, CG, SM
Web Design Technologies ..... SC
Web Design: User Interface ..... RS
Web Designer ..... MC
Web Developer ..... GC, MC, PC, PV, EM
Web Development ..... SC
Web Development and Graphic Design. ..... SM, EM
Web Server Administrator ..... MC
Manufacturing
Advanced CAM Systems Programming ..... MC
Automation Technology ..... MC
Automation Technology Level I ..... MC
Automation Technology Level II ..... MC
Automation Technology Level III ..... MC
Applied Electrical Technologies ..... RS
CAD Application ..... GC
CAD Fundamental ..... GC
CNC Machining I ..... MC
CNC Machining II ..... MC
CAD Technology ..... GC
Computer and Networking Technology ..... GC
Electro/Mechanical Drafting ..... MC
Electromechanical Manufacturing Technology ..... MC
Electric Utility Technology ..... CG
Electric Utility Design Technology ..... CG
Electrical Technology: Residential Wiring ..... GW
Electromechanical Automation Technology ..... MC
Electronics Engineering Technology ..... MC
Electronics Technology ..... MC
Industrial Design Technology ..... GW
Industrial Design Technology: Design Specialist: SolidWorksGW
Lineman Technology Level I ..... RS
Lineman Technology Level II ..... RS
Lineman Technology Level III ..... RS
Lineman Technology Level IV ..... RS
Machining I ..... MC
Machining II ..... MC
Manufacturing Engineering Technology ..... MC
Manufacturing Management ..... MC
Manufacturing Welding ..... MC
Micro Circuit Mask Design ..... MC
Meter Technology ..... CG
Network Maintenance ..... GC
Nuclear Power Technology ..... EM
Production Technology ..... GW
Production Technology: CNC Technology ..... GW
Production Technology: Quality Assurance ..... GW
Workforce Development: Electrical Level I ..... RS
Workforce Development: Electrical Level II ..... RS
Welding ..... MC
Marketing, Sales, and Service
Marketing ..... PC, PV, SC
Salesmanship ..... MC
Law, Public Safety, Corrections, and Security
Administration of Justice EM, GC, PC, PV, RS
Administration of Justice-Comprehensive ..... PC
Administration of Justice-Fundamentals ..... PC
Administration of Justice Studies ..... CG, MC, SC, GW
Advanced Corrections ..... RS
Basic Corrections ..... RS
Corrections ..... RS
Correctional Studies ..... CG
Crime and Accident Scene Photography ..... PC, SC
Crime Scene Investigation ..... SC, PC
Crime Scene Technology ..... SC, PC
Detention Services ..... RS
Domestic Preparedness and Homeland Security ..... PC
Driver Operator GC, EM, MC, PC, PV
Evidence Technology ..... PC
Evidence Technology ..... EM
Emergency Medical Technology CG, GC, MC, PC, PV, SC
Emergency Management ..... MC, PV
Emergency Response and Operations ..... V, SC
Fire AcademyGC, SC
Fire Officer Leadership MC, EM, GC, PC, PV
Fire Science PV, EM, MC
Firefighter Operations GC, MC, PC, PV, EM
Fingerprint Classification and Identification ..... PC, SC
Forensic Investigation ..... MC
Forensic Technology ..... PC
Forensic Science: Crime Lab ..... SC
Fire Investigation EM, GC, PC, PV
Global Citizenship ..... MC
Homeland Security ..... CG, GW
Hazardous Materials Response ..... PC
Judicial Studies ..... MC
Justice Studies ..... CG, SC, EM
Juvenile Corrections ..... RS
Law Enforcement Investigator. ..... GC
Law Enforcement Technology Academy ..... RS
Law Enforcement ..... SC
Law Enforcement Training Academy ..... GC, CG
Legal Studies ..... MC
Paralegal. ..... RS
Paramedicine GC, PC, PV, MC
Police Academy Preparation Level I ..... SC
Police Science ..... MC
Public Safety Technology ..... RS
Tribal Court Advocacy ..... SC
Victimology ..... MC
Science, Technology, Engineering and Mathematics
Aircraft Maintenance Technology ..... CG
Aircraft Maintenance Technology (Part 147) ..... CG
Airframe Maintenance (Part 147) ..... CG
Airway Science Technology, Flight Emphasis ..... CG
Biotechnology ..... MC
Biotechnology and Molecular Biosciences ..... GC
Certified Flight Instructor Instrument Airplane Rating ..... CG
Engineering Technology ..... GC, CG, EM, SM
Flight Technology ..... CG
Nanotechnology ..... RS
Powerplant Maintenance (Part 147) ..... CG
Transportation, Distribution, and Logistics
Air Conditioning and Electrical Accessories ..... GW
Air Conditioning ..... MC
Automotive Chassis ..... GC
Automotive Drive Trains ..... GW
Automotive Electrical Systems ..... MC
Automotive Engines and Drive Trains ..... GC
Automotive Performance Technology ..... MC
Automotive Suspension, Steering and Brakes ..... GW
Automotive Technology ..... GC, GW
Automotive Maintenance and Light Repair. ..... GC
Automotive Engine Performance ..... GC
Automotive Heating, Ventilation and Air Conditioning (HVAC)..GC
Automotive Technology ..... GC
Brakes, Alignment, Suspension and Steering ..... MC
Engine Performance and Diagnosis ..... GW, MC
Transmissions and Power Trains. ..... MC
Workforce Development: Automotive Technology Level I ..... RS
Workforce Development: Automotive Technology Level II ..... RS

## CAREER AND TECHNICAL EDUCATION



- Academic achievement is related to initial course placement determined by course placement tests, completion of 100-200 level course pre-/corequisites, any courses below 100 level, and program prerequisites.
- Students should meet with an academic advisor, program director, or counselor who can assist in assessing student needs that may affect course enrollment. Appropriate resources can be discussed and agreed to in order to address student needs and support successful course completion.

Key for General Education Requirements:
Critical Rdg = Critical Reading
FYC = First Year Composition
HUM = Humanities and Fine Arts
Mathematics $=$ Mathematics
NS = Natural Science
Oral Comm = Oral Communication
$\mathrm{PP}=$ Program Prerequisite
SB = Social \& Behavioral Sciences
RC $=$ Required Courses
RE $=$ Restricted Electives

## Automation Certificates/Degrees

- Associate in Applied Science in Automation Technology
- Associate in Applied Science in Electromechanical 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
- Certificate of Completion in Electromechanical Automation Technology
Department Contact Information: (480) 461-7144


## Associate in Applied Science (AAS) in Automation Technology

Total Credits: 65-72
Major Code: 3000
Description: 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.

## Suggested Course Plan Sequenced by Semester:

## Track I

https://www.mesacc.edu/programs/course-sequences/automation-technology-track-i-process-control-sys
Track II
https://www.mesacc.edu/programs/course-sequences/automation-technology-track-ii-electromechanical-

## Program Notes:

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

+ indicates course has prerequisite and/or corequisites.
Admission Criteria: Math assessment score on District placement exam placing students into MAT090 or higher, or permission of department.

Program Prerequisites: None

## Required Courses

Credits: 32
ATP101 Introduction to Automated Systems and Robotics 2
ATP105 Engineering Documentation 2
ATP110 Basic Manufacturing Processes 2
ATP130 DC Circuit Analysis 2
ATP135 AC Circuit Analysis 2
ATP150 Fluid Power 1 Hydraulics, Pneumatics, and Vacuum

## CAREER AND TECHNICAL EDUCATION

## Concepts 2

ATP 175 Introduction to Motors and Motor Controls 2
ATP180 PLC 1 Introduction to Ladder Logic 4
ATP200 Sensors and Measurement 2
ATP215 Digital and Analog Circuits 2
ATP222 Servo Systems 2
ATP290 Lean Techniques and Six Sigma 3
CIS105 Survey of Computer Information Systems 3
FAC/GTC/MIT/OSH106 Industrial Safety 2

## Restricted Electives

Credits: 11-13
Students should select one track, and take the required electives there in.

Track 1 Process Control Systems and Programming 11 Credits ATP160 PLC 2 HMI Interfaces and Function Block Programming 3
ATP245 Introduction to Solid Modeling Solidworks 3
ATP251 Fluid Power 2 Automation Applications 2
ATP260 Automation System Integration 13
Track 2 Electromechanical and Hybrid Systems 13 Credits
ATP235 CNC Programming 2
+ATP245 Solids Modeling - Solidworks 3
ATP251 Fluid Power 2 Automation Applications 2
+ATP260 Automation System Integration 13
+ATP265 Automation System Integration 23
General Education Requirements
Credits: 22-27
General Education Core
Credits: 12-17
Credits: 6
First-Year Composition

+ ENG101 First-Year Composition (3) AND
+ ENG111 Technical and Professional Writing (3) 6
+ (ENG102 First-Year Composition is acceptable only if ENG111 is not available)

Oral Communication COM110 Interpersonal Communication 3 Critical Reading

Credits: 3
Credits: 0-3

+ CRE101 Critical and Evaluative Reading I (3) OR
Equivalent as indicated by assessment 0-3
Mathematics
Credits: 3-5
+ 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

General Education Distribution
Humanities and Fine Arts
Credits: 10

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

Social and Behavioral Sciences
Credits: 3
SOC101 Introduction to Sociology 3

## Natural Sciences

Credits: 4
Any approved general studies course in the Natural Sciences Area 4

## Associate in Applied Science (AAS) in Electromechanical Automation Technology

Total Credits: 64
Major Code: 3544

Description: The Associate in Applied Science (AAS) in Electromechanical Automation Technology prepares students to work as electro-mechanical automation technicians in industrial and commercial companies, using equipment that incorporates mechanical, hydraulic, pneumatic, electronic, optical, and thermal devices. The program provides a broad algebrabased background required for a career in electro-mechanical automation technology.

## Suggested Course Plan Sequenced by Semester

https://www.mesacc.edu/programs/detail/electromechanical-automation-technology-aas

## Program Notes:

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

+ indicates course has prerequisites and/or corequisites.


## Program Prerequisites

Credits: 11
ELE100 Concepts of Electricity and Electronics 3
ELE101 Beginning Algebra for Technology 3
ELE105 Algebra-Trigonometry for Technology 5
Required Courses
Credits: 46
DFT114 Machine Trades Blueprint Reading 3

+ DFT252AA Computer Aided Drafting I: AutoCAD 3
ELE111 Circuit Analysis I 4
+ ELE121 Solid-State Devices and Circuits I 4
+ ELE223 Industrial Electronics Circuits and Systems 4
+ ELE251 Electronic Measurements 3
GTC104 Manufacturing Processes 4
GTC106AA Industrial Safety 2
+ GTC181 Introduction to Fluid Power 3


## CAREER AND TECHNICAL EDUCATION

+ GTC185 Electro-Mechanical Devices 4
+ GTC/MIT209 Automated Manufacturing 3
+ GTC266 Solids Modeling 3
+ GTC272 Automated Control Systems (PLC Application) 3
+ GTC273 Industrial Automations Controls and System Integration 3


## General Education Requirements <br> Credits: 18

## General Education Core

Credits: 12
First-Year Composition
Credits: 6
Any approved general education course in the First-Year Composition area

## Oral Communication

Credits: 3
Any approved general education course in the Oral
Communication area

## Critical Reading

Credits: 3
CRE101 Critical and Evaluative Reading I (3) OR equivalent as indicated by assessment

## Mathematics

Met by ELE105 in Program Prerequisite area

## General Education Distribution

Humanities and Fine Arts
Credits: 0

Credits: 6
Credits: 3
Any approved general education course in the Humanities and Fine Arts area

Social and Behavioral Sciences
Credits: 3
Any approved general education course in the Social and Behavioral Sciences area.

Natural Sciences
Credits: 0
Met by ELE111, ELE121, ELE223, in Required Courses area

## Certificate of Completion (CCL) in Automation Technology Level I

Total Credits: 17
Major Code: 5000
Description: 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.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-8/gedt-8.html

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/automation-technology-level-i-ccl

Program Notes:

+ indicates course has prerequisites and/or corequisites.
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 by department

Program Prerequisites:
None
Required Courses
Credits: 17
ATP101 Introduction to Automated Systems and Robotics 2
ATP105 Engineering Documentation 2
ATP110 Basic Manufacturing Processes 2
CIS105 Survey of Computer Information Systems 3
COM100 Introduction to Human Communication 3

+ ENG101 First Year Composition 3
GTC/MIT/OSH106 Industrial Safety 2


## Certificate of Completion (CCL) in Automation Technology Level II

Total Credits: 17-19
Major Code: 5630
Description: The Certificate of Completion (CCL) in Automation Technology Level II program allows students to be able to evaluate and troubleshoot minor system problems and contribute to their solution or correction. Companies may authorize these employees to perform specific repairs and adjustments. If there are major system problems, this person is expected to recognize the situation and report the technical information to the appropriate repair person.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-9/gedt-9.html

## Suggested Course Plan Sequenced by Semester

https://www.mesacc.edu/programs/course-sequences/automation-technology-level-ii-ccl

Program Notes:
Students must earn a grade of "C" or better in all courses within

## CAREER AND TECHNICAL EDUCATION

the program.

+ indicates course has prerequisite and/or corequisites.

Admission Criteria: Math assessment score placing students into MAT090 or higher, or permission by department

Program Prerequisites
Credits: 17
Certificate of Completion in Automation Technology Level I (5000) 17

## Required Courses

Credits: 17-19
ATP130 DC Circuit Analysis 2
ATP135 AC Circuit Analysis 2

+ ATP150 Fluid Power 1 Hydraulics, Pneumatics, and Vacuum Concepts 2
ATP 175 Introduction to Motors and Motor Controls 2
ATP180 PLC 1 Introduction to Ladder Logic 4
+ 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


## Certificate of Completion (CCL) in Automation Technology Level III

Total Credits: 10
Major Code: 5696 N
Description: 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.

## Suggested Course Plan Sequenced by Semester

https://www.mesacc.edu/programs/course-sequences/automation-technology-level-iii-ccl

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

+ indicates course has prerequisite and/or corequisites.

Admission Criteria: Math assessment score placing students into MAT090 or higher, or permission by department

Program Prerequisites
Credits: 15-17
Certificate of Completion in Automation Technology Level II (5630N) 15-17

Required Courses
Credits: 10

+ ATP215 Digital and Analog Circuits 2
+ ATP222 Servo Systems 2
ATP290 Lean Techniques and Six Sigma 3
+ ENG111 Technical and Professional Writing 3


## Certificate of Completion (CCL) in

 Electromechanical Automation TechnologyTotal Credits: 29
Major Code: 5546

Description: The Certificate of Completion (CCL) in Electromechanical Automation Technology prepares students to work as electromechanical automation technicians in industrial and commercial companies, using equipment that incorporates mechanical, hydraulic, pneumatic, electronic, optical and thermal devices.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-28/gedt-28.html

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/
electromechanical-automation-technology-ccl

Program Notes:

+ indicates course has prerequisites and/or corequisites.
Students must earn a grade of "C" or better for each course listed in the Required Courses area.


## Program Prerequisites

Credits: 11
ELE100 Concepts of Electricity and Electronics 3
ELE101 Beginning Algebra for Technology 3
ELE105 Algebra-Trigonometry for Technology 5
Required Courses
Credits: 29
DFT114 Machine Trades Blueprint Reading 3

+ DFT252AA Computer Aided Drafting I: AutoCAD 3
+ ELE111 Circuit Analysis I 4
+ ELE121 Solid-State Devices and Circuits I 4
GTC106AA Industrial Safety 2
+ GTC181 Introduction to Fluid Power 3
+ GTC185 Electro-Mechanical Devices 4


## CAREER AND TECHNICAL EDUCATION

+ GTC/MIT209 Automated Manufacturing 3
+ GTC272 Automated Control Systems (PLC Applications) 3


## Administration of Justice Studies Certificates and Degrees

- Associate in Applied Science in Administration of Justice Studies
- Associate in Applied Science in Judicial Studies
- Associate in Applied Science in Police Science
- Certificate of Completion in Legal Studies
- Certificate of Completion in Judicial Studies
- Certificate of Completion in Police Science
- Certificate of Completion in Forensic Investigation
- Certificate of Completion in Victimology

Department Contact Information: (480) 461-7080

## Associate of Applied Science (AAS) in Administration of Justice Studies

Total credits: 64
Major Code: 3398

The 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.

## Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/course-sequences/ administration-of-justice-studies-aas

## 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/suffixed courses.

Program Prerequisites: None

## 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)
General Education Requirements Credits: 25-27
General Education Core
Credits: 15-17
First-Year Composition
Credits: 6

+ ENG101 First Year Composition (3) AND
ENG102 First Year Composition (3)
Oral Communication
Credits: 3
COM100 Introduction to Human Communication (3) OR
COM225 Public Speaking (3) OR
COM230 Small Group Communication (3)
Critical Reading
Credits: 3
CRE101 Critical and Evaluative Reading I (3) OR
Equivalent as indicated by assessment


## Mathematics

Credits: 3-5
MAT112 Mathematical Concepts and Applications (3) OR
MAT120 Intermediate Algebra (5) OR
MAT121 Intermediate Algebra (4) OR
MAT122 Intermediate Algebra (3) OR Equivalent as indicated by assessment OR Approved math courses which are required in a specific AAS program OR Satisfactory completion of a higher level mathematics course

General Education Distribution
Credits: 10
Humanities and Fine Arts
Credits: 3
AJS123 Ethics and the Administration of Justice 3
Social and Behavioral Sciences
Credits: 3
Any approved general education course from the SocialBehavioral Sciences area.
AJS200 or AJS258 or AJS270 recommended.
Natural Sciences
Credits: 4
Any approved general education course from the Natural
Sciences area.
Associate in Applied Science (AAS) in Judicial Studies
Total Credits - 64
Major Code - 3394

## CAREER AND TECHNICAL EDUCATION

An Associate in Applied Science (AAS) degree 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.

## Required Courses

Credits: 33
AJS101 Introduction to Criminal Justice 3
AJS109 Substantive Criminal Law 3
AJS119 Computer Applications in Justice Studies 3
AJS201 Rules of Evidence 3
AJS210 Constitutional Law 3
AJS/EMT/SWU258 Victimology and Crisis Management 3
AJS260 Procedural Criminal Law 3
JUD101 The Courts in Arizona 1
JUD103 Role of the Court Staff 1
JUD107 Civil Procedure in Arizona Courts 2
JUD109 Judicial Writing 1
JUD111 Sentencing Misdemeanants 1
JUD113 Court Management 2
JUD115 Injunctive Actions 2
JUD119 Alternative Dispute Resolution 1
JUD121 Appeals 1
Restricted Electives
Credits: 6-9
Select 9 credits from the following list of courses:
AJS+++++ Administration of Justice Studies (Any AJS module)
LAS+++++ Legal Assisting (Any LAS module)
POS+++++ Political Science (Any POS module) 6-9

## General Education Requirements

 Credits: 25General Education Core Credits: 15
First-Year Composition

+ ENG101 First-Year Composition (3) OR
ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
ENG108 First-Year Composition for ESL (3) 6
Oral Communication
Credits: 3
COM100 Introduction to Human Communication (3) OR
COM225 Public Speaking (3) 3
Critical Reading
Credits: 3
CRE101 Critical and Evaluative Reading I 3
Mathematics
Credits: 3
MAT112 Mathematical Concepts and Applications (3) OR
Satisfactory completion of a higher-level mathematics course.

General Education Distribution
Credits: 10

Humanities and Fine Arts
Credits: 3
AJS123 Ethics in Criminal Justice 3
Social and Behavioral Sciences
Credits: 3
Any approved general education course from the SocialBehavioral Sciences area.

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

## Associate in Applied Science (AAS) in Police Science

Total Credits: 64
Major: 3107

The Associate of 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.

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/police-science-aas

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.
Required Courses
Credits: 24
AJS101 Introduction to Criminal Justice 3
AJS109 Substantive Criminal Law 3
AJS151 Firearms I 1
+ AJS153 Firearms II/Handguns 1
AJS205 Criminal Justice Report Writing 3
AJS230 The Police Function 3
AJS260 Procedural Criminal Law 3
AJS270 Community Relations 3
AJS275 Criminal Investigation I 3
AJS290BU Family Violence 1
Restricted Electives
Credits: 15-18
AJS+++++ Any AJS Administration of Justice Studies course OR
JUD+++++ Any JUD Judicial Studies course


## CAREER AND TECHNICAL EDUCATION

## General Education Requirements

 Credits: 25General Education Core
Credits: 15

## First-Year Composition

ENG101 First-Year Composition (3) OR
ENG107 First-Year Composition for ESL (3) AND
ENG102 First-Year Composition (3) OR
ENG108 First-Year Composition for ESL (3)
Oral Communication
Credits: 3
COM100 Introduction to Human Communication (3) OR
COM225 Public Speaking (3) OR
COM230 Small Group Communication (3)
Critical Reading
Credits: 3
CRE101 Critical and Evaluative Reading I (3) OR
equivalent as indicated by assessment

## Mathematics

Credits: 3
MAT112 Mathematical Concepts and Applications (3) OR Satisfactory completion of higher-level mathematics course 3

General Education Distribution
Credits: 10

Humanities and Fine Arts
AJS123 Ethics and the Administration of Justice 3
Social and Behavioral Sciences
Credits: 3
AJS/EMT/FSC/SWU258 Victimology and Crisis Management 3
Natural Sciences
Credits: 4
Any approved general education course in the Natural Sciences area.

## Certificate of Completion in Legal Studies

Total Credits: 18
Major Code: 5635

The Certificate of Completion (CCL) in Legal Studies, an interdisciplinary study of law, 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.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-42/gedt-42.html

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/legal-studies-ccl

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
Certificate of Completion (CCL) in Judicial Studie
Total Credits: 15
Major Code: 5002

A 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 fro 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.

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/judicial-studies-ccl

## Program Notes:

## This program is not eligible for Title IV Federal Financial

 Aid.Required Courses
Credits: 15
AJS101 Introduction to Criminal Justice 3
JUD101 The Courts in Arizona 1
JUD103 Role of the Court Staff 1
JUD107 Civil Procedure in Arizona Courts 2
JUD109 Judicial Writing 1
JUD111 Sentencing Misdemeanants 1
JUD113 Court Management 2
JUD115 Injunctive Actions 2
JUD119 Alternative Dispute Resolution 1
JUD121 Appeals 1

## CAREER AND TECHNICAL EDUCATION

## Certificate of Completion in Police Science

Total Credits: 18
Major Code: 5107

## 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.Consumer Program Costs and Career Information: https://www.mesacc.edu/programs/ge/gedt-61/gedt-61.html

## Suggested Course Plan Sequenced by Semester

 https://www.mesacc.edu/programs/course-sequences/police-science-cclProgram Notes:

+ indicates course has prerequisites and/or corequisites.
Students must earn a grade of "C" or better in all courses within the program.


## Required Courses

Credit: 18
AJS101 Introduction to Criminal Justice 3
AJS151 Firearms I 1

+ AJS153 Firearms II/Handguns 1
AJS205 Criminal Justice Report Writing 3
AJS230 The Police Function 3
AJS270 Community Relations 3
AJS275 Criminal Investigation I 3
AJS290BU Family Violence 1


## Certificate of Completion (CCL) in Forensic Investigation

Total Credits: 18
Major Code: 5488

Description: 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.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-35/gedt-35.html

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/forensic-investigation-ccl

Program Notes:

+ indicates course has prerequisites and/or corequisites.
Students must earn a grade of "C" or better for all courses within the program.

Program Prerequisites: None
Required Courses
Credits: 18
AJS215 Criminalistics: Physical Evidence 3
AJS216 Criminalistics: Biological Evidence 3
AJS241 Police Photography 3
AJS275 Criminal Investigation I 3
AJS290AU Child Abuse Investigation 1
AJS290BH Sex Crimes Investigation 1
ASM/FOR275 Forensic Anthropology 4

## Certificate of Completion in Victimology

Total Credits: 15
Major Code: 5392N
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.

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/forensic-investigation-ccl

## Program Notes:

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

+ indicates course has prerequisites and/or corequisites.
Program Prerequisites:
None
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/SWU258 Victimology and Crisis Management 3


## CAREER AND TECHNICAL EDUCATION

## Audio Production Certificates and Degrees

Associate in Applied Science in Audio Production Technologies Certificate of Completion in Audio Production Technologies

Department Contact Information: (480) 461-7164

## Associate in Applied Science (AAS) in Audio Production Technologies

Total Credits: 62-69
Major Code: 3024

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.

## Suggested Course Plan Sequenced by Semester:

Track I Audio Production
https://www.mesacc.edu/programs/course-sequences/audio-production-technologies-track-i-audio-produ

## Track II Sound Design

https://www.mesacc.edu/programs/course-sequences/audio-production-technologies-track-ii-sound-desi

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

+ indicates course has prerequisite and/or corequisites.
Program Prerequisites:
None


## Required Courses

Credits: 37-41
MTC101 Introduction to Music Theory or higher level Music Theory 3
MTC103 Introduction to Aural Perception or higher level Aural Perception 1
MTC191 Electronic Music I 3
+MTC192 Electronic Music II 3
MUC109 Music Business: Merchandising and the Law 3

MUC110 Music Business: Recording and Mass Media (3) OR MUC145 Recording Studio Business Operations (2) 2-3
+MUC111 Digital Audio Workstation I (DAW I) 3
+MUC112 Digital Audio Workstation II (DAW II) 3

MUC195 Studio Music Recording I (3) OR
MUC195AA Studio Music Recording I (3) 3
+MUC196 Studio Music Recording II (3) OR
+MUC196AA Studio Music Recording II (3) 3
+MUC297AA Music Internship 1
Select one (1) of two (2) tracks:
Track I: Audio Production: Credits: 9
MUC197 Live Sound Reinforcement I 3
+MUC198 Live Sound Reinforcement II 3
+MUC295 Studio Music Recording III 3

Track II: Sound Design: Credits: 12
+MUC122 Sound Design I (3) OR
+MTC/TCM120 Introduction to Sound Design for Film and Video (3) 3
+MUC222 Sound Design II (3) OR
+MTC/TCM220 Advanced Sound Design for Film and Video (3)
3
+MUC194 Introduction to Audio Mixing Techniques 3
+MUC292 Sound Design III 3
General Education Requirements
Credits: 25-28
General Education Core
Credits: 12-15
First-Year Composition
Credits: 6
Any approved general education courses from the First-Year Composition area.

Oral Communication
Credits: 3
Any approved general education course from the Oral Communication area.

Critical Reading
Credits: 0-3
CRE101 College Critical Reading (3) OR
equivalent as indicated by assessment
Mathematics
Credits: 3
Any approved general education course from the Mathematics area.

## CAREER AND TECHNICAL EDUCATION

## General Education Distribution

Humanities and Fine Arts
Any approved general education course from the Humanities and Fine Arts area.
MHL140 or MHL145 or MHL153 recommended.

## Social and Behavioral Sciences

Credits: 3
Any approved general education course from the Social and Behavioral Sciences area.

## Natural Sciences

Any approved general education course from the Natural Sciences area.

## Certificate of Completion (CCL) in Audio Production Technologies

Total Credits: 37-41
Major Code: 5334

Description: 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.

Consumer Program Costs and Career Information: https://www.mesacc.edu/programs/ge/gedt-7/gedt-7.html

Suggested Course Plan Sequenced by Semester:
Track I Audio Production
https://www.mesacc.edu/programs/course-sequences/audio-production-technologies-ccl
Track II Sound Design
https://www.mesacc.edu/programs/course-sequences/audio-production-technologies-track-ii-sound-desig

## Program Notes:

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

+ indicates course has prerequisite and/or corequisites.
Program Prerequisites:
Required Courses
Credits: 37-41
MTC101 Introduction to Music Theory or higher level Music Theory 3
MTC103 Introduction to Aural Perception or higher level Aural

Perception 1
MTC191 Electronic Music I 3
+MTC192 Electronic Music II 3
MUC109 Music Business: Merchandising and the Law 3

MUC110 Music Business: Recording and Mass Media (3) OR
MUC145 Recording Studio Business Operations (2) 2-3
+MUC111 Digital Audio Workstation I (DAW I) 3
+MUC112 Digital Audio Workstation II (DAW II) 3

MUC195 Studio Music Recording I (3) OR
MUC195AA Studio Music Recording I (3) 3
+MUC196 Studio Music Recording II (3) OR
+MUC196AA Studio Music Recording II (3) 3
+MUC297AA Music Internship 1

Select one (1) of two (2) tracks:
Track I: Audio Production: Credits: 9
MUC197 Live Sound Reinforcement I 3
+MUC198 Live Sound Reinforcement II 3
+MUC295 Studio Music Recording III 3

Track II: Sound Design: Credits: 12
+MUC122 Sound Design I (3) OR

+ MTC/TCM120 Introduction to Sound Design for Film and Video (3) 3
+MUC222 Sound Design II (3) OR
+MTC/TCM220 Advanced Sound Design for Film and Video (3)
3
+MUC194 Introduction to Audio Mixing Techniques 3
+MUC292 Sound Design III 3


## Certificate of Completion (CCL) in Sound Design

Total Credits: 41
Major Code: 5686

The Certificate of Completion (CCL) in Sound Design program 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 and Television, Animation, Radio, Theatre, and Commercial Advertising.

## CAREER AND TECHNICAL EDUCATION

Consumer Program Costs and Career Information: https://www.mesacc.edu/programs/ge/gedt-72/gedt-72.html

Suggested Course Plan Sequenced by Semester:
https://www.mesacc.edu/programs/course-sequences/sound-design-ccl

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

+ indicates course has prerequisites and/or corequisites
Admission Criteria: Formal application and admission to the program is required.

Program Prerequisites:
None

## Required Courses

Credits: 41

+ MTC105 Music Theory I 3
+ MTC106 Aural Perception I 1
+MUC122 Sound Design I (3) OR
+ MTC/TCM120 Introduction to Sound Design for Film and Video (3) 3

MTC191 Electronic Music I 3

+ MTC192 Electronic Music II 3
+MUC222 Sound Design II (3) OR
+ MTC/TCM220 Advanced Sound Design for Film and Video
(3) 3

MUC109 Music Business: Merchandising and the Law 3 MUC110 Music Business: Recording and Mass Media 3

+ MUC111 Digital Audio Workstation I (DAW I) 3
+ MUC112 Digital Audio Workstation II (DAW II) 3
+ MUC194 Introduction to Audio Mixing Techniques 3

MUC195 Studio Music Recording I (3) OR
MUC195AA Studio Music Recording I (3) 3

+ MUC196 Studio Music Recording II 3
+ MUC297AA Music Internship 1
+ MUC292 Sound Design III 3


## Automotive Certificates and Degrees

Associate in Applied Science in Automotive Performance Technology
Certificate of Completion in Automotive Electrical Systems

Certificate of Completion in Brakes, Alignment, Suspension, and Steering
Certificate of Completion in Engine Performance and Diagnosis
Department Contact Information: (480) 461-7141
Associate in Applied Science (AAS) in Automotive Performance Technology
Total Credits: 65-72
Major Code: 3482
Description: 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.

## Suggested Course Plan Sequenced by Semester

https://www.mesacc.edu/programs/course-sequences/automotive-performance-technology-aas

## Program Notes:

+ indicates course has prerequisites and/or corequisites.
Students must earn a grade of "C" or better for each course listed in the Required Courses area.

Program Prerequisites: None

## Required Courses

Credits: 44-45
APT101 Automotive Service Operations 3
APT131 Automotive Manual 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
+ AUT298AA Special Projects (1) OR
+ AUT298AB (2) 1-2


## CAREER AND TECHNICAL EDUCATION

## General Education Requirements Credits: 21-27

General Education Core
Credits: 12-17
First-Year Composition
Credits: 6
ENG101 First-Year Composition (3) OR
ENG107 First-Year Composition for ESL (3) AND
ENG102 First-Year Composition (3) OR
ENG108 First-Year Composition for ESL (3) OR
ENG111 Technical Writing (3)
Oral Communication
Credits: 3
COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR
COM225 Public Speaking (3) OR
COM230 Small Group Communication (3)
Critical Reading
Credits: 0-3
CRE101 Critical and Evaluative Reading I (3) at "C" level or above OR equivalent as indicated by assessment

Mathematics
Credits: 3-5
GTC107 or any approved general education mathematics course
General Education Distribution
Credits: 9-10
Humanities and Fine Arts
Credits: 2-3
Any approved general education course in the Humanities and Fine Arts area

## Social and Behavioral Sciences

Credits: 3
Any approved general education course in the Social and Behavioral Sciences area

Natural Sciences
Credits: 4
Any approved general education course in the Natural Sciences area

## The Certificate of Completion (CCL) in Automotive Electrical Systems

Total Credits: 19
Major Code: 5449

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. 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 Description: 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.

Consumer Program Costs and Career Information
https://www.mesacc.edu/programs/ge/gedt-10/gedt-10.html

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/automotive-electrical-systems-ccl

## Program Notes:

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

+ indicates course has prerequisites and/or corequisites.

Program Prerequisites: None
Required Courses
Credits: 19
APT101 Automotive Service Operations 3
APT151 Automotive Brake Systems 4
APT161 Automotive Electrical/Electronic Systems I 4
APT171 Automotive Air Conditioning 4
+APT262 Automotive Electrical and Electronic Systems II 4
Certificate of Completion (CCL) in Brakes, Alignment, Suspension and Steering
Total Credits: 19
Major Code: 5459

Description: The Certificate of Completion (CCL) in Brakes, Alignment, Suspension and Steering program provides students the opportunity to learn the theory and practical skills necessary to service automotive vehicles. This CCL will introduce students to the theory, diagnosis, service and repair of Automotive Brake Systems, Powertrain Systems, Steering, and Suspensions Systems in vehicles. It also introduces students to vehicle alignment techniques and procedures. Courses in the CCL may include lecture and lab components to provide suitable classroom related material/theory, combined with hands-on learning experiences.

## CAREER AND TECHNICAL EDUCATION

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.

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/course-sequences/brakes-alignment-suspension-and-steering-ccl

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

Program Prerequisites: None

Required Courses
Credits: 19

APT101 Automotive Service Operations 3
APT131 Automotive Manual Power Trains 6
APT141 Alignment, Steering, and Suspension 6
APT151 Automotive Brake Systems 4

## The Certificate of Completion (CCL) in Engine Performance and Diagnosis

Total Credits: 19
Major Code: 5478

Description: 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, and repair of Engine Performance 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.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-32/gedt-32.html

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/engine-performance-and-diagnosis-ccl

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

+ indicates course has prerequisite and/or corequisites.
Program Prerequisites: None
Required Courses
Credits: 19
APT101 Automotive Service Operations 3
APT161 Auto Electrical/Electronic Systems I 4
APT181 Engine Performance and Diagnosis I 6
+APT282 Engine Performance and Diagnosis II 6


## Biotechnology Certificates and Degrees

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

Department Contact Information: (480) 461-7762

## Associate in Applied Science in Biotechnology

Total Credits: 67-69
Major Code: 3004

Description: 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.

Program Notes:

+ indicates course has prerequisites and/or corequisites.


## CAREER AND TECHNICAL EDUCATION

## 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 Critical and Evaluative Reading I (3) OR
CRE111 Critical Reading for Business and Industry (3) OR Equivalent as indicated by assessment. 0-3

MAT120 Intermediate Algebra (5) OR
MAT121 Intermediate Algebra (4) OR
MAT122 Intermediate Algebra (3) OR
Equivalent as indicated by assessment 0-5

## Required Courses

Credits: 52-54

BIO181 General Biology (Majors) I 4
BIO211AA Biotechnology Seminar: Biomedical Applications 1
BIO212AA Biotechnology I 5
BIO212AB Biotechnology II 5
BIO212AC Biotechnology III 5
BIO220 Biology of Microorganisms 4

+ BIO240 General Genetics 4
+ BIO244 General Genetics Laboratory 1
+ BIO249 Applied Biosciences: Biotechnology Internship 4 CHM151 General Chemistry I 3
CHM151LL General Chemistry I Laboratory 1
+ CHM152 General Chemistry II 3
+ CHM152LL General Chemistry II Laboratory 1
+ CHM230 Fundamental Organic Chemistry 3
+ CHM230LL Fundamental Organic Chemistry Laboratory 1
+ CHM260 Fundamental Biochemistry 3
+ CHM260LL Fundamental Biochemistry Laboratory 1
+ MAT150 College Algebra/Functions (5) OR
+ MAT151 College Algebra/Functions (4) OR
+ MAT152 College Algebra/Functions (3) 3-5

General Education Requirements Credits: 15

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

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)

Critical Reading
Credits: 0
Met by CRE courses in Program Prerequisites area
Mathematics
Credits: 0
Met by MAT courses in Program Prerequisites area

General Education Distribution
Credits: 6
Humanities and Fine Arts
Credits: 3
PHI213 Medical and Bio-Ethics
Social and Behavioral Sciences
Credits: 3
Any approved general education course from the Social and Behavioral Sciences Area

## Natural Sciences

Credits: 0
Met by CHM courses in required course area

## The Certificate of Completion (CCL) in Biotechnology

Total Credits: 41
Major Code: 5079

Description: The Certificate of Completion (CCL) in Biotechnology prepares students for careers as technical assistants in federal, state, and local government laboratories, biomedical, pharmaceutical, and bioengineering laboratories, agriculture and horticulture, microbiology, environmental and academic laboratories. The program included courses designed to provide students with a working knowledge of the field by focusing on competency and technical expertise with state-of-the art laboratory protocol and critical consideration of current topics in biotechnology. The core focus is hands-on experience in the laboratory followed by an internship.

Consumer Program Costs and Career Information
https://www.mesacc.edu/programs/ge/gedt-11/gedt-11.html

## CAREER AND TECHNICAL EDUCATION

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

Program Prerequisites
Credits: 4

High School Diploma or GED

+ CHM130 Fundamental Chemistry (3) AND
CHM130LL Fundamental Chemistry Laboratory (1) OR
One year of high school chemistry 4

MAT120 Intermediate Algebra
(5) OR

MAT121 Intermediate Algebra
(4) OR

MAT122 Intermediate Algebra (3) OR
Equivalent as indicated by assessment 0-5
Required Courses
Credits: 41
BIO181 General Biology (Majors) I 4
BIO211AA Biotechnology Seminar: Biomedical Applications 1
BIO212AA Biotechnology I 5
BIO212AB Biotechnology II 5
BIO212AC Biotechnology III 5
BIO220 Biology of Microorganisms 4

+ BIO240 General Genetics 4
+ BIO244 General Genetics Laboratory 1
+ BIO249 Applied Biosciences: Biotechnology Internship 4
CHM151 General Chemistry I 3
CHM151LL General Chemistry I Laboratory 1
+ CHM152 General Chemistry II 3
+ CHM152LL General Chemistry II Laboratory 1


## Business Certificates and Degrees

Associate in Applied Science in Business
Associate in Applied Science in General Business
Associate in Applied Science in Administrative Professional
Associate in Applied Science in Organizational Management
Associate in Applied Science in Retail Management
Certificate of Completion in Administrative Professional
Computer Applications: Microsoft Office Specialist/Basic
Computer Applications: Microsoft Office Specialist/Advanced
Certificate of Completion in General Business
Certificate of Completion in International Trade
Certificate of Completion in Management
Certificate of Completion in Marketing
Certificate of Completion in Organizational Leadership
Certificate of Completion in Project Management
Certificate of Completion in Salesmanship

Certificate of Completion in Small Business
Certificate of Completion in Small Business Start-Up
Certificate of Completion in Technology Support Analyst
Certificate of Completion in Retail Management
Department Contact Information (480) 461-7707

## Associate of Applied Sciences (AAS) in Business

Total Credits: 60
Major Code: 3852

Description: The Associate in Applied Science (AAS) in Business prepares students for entry-level careers in a field of their choice: bookkeeping, business communication, management, marketing, management information systems, real estate, international business, Web technology, project management, game technology, multimedia technology, software quality assurance, or small business.

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.
Program Prerequisites: None
Required Courses
Credits: 30
ACC109 Accounting Concepts 3

BPC110 Computer Usage and Applications (3) OR
CIS105 Survey of Computer Information Systems (3) 3

GBS151 Introduction to Business (3) OR
IBS101 Introduction to International Business (3) 3

GBS205 Legal, Ethical, and Regulatory Issues in Business 3
+GBS233 Business Communication 3
MGT251 Human Relations in Business 3
MKT271 Principles of Marketing 3
OAS108 Business English 3
CSM/TQM101 Quality Customer Service 3
TQM240 Project Management in Quality Organizations 3
Restricted Electives
Credits: 8-16

Students must select one of the following tracks:

## CAREER AND TECHNICAL EDUCATION

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
MGT229 Management and Leadership I 3
MGT230 Management and Leadership II 3
MGT147 Supply Chain Management 3
MGT276 Personnel/Human Resources Management 3
TQM230 Teamwork Dynamics 2
TQM235 Motivation, Evaluation, and Recognition Systems 2

Track III: Marketing Credits: 15
MKT101 Introduction to Public Relations 3
MKT263 Advertising Principles 3
MKT267 Principles of Salesmanship 3
MKT268 Merchandising 3

+ MKT273 Marketing Research 3

Track IV: Management Information Systems Credits: 15 CIS117DM Microsoft Access: Database Management 3 CIS150AB Object-Oriented Programming Fundamentals 3

+ CIS159 Visual Basic Programming I 3
CIS250 Management of Information Systems 3
CIS162AD C\# Level I (3) OR
+ CIS259 Visual Basic Programming II (3) 3
Track V: Real Estate Credits: 15
REA179 Real Estate Principles I 3
REA180 Real Estate Principles II 3

REA282 Real Estate Finance (3) OR
REA285 Real Estate Selling (3) 3

REA283 Property Management (3) OR
REA270 Basic Appraisal Principles (2) AND
REA273 Residential Market Analysis Highest and Best Use (1) 3

REA288 Real Estate Investment Strategy (3) OR
REA271 Basic Appraisal Procedure (2) AND
REA274 Residential Appraiser Site Valuation and Cost Approach (1) 3

Track VI: International Trade Credits: 15
IBS109 Cultural Dimension for International Trade 3

+ IBS116 Export/Import Management 3
+ IBS118 International Marketing Management 3
+ IBS123 U.S. Custom and Export Licensing Regulations 3
+ IBS140 International Financial Management 3

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

Track VIII: Web Technology Credits: 15
CIS120DB Computer Graphics: Adobe Illustrator (3) OR
CIS120DF Adobe Photoshop Level I: Digital Imaging (3) OR
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
CIS120DC Adobe Flash Level I: Digital Animation (3) 3

Track IX: Project Management 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 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 1
EPS150 Introduction to Entrepreneurship (2) AND
EPS195 The Business Plan for Business Start-Up (2) OR
MGT253 Owning and Operating a Small Business (3) 3-4
SBS204 Small Business Marketing and Advertising 2
SBS213 Hiring and Managing Employees 1
SBS214 Small Business Customer Relations 1
SBS230 Financial and Tax Management for Small Business 2


## CAREER AND TECHNICAL EDUCATION

Track XI: Game Technology Credits: 15 CIS107 The Electronic Game Industry 3
CIS151 Computer Game Development Level I 3
ART170 Three-Dimensional Computer Design 3
CIS120DC Adobe Flash Level I: Digital Animation 3

CIS120DF Adobe Photoshop Level I: Digital Imaging (3) OR
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 Requirement Credits: 22-27

General Education Core
Credits: 12-17

## First-Year Composition

Credits: 6
Any approved general education course from the First-Year Composition area

Oral Communication
Credits: 3
Any approved general education course from the Oral
Communication area

## Critical Reading

Credits: 0-3
CRE101 Critical and Evaluative Reading I (3) OR
Equivalent as indicated by assessment
Mathematics
Credits: 3-5
MAT120 Intermediate Algebra (5) OR
MAT121 Intermediate Algebra (4) OR
MAT122 Intermediate Algebra Accelerated (3) OR
Satisfactory completion of a higher level mathematics courses 3-5

General Education Distribution
Credits: 10

Humanities and Fine Arts
Credits: 3
Any approved general education course from the Humanities and Fine Arts area

Social and Behavioral Sciences
Credits: 3
SBU200 Society and Business 3
Natural Sciences
Credits: 4

Any approved general education course from the Natural Sciences area

## Associate of Applied Science (AAS) in General Business

Total Credits: 61-66
Major Code: 3148

Description: The Associate in Applied Science (AAS) in General Business program is designed to meet the needs of students who wish a broad overview of business and desire not to enroll in a specialized curriculum in business. The program is designed to acquaint students with major subject areas of business, to improve the student's business vocabulary, and to provide students with an understanding of influencing factors in business decision making and activities. In addition, this program may aid a student in recognizing a specific business field to be pursued in future studies. 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.

Suggested Course Plan Sequenced by Semester:
https://www.mesacc.edu/programs/course-sequences/general-business-aas

Program Notes:

+ indicates course has prerequisites and/or corequisites.
Students must earn a grade of "C" or better in all courses required within the program.

Program Prerequisites: None
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


## CAREER AND TECHNICAL EDUCATION

MKT271 Principles of Marketing 3

## Restricted Electives

Credits: 18
Students should select eighteen (18) credits from the following courses.
Any 100/200 level prefixed courses may be selected, except courses used to satisfy the Required Courses area.
ACC+++++ Any ACC Accounting course(s)
GBS+++++ Any GBS General Business course(s)
MGT+++++ Any MGT Management course(s)
MKT+++++ Any MKT Marketing course(s)
EPS+++++ Any EPS Entrepreneurial Studies course(s)
IBS+++++ Any IBS International Business course(s)
REA+++++ Any REA Real Estate course(s)
SBS+++++ Any SBS Small Business Management course(s)

CIS114DE Excel Spreadsheet 3
CIS117DM Microsoft Access: Database Management 3 CIS133DA Internet/Web Development Level I 3

## General Education Requirement Credits: 22-27

General Education Core
Credits: 12-17
First-Year Composition
Credits: 6

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3)
Oral Communication
Any approved general education course in the Oral
Communication area.
Critical Reading
Credits: 0-3
+ CRE101 College Critical Reading (3) OR
Equivalent by assessment 0-3


## Mathematics

Credits: 3-5

+ MAT120 Intermediate Algebra (5) OR
+ MAT121 Intermediate Algebra (4) OR
+ MAT122 Intermediate Algebra (3)
General Education Distribution
Credits: 10

Humanities and Fine Arts
Credits: 3
Any approved general education course in the Humanities, Arts and Design area.

Social and Behavioral Sciences
ECN211 Macroeconomic Principles (3) OR

ECN212 Microeconomic Principles (3) OR
SBU200 Society and Business (3)
Natural Sciences
Credits: 4
Any approved general education course in the Natural Sciences area.

## Associate of Applied Science (AAS) in Administrative Professional

Total Credits: 60-63
Major Code: 3680

Description: The Associate in Applied Science (AAS) in Administrative Professional degree is designed to provide training for various office support positions. These positions are generally identified as entry level (clerical), information processing, or advanced administrative support. The curriculum incorporates language, people, and technological skills essential for job success. A Certificate of Completion (CCL) is also available.

Suggested Course Plan Sequenced by Semester:
https://www.mesacc.edu/programs/detail/administrative-professional-aas

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

+ indicates course has prerequisites and/or corequisites.
++ indicates any module/suffixed courses.
Program Prerequisites: None
Required Courses
Credits: 21
BPC110 Computer Usage and Applications (3) OR
CIS105 Survey of Computer Information Systems (3) 3

BPC/OAS111AA Computer Keyboarding I 1
CIS113DE Microsoft Word: Word Processing 3
CIS121AE Windows Operating System: Level I 1
CIS133AA Internet/Web Development Level I-A 1
GBS131 Business Calculations 3
GBS151 Introduction to Business 3
GBS120 Workplace Communication Skills 3
MGT251 Human Relations in Business 3

Restricted Electives
Credits: 17
Students should select from the following courses in consultation with a Department Advisor:

## CAREER AND TECHNICAL EDUCATION

## ACC111 Accounting Principles I 3

+ ACC115 Computerized Accounting 2
CIS114DE Excel Spreadsheet 3
CIS117DM Microsoft Access: Database Management 3
CIS118AB PowerPoint: Level I 1
+ CIS122AE Windows Operating System: Level II 1
GBS205 Legal, Ethical, and Regulatory Issues in Business 3
MGT+++ Any MGT Management prefixed course. 1-17
MKT271 Principles of Marketing 3


## General Education Requirement

Credits: 22-25

## General Education Core

Credits: 12-15

## First-Year Composition

Credits: 6
ENG101 First-Year Composition (3) OR
ENG107 First-Year Composition for ESL (3) AND
ENG102 First-Year Composition (3) OR
ENG108 First-Year Composition for ESL (3)
Oral Communication
Credits: 3
Any approved general education course from the Oral
Communication area.

## Critical Reading

Credits: 0-3
Any approved general education course from the Critical
Reading area OR
Equivalent as indicated by assessment.
Mathematics
Credits: 3
Any approved general education course from the Mathematics area OR
Satisfactory completion of a higher level mathematics course.

## General Education Distribution

Credits: 10

Humanities and Fine Arts
Credits: 3
Any approved general education course from the Humanities, Arts and Design area.

Social and Behavioral Sciences
Credits: 3
SBU200 Society and Business 3

## Natural Sciences

Any approved general education course from the Natural Sciences area.

## Associate of Applied Science (AAS) in Organizational Management

Total Credits: 60-65
Major Code: 3727
Description: The Associate in Applied Science (AAS) in Organizational Management program is designed with a customized curriculum specific to the student's individual needs in addition to the knowledge and skills needed in today`s changing workplace. The program provides leadership and communication skills and techniques for planning, directing, and evaluating business situations, with an emphasis on effective allocation of time, money, materials, space and personnel. A Certificate of Completion (CCL) in Organizational Leadership is also available.

Suggested Course Plan Sequenced by Semester:
https://www.mesacc.edu/programs/course-sequences/ organizational-management-aas

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

+ indicates course has prerequisites and/or corequisite
Program Prerequisites: None
Required Courses
Credits: 18
Certificate of Completion in Organizational Leadership (5731)
Restricted Electives
Credits: 20
Students must choose 20 industry/job related course credits from any MCCCD occupational program and/or Academic Certificate.

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

General Education Requirement Credits: 22-27

General Education Core
Credits: 12-17
First-Year Composition
Credits: 6

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


## CAREER AND TECHNICAL EDUCATION

## Oral Communication

Credits: 3
Any approved general education course from the Oral Communication area.

Critical Reading

+ CRE101 College Critical Reading (3) OR
Equivalent by assessment 0-3
Mathematics
Credits: 3-5
Any approved general education course from the Mathematics area. 3-5

General Education Distribution
Credits: 10
Humanities and Fine Arts
Credits: 3
Any approved general education course from the Humanities, Arts and Design area. 3

Social and Behavioral Sciences
Credits: 3
Any approved general education course from the SocialBehavioral Sciences area. 3

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

## Associate in Applied Sciences (AAS) in Retail Management

Total Credits: 3048
Major Code: 61-63

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

## Suggested Course Plan Sequenced by Semester: https://www.mesacc.edu/programs/course-sequences/retail-management-aas

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

+ indicates course has prerequisites and/or corequisites.

Program Prerequisites:
Required Courses
Credits: 24-27
Choose one of the following three accounting sequences:
ACC111 Accounting Principles I (3) AND

+ ACC230 Uses of Accounting Information I (3) AND
+ ACC240 Uses of Accounting Information II (3)
OR
ACC111 Accounting Principles I (3) AND
+ ACC112 Accounting Principles II (3) AND
+ ACC212 Managerial Accounting (3)
OR
ACC211 Financial Accounting (3) AND
+ ACC212 Managerial Accounting (3) 6-9
BPC110 Computer Usage and Applications (3) OR
CIS105 Survey of Computer Information Systems (3) 3

GBS110 Human Relations in Business and Industry (3) OR
MGT251 Human Relations 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) OR
MGT180 Retail Management (3) 3

MKT271 Principles of Marketing 3
Restricted Electives
Credits: 9-15
Student must complete additional nine (9) to fifteen (15) credits from GBS, MGT, and/or MKT prefixed courses (except courses used to satisfy Required Courses area nor excluded below) to complete a minimum of 61 total program credits. Must include at least one MKT course.

GBS+++++ Any GBS General Business course(s) 0-12
MGT+++++ Any MGT Management course(s) except MGT180 0-12
MKT++++++ Any MKT Marketing course(s) except MKT268
3-15

## CAREER AND TECHNICAL EDUCATION

## General Education Requirement

 Credits: 22-27General Education Core
Credits: 12-17

## First-Year Composition

Credits: 6

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) OR
+ ENG111 Technical and Professional Writing (3) 6
ENG102 or ENG108 recommended for students considering pursuing a bachelor's degree at an Arizona university.

Oral Communication
Credits: 3
COM100 Introduction to Human Communication 3
Critical Reading
Credits: 0-3
CRE101 College Critical Reading (3) OR
Equivalent as indicated by assessment

## Mathematics

Credits: 3-5
Any approved general education course from the Mathematics area.

## General Education Distribution

Humanities and Fine Arts
Credits: 10

Any approved general education course from the Humanities,
Arts and Design area.
Social and Behavioral Sciences
Credits: 3
SBU200 Society and Business 3
Natural Sciences
Credits: 4
Any approved general education course from the Natural Sciences area.

## Certificate of Completion (CCL) in Administrative Professional

Total Credits: 18
Major Code: 5677
Description: The Certificate of Completion (CCL) in Administrative Professional program is designed to provide students with basic office skills needed for entry-level positions. This program is recommended for students with little or no office-related work experience or college experience. An Associate in Applied Science (AAS) is also available.

Consumer Program Costs and Career Information: https://www.mesacc.edu/programs/ge/gedt-1/gedt-1.html

Suggested Course Plan Sequenced by Semester:
https://www.mesacc.edu/programs/course-sequences/ administrative-professional-ccl

## Program Notes:

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

## Program Prerequisites:

None
Required Courses
Credits: 18
BPC110 Computer Usage and Applications (3) OR
CIS105 Survey of Computer Information Systems (3) 3
BPC/OAS111AA Computer Keyboarding I 1
CIS113DE Microsoft Word: Word Processing 3
CIS121AE Windows Operating System: Level I 1
CIS133AA Internet/Web Development Level I-A 1
GBS120 Workplace Communication Skills 3
GBS131 Business Calculations 3
GBS151 Introduction to Business 3

## Certificate of Complete in Computer

 Applications: Microsoft Office Specialist/BasicTotal Credits: 16-22
Major Code: 5146
The Certificate of Completion (CCL) in Computer Applications: Microsoft Office Specialist/Basic program provides basic skills in computer software applications 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.

Consumer Program Costs and Career Information:
https://www.mesacc.edu/programs/ge/gedt-17/gedt-17.html
Suggested Course Plan Sequenced by Semester
Track I
https://www.mesacc.edu/programs/course-sequences/computer-applications-microsoft-office-specialistb\ II

## CAREER AND TECHNICAL EDUCATION

Track II
https://www.mesacc.edu/programs/course-sequences/computer-applications-microsoft-office-specialistb\ II

Program Notes:

+ indicates course has prerequisites and/or corequisites.
Students must earn a grade of "C" or better for all courses listed in the Required Courses area.


## Program Prerequisites:

Required Courses
None
Credits: 13-19

GBS104 Quality Telephone Techniques 1
OAS101 Computer Typing I: Keyboarding and Formatting 3 OAS108 Business English 3

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

Track I: Credits: 6
BPC110 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
CIS113DE Microsoft Word: Word Processing 3
Restricted Electives

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
Certificate of Completion (CCL) in Computer Applications: Microsoft Office Specialist / Advanced
Total Credits: 19-23
Major Code: 5147

Description: The Certificate of Completion (CCL) in Computer Applications: Microsoft Office Specialist/Advanced program provides advanced skills in computer software applications for a wide variety of occupations. Coursework includes advanced software applications in word processing, electronic spreadsheets, and other office skills. This certificate program is designed to assist students in preparing for the expert examinations for certification as a Microsoft Office Specialist.

Consumer Program Costs and Career Information:
https://www.mesacc.edu/programs/ge/gedt-16/gedt-16.html

Suggested Course Plan Sequenced by Semester
Track I
https://www.mesacc.edu/programs/course-sequences/computer-applications-microsoft-office-specialist
Track II
https://www.mesacc.edu/programs/course-sequences/computer-applications-microsoft-office-specialista

Program Notes:

+ indicates course has prerequisites and/or corequisites.
Students must earn a grade of "C" or better for all courses listed in the Required Courses area.

Program Prerequisites:
None
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
Student must select one (1) of the following two (2) 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


## CAREER AND TECHNICAL EDUCATION

+ BPC106BH Microsoft Outlook: Level II (.5) 1

CIS114AE Excel: Level I (1) AND

+ CIS114BE Excel: Level II (1) AND
+ CIS114CE Excel: Level III (1) OR
CIS114DE Excel Spreadsheet (3) 3
CIS113DE Microsoft Word: Word Processing 3
+ CIS213DE Advanced Microsoft Word: Word Processing 3


## Restricted Electives

+ ACC115 Computerized Accounting 2
BPC101AC Introduction to Handheld Devices 1
BPC110 Computer Usage and Applications 3
BPC/OAS111AA Computer Keyboarding I 1
CIS121AE Windows Operating System: Level I 1
+ CIS122AE Windows Operating System: Level II 1
BPC123 Introduction to Speech Recognition (SR) 1
CIS133AA Internet/Web Development Level I-A 1
+ CIS133BA Internet/Web Development Level I-B 1
+ CIS233AA Internet/Web Development Level II-A 1
+ CIS233BA Internet/Web Development Level II-B 1
OAS125 Introduction to the Professional Office 3


## Certificate of Completion (CCL) in General Business

Total Credits: 21
Major Code: 5683

Description: The Certificate of Completion (CCL) in General Business is designed to provide business training for various entry-level positions in business. The courses include an introduction to business concepts, accounting and computer principles, and legal issues related to business. An Associate in Applied Science (AAS) is also available.

Consumer Program Costs and Career Information: https://www.mesacc.edu/programs/ge/gedt-36/gedt-36.html

Suggested Course Plan Sequenced by Semester:
https://www.mesacc.edu/programs/course-sequences/general-business-ccl

Program Notes:

+ indicates course has prerequisites and/or corequisites.
Students must earn a grade of "C" or better in all courses required within the program.

Program Prerequisites: None

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: 12
Students should select nine (9) credits from the following courses.
Any 100/200 level prefixed courses may be selected, except courses used to satisfy the Required Courses area.
ACC+++++ Any ACC Accounting course(s)
GBS+++++ Any GBS General Business course(s)
MGT+++++ Any MGT Management course(s)
MKT+++++ Any MKT Marketing course(s)
IBS+++++ Any IBS International Business course(s)
REA+++++ Any REA Real Estate course(s)
SBS+++++ Any SBS Small Business Management course(s)
CIS114DE Excel Spreadsheet 3
CIS117DM Microsoft Access: Database Management 3
CIS133DA Internet/Web Development Level I 3
EPS+++++ Any EPS Entrepreneurial Studies course(s) 1-3

## Certificate of Completion (CCL) in International Trade

Total Credits: 21-23
Major Code: 5999

Description: The Certificate of Completion (CCL) in International Trade program prepares students for entry- and midlevel positions in international business. It is also designed to provide advanced knowledge and skills for those already working in the field of international business.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-40/gedt-40.html

Suggested Course Plan Sequenced by Semester: https://www.mesacc.edu/programs/course-sequences/ international-trade-ccl

Program Notes:

+ indicates course has prerequisites and/or corequisites.
++ indicates any module/suffixed courses.
Students must earn a grade of "C" or better for all courses
required within the program


## CAREER AND TECHNICAL EDUCATION

## Program Prerequisites:

## Required Courses

IBS109 Cultural Dimension for International Trade 3

+ IBS116 Import/Export Management 3
+ IBS118 International Marketing Management 3
+ IBS123 U.S. Custom and Export Licensing Regulations 3
+ IBS140 International Financial Management 3
MGT147 Supply Chain Management 3
ARB+++ any ARB/Arabic course (3-4) OR
FRE+++ any FRE/French course (3-4) OR
GER+++ any GER/German course (3-4) OR
ITA+++ any ITA/Italian course (3-4) OR
JPN+++ any JPN/Japanese course (3-5) OR
SPA+++ any SPA/Spanish course (3-4) 3-5
Certificate of Completion (CCL) in Management
Total Credits: 18
Major Code: 5088

Description: 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.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-46/gedt-46.html

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/course-sequences/ management-ccl

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

+ indicates course has a prerequisite and/or corequisite
Program Prerequisites:


## Required Courses

MGT147 Supply Chain Management 3
MGT229 Management and Leadership I 3

+ MGT243 Project Time and Cost Management 2
MGT244 Project risk and Quality Management 2
MGT251 Human Relations in Business 3
MGT276 Personnel/Human Resources Management 3
TQM230 Teamwork Dynamics 2
Credits: 21-23

Total Credits: 18
Major Code: 5394

Description: 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.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-49/gedt-49.html

## Suggested Course Plan Sequenced by Semester

https://www.mesacc.edu/programs/course-sequences/marketingccl

Program Notes:

+ indicates course has prerequisites and/or corequisites.
Students must earn a grade of "C" or better for all courses within the program.

Program Prerequisites: None
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

## Certificate of Completion (CCL) in Organizational Leadership

Total Credits: 18
Major Code: 5731
Description: The Certificate of Completion (CCL) in Organizational Leadership is designed to prepare students with knowledge and skills needed in today`s changing workplace. The program provides leadership and communication skills and techniques for planning, directing, and evaluating business situations. This program also emphasizes procedures for effective allocation of time, money, materials, space, and personnel.
An Associate in Applied Science (AAS) in Organizational Management is also available.

## CAREER AND TECHNICAL EDUCATION

Consumer Program Costs and Career Information: https://www.mesacc.edu/programs/

Suggested Course Plan Sequenced by Semester: https://www.mesacc.edu/programs/course-sequences/ organizational-leadership-ccl

Program Notes:

+ indicates course has prerequisites and/or corequisites.
Students must earn a grade of "C" or better in all courses within the program.

Program Prerequisites
Credits: 0-3

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) OR
Permission of Department or Division (0) 0-3
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

## Certificate of Completion (CCL) in Project Management

Total Credits: 14
Major Code: 5477 N

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/course-sequences/project-management-ccl

Description: The Certificate of Completion (CCL) in Project Management program prepares the student for career opportunities as a project manager and provides those working as project managers with the skills required to prepare for project management certification exams. This program covers principles, requirements, benefits, and tools of project management.

## Program Notes:

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

+ indicates course has prerequisites and/or corequisites.
++ indicates any module/suffixed courses.


## Program Prerequisites

Credits: 3
TQM240 Project Management in Quality Organizations (3) OR
department approval 3
Required Courses
Credits: 14
CIS224 Project Management Microsoft Project for Windows 3

+ MGT242 Project Scope and Procurement Management 2
+ MGT243 Project Time and Cost Management 2
+ MGT244 Project Risk and Quality Management 2
+ MGT245 Project Human Resources and Committee
Management 2
+ MGT246 Principles of Project Management 3


## Certificate of Completion (CCL) in Salesmanship

Total Credits: 18
Major Code: 5281

Description: The Certificate of Completion (CCL) in Salesmanship program 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.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-70/gedt-70.html

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/course-sequences/ salesmanship-ccl

Program Notes:

+ indicates course has prerequisites and/or corequisites.
Students must earn a grade of "C" or better for each course listed in the program.

Program Prerequisites:
None
Required Courses
Credit: 18
COM100 Introduction to Human Communication (3) OR
COM230 Small Group Communication (3) 3

## CAREER AND TECHNICAL EDUCATION

+ 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
Certificate of Completion in Small Business
Total Credits: 17-19
Major Code: 5191

Description: Many small business owners seek 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.

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/course-sequences/small-business-ccl

## Program Notes:

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

+ indicates course has prerequisites and/or corequisites.
++ indicates any module/suffixed courses.
Program Prerequisites:
Required Courses
ACC107 Bookkeeping Theory and Practice 4
+ ACC115 Computerized Accounting 2
CIS131AA Doing Business on the Internet 1
+ CIS133AA Internet Web Development Level I-A 1

EPS150 Introduction to Entrepreneurship (3) AND 2
EPS 195 The Business Plan and Business Start-Up (2) OR 2
MGT253 Owning and Operating a Small Business (3) 3-5

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
Certificate of Completion (CCL) in Technology Support Analyst
Total Credits: 19-20
Major Code: 5997

Description: The Certificate of Completion (CCL) in Technology Support Analyst program is designed to give students a foundation of experience important for those interested in becoming part of the technology help desk support system within office configurations. The curriculum designed to equip students with marketable skills for adaptation to the specific tasks and troubleshooting techniques of the automated office.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-75/gedt-75.html

Suggested Course Plan Sequenced by Semester:
https://www.mesacc.edu/programs/course-sequences/technology-support-analyst-ccl

Program Notes:
Students must earn a grade of "C" or better for all courses listed in the program.

+ indicates course has prerequisites and/or corequisites.
++ indicates any module/suffixed courses.


## Program Prerequisites:

None
Required Courses
Credits: 13
CIS105 Survey of Computer Information Systems 3

+ BPC170 A+ Exam Prep: Computer Hardware Configuration and Support 3

MST150 Microsoft Windows Professional (3) OR
MST150++ Microsoft Windows (any module) (3) 3

CNT140 Cisco Networking Basics (4) OR
CNT140AA Introduction to Networks (4) 4
Restricted Electives
Credits: 6-7

+ BPC270 A+ Exam Prep: Operating System Configuration and Support 3
CIS121AH Microsoft PowerShell/Command Line Operations 3
CIS126DL Linux Operating System 3
+CIS238DL Linux System Administration OR (3)
+CIS240DL Linux Network Administration OR (3)
+CIS226AL Internet/Intranet Server Administration-Linux (3) 3
+CIS239DL Linux Shell Scripting 3
+MST155 Implementing Windows Network Infrastructure (3)
OR
+MST155DA Windows Server Network Infrastructure


## CAREER AND TECHNICAL EDUCATION

Configuration (4) OR
+MST157DA Active Directory Windows Server Configuration (4) 3-4

## Certificate of Completion (CCL) in Small Business Start-Up

Total Credits: 12
Major Code: 5706 N

Description: The Certificate of Completion (CCL) in Small Business Start-Up program is designed to meet the needs of individuals who wish to become entrepreneurs. 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 longterm success of the business community.

## Suggested Course Plan Sequenced by Semester:

https://www.mesacc.edu/programs/course-sequences/small-business-startup-ccl

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

Program Prerequisites:
None
Required Courses
Credits: 12
MGT253 Owning and Operating a Small Business 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 and Tax Management for Small Business 2
Certificate of Completion (CCL) in Entrepreneurial Studies Level I
Total Credits: 10-11
Major Code: 5819N
Description: The Certificate of Completion (CCL) in Entrepreneurial Studies Level I program is designed to provide students with an introduction to the entrepreneurial process. Courses include a history of entrepreneurship, current research into its impacts on society, types of business start-up opportunities, and creating a preliminary business plan, as well as
securing a healthy financial future.

Suggested Course Plan Sequenced by Semester:
https://www.mesacc.edu/programs/detail/entrepreneurial-studies-level-i-ccl

## Program Notes:

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

## Program Prerequisites:

None
Required Courses
Credits: 10-11
EPS150 Introduction to Entrepreneurship 3
EPS160 New Venture Creation 2

EPS180 Technology Business Planning (3) OR
EPS195 Business Start-Up and Planning (2) 2-3

GBS/HEC132 Personal and Family Financial Security 3

## Caterpillar Technician Training Degrees and Certificates

Associate in Applied Science in Caterpillar Technician Training

Department Contact Information: (480) 461-7642

## Associate in Applied Science (AAS) in

 Caterpillar Technician TrainingTotal Credits: 76
Major Code: 3005

Description: The Associate in Applied Science (AAS) in Caterpillar Technician Training 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.

Program Notes:

+ indicates course has prerequisites and/or corequisites.
Students must earn a grade of "C" or better for each course listed in the Required Courses area.


## CAREER AND TECHNICAL EDUCATION

Program Prerequisites
Credits: 0-3
GTC107 Technical Mathematics I (3) OR
permission of Instructor 0-3

## Required Courses

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 Requirement

 Credits: 18-21General Education Core
Credits: 12-15

First-Year Composition
ENG101 First-Year Composition (3) AND
ENG111 Technical Writing (3)
Oral Communication
Credits: 3
Any approved general education course in the Oral
Communication area

Critical Reading
Credits: 0-3
CRE101 College Critical Reading (3) OR
CRE111 Critical Reading for Business and Industry (3) OR
Equivalent as indicated by assessment (0-3)
Mathematics
Credits: 3
GTC108 Technical Mathematics II

General Education Distribution
Humanities and Fine Arts
Credits: 6
Credits: 3
Any approved general education course in the Humanities, Arts and Design area

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

Natural Sciences
Credits: 0
(Waived)

## Computer Information Systems Degrees and Certificates

- Associate in Applied Science in Computer Programming
- Associate in Applied Science in Game Technology
- Associate in Applied Science in Multimedia and Business Technology
- Associate in Applied Science in Programming and System
- Analysis
- Associate in Applied Science in Web Designer
- Associate in Applied Science in Web Developer
- Associate in Applied Science in Web Server Administrator
- Certificate of Completion in Advanced Web Designer
- Certificate of Completion in Adobe Foundations
- Certificate of Completion in Computer Programming
- Certificate of Completion in Game Technology
- Certificate of Completion in Multimedia Technology
- Certificate of Completion in Programming and System
- Analysis
- Certificate of Completion in Web Designer
- Certificate of Completion in Web Developer
- Certificate of Completion in Web Server Administrator


## Associate in Applied Science (AAS) in Computer

 ProgrammingTotal Credits: 61-63
Major Code: 3164

Description: The Associate in Applied Sciences (AAS) in Computer Programming prepares students to work in entry-level positions in computer programming. The program emphasizes knowledge and skills required to design, develop, test, and document structured and object-oriented programs utilizing a variety of programming languages.

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/computer-programming-aas

Program Notes:

+ indicates course has prerequisites and/or corequisites.
++ indicates any module/suffixed courses.
Students must earn a grade of "C" or better for each course listed in the Required Courses area.


## CAREER AND TECHNICAL EDUCATION

## Program Prerequisites

Credits: 0-3

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

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 (any course)(3) 3
+CIS150AB Object-Oriented Programming Fundamentals 3
+CIS159 Visual Basic Programming I 3
+CIS162AD C\#: Level I 3
+CIS163AA Java Programming: Level I 3
Restricted Electives
+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 Introduction to Networks (4) OR
+MST140 Microsoft Networking Essentials (3) 3-4

Credits: 15

Humanities and Fine Arts
Credits: 10

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

Social and Behavioral Sciences
Credits: 3
SBU200 Society and Business 3
Natural Sciences
Credits: 4
Any approved general education course in the Natural Science area

## Associate in Applied Science (AAS) in Game Technology

Total Credits: 62
Major Code: 3145

Description: The Associate in Applied Science (AAS) in Game Technology is a discipline that includes the development and management of dynamic environments for games and related visualization applications. The Associate of Applied Science in Game Technology will help prepare students for entry-level career opportunities with studios, corporations, organizations, educational institutions, government agencies, advertising and entertainment industries that require visual and interactive content to support, enhance entertain and/or market their product

## CAREER AND TECHNICAL EDUCATION

or service.

The curriculum brings together business concepts and game technology to prepare students for careers as Game Programmer, Environment Artist, Production Artist, Tools Programmer, Character Modeler, Character Animator, Game Designer, Game Developer, or Multimedia Designer/Developer.

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/course-sequences/game-technology-aas

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.


## Program Prerequisites

Credits: 0-3
CRE101 Critical and Evaluative Reading I (3) OR
Equivalent as indicated by assessment
Required Courses
Credits: 37
CIS105 Survey of Computer Information Systems 3

+ CIS107 The Electronic Game Industry 3
+ CIS151 Computer Game Development - Level I 3
+ ART170 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

CIS230DA 3D Studio Max Materials 3
CIS120DC Flash: Digital Animation 3

CIS120DF Computer Graphics: Adobe Photoshop (3) OR CIS120DG Fireworks: Web Graphics (3) 3

+ CIS220DC Advanced Web Programming with Macromedia Flash 3
+ CIS108 Electronic Portfolio Development 1
CIS251 Computer Game Development-Level II 3
+ CIS150AB Object-Oriented Programming Fundamentals 3
+ MMT216 Multimedia Project Management (3) OR
CIS224 Project Management Microsoft Project for Windows (3) 3

Restricted Electives
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
CIS120DB Computer Graphics: Adobe Illustrator 3
General Education Requirement
Credits: 22-24
General Education Core
Credits: 12-14

First-Year Composition
Credits: 6
Any approved general education course in the First-Year
Composition Area
Oral Communication
Credits: 3
Any approved general education course in the Oral
Communication Area
Critical Reading
Credits: 0
Met by CRE101 or equivalent as indicated by assessment in Program Prerequisite area

## Mathematics

Credits: 3-5
MAT120 Intermediate Algebra (5) OR
MAT121 Intermediate Algebra (4) OR
MAT122 Intermediate Algebra (3) OR
Satisfactory completion of a higher level mathematics course
General Education Distribution
Credits: 10

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

## Social and Behavioral Sciences

Credits: 3
SBU200 Society and Business
Natural Sciences
Credits: 4
Any approved general education course from the Natural Sciences Area

Associate in Applied Science (AAS) in Multimedia and Business Technology
Total Credits: 62
Major Code: 3147

Description: 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

## CAREER AND TECHNICAL EDUCATION

Applied Science in Multimedia and Business Technology will help prepare students for technical career opportunities with corporations, organizations, educational institutions, government agencies, entertainment, and advertising industries that require interactive content to support, enhance and/or market their product or service.

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

## 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.


## Suggested Course Plan Sequenced by Semester

 https://www.mesacc.edu/programs/detail/multimedia-and-business-technology-aasProgram Prerequisites
CRE101 Critical and Evaluative Reading I (3) OR
Equivalent as indicated by assessment
Required Courses
ART142 Introduction to Digital Photography 3

CIS120DB Computer Graphics: Adobe Illustrator (3) OR CIS120DF Adobe Photoshop Level I: Digital Imaging (3) OR CIS120DG Fireworks: Web Graphics (3) 3

CIS120DC Adobe Flash Level I: Digital Animation 3 CIS120DK Introduction to Digital Video Editing 3 CIS105 Survey of Computer Information Systems 3 + CIS/MMT140 Survey of Multimedia Technology 2

+ MTC/TCM120 Introduction to Sound Design for Film and Video 3

> + MMT216 Multimedia Project Management (3) OR CIS224 Project Management Microsoft Project for Windows (3) 3

[^0]Credits: 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 Requirement

Credits: 22-24
General Education Core
Credits: 12-14
First-Year Composition
Credits: 6
Any approved general education course in the First-Year Composition Area

Oral Communication
Credits: 3
Any approved general education course in the Oral
Communication Area
Critical Reading
Credits: 0
Met by CRE101 or equivalent as indicated by assessment in Program Prerequisite area.

Mathematics
Credits: 3-5
MAT120 Intermediate Algebra (5) OR
MAT121 Intermediate Algebra (4) OR
MAT122 Intermediate Algebra (3) OR
Satisfactory completion of a higher level mathematics course
Credits: 40
General Education Distribution
Credits: 10

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

Social and Behavioral Sciences
Credits: 3
SBU200 Society and Business
Natural Sciences
Credits: 4
Any approved general education course from the Natural Sciences Area

## CAREER AND TECHNICAL EDUCATION

## Associated in Applied Science (AAS) in Programming and Systems Analysis

Total Credits: 64-34
Major Code: 3844

Description: The Associate in Applied Science (AAS) in Programming and System Analysis program provides an indepth exploration of different computer language and technical skills. The program includes, but is not limited to the following: operating systems, local area networks, business communication, team roles, and dynamics. A Certificate of Completion (CCL) is also available.

## Suggested Course Plan Sequenced by Semester

 https://www.mesacc.edu/programs/course-sequences/ programming-and-system-analysis-aasProgram Notes:
Students must earn a grade of "C" or better for all courses required within the program.

+ indicates course has prerequisites and/or corequisites.
Consultation with an Academic Advisor is recommended for course selection.

Program Prerequisites
+CRE101 College Critical Reading (3) OR
Equivalent by assessment

## 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 Operating System (3) OR
CIS126DL Linux Operating System (3) OR
MST150 Microsoft Windows Professional (3) OR
MST150VI Microsoft Windows Vista Administration (3) OR MST150XP Microsoft Windows XP Professional (3) 3
+CIS150 Programming Fundamentals (3) OR
+CIS150AB Object-Oriented Programming Fundamentals (3) 3
+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).NET (3) OR
+CIS166AD Web Scripting with Java Server Pages (JSP) (3) OR +CIS166AE Web Scripting with PHP: Hypertext Preprocessor
(PHP) (3) OR
+CIS166AF Web Scripting with Python (3) 3
+CIS190 Introduction to Local Area Networks (3) OR
+CNT140 Cisco Networking Basics (4) OR
+MST140 Microsoft Networking Essentials (3) 3-4
+CIS225 Business Systems Analysis and Design (3) OR
+CIS225AB Object-Oriented Analysis and Design (3) OR
+CIS250 Management of Information Systems (3) 3
+CIS217AM Advanced Microsoft Access: Database Management
(3) OR
+CIS119DO Introduction to Oracle: SQL (3) OR
+CIS276DA MySQL Database (3) 3
Select 2 courses for a total of 6 credits:
+CIS151 Computer Game Development -Level I (3) OR
+CIS159 Visual Basic Programming I (3) OR
+CIS162 C Programming I (3) OR
+CIS162AB C++: Level I (3) OR
+CIS162AC Visual C++: Level I (3) OR
+CIS162AD C\#: Level I (3) OR
+CIS163AA Java Programming: Level I (3) 6
+GBS233 Business Communication 3
Restricted Electives
+CIS251 Computer Game Development-Level II 3
+CIS259 Visual Basic Programming II 3
+CIS262 C Programming II 3

+ CIS262AB C++: Level II 3
+CIS262AC Visual C++: Level II 3
+CIS263AA Java Programming: Level II 3
+CIS262AD C\# Level II 3
General Education Requirement Credits: 22-24
General Education Core
Credits: 12-14
First-Year Composition
Credits: 6
ENG101 First-Year Composition (3) OR
+ENG107 First-Year Composition for ESL (3) AND
+ENG102 First-Year Composition (3) OR
+ENG108 First-Year Composition for ESL (3)


## CAREER AND TECHNICAL EDUCATION

Oral Communication
Any approved general education course in the Oral Communication area.

Critical Reading
+Met by CRE101 in Program Prerequisites area.
Mathematics
+MAT150 College Algebra/Functions (5) OR
+MAT151 College Algebra/Functions (4) OR
+MAT152 College Algebra/Functions (3)
General Education Distribution
Humanities and Fine Arts
Credits: 10

Credits: 3
Any approved general education course in the Humanities and Fine Arts area.

## Social and Behavioral Sciences

ECN211 Macroeconomic Principles (3) OR
ECN212 Microeconomic Principles (3) OR
SBU200 Society and Business (3)
Natural Sciences
Credits: 4
Any approved general education course in the Natural Sciences area.

Associate of Applied Science (AAS) in Web Designer
Total Credits:64
Major Code:3085

Description: 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.

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/course-sequences/web-designer-aas

## 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.
Program Prerequisites:

Required Courses
Credits: 33
CIS120DC Adobe Flash Level I: Digital Animation 3
CIS120DF Adobe Photoshop Level I: Digital Imaging 3
CIS133DA Internet/Web Development Level I 3
+CIS166AA Introduction to Java Scripting 3
+CIS220DC Flash: Advanced Animation and ActionScript 3
+CIS233DA Internet/Web Development Level II 3
+CIS233DC Internet Web Development: Dreamweaver 3
+CIS235 e-Commerce 3
+CIS243 Internet/Web Development Level III 3

CIS290AC Computer Information Systems Internship (3) OR
+CIS298AC Special Projects (3) 3
+CIS234 XML Application Development 3

## Restricted Electives

Credits: 6
CIS120DB Computer Graphics: Adobe Illustrator 3
MTC/TCM120 Introduction to Sound Design for Film and Video
3
CIS120DK Introduction to Digital Video Editing 3
CIS120DL Digital Video Compositing: After Effects 3
+CIS166AB Web Scripting with Perl/CGI 3
+CIS166AE Web Scripting with PHP: Hypertext Preprocessor (PHP) 3
+CIS291 Business Video Projects 3
+CIS220DK Advanced Digital Video Production: Premiere 3
CIS224 Project Management Microsoft Project for Windows 3
General Education Requirement
Credits: 25-27
General Education Core
Credits: 15-17

## First-Year Composition

Credits: 6
Any approved general education course in the First-Year
Composition Area 6
Oral Communication
Credits: 3
Any approved general education course in the Oral
Communication Area 3

Critical Reading
Credits: 3
CRE101 Critical and Evaluative Reading I (3) OR
Equivalent by assessment 3

## Mathematics

Credits: 3-5
Any approved general education course in the Mathematics Area 3-5

## CAREER AND TECHNICAL EDUCATION

## General Education Distribution

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
Credits: 4
Any approved general education course from the Natural Sciences Area 4

Associate in Applied Science (AAS) in Web Developer
Total Credits: 64
Major Code: 3084

Description: The Associate in Applied Science (AAS) in Web Developer is designed to give students a set of skills that would allow them to develop interactive and dynamic websites that access data stored in databases. Completing the program may lead to such positions as web technician, web designer, web programmer, and web developer.

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/course-sequences/web-developer-aas

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.
Program Prerequisites:
None
Credits: 27
Required Courses
CIS133DA Internet/Web Development Level I 3
CIS224 Project Management Microsoft Project for Windows 3

CIS117DM Microsoft Access: Database Management (3) OR

+ CIS276DA MySQL Database (3) OR
+ CIS276DB SQL Server Database (3) OR
+ CIS276DC Oracle Database (3) 3
+ CIS150AB Object-Oriented Programming Fundamentals 3
+ CIS166AA Introduction to JavaScript 3
+ CIS233DA Internet/Web Development Level II 3
+ CIS234 XML Application Development 3
+ CIS250 Management of Information Systems 3
Credits: 3

Credits: 3

Credits: 10 + CIS290AC Computer Information Systems Internship 3

## CAREER AND TECHNICAL EDUCATION

Social and Behavioral Sciences
SBU200 Society and Business 3
Natural Sciences
Any approved general education course from the Natural Sciences area 4

## Associate in Applied Science (AAS) in Web Server Administrator

Total Credits: 62
Major Code: 3087

Description: The Associate in Applied Science (AAS) in Web Server Administrator is designed to give students a set of skills that would allow them to develop comprehensive and interactive websites as well as to setup and maintain web servers. Completing the program may lead to such positions as web technician, web designer, web programmer, and web server administrator.

## Suggested Course Plan Sequenced by Semester <br> https://www.mesacc.edu/programs/course-sequences/web-server-administrator-aas

Program Prerequisites: None
Required Courses
Credits: 28-29
CIS133DA Internet/Web Development Level I 3

CIS117DM Microsoft Access: Database Management (3) OR
+CIS276DA MySQL Database (3) OR
+CIS276DB SQL Server Database (3) OR
+CIS276DC Oracle Database (3) 3
+CIS166AA Introduction to JavaScript 3
+CIS166AB Web Scripting with Perl/CGI (3) OR
+CIS166AE Web Scripting with PHP: Hypertext Preprocessor (PHP) (3) 3
+CIS233DA Internet/Web Development Level II 3

CIS126DL Linux Operating System (3) AND
+CIS226AL Internet/Intranet Server Administration-Linux (3) OR
+CIS240DL Linux Network Administration (3) OR
MST150 Microsoft Windows Professional (3) OR MST150XP Microsoft Windows XP Professional (3) AND +MST152 Microsoft Windows Server (4) OR

Credits: 4
Credits: 3 redits: 4

## CAREER AND TECHNICAL EDUCATION

## Certificate of Completion (CCL) in Advanced Web Designer <br> Total Credits: 31 <br> Major Code: 5345

Description: The Certificate of Completion (CCL) in Advanced Web Designer is designed to give students a set of skills that would allow them to develop comprehensive and interactive Web sites and e-commerce. Completing the program will prepare students for such positions as web technician, web designer, web marketing or e-commerce manager.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-2/gedt-2.html

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/course-sequences/advanced-web-designer-ccl

Program Notes:

+ indicates course has prerequisites and/or corequisites.
Students must earn a grade of "C" or better for all courses required within the program.


## Program Prerequisites:

None

## Required Courses

Credits: 31
Certificate of Completion in Web Designer (5344) 19

+ CIS166AA Introduction to JavaScripting 3
+ CIS235 e-Commerce 3
+ CIS243 Internet/Web Development Level III 3
+ CIS282AC Volunteerism for Computer Information Systems:
A Service Learning Experience (3) OR
+ CIS290AC Computer Information System Internship (3) 3


## Certificate of Completion (CCL) in Adobe

 FoundationsTotal Credits: 9
Major Code: 5807 N

Description: The Certificate of Completion (CCL) in Adobe Foundations 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 courses in the Adobe Foundations CCL may be applied towards the requirements of any of these more comprehensive certificates.

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/adobe-foundations-ccl

## Program Notes:

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

This program is not eligible for Title IV Federal Financial Aid.
Program Prerequisites:
None
Required Courses
Credits: 9
CIS120DF Computer Graphics: Adobe Photoshop 3
CIS120DB Computer Graphics: Adobe Illustrator 3
CIS120DC Flash: Digital Animation 3

## Certificate of Completion (CCL) in Computer Programming

Total Credits: 30
Major: 5207

Description: 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.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-18/gedt-18.html

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/computer-programming-ccl

## 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/suffixed courses.
Program Prerequisites: None
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

## CAREER AND TECHNICAL EDUCATION

+CIS276DC Oracle Database (3) 3
CIS133DA Internet/Web Development Level I 3

CIS126DL Linux Operating System (3) OR
MST150++ Microsoft Windows (any course)(3) 3
+CIS150AB Object-Oriented Programming Fundamentals 3
+CIS159 Visual Basic Programming I 3
+CIS162AD C\#: Level I 3
+CIS163AA Java Programming: Level I 3
Restricted Electives

+ 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 Phython (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 Introduction to Networks (4) OR
+MST140 Microsoft Networking Essentials (3) 3-4


## Certificate of Completion (CCL) in Game Technology

Total Credits: 28
Major Code: 5637
Description: 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 is designed to help prepare students for 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.
Consumer Program Costs and Career Information
Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/game-technology-ccl

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

+ indicates course has prerequisites and/or corequisites.
Program Prerequisites: None
Required Courses
Credits: 25
CIS105 Survey of Computer Information Systems 3
+CIS107 The Electronic Game Industry 3
+CIS151 Computer Game Development Level I 3
+ART170 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
CIS120DC Adobe Flash Level I: Digital Animation 3
CIS120DF Adobe Photoshop Level I: Digital Imaging (3) OR
CIS120DG Computer Graphics: Macromedia Fireworks (3) 3
+CIS220DC Advanced Web Programming with Macromedia Flash 3
+CIS108 Electronic Portfolio Development 1
Restricted Electives
Credits: 3
+CIS150AB Object-Oriented Programming Fundamentals 3
+MMT216 Multimedia Project Management 3
+MTC/TCM120 Introduction to Sound Design for Film and Video 3
CIS120DB Computer Graphics: Adobe Illustrator 3
CIS224 Project Management Microsoft Project for Windows 3


## Certificate of Completion (CCL) in Multimedia Technology

Total Credits: 27
Major Code: 5576
Description: The Certificate of Completion (CCL) in Multimedia

## CAREER AND TECHNICAL EDUCATION

Technology is a discipline that integrates multiple digital media types including text, graphics, animation, audio and video and then delivers this interactive material electronically. The Certificate of Completion in Multimedia Technology will help prepare students for entry-level career opportunities with corporations, organizations, educational institutions, government agencies, entertainment, and advertising industries that require interactive content to support, enhance and/or market their product or service.

Possible entry-level or internship positions leading to careers after completing this certificate program may include Multimedia Producer, Multimedia Scriptwriter, Multimedia Developer, Computer-Based Training or Instructional Designer, Digital Graphic Designer, Webpage Designer, Webpage Developer, Interface Designer, Video/Audio Specialist, Video Editor, Animator, or Multimedia Designer.

## Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-52/gedt-52.html

## Suggested Course Plan Sequenced by Semester

https://www.mesacc.edu/programs/detail/multimedia-technologyccl

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

+ indicates course has prerequisites and/or corequisites.


## Program Prerequisites:

None
Required Courses
Credits: 27
CIS105 Survey of Computer Information Systems 3

+ CIS/MMT140 Survey of Multimedia Technology 2

CIS120DB Computer Graphics: Adobe Illustrator (3) OR
CIS120DF Adobe Photoshop Level I: Digital Imaging (3) OR
CIS120DG Computer Graphics: Macromedia Fireworks (3) 3
ART142 Introduction to Digital Photography 3
CIS120DC Adobe Flash Level I: Digital Animation 3
CIS120DK Introduction to Digital Video Editing 3

+ MTC/TCM120 Introduction to Sound Design for Film and Video 3
+ MMT216 Multimedia Project Management (3) OR CIS224 Project Management Microsoft Project for Windows (3) 3
+ CIS233DC Internet Web Development: Dreamweaver 3
+ CIS108 Electronic Portfolio Development 1
Certificate of Completion (CCL) in Programming and System Analysis
Total Credits: 24
Major Code: 5048

Description: 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.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-64/gedt-64.html

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/ programming-and-system-analysis-ccl

## 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.
Consultation with an Academic Advisor is recommended for course selection.

Program Prerequisites:
None
Required Courses
Credits: 21
CIS105 Survey of Computer Information Systems 3
CIS224 Project Management Microsoft Project for Windows 3
CIS126DA UNIX Operations System (3) OR
CIS126DL Linux Operating System (3) OR
MST150 Microsoft Windows Professional (3) OR
MST150VI Microsoft Windows Vista Administration (3) OR MST150XP Microsoft Windows XP Professional (3) 3

+ CIS150 Programming Fundamentals (3) OR
+ CIS150AB Object-Oriented Programming Fundamentals (3) 3
+ CIS151 Computer Game Development - Level I (3) OR
+ CIS159 Visual Basic Programming I (3) OR
+ CIS162++ Any C Programming: Level I course (3) OR
+ CIS163AA Java Programming: Level I (3) 3


## CAREER AND TECHNICAL EDUCATION

+ 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
Restricted Electives
+ 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


## Certificate of Completion (CCL) in Web Designer

Total Credits: 19
Major Code: 5344

Description: The Certificate of Completion (CCL) in Web Designer is designed to give students a set of skills that could allow them to develop websites. 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.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-76/gedt-76.html

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/course-sequences/web-designer-ccl

Program Notes:

+ indicates course has prerequisites and/or corequisites.
Program Prerequisites: None
Required Courses
CIS133DA Internet/Web Development Level I 3
CIS120DC Flash: Digital Animation 3
CIS120DF Computer Graphics: Adobe Photoshop 3
+CIS233DA Internet/Web Development Level II 3
+CIS233DC Internet Web Development: DreamWeaver 3
+CIS284 Certified Internet Web (CIW) Associate Certification
Preparation Course 4
Certificate of Completion (CCL) in Web Developer
Total Credits: 30
Major Code: 5060

Description: 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.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-77/gedt-77.html

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/web-developer-ccl

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

+ indicates course has prerequisites and/or corequisites.
Program Prerequisites:
None
Required Courses
Credits: 18
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

+ CIS150AB Object-Oriented Programming Fundamentals 3
+ CIS166AA Introduction to JavaScript 3
CIS224 Project Management Microsoft Project for Windows 3
+ CIS233DA Internet/Web Development Level II 3
Restricted Electives
Credits: 12
CIS120DC Flash: Digital Animation 3
CIS126DL Linux Operating System 3
+ CIS159 Visual Basic Programming I 3
+ CIS162AD C\#: Level I 3
+ CIS163AA Java Programming: Level I 3
+ CIS166AB Web Scripting with Perl/CGI 3
+ CIS166AC Web Scripting with Active Server Pages (ASP).
NET 3
+ CIS166AD Web Scripting with Java Server Pages (JSP) 3
+ CIS166AE Web Scripting with PHP: Hypertext Preprocessor
(PHP) 3
+ CIS217AM Advanced Microsoft Access: Database
Management 3
+ CIS234 XML Application Development 3
+ CIS259 Visual Basic Programming II 3


## CAREER AND TECHNICAL EDUCATION

+ CIS262AD C\# Level II 3
+ CIS263AA Java Programming: Level II 3
+ MST150 Microsoft Windows Professional (3) OR
+ MST150XP Microsoft Windows XP Professional (3) 3


## Certificate of Completion (CCL) in Web Server Administrator

Total Credits: 25-26
Major Code: 5342

Description: 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.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-78/gedt-78.html

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/web-server-administrator-ccl

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.
Program Prerequisites:
None
Required Courses
Credits: 25-26
CIS133DA Internet/Web Development Level I 3
CIS117DM Microsoft Access: Database Management (3) OR
CIS276DA MySQL Database (3) OR
CIS276DB SQL Server Database (3) OR
CIS276DC Oracle Database (3) 3
+CIS166AA Introduction to JavaScripting 3
+CIS166AB Web Scripting with Perl/CGI (3) OR
+CIS166AE Web Scripting with PHP: Hypertext Preprocessor
(PHP) (3) 3
+CIS233DA Internet/Web Development Level II 3

CIS126DL Linux Operating System (3)
AND
+CIS226AL Internet/Intranet Server Administration-Linux(3)OR
+CIS240DL Linux Network Administration (3) OR
MST150 Microsoft Windows Professional (3) OR
MST150XP Microsoft Windows XP Professional (3)
AND
+MST152 Microsoft Windows Server (4) OR
+MST152DA Microsoft Windows 2000 Server (4) OR
+MST152DB Microsoft Windows 2003 server (4) 6-7
CNT140AA Introduction to Networks 4

## Construction Degrees and Certificates

- Associate in Applied Science in Construction
- Certificate of Completion in Building Inspection
- Certificate of Completion in Computer Aided Design and Drafting - CADD Level I
- Certificate of Completion in Construction Drafting - CADD Level III
- Certificate of Completion in Home Inspection
- Certificate of Completion in Plan Review

Department Contact Information: (480) 461-7642

## Associate in Applied Science (AAS) in Construction Management

Total Credits: 61-71
Major Code: 3502
Description: The Associate in Applied Science (AAS) in Construction Management provides instruction in management skills, construction industry specific technical and occupational subjects, such as construction planning, design, and OSHA 30 safety. This degree helps prepare graduates for a productive career in the construction industry as an owner, foreman, manager, project manager, or property manager. Provides knowledge in construction ethics, estimating, and contracts and prepares graduates for the Leadership in Energy and Environmental Design (LEED) Green Associates exam in order to become LEED Certified.

## Suggested Course Plan Sequence by Semesters

https://www.mesacc.edu/programs/course-sequences/ construction-management-aas

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

## CAREER AND TECHNICAL EDUCATION

+ indicates course has prerequisites and/or corequisites.
++ indicates any module/suffixed courses.


## Program Prerequisites

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: 42-44
CNS101 Construction and Culture 3
CNS130 Computer Aided Design and Drafting 3
CNS175 Working Drawing Analysis: Blueprint Reading 3
CNS180 Building Construction Methods, Materials, and
Equipment 3
CNS181 Cost Estimating I 3
CNS243 Heavy Construction Equipment, Methods, and Materials 3

+ CNS270 Construction Safety 3
BLT262 Introduction International Residential Code (IRC) 3
CNS261 Microcomputers for Constructors 3
BLT263 Building Codes 3
+CNS260 Strength of Materials 3
CNS263 Electrical Construction Fundamentals 3
+CNS201 Construction Management (Office Operation) 3
MAT150 College Algebra / Functions (5) OR
MAT151 College Algebra / Functions (4) OR
MAT152 College Algebra / Functions (3) 3-5


## General Education Requirement

Credits: 19-22
General Education Core
Credits: 9-12
First-Year Composition
Credits: 6

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) OR
+ ENG111 Technical and Professional Writing (3) 6
Oral Communication
COM225 Public Speaking 3
Critical Reading
Credits: 0-3
+CRE101 College Critical Reading and Critical Thinking (3) or Equivalent as indicated by assessment 0-3


## Mathematics

Credits: 0
Met by MAT150, MAT151, or MAT152, in Required Courses area.

General Education Distribution
Credits: 10
Humanities and Fine Arts
Credits: 3
Any approved general education course in the Humanities, Arts and Design area

## Social and Behavioral Sciences

Credits: 3
ECN212 Microeconomic Principles 3
Natural Sciences
Credits: 4
Any approved general education course from the Natural
Sciences area 4

## Certificate of Completion (CCL)in Building Inspection

Total Credits: 21
Major Code 5554

Description: 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.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-12/gedt-12.html

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

+ indicates course has prerequisites and/or corequisites.
Program Prerequisites: None
Required Courses
Credits: 21
BLT121 Electrical Codes 3
BLT127 Plumbing Codes 3
BLT128 Mechanical Codes 3
BLT262 Introduction International Residential Code (IRC) 3
BLT263 Building Codes 3
CNS175 Working Drawing Analysis: Blueprint Reading 3
+ CNS282AC Volunteerism for Construction: A Service Learning
Experience (3) OR
+ CNS290AC Construction Internship (3) OR
+ CNS296WC Cooperative Education (3) OR


## CAREER AND TECHNICAL EDUCATION

+ CNS298AC Special Projects (3) 3
Certificate of Completion (CCL) in Computer Aided Design and Drafting CADD Level I
Total Credits: 9
Major Code: 5498N

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

## Program Notes:

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

+ indicates course has prerequisites and/or corequisites.


## Suggested Course Plan Sequenced by Semester

https://www.mesacc.edu/programs/detail/computer-aided-design-and-drafting-cadd-level-i-ccl

Program Prerequisites: None
Required Courses
Credits: 9
CNS130 Computer Aided Design and Drafting 3

+ CNS230 Computer Aided Design and Drafting (CADD) 3D for
Construction and
Architecture (CADD II) 3
+ CNS240 Advanced Computer Aided Design and Drafting
(CADD) for
Construction and Architecture (CADD III) 3


## Certificate of Completion (CCL) in Home Inspection

Total Credits: 21
Major Code: 5505

Description: 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.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-37/gedt-37.html

## Suggested Course Plan Sequenced by Semester

https://www.mesacc.edu/programs/detail/home-inspection-ccl

## Program Notes:

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

+ indicates course has prerequisites and/or corequisites.
Program Prerequisites: None
Required Courses
Credits: 21
CNS175 Working Drawing Analysis: Blueprint Reading 3
+ CNS201 Construction Management: Office Operation 3
+ CNS271 Home Inspection Structure 3
+ CNS272 Home Inspection Plumbing, Electrical and HAVC 3
+ CNS273 Home Inspection: Insulation and Interior 3
+ CNS274 Home Inspection: Roofing and Exteriors 3
+ CNS282AC Volunteerism for Construction: A Service Learning
Experience (3) OR
+ CNS290AC Construction Internship (3) OR
+ CNS296WC Cooperative Education (3) OR
+ CNS298AC Special Projects (3) 3


## Certificate of Completion (CCL) in Plan Review

Total Credits: 27
Major Code: 5508

Description: 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.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-60/gedt-60.html

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/detail/plan-review-ccl

## CAREER AND TECHNICAL EDUCATION

Program Notes:
Students must earn a grade of "C" or better for all course listed within the program.

+ indicates course has prerequisites and/or corequisites.


## Program Prerequisites:

## Required Courses

Credits: 27

+ ARC161 Residential Architecture Drafting 3
+ ARC163 Commercial Architecture Drafting 3
BLT262 Introduction International Residential Code (IRC) 3
BLT263 Building Codes 3
CNS130 Computer Aided Design and Drafting 3
CNS180 Building Construction Methods, Materials, and Equipment 3
+ CNS285 Introduction to Residential Plan Review 3
+ CNS286 Introduction to Commercial Plan Review 3
+ CNS282AC Volunteerism for Construction: A Service Learning Experience (3) OR
+ CNS290AC Construction Internship (3) OR
+ CNS296WC Cooperative Education (3) OR
+ CNS298AC Special Projects (3) 3


## Dental Degree

- Associate in Applied Science in Dental Hygiene

Department Contact Information: (480) 654-7252

## Associate in Applied Science (AAS) in Dental Hygiene

Total Credits: 95-109.5
Major Code: 3831

Description: The Associate in Applied Science (AAS) in Dental Hygiene degree 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.

The Commission on Dental Accreditation of the American Dental Association (211 E. Chicago Ave., Suite 1900, Chicago, IL 60611-2637; (312) 440-4653) grants accreditation to the Phoenix

College, Rio Salado, 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.

Suggested Course Plan Sequenced by Semester:
https://www.mesacc.edu/programs/course-sequences/dental-hygiene-aas

## Program Notes:

Students must complete the Basic Science with a GPA of 3.5 or better and General Education courses with a GPA of 3.25 or better as indicated in the Program Prerequisites.
Basic Science courses must have been completed within the last five years or as determined by the Program Director.
Students must earn a grade of C or better in the Required Courses area within the program.
Students should consult with an advisor prior to applying to the program.

+ indicates course has prerequisites and/or corequisites.

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.
Completion of program prerequisites.
Formal application and admission to the program is required.

## Background Check Requirements

Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Supplemental Background Check policy. Program applications will not be accepted without a copy of an Arizona Department of Public Safety Level One Fingerprint Clearance Card. Upon conditional program admission, the student must

## CAREER AND TECHNICAL EDUCATION

comply with all requirements of the current MCCCD background check policy.

Program Prerequisites
Credits: 37-51.5

The credit hour range is subject to change depending on the student's educational experiences.

A grade of C or better in RDG091.

+ RDG091 College Preparatory Reading (3) OR
Eligibility for + CRE101 College Critical Reading as indicated by assessment 0-3
+ CHM130 Fundamental Chemistry (3) AND
+ CHM130LL Fundamental Chemistry with Lab (1) OR
Completion of higher-level Chemistry course OR
One (1) year high school Chemistry 0-4

Biology courses (BIO156 and BIO181) and the HCC/RES course (HCC/RES109) may be waived by the Program Director for the student who has one year of high school Biology.

+ BIO156 Introductory Biology for Allied Health (4) OR
+ BIO181 General Biology (4) OR
One (1) year of high school Biology 0-4

HCC/RES109 CPR for Health Care Provider (0.5) OR Current CPR certification at the health care provider Professional rescuer level 0-0.5

Students must complete the following Basic Science courses with a GPA of 3.50 .

+ BIO201 Human Anatomy and Physiology I 4
+ BIO202 Human Anatomy and Physiology II 4
+ BIO205 Microbiology 4
+ CHM138 Chemistry for Allied Health (3) AND
+ CHM138LL Chemistry for Allied Health Laboratory (1) OR
+ CHM230 Fundamental Organic Chemistry (3) AND
+ CHM230LL Fundamental Organic Chemistry Laboratory (1) 4

Students must complete the following General Education courses with a GPA of 3.25.

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

COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR

+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3
+ MAT112 Mathematical Concepts and Applications (3) OR
Satisfactory completion of higher level Mathematics course 3
PSY101 Introduction to Psychology 3
SOC101 Introduction to Sociology 3
+ CRE101 College Critical Reading (3) OR
Equivalent as indicated by assessment 0-3

Any approved general education course from the Humanities, Arts and Design area. 3

## Required Courses

Credits: 58

+ DHE110 Pharmacology 3
+ DHE112 Oral Pathology 3
+ DHE115 Emergency Medicine 2
+ DHE117 Dental Radiography 2
+ DHE119 Head and Neck Anatomy 3
+ DHE120 Pre-Clinical Dental Hygiene 6
+ DHE121 Dental Anatomy, Embryology and Histology 2
+ DHE125 Dental Radiography Laboratory 1
+ DHE127 Prevention of Dental Disease 3
+ DHE132 Dental Hygiene Theory I 3
+ DHE133 Dental Hygiene Clinic I 3
+ DHE201 Dental Materials 2
+ DHE202 Dental Materials Laboratory 1
+ DHE212 Dental Hygiene Theory I 2
+ DHE213 Dental Hygiene Clinic II 5
+ DHE219 Practice Management 2
+ DHE225 Periodontics 3
+ DHE227 Dental Anesthesia 2
+ DHE229 Community Oral Health 3
+ DHE232 Dental Hygiene Theory III 2
+ DHE233 Dental Hygiene Clinic III 5

> General Education Requirement
> Credits: 0

General Education Core
Credits: 0

First-Year Composition
Credits: 0
Met by ENG101 or ENG107 and ENG102 or ENG108 in the Program Prerequisites area.

## CAREER AND TECHNICAL EDUCATION

## Oral Communication

Met by COM100 or COM110 or COM225 or COM230 in Program Prerequisite area

Critical Reading
Credits: 0
Met by CRE101 or equivalent as indicated by assessment in Program Prerequisites area

Mathematics
Credits: 0
Met by MAT112 or satisfactory completion of a higher level mathematics course in Program Prerequisites area

General Education Distribution
Credits: 0
Humanities and Fine Arts
Credits: 0
Met by any approved general education course from the Humanities, Arts and Design area in Program Prerequisites

## Social and Behavioral Sciences

Credits: 0
Met by PSY101 and SOC101 in the Program Prerequisites area
Natural Sciences
Met by BIO201 in the Program Prerequisites area

## Digital Arts Degrees and Certificates

- 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


## Associate Degree (AAS) in Digital Arts

Total Credits: 62-65
Major Code: 3081

Description: The Associate in Applied Science (AAS) in Digital Arts program is designed for the student who wishes to develop or enhance multimedia skills in Digital Photography, Digital Illustration, and Graphic Design.

Suggested Course Plan Sequenced by Semester:
Digital Arts Track I-Digital Illustration https://www.mesacc.edu/programs/course-sequences/digital-arts-track-ii-digital-illustration-aas

Digital Arts Track II-Digital Photography https://www.mesacc.edu/programs/course-sequences/digital-arts-track-iii-digital-photography-aas

Digital Arts Track III-Graphic Design
https://www.mesacc.edu/programs/course-sequences/digital-arts-track-iv-graphic-design-aas

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.
Program Prerequisites: None
Required Courses
Credits: 40
ART100 Introduction to Computer Graphic Art 1
ART111 Drawing I 3
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
+ ART290AC Studio Art 3

Select one of the following three (3) tracks:
Track I: Digital Illustration Credits: 15
ART116 Life Drawing I 3

+ ART122 Drawing and Composition II 3
+ ADA/ART169 Two-Dimensional Computer Design 3
+ ART270 Intermediate Computer Photographic Imaging 3
+ ADA/ART289 Computer Illustration 3
Track II: Digital Photography Credits: 15
ART131 Photography I 3
+ ART132 Photography II 3
+ ART143 Intermediate Digital Photography 3
+ ART270 Intermediate Computer Photographic Imaging 3
+ ART274 Advanced Computer Photographic Imaging 3

Track III: Graphic Design Credits: 15

+ ART143 Intermediate Digital Photography (3) OR
+ ART192 Advanced Web Presentation Design (3) OR
+ ADA/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/ART283 Computer Aided Graphic Arts II 3


## CAREER AND TECHNICAL EDUCATION

## General Education Requirement

 Credits: 22-25General Education Core
Credits: 12-15
First-Year Composition
Credits: 6

+ Any approved general education course in the First-Year
Composition area.
Oral Communication
Credits: 3
Any approved general education course in the Oral
Communication area.
Critical Reading
Credits: 0-3
+ CRE101 College Critical Reading (3) OR
+ CRE111 Critical Reading for Business and Industry (3) OR Equivalent as indicated by assessment. 0-3

Mathematics
Credits: 3

+ Any approved general education course in the Mathematics area.

General Education Distribution
Credits: 10

Humanities and Fine Arts
Credits: 3
Any approved general education course from the Humanities, Arts and Design area.

## Social and Behavioral Sciences

Credits: 3
Any approved general education course from the SocialBehavioral Sciences area.

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

## Certificate of Completion (CCL) in Digital Arts: Digital Illustration

Total Credits: 19
Major Code: 5631

Description: 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.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-21/gedt-21.html

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/course-sequences/digital-arts-digital-illustration-ccl

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.
Program Prerequisites
Credits: 3
ART111 Drawing I (3) OR
Permission of Department or Division
Required Courses
Credits: 19
ART100 Introduction to Computer Graphic Art 1
ART116 Life Drawing I 3
+ ART122 Drawing and Composition II 3
+ ADA/ART169 Two-Dimensional Computer Design 3
+ ART177 Computer-Photographic Imaging 3
+ ART270 Intermediate Computer Photographic Imaging 3
+ ART289 Computer Illustration 3


## Certificate of Completion (CCL) in Digital Arts: Digital Photography

Total Credits: 22
Major Code: 5632

Description: The Certificate of Completion (CCL) in Digital Arts: Digital Photography prepares students for careers in photography and digital imaging as photo assistants, commercial photographers, portrait and fine art photographers, digital production technicians and photoretoucher. 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.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-22/gedt-22.html

## CAREER AND TECHNICAL EDUCATION

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/digital-arts-digital-photography-ccl

## 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.


## Program Prerequisites:

## Required Courses

ART100 Introduction to Computer Graphic Art 1
ART131 Photography I 3

+ ART132 Photography II 3
ART142 Introduction to Digital Photography 3
+ ART143 Intermediate Digital Photography 3
+ ART177 Computer-Photographic Imaging 3
+ ART270 Intermediate Computer Photographic Imaging 3
+ ART274 Advanced Computer Photographic Imaging 3


## Certificate of Completion (CCL) in Digital Arts: Graphic Design

Total Credits: 22
Major Code: 5633
Description: The Certificate of Completion (CCL) in Digital Arts: Graphic Design prepares student to work in a specialized field of graphic design as production artists, graphic designers, art directors, pre-press specialists and service bureau personnel. The program emphasizes design and production principles and develops the student's knowledge and skills required to solve graphic design and layout problems encountered in various print media. The program is designed for both those seeking to enter a career in graphic art and those already working in the field who wish to advance and update their knowledge and skills.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-23/gedt-23.html

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/course-sequences/digital-arts-graphic-design-ccl

## 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.

Program Prerequisites: None

Required Courses
ART100 Introduction to Computer Graphic Art 1
ART112 Two-Dimensional Design 3
ART142 Introduction to Digital Photography 3

+ ADA/ART169 Two-Dimensional Computer Design 3
+ ADA/ART177 Computer-Photographic Imaging 3
+ ADA/ART183 Computer Aided Graphic Arts I 3
+ ART/MMT190 Art of Web Site Design 3
+ ADA/ART283 Computer Aided Graphic Arts II 3


## Drafting Degrees and Certificates <br> - Associate in Applied Science in Electro/Mechanical

- Drafting
- Certificate of Completion in Computer Aided Drafting
- Certificate of Completion in Electro/Mechanical Drafting
- Certificate of Completion in Mechanical Drafting

Department Contact Information: (480) 461-7642

## Associate in Applied Sciences (AAS) in ElectroMechanical Drafting

Total Credits: 61-66
Major Code: 3504

Description: The Associate in Applied Science (AAS) in Electro-Mechanical Drafting program prepares students as draftee technicians in machine drafting, Computer Numerical Control (CNC) programming, manufacturing process sheets, and electronics. Students develop skills in drawing blocks, schematics, and logic diagrams, printed wiring board drawings, and integrated circuit drawings. The program emphasizes current technological needs in the drafting industry.
Suggested Course Plan Sequenced by Semester
Track I: Micro Circuit Mask Design
https://www.mesacc.edu/programs/course-sequences/
electromechanical-drafting-track-i-micro-circuit-m
Track II: CNC Programming
https://www.mesacc.edu/programs/course-sequences/ electromechanical-drafting-track-ii-cnc-programmin

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

+ indicates course has prerequisites and/or corequisites.


## CAREER AND TECHNICAL EDUCATION

## Program Prerequisites

Credits: 0-3
GTC107 Technical Mathematics I (3) or permission of Program Director 0-3

## Required Courses

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

> + ELE105 Algebra-Trigonometry for Technology (5) OR
> + GTC108 Technical Mathematics II (3) 3-5

## GTC106AA Industrial Safety 2

## Restricted Electives

Credits: 19-21
Students must select one (1) of the following two (2) tracks:

Track I: Micro Circuit Mask Design Credits: 19

+ DFT245AA Integrated Circuit Design-CMOS IA 3
+ DFT245AB Integrated Circuit Design-CMOS IB 3
+ ELE111 Circuit Analysis I 4
+ ELE131 Digital Logic and Circuits 3
+ ELE181 Computer Programming for Technology 3
DFT240 Cadence Virtuoso XL 3

Track II: C.N.C. Programming Credits: 21
GTC102 Machine Processes, Theory and Application 3

+ GTC/MET206 CNC Programming 3
GTC216 Properties of Materials 3
+ GTC236 CAD/CAM Computer Numerical Control (CNC)
Programming 3
+ GTC266 Solids Modeling-Solidworks 3
GTC276 Solids Programming 3
MET131 Lean Manufacturing 3
General Education Requirement
Credits: 19-22
General Education Core
Credits: 9-12
Credits: 6
+ ENG101 First-Year Composition (3) OR
ENG107 First-Year Composition for ESL (3) AND
ENG111 Technical and Professional Writing (3)
Oral Communication
Credits: 3
COM100 Introduction to Human Communication (3) OR

COM110 Interpersonal Communication (3) OR
COM230 Small Group Communication (3)
Critical Reading
Credits: 0-3
CRE101 College Critical Reading (3) OR
Equivalent as indicated by assessment. 0-3
Mathematics
Credits: 0
Met by ELE105 or GTC108 in Required Courses area
General Education Distribution
Credits: 10
Humanities and Fine Arts
Credits: 3
Any approved general education course from the Humanities, Arts and Design area

Social and Behavioral Sciences
Credits: 3
Any approved general education course from the SocialBehavioral Sciences area

Natural Sciences
Credits: 4
Any approved general education course from the Natural
Sciences area

## Certificate of Completion (CCL) in Computer Aided Drafting

Total Credits: 18
Major Code: 5547

Description: The Certificate of Completion (CCL) in Computer Aided Drafting prepares students for entry-level positions in firms that require drafting services. The program reflects the current needs of the drafting industry.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-15/gedt-15.html

## Suggested Course Plan Sequenced by Semester

https://www.mesacc.edu/programs/course-sequences/computer-aided-drafting-ccl

Program Notes:

+ indicates course has prerequisites and/or corequisites.
Students must earn a grade of "C" or better for all courses required within the program
Program Prerequisites: None

Required Courses
Credits: 18
CIS105 Survey of Computer Information Systems 3
DFT110 Technical Drafting I 3

## CAREER AND TECHNICAL EDUCATION

+ DFT111 Technical Drafting II 3
+ DFT105AA Computer Aided Drafting I: AutoCAD 3
+ DFT254AA Computer Aided Drafting II: AutoCAD 3
+ DFT255 3D Printing/Additive Manufacturing (3) OR
+ MFG254 Solids Modeling-Solidworks (3) 3


## Certificate of Completion (CCL) in ElectroMechanical Drafting

Total Credits: 43
Major Code: 5551

Description: The Certificate of Completion (CCL) in ElectroMechanical Drafting program prepares students 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.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-27/gedt-27.html

Suggested Course Plan Sequenced by Term
https://www.mesacc.edu/programs/course-sequences/ electromechanical-drafting-ccl

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.


## Program Prerequisites:

## Required Courses

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
+ ELE105 Algebra-Trigonometry for Technology 5
+ ELE111 Circuit Analysis I 4
ELE181 Computer Programming for Technology 3
DFT240 Cadence Virtuoso XL 3
GTC104 Manufacturing Processes 4


## Certificate of Completion (CCL) in Mechanical Drafting

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

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-50/gedt-50.html

## Suggested Course Plan Sequenced by Semester

https://www.mesacc.edu/programs/course-sequences/mechanical-drafting-ccl

## Program Notes:

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

+ indicates course has prerequisites and/or corequisites.
Program Prerequisites: None
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
GTC104 Manufacturing Processes 4
+ GTC108 Technical Mathematics II 3
+ GTC266 Solids Modeling-Solidworks 3
MET131 Lean Manufacturing 3


## Early Care Education Certificates and Degrees <br> - Associate in Applied Science in Early Learning and

 Development- Associate in Applied Science in Instructional Assistance
- Certificate of Completion in Early Care Specialist
- Certificate of Completion in Instructional Assistance

Department Contact Information: (480) 461-7904

## CAREER AND TECHNICAL EDUCATION

## Associate in Applied Science (AAS) in Early Learning and Development

Total Credits: 63-68
Major: 3124

Description: 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.

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/early-learning-and-development-aas

## Program Notes:

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

+ indicates course has prerequisites and/or corequisites.
++ indicates any module/suffixed courses.
Program Prerequisites:
None
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

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

Block Three: Early Childhood Business Management:
CFS206 Child and Family Organizations: Management and Administration 3
CFS207 Organization and Community Leadership in Child and Family Organizations 3
CFS208 Child and Family Organizations: Fiscal Management and Grant Writing 3

Block Four: Any CFS, ECH, EED, ITD or FCS prefixed courses not listed in the Required Courses area 9
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 Requirements

Credits: 22-27
General Education Core
Credits: 12-17
First-Year Composition
Credits: 6

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


## CAREER AND TECHNICAL EDUCATION

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 0-3
Mathematics
Credits: 3-5
Any approved general education course in the Mathematics area 3-5

General Education Distribution
Credits: 10
Humanities and Fine Arts
Credits: 3
Any approved general education course in the Humanities, Arts and Design area 3

Social and Behavioral Sciences
CFS/ECH176 Child Development (3) OR
EED205 The Developing Child: Prenatal to Age Eight (3) OR CFS235 Developing Child: Theory into Practice, Prenatal - Age 8 (3) 3

Natural Sciences
Credits: 4
Any approved general education course in the Natural Sciences area 4

## Associate in Applied Science (AAS) Instructional Assistance

Total Credits: 60
Major: 3119
Description: The Associate in Applied Science (AAS) in Instructional Assistance program is designed to prepare students for employment as an assistant to the classroom teacher in grades K through 12. The program emphasizes the philosophical, cultural, and linguistic processes involved in teaching children through required coursework in foundations of education combined with practical application within practicum experiences.

## Suggested Course Plan Sequenced by Semester

http://mesacc.edu/programs/course-sequences/instructional-assistance-aas

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/suffixed courses.
Program Prerequisites:
None
Required Courses
Credits: 16-18
CFS/ECH176 Child Development 3
EDU220 Introduction to Serving English Language Learners
(ELL) 3
EDU221 Introduction to Education 3
EDU222 Introduction to the Exceptional Learner 3
EDU230 Cultural Diversity in Education 3

Students must select one of the following technology/computer usage courses:
BPC110 Computer Usage and Applications (3) OR
CIS105 Survey of Computer Information Systems (3) OR
ETL102 Educational Application of Technology (1) 1-3
Restricted Electives
Credits: 17-22
CFS101AH Art Activities for the Young Child 1
CFS101AJ Music Activities for the Young Child 1
CFS101AR Learning with Toys 1
CFS160 Using Music, Speech and Movement with Children`s Literature 1

ECH128 Early Learning Play and the Arts 3
CFS/ECH273 Math for the Young Child 1
ECH274 Books and Verse for the Young Child 1
CFS/ECH275 Literacy Development of the Young Child 1
ECH279 Early Childhood Curriculum Development 1
EDU101++ Tutor Training and Practicum (any suffixed course)
1-3
EDU111 Inquiry-Based Instructional Approaches for Science and Mathematics I 1

+ EDU112 Inquiry-Based Instructional Approaches for Science and Mathematics II 1
+ EDU233 Structured English Immersion, English as a Second
Language, and Bilingual Teaching Methods 3
EDU270 Learning and the Brain 3
EDU272 Educational Psychology 3
+ EED282++ Service-Learning Experience in Early Childhood
Education (any suffixed course) 1-3
+ EDU282++ Service-Learning Experience in Education (any
suffixed course) 1-3
EDU/HUM/STO292 The Art of Storytelling 3
+ EDU298++ Special Projects (any suffixed course) 1-3
EED212 Guidance, Management and the Environment 3
EED215 Early Learning: Health, Safety, Nutrition and Fitness 3
EED245 Early Learning: Language Acquisition and Literacy
Development 3


## CAREER AND TECHNICAL EDUCATION

EED272 Early Childhood Educational Psychology 3

+ EED278 Early Learning: Curriculum and Instruction 3
+ EED280 Standards, Observation and Assessment in Early Education 3
POS221 Arizona Constitution 1
PSY101 Introduction to Psychology 3
SLC201 Introduction to Linguistics 3
SOC101 Introduction to Sociology 3
SOC241 Racial and Ethnic Minorities 3
SWU171 Introduction to Social Welfare 3
THP211 Creative Drama 3
+ ENG213 Introduction to the Study of Language (3) OR EPD260 Technology in Education Overview (2) 2-3

BPC110 Computer Usage and Applications (3) OR CIS105 Survey of Computer Information Systems (3) 3

EDU236 Classroom Relationships (3) OR
EDU253 Analyzing Behavior and Managing the Classroom (3) 3
Choose 6-8 credits from the following Foreign Language: courses:
ARB+++ Any ARB/Arabic course (6-8) OR
FRE+++ Any FRE/French course (6-8) OR
GER+++ Any GER/German course (6-8) OR
ITA+++ Any ITA/Italian course (6-8) OR
JPN+++ Any JPN/Japanese course (6-8) OR
SPA+++ Any SPA/Spanish course (6-8) OR
SLG+++ Any SLG/Sign Language course (6-8) 6-8
General Education Requirements Credits: 22-25
General Education Core
Credits: 12-15
First-Year Composition
+ENG101 First-Year Composition (3) OR
+ENG107 First-Year Composition for ESL (3) AND
+ENG102 First-Year Composition (3) OR
+ENG108 First-Year Composition for ESL (3) 6
Oral Communication
Credits: 3
COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR
+COM225 Public Speaking (3) OR
+COM230 Small Group Communication (3) 3
Credits: 6

Critical Reading
Credits: 0-3
CRE101 College Critical Reading (3) OR
Equivalent as indicated by assessment 0-3
Mathematics
Credits: 3
+MAT112 Mathematical Concepts and Applications (3) OR
Satisfactory completion of a higher-level mathematics course 3
General Education Distribution
Credits: 10

Humanities and Fine Arts
Credits: 3
EDU/ENH291 Children`s Literature 3
Social and Behavioral Sciences
Credits: 3
HIS103 United States History to 1865 (3) OR
POS110 American National Government (3) OR
GCU/POS113 United States and Arizona Social Studies (3) 3
Natural Sciences
Credits: 4
Any approved general education course from the Natural
Sciences area. 4

## Certificate of Completion (CCL) in Early Care Specialist

Total Credits: 29
Major: 5358

Description: 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.

Consumer Program Costs and Career Information
https://www.mesacc.edu/programs/gainful-employment/ view/19.0708-5358

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/early-care-specialist-ccl

Program Notes:

+ indicates course has prerequisites and/or corequisites.
++ indicates any module/suffixed courses.
Students must earn a grade of "C" or better in all courses within the program.

| Admission Criteria: | None |
| :--- | :--- |
| Program Prerequisites | None |

## CAREER AND TECHNICAL EDUCATION

## Required Courses

CFS/ECH176 Child Development (3) OR
EED205 The Developing Child: Prenatal to Age Eight (3) 3

ECH128 Early Learning: Play and the Arts 3
EED200 Foundations of Early Childhood Education 3 EED212 Guidance, Management and the Environment 3
+EED245 Early Learning: Language Acquisition and Literacy
Development (3) OR
EED220 Child, Family, Community and Culture (3) OR
EED222 Introduction to the Exceptional Young Child: Birth to Age Eight (3) 3

EED215 Early Learning: Health, Safety, Nutrition and Fitness 3 EED255 Portfolio Development and Writing for the Profession 3 +EED260 Early Childhood Infant/Toddler Internship 1
+EED261 Early Childhood Preschool Internship 1
+EED278 Early Learning: Curriculum and Instruction - Birth/ Preschool 3

Restricted Electives
Credits: 3

+ CFS+++++ Any CFS Child/Family Studies Course 3
+ ECH+++++ Any ECH Early Childhood Education Course 3
+ EED+++++ Any EED Early Education Course 3
+ ITD+++++ Any ITD Infant/Toddler Development Course 3


## Certificate of Completion (CCL) in Instructional Assistance

Total Credits: 27
Major Code: 5119

Description: The Certificate of Completion (CCL) in Instructional Assistance program is designed to prepare students to assist the classroom teacher in grades K through 12. Program requirements include coursework in foundations of education and language as well as practical application coursework, including a practicum within a classroom setting.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/gainful-employment

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/course-sequences/ instructional-assistance-ccl

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/suffixed courses.
Program Prerequisites:
None


## Required Courses

Credits: 18
CFS/ECH176 Child Development 3
EDU220 Introduction to Serving English Language Learners
(ELL) 3
EDU221 Introduction to Education 3
EDU222 Introduction to the Exceptional Learner 3
EDU230 Cultural Diversity in Education 3
EDU/ENH291 Children`s Literature 3

Restricted Electives
Credits: 9
Restricted Electives (BPC110 or CIS105), COM225, and (ENG101 or ENG107) courses are recommended if completing coursework for the Associate in Arts Elementary Education (AAEE) degree.

BPC110 Computer Usage and Applications (3) OR CIS105 Survey of Computer Information Systems (3) 3
+COM225 Public Speaking 3
EDU101A+ Tutor Training and Practicum (any suffixed course) 1-3
EDU236 Classroom Relationships 3

+ EDU282A+ Service-Learning Experience in Education (any suffixed course) 1-3
EDU/HUM/STO292 The Art of Storytelling 3
+ ECH/EDU298A + Special Projects (any suffixed course) 3
+ENG101 First-Year Composition (3) OR
+ENG107 First-Year Composition for ESL (3) 3
Any foreign language course 3-4


## Education Certificates and Degrees

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

Department Contact Information: (480) 461-7904

## CAREER AND TECHNICAL EDUCATION

## Certificate of Completion (CCL) in Bilingual Education/Dual Language Immersion (BE/DLI)

Total Credits: 18-21
Major Code: 5127

Description: The Certificate of Completion (CCL) in Bilingual Education/Dual Language Immersion (BE/DLI) program is designed for educators pursuing bilingual education endorsement. The BE/DLI Certificate program is designed to prepare educators to be culturally responsive to the needs of language learners, become advocates for strong program models, and implement effective instructional strategies within BE/DLI programs. Coursework is designed to address foundations for serving language learners, BE/DLI methods and assessment, and linguistics, providing the cultural and pedagogical knowledge needed to engage learners in quality educational experiences. Includes required coursework toward Bilingual Education Endorsement provided by the Arizona Department of Education. Valid Arizona teaching certificate is required for state endorsement.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/gainful-employment

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/detail/bilingual-education-dual-language-immersion-be-dli-ccl

Program Notes:

+ indicates course has prerequisites and/or corequisites.
Students must earn a grade of "C" or better for all courses required within the program.

Program Prerequisites:

## Required Courses

Credits: 18-21
+EDU220 Introduction to Serving English Language Learners (ELL) (3) OR
+EPD220 Introduction to Serving English Language Learners for Certified Teachers (3) 3

EDU230 Cultural Diversity in Education 3
+EDU233 Structured English Immersion, English as a Second Language, and Bilingual Teaching Methods (3) OR +EPD233 Structured English Immersion and English as a Second Language Teaching Methods for Teachers (3) OR
+EPD241 Bilingual/Dual Language Immersion Methods (3) 3
+EPD244 Reading and Writing in SEI/ESL/Bilingual Settings 3
+EPD246 Teaching and Assessment of English Language Learners (ELL) 3
+EPD247 Practicum for English as a Second Language (ESL)/ Bilingual Teachers (3) OR Two years of full-time bilingual teaching experience verified by the District Superintendent or Personnel Director (0) 0-3
+ENG213 Introduction to the Study of Language (3) OR
+SLC201 Introduction to Linguistics (3) 3

## Certificate of Completion (CCL) in ESL Endorsement

Total Credits: 27
Major Code: 5126
Description: 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.

Consumer Program Costs and Career Information
https://www.mesacc.edu/programs/gainful-employment

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/detail/esl-endorsement-ccl

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/suffixed courses.


## Program Prerequisites

None
Required Courses
Credits: 27
+EDU220 Introduction to Serving English Language Learners
(ELL) (3) OR

+ EPD220 Introduction to Serving English Language Learners for Certified Teachers (3) 3


## CAREER AND TECHNICAL EDUCATION

EDU230 Cultural Diversity in Education 3
+EDU233 Structured English Immersion, English as a Second Language, and Bilingual Teaching Methods (3) OR
+EPD233 Structured English Immersion and English as a Second Language Teaching Methods for Teachers (3) 3
+EPD244 Reading and Writing in SEI/ESL/Bilingual Settings 3
+EPD246 Teaching and Assessment of English Language
Learners (ELL) 3
+EPD247 Practicum for English as a Second Language (ESL)/ Bilingual Teachers 3
+ENG213 Introduction to the Study of Language (3) OR
+SLC201 Introduction to Linguistics (3) 3
Choose 6 credits from the following Foreign Language courses:
ARB+++ any ARB/Arabic course
FRE+++ any FRE/French course
GER+++ any GER/German course
ITA+++ any ITA/Italian course
JPN+++ any JPN/Japanese course
SPA+++ any SPA/Spanish course
SLG+++ any SLG/Sign Language course

## Certificate of Completion (CCL) in Reading Specialist

Total Credits: 24-30
Major Code: 5128

Description: The 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 $\mathrm{K}-12$ 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.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/gainful-employment/ view/13.9999-5128

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/detail/reading-specialist-ccl

## 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.
Program Prerequisites
Credits: 0
Early Childhood, Elementary, Secondary, or Special Education teacher certification.


## Required Courses

Credits: 12

+ EPD270 Theoretical and Research Foundations of Language and Literacy 3
+ EPD274 Reading Assessment 6
+ EPD276 The Teacher Leader 3


## 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) 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 I nstruction 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: 18

+ 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 Elementary 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


## CAREER AND TECHNICAL EDUCATION

## Electronics Certificates and Degrees

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

Department Contact Information: (480) 461-7144

## Associate in Applied Science (AAS) in Electronics Engineering Technology

Total Credits: 67
Major Code: 3224

Description: The Associate in Applied Science (AAS) in Electronics 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.

## Suggested Course Plan Sequenced by Semester

https://www.mesacc.edu/programs/detail/electronics-engineering-technology-aas

## Program Notes:

Students must earn a grade of "C" or better for all courses within the program.
+indicates course has prerequisites and/or corequisites.

## Program Prerequisites

Credits: 0-5
MAT120 Intermediate Algebra (5) OR
MAT121 Intermediate Algebra (4) OR
MAT122 Intermediate Algebra (3) OR higher as indicated by assessment 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 Calculus with Analytic Geometry 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 Requirements
Credits: 20-26
General Education Core
Credits: 15-20

First-Year Composition
Credits: 6
+ENG101 First-Year Composition (3) OR
+ENG107 First-Year Composition for ESL (3)
AND
ENG111 Technical and Professional Writing (3) 6
Oral Communication
Credits: 3
COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR
COM230 Small Group Communication (3)
Critical Reading
Credits: 0-3
CRE101 Critical and Evaluative Reading I (3) OR Equivalent as indicated by assessment.

Mathematics
Credits: 6-8
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
General Education Distribution Credits: 5-6
Humanities and Fine Arts
Credits: 2-3
Any approved general education course from the Humanities and Fine Arts area.

Social and Behavioral Sciences
Credits: 3
Any approved general education course from the Social and Behavioral Sciences area.

Natural Sciences
Credits: 0
Met by PHY111 AND (PHY112 OR (CHM130 AND
CHM130LL)) in Required Courses area.

## CAREER AND TECHNICAL EDUCATION

## Associate in Applied Science (AAS) in Electronics Technology

Total Credits: 67-71
Major Code: 3220

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/detail/electronics-technologyaas

Description: The Associate in Applied Science (AAS) in Electronics Technology program is designed to give students a foundation of experience important in electronics technicians, manufacturing supervisors, test equipment specialists, prototype fabricators, and in other positions in 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.

Program Notes:
Students must earn a grade of "C" or better for all courses within the Required Courses area.

+ indicates course has prerequisites and/or corequisites.
Program Prerequisites
Credits: 0-5
+ELE101 Beginning Algebra for Technology (3) OR
+MAT090 Introductory 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

+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 and Circuits II 4
+ELE241 Microprocessor Concepts 4
+ELE/ELT243 Microprocessor Applications 3
+ELE251 Electronic Measurements 3
+ELE261 Communication Systems 4
+ELE263 Digital Data Communications 4
GTC106AA Industrial Safety 2
+GTC185 Electro-Mechanical Devices 4
General Education Requirements
Credits: 14-18
General Education Core
Credits: 9-12

First-Year Composition
Credits: 6

+ Any approved general education course from the First Year
Composition area


## Oral Communication

Credits: 3
Any approved general education course from the Oral Communication area

Critical Reading
Credits: 0-3
Any approved general education course from the Critical
Reading area OR Equivalent as indicated by assessment
Mathematics
Credits: 0
Met by ELE105 in the Required Courses area
General Education Distribution
Credits: 5-6
Humanities and Fine Arts
Credits: 2-3
Any approved general education course from the Humanities and
Fine Arts area
Social and Behavioral Sciences
Credits: 3
Any approved general education course from the Social and Behavioral Sciences area

Natural Sciences
Credits: 0
Met by ELE111, ELE112, ELE121, ELE131 in the Required Courses area

## Certificate of Completion (CCL) in Electronics Technology

Total Credits: 33
Major Code: 5591

Description: 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.

## CAREER AND TECHNICAL EDUCATION

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/gainful-employment/ view/15.0303-5591

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/detail/electronics-technologyccl

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.
Program Prerequisites:
None


## Required Courses

ELE105 Algebra-Trigonometry for Technology 5
ELE111 Circuit Analysis I 4
ELE112 Circuit Analysis II 4
ELE121 Solid-State Devices and Circuits I 4
ELE131 Digital Logic and Circuits 3
ELE181 Computer Programming for Technology 3
ELE241 Microprocessor Concepts 4
GTC106 Industrial Safety 2
GTC185 Electro-Mechanical Devices 4

## Certificate of Completion (CCL) in Salt River Project Relay Apprentice

Total Credits: 36
Major Code: 5763

Description: The Certificate of Completion (CCL) in Salt River Project Relay Apprentice is a closed program that is available to SRP employees who are participating in the SRP apprenticeship program. The program supplements the industry-specific training that the apprentices receive at SRP with the theory and fundamentals of electronics that are necessary for success in that program.

Consumer Program Costs and Career Information
https://www.mesacc.edu/programs/gainful-employment/ view/15.0303-5763

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/detail/salt-river-project-relay-apprentice-ccl

Program Notes:
Students must earn a grade of "C" or better for all courses within the Required Courses area.
+indicates course has prerequisites and/or corequisites.
Admission Criteria: Current SRP employee who has been accepted into SRP`s Relay Apprenticeship program.

Program Prerequisites: None

Required Courses
Credits: 36
ENG101 First-Year Composition (3) OR
ENG107 First-Year Composition for ESL (3) 3

ENG111 Technical and Professional Writing 3
ELE100 Concepts of Electricity and Electronics 3
+ELE101 Beginning Algebra for Technology 3
+ELE105 Algebra-Trigonometry for Technology 5
+ELE111 Circuit Analysis I 4
+ELE112 Circuit Analysis II 4
+ELE121 Solid-State Devices and Circuits I 4
+ELE222 Solid-State Devices and Circuits II 4
+ELE251 Electronic Measurements 3

## Exercise Science Certificates and Degrees

- 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

Department Contact Information: (480) 461-7551

## Associate in Applied Science (AAS) in Exercise Science and Personal Training

Total Credits: 64-69.5
Major Code: 3059

Description: The Associate in 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) 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

## CAREER AND TECHNICAL EDUCATION

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.

Suggested Course Plan Sequenced by Semester:
https://www.mesacc.edu/programs/course-sequences/exercise-science-and-personal-training-aas

## Program Notes:

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

+ indicates course has prerequisite and/or corequisites.


## Program Prerequisites:

None

## Required Courses

Credits: 36-36.5
EMT101 Basic Life Support/Cardiopulmonary Resuscitation (CPR) for Health Care Providers (0.50) OR
HES106 Cardiopulmonary Resuscitation (CPR)/Automated
External Defibrillator (AED) (0.50) OR
Current Basic Life Support (BLS) Health Care Provider/
Professional Rescuer certification 0-0.50

EXS101 Introduction to Exercise Science 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 Activity 3
+ FON247 Weight Management Science 3


## Restricted Electives

Credits: 6
Choose a total of six (6) credits from EXS, FON, HES, PED and/ or WED courses except courses used to satisfy Required Courses area. Maximum of three (3) credits of PED courses may be counted toward the Restricted Electives.

EXS+++++ Any EXS Exercise Science courses
FON+++++ Any FON Food and Nutrition courses
HES+++++ Any HES Health Science courses
PED+++++ Any PED Physical Education courses (maximum of 3 credits)
WED+++++ Any WED Wellness Education courses
General Education Requirements
Credits: 22-27
General Education Core
Credits: 12-17
First-Year Composition
Credits: 6

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6
Oral Communication
Credits: 3
+ COM225 Public Speaking 3
Critical Reading
Credits: 0-3
+ CRE101 College Critical Reading (3) OR
Equivalent as indicated by assessment 0-3


## Mathematics

Credits: 3-5
Any approved general education course from the Mathematics area except MAT112
The following courses or higher are recommended:

+ MAT120 Intermediate Algebra (5) OR
+ MAT121 Intermediate Algebra (4) OR
+ MAT122 Intermediate Algebra (3) 3-5
General Education Distribution
Credits: 10


## CAREER AND TECHNICAL EDUCATION

## Humanities and Fine Arts

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

Social and Behavioral Sciences
HES100 Healthful Living (3) OR
PSY101 Introduction to Psychology (3) 3
Natural Sciences
Credits: 4
BIO160 Introduction to Human Anatomy and Physiology (4) OR

+ BIO156 Introductory Biology for Allied Health (4) OR
+ BIO181 General Biology (Majors) I (4) 4


## Certificate of Completion (CCL) in Nutrition for Fitness and Wellness

Total Credits: 22
Major Code: 5302

Description: 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.

Consumer Program Costs and Career Information: https://www.mesacc.edu/programs/gainful-employment/ view/31.0501-5302

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/course-sequences/nutrition-for-fitness-and-wellness-ccl

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

+ indicates course has prerequisites and/or corequisites.
++ indicates any module/suffixed courses.


## Program Prerequisites:

 NoneRequired Courses Credits: 22
EXS101 Introduction to Exercise Science 3
EXS125 Introduction to Exercise Physiology 3
EXS130 Strength Fitness-Physiological Principles and Training Techniques 3

FON100 Introductory Nutrition (3) OR
FON+++++ 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 3
+ FON230 Nutrition for Special Populations 3
+ FON247 Weight Management Science 3
Certificate of Completion (CCL) in Personal Training Specialist
Total Credits: 32-34.5
Major Code: 5445
Description: The Certificate of Completion (CCL) in Personal Training Specialist program is designed to help prepare students for employment in the fitness industry as a Personal Trainer. This curriculum provides students with a fundamental knowledge of human physiology and anatomy, introduction into career options in the field of Exercise Science, Kinesiology and Physical Education/Coaching, emergency response readiness, health appraisals and assessments; application of exercise fitness principles and strength and cardiorespiratory training techniques; a fundamental knowledge of nutrition, exercise physiology, and biomechanics; skills in exercise testing and fitness measures as well as writing exercise prescriptions and program designs for diverse populations.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/gainful-employment/ view/31.0505-5445

## Suggested Course Plan Sequenced by Semester

https://www.mesacc.edu/programs/course-sequences/personal-training-specialist-ccl

Program Notes:

+ indicates course has prerequisites and/or corequisites.
++ indicates any module/suffixed courses.
Students must earn a grade of "C" or better in all courses within the program.

Program Prerequisites:
None
Required Courses
Credits: 28-28.5
BIO160 Introduction to Human Anatomy and Physiology (4) OR

+ BIO156 Introductory Biology for Allied Health (4) OR
+ BIO181 General Biology (Majors) I (4) 4

EMT101 Basic Life Support/Cardiopulmonary Resuscitation
(CPR) for Health Care Providers (0.50) OR
HES106 Cardiopulmonary Resuscitation (CPR)/Automated
External Defibrillator (AED) (0.50) OR
Current Basic Life Support (BLS) Health Care Provider/

## CAREER AND TECHNICAL EDUCATION

## Professional Rescuer certification 0-0.50

EXS101 Introduction to Exercise Science 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

FON100 Introductory Nutrition (3) OR
FON105 Nutrition Principles for Fitness Professionals (3) OR
FON241 Principles of Human Nutrition (3) 3
+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

Restricted Electives
Credits: 4-6
Choose a total of 4-6 credits from EXS, FON, HES, PED and/ or WED courses except courses used to satisfy Required Courses area. Maximum of three (3) credits of PED courses may be counted toward the Restricted Electives.

EXS+++++ Any EXS Exercise Science courses
FON+++++ Any FON Food and Nutrition courses
HES+++++ Any HES Health Science courses
PED+++++ Any PED Physical Education courses (maximum of 3 credits)
WED+++++ Any WED Wellness Education course

## Fashion Merchandising and Design Certificates and 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: Fashion Stylist

Department Contact Information: (480) 461-7711

## Associate in Applied Science (AAS) in Fashion Merchandising and Design

Total Credits: 60-67
Major Code: 3260

Description: 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.

Suggested Course Plan Sequenced by Semester:
Track I
https://www.mesacc.edu/programs/course-sequences/fashion-merchandising-and-design-track-I-aas

Track II
https://www.mesacc.edu/programs/course-sequences/fashion-merchandising-and-design-track-II-aas

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

+ indicates course has prerequisites and/or corequisites.
++ indicates any module/suffixed courses.
Program Prerequisites:
None
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: 28-31
Students will select one of two tracks
Note: Students must complete the minimum 60 credits to complete an AAS, therefore if selecting Track I, students completing the minimum in the General Education area, must complete at least 29 credits in restricted electives to meet the 60 credits minimum.

Track I - Fashion Merchandising Credits: 28-31
ACC109 Accounting Concepts 3
MKT/TEC200 Retail Buying 3

## CAREER AND TECHNICAL EDUCATION

MKT271 Principles of Marketing 3
MKT/TEC109 Introduction to Fashion Merchandising 3
MKT/TEC151 Display and Visual Merchandising 3

+ TEC255 Fashion Retail Merchandising 3
+ TEC260 Fashion Sales Management 3
+ TEC272AA Retail Merchandising Internship 1
Select six (6) to nine (9) credits from the following courses:
ART131 Photography I 3
ART142 Introduction to Digital Photography 3
BPC110 Computer Usage and Applications 3
CIS105 Survey of Computer Information Systems 3
+ GBS233 Business Communication 3
MGT229 Management and Leadership I 3
+ MGT230 Management and Leadership II 3
MGT251 Human Relations in Business 3
MGT253 Owning and Operating a Small Business 3
MKT101 Introduction to Public Relations 3
MKT263 Advertising Principles 3
+ MKT/TEC274AC Fashion Merchandising Study Tour 3
TEC106 History of Fashion 3
+ TEC221 Computer-Assisted Fashion Design 3
+ TEC241 Advanced Computer-Assisted Fashion Design 3
TEC+++++ Any TEC Textiles and Clothing course not listed under Required Courses area 1-3

Track II - Fashion Design Credits: 29-31
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

Select four (4) to six (6) credits from the following courses:
INT150 Color and Design 3

+ TEC135 Fashion Illustration II 3
+ TEC230 Pattern Design II 3
+ TEC271AC Fashion Design Internship 3
+ MKT/TEC274AC Fashion Merchandising Study Tour 3
TEC+++++ Any TEC Textiles and Clothing course not listed under Required Courses area 1-3


## General Education Requirements

 Credits: 22-27General Education Core
Credits: 12-17
First-Year Composition
Credits: 6
ENG101 First-Year Composition (3) OR
ENG107 First-Year Composition for ESL (3) AND
ENG102 First-Year Composition (3) OR
ENG108 First-Year Composition for ESL (3) OR
ENG111 Technical and Professional Writing (3)
Oral Communication
Credits: 3
COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR
COM225 Public Speaking (3) OR
COM230 Small Group Communication (3)
Critical Reading
Credits: 0-3
CRE101 College Critical Reading (3) OR
CRE111 Critical Reading for Business and Industry (3) OR
Equivalent as indicated by assessment 0-3

## Mathematics

Credits: 3-5

+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR
+ MAT142 College Mathematics (3) OR
Satisfactory completion of higher level math course 3-5
General Education Distribution
Credits: 10
Humanities and Fine Arts
Credits: 3
Any approved general education course in the Humanities, Arts and Design area.
ARH+++++ Any ARH Art Humanities course recommended.


## Social and Behavioral Sciences

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

## Natural Sciences

Credits: 4
Any approved general education course in the Natural Sciences area

## CAREER AND TECHNICAL EDUCATION

## Certificate of Completion (CCL) in Alteration Specialist

Total Credits: 20-25
Major Code: 5556

Description: The Certificate of Completion (CCL) in Alteration Specialist is designed to prepare students for employment in alterations for the apparel industry. Students will develop skills in advanced clothing construction, tailoring and couture techniques appropriate for a variety of fabrics and designs, and fitting techniques for all types of apparel. They will develop the ability to select appropriate fashion fabrics, interfacing, and lining materials for specific items of apparel. Students completing this certificate will be able to alter and repair ready-made garments for a profession. Students completing the certificate can expect entry level positions in the alteration profession for retailers, drycleaning industry or their own alteration establishment.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-3/gedt-3.html

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/alteration-specialist-ccl

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/suffixed courses.


## Program Prerequisites

TEC111 Clothing Construction (3) OR
Permission of Program Director 0-3

## Required Courses

Credits: 20-22
TEC112AB Alteration of Ready Made Garments 2

+ TEC112AQ Pattern Alteration and Fit 2
TEC122 Sewing with Knits 3
+ TEC124 Advanced Clothing Construction 3
TEC129 Sewing with a Serger 3
TEC222 Textiles 3
+ TEC223 Tailoring (3) OR
+ TEC227 Couture Sewing (3) 3

TEC277++ Alteration Internship (1-3) 1-3

## Certificate of Completion (CCL) in Costume Design and Production

Total Credits: 25-30
Major Code: 5406

Description: The Certificate of Completion (CCL) in Costume Design and Production is designed for students with an interest in costuming. Students learn to design and make costumes and apply appropriate makeup. They develop the ability to design appropriate costumes for period Community theatre, opera, dance and living history programs including the makeup, and manage the costume wardrobe. Completers of this certificate will have interned with college or community stage production crews for a minimum of 240 hours.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-20/gedt-20.html

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/course-sequences/costume-design-and-production-ccl

## Program Notes:

+ indicates course has prerequisites and/or corequisites.
++ indicates any module/suffixed courses.
Students must earn a grade of "C" or better for all courses required within the program.


## Program Prerequisites

Credits: 0-3
TEC111 Clothing Construction (3) OR
Permission of Program Director 0-3
Required Courses
Credits: 25-27
TEC106 History of Fashion 3

TEC122 Sewing With Knits (3) OR

+ TEC124 Advanced Clothing Construction (3) 3

TEC125 Fashion Design (3) OR
TEC134 Fashion Illustration I (3) 3

TEC222 Textiles 3

+ TEC223 Tailoring (3) OR
+ TEC227 Couture Sewing (3) 3
+ TEC225 Pattern Design I 3
THF115 Makeup for Stage and Screen 3


## CAREER AND TECHNICAL EDUCATION

+ TEC226 Draping for Fashion Design (3) OR
+ TEC230 Pattern Design II (3) 3

TEC278++ Costume Design and Production Internship (any module) (1-3) OR
THP201++ Any Theatre Production course (1-2) 1-3

## Certificate of Completion (CCL) in Image Consultant

Total Credits: 22-24
Major Code: 5402
Description: The Certificate of Completion (CCL) in Image Consultant is designed for students with an interest in Image Consulting. Students learn clothing strategies for all figure types, appropriate dress for all occasions, nutrition, and interpersonal skills. They develop the ability to advise clients and groups for an acceptable image. Completers of this certificate will have interned with a nationally certified Image Consultant through the Association of Image Consultants, International (AICI), for a minimum of 480 hours. They may then apply for accreditation from AICI.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/gainful-employment/ view/19.0902-5402

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/course-sequences/image-consultant-ccl
Program Notes:
Students must earn a grade of "C" or better for all courses required within the program.

## Program Prerequisites:

None
Required Courses
COM110 Interpersonal Communication 3
INT150 Color and Design 3

FON100 Introductory Nutrition (3) OR
FON241 Principles of Human Nutrition (3) 3

PSY132 Psychology and Culture (3) OR
TEC105 Cultural Aspects of Clothing (3) 3

TEC222 Textiles 3
TEC245 Wardrobe Strategies 3
TEC250 Apparel Quality Analysis 3
TEC275++ Image Consultant Internship (any module) 1-3

## Certificate of Completion (CCL) in Retail Sales Manager <br> Total Credits: 25-27 <br> Major Code: 5405

Description: The Certificate of Completion (CCL) in Retail Sales Manager is designed for students with an interest in retail store management. Students learn about apparel and retail store management, merchandising, salesmanship, customer service, basic computer systems, and human resources. They develop the ability to train and manage personnel in a store, display and merchandise their areas or store, effectively train personnel to sell the merchandise, and manage stocks and profitability. Completers of this certificate will have interned with a store manager for a minimum of 240 hours. Career placement would be at the Department or Area Sales Manager position.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/gainful-employment/ view/19.0902-5405

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/retail-sales-manager-ccl

Program Notes:

+ indicates course has prerequisites and/or corequisites.
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: 22-24
BPC110 Computer Usage and Applications (3) OR
CIS105 Survey of Computer Information Systems (3) 3
MKT/TEC200 Retail Buying (3) OR
MGT229 Management and Leadership I (3) OR
MGT253 Owning and Operating a Small Business (3) 3

MKT/TEC151 Display and Visual Merchandising 3
TEC222 Textiles 3
TEC250 Apparel Quality Analysis 3
+TEC255 Fashion Retail Merchandising 3

TQM101 Quality Customer Service (3) OR
+TEC260 Fashion Sales Management (3) 3

TEC272++ Retail Merchandising Internship 1-3

## CAREER AND TECHNICAL EDUCATION

## Certificate of Completion (CCL) in Textile and Apparel: Fashion Stylist

Total Credits: 16
Major Code: 5768
Description: The Certificate of Completion (CCL) in Textile and Apparel: Fashion Stylist program is designed for students with an interest in visual display and merchandise styling for wholesale or retail trades. It provides students with skills defining target market, historical and current fashions, visual display techniques, color theory, and fashion styling practices. Completers of the certificate will enter the fashion industry at entry-level positions but with an understanding of the styling profession.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/gainful-employment

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/textile-and-apparel-fashion-stylist-ccl

Program Notes:
Students must earn a grade of "C" or better for all courses within the program.
+indicates course has prerequisites and/or corequisites.
++ indicates any modules/suffixed courses.
Program Prerequisites:
None

## Required Courses

Credits: 16
TEC106 History of Fashion 3
MKT/TEC109 Introduction to Fashion Merchandising 3
MKT/TEC151 Display and Visual Merchandising 3
TEC245 Wardrobe Strategies 3
INT150 Color and Design 3
TEC272AA Retail Merchandising Internship 1

## Geographic Information Systems Certificates and Degrees

- Associate in Applied Science in Geospatial Technologies
- Certificate of Completion in Applications in Geospatial Technologies

Department Contact Information: (480) 461-7348
Associate in Applied Science (AAS) in Geospatial Technologies
Total Credits: 60-77
Major Code: 3108

Description: The Associate in Applied Science (AAS) in Geospatial Technologies prepares students for entry level positions within the field of Geographic Information Systems. The Geospatial Technologies program will also provide students with the educational foundation necessary for a four-year degree. A Certificate of Completion (CCL) is also available.

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/detail/geospatial-technologiesaas

## Program Notes:

Students must earn a grade of "C" or better for all courses within the program.
Program is designed for students with varying skills consult with program director.

+ indicates course has prerequisites and/or corequisites.
++ indicates any module/suffixed courses.
Program Prerequisites
Credits: 3-16
CIS105 Survey of Computer Information Systems 3

Students must select one of three (3) tracks. The credit hour range is depending on the student's educational experiences and track selected.

Track I: Technician: Credits: 0

Track II: Analyst/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: 0-13
+MAT120 Intermediate Algebra (5) OR
+MAT121 Intermediate Algebra (4) OR
+MAT122 Intermediate Algebra (3) OR
Satisfactory score on District placement exam 0-5
+MAT187 Precalculus (5)
OR
+MAT150 College Algebra/Functions (5) OR
+MAT151 College Algebra/Functions (4) OR
+MAT152 College Algebra/Functions (3)
AND
+MAT182 Plane Trigonometry (3)
OR
Satisfactory score on District placement exam 0-8

## CAREER AND TECHNICAL EDUCATION

## Required Courses

Credits: 26-32
GCU102 Introduction to Human Geography (3) OR
GPH111 Introduction to Physical Geography (4) 3-4

GIS205 Geographic Information Technologies 3
+GIS211 Geographic Information Science I 4
+GIS220 Introduction to ArcPy Scripting 3
+GIS222 Geographic Information Science II 3
GCU/GPH298++ Special Projects (any suffixed course) (1-3) 1-3

## AND

Students must select one of three (3) tracks.

Track I: Technician: Credits: 9
+CIS163AA Java Programming: Level I 3
CIS117DM Microsoft Access: Database Management 3
GIS223 Introduction to Digital Image Processing 3

Track II: Analyst/Developer: Credits: 9

+ CSC110 Introduction to Computer Science (Java) 3
+CIS276DB SQL Server Database 3
GIS223 Introduction to Digital Image Processing 3

Track III: Transfer Emphasis: Credits: 12
+CSC110 Introduction to Computer Science (Java) 3
+CSC205AB Object Oriented Programming and Data Structures 4
+MAT220 Calculus with Analytic Geometry I 5
Restricted Electives
Credits: 7
GPH+++++ Any GPH Physical Geography course(s) not listed under Required Course area

## General Education Requirements <br> Credits: 19-27

General Education Core
Credits: 9-17

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
Any approved general education course in the Oral Communication area

Credits: 6

Critical Reading
Credits: 0-3
Any approved general education course in the Critical Reading area or equivalent as indicated by assessment

Mathematics
Credits: 0-5

+ Any approved general education course in the Mathematics
area if Track I is selected or
Met by Math courses in the Program Prerequisites area if Track II or Track III is selected.

General Education Distribution
Credits: 10

Humanities and Fine Arts
Credits: 3
Any approved general education course in the Humanities, Arts and Design area

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

Natural Sciences
Credits: 4
Any approved general education course in the Natural Sciences area

## Certificate of Completion (CCL) in Applications in Geospatial Technologies

Total Credits: 29-48
Major Code: 5135

Description: 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.

Consumer Program Costs and Career Information
https://www.mesacc.edu/programs/gainful-employment/ view/45.0701-5135

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/detail/applications-in-geospatial-technologies-ccl

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

## CAREER AND TECHNICAL EDUCATION

Program is designed for students with varying skills consult with program director.

+ indicates course has prerequisites and/or corequisites.
++ indicates any module/suffixed courses.
Program Prerequisites
Credits: 3-16
CIS105 Survey of Computer Information Systems (3)

Students must select one of three (3) tracks. The credit hour range is depending on the student's educational experiences and track selected.

Track I: Technician: Credits: 0

Track II: Analyst/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: 0-13
+MAT120 Intermediate Algebra (5) OR
+MAT121 Intermediate Algebra (4) OR
+MAT122 Intermediate Algebra (3) OR
Satisfactory score on District placement exam 0-5
+MAT187 Precalculus (5)
OR
+MAT150 College Algebra/Functions (5) OR
+MAT151 College Algebra/Functions (4) OR
+MAT152 College Algebra/Functions (3)
AND
+MAT182 Plane Trigonometry (3)
OR
Satisfactory score on District placement exam 0-8

## Required Courses

Credits: 26-32
GCU102 Introduction to Human Geography (3) OR GPH111 Introduction to Physical Geography (4) 3-4

GIS205 Geographic Information Technologies 3
+GIS211 Geographic Information Science I 4
+GIS220 Introduction to ArcPy Scripting 3
+GIS222 Geographic Information Science II 3
GCU/GPH298++ Special Projects (any suffixed course) 1-3
AND
Students must select one of three (3) tracks.

Track I: Technician: Credits: 9
+CIS163AA Java Programming: Level I 3
CIS117DM Microsoft Access: Database Management 3
GIS223 Introduction to Digital Image Processing 3

Track II: Analyst/Developer: Credits: 9

+ CSC110 Introduction to Computer Science (Java) 3
+CIS276DB SQL Server Database 3
GIS223 Introduction to Digital Image Processing 3

Track III: Transfer Emphasis: Credits: 12
+CSC110 Introduction to Computer Science (Java) 3

+ CSC205AB Object Oriented Programming and Data Structures
4
+MAT220 Calculus with Analytic Geometry I 5


## Horticulture Certificates and Degrees

- Associate in Applied Science in Landscape Horticulture
- Associate in Applied Science in Sustainable Agriculture
- Certificate of Completion in Landscape Aide
- Certificate of Completion in Landscape Specialist
- Certificate of Completion in Sustainable Agriculture

Department Contact Information: (480) 461-7144

## Associate in Applied Science (AAS) in Landscape Horticulture

Total Credits: 65-71
Major Code: 3030

Description: The Associate in Applied Science (AAS) in Landscape Horticulture program helps prepare students for careers as gardeners, technicians, supervisors, managers, or business owners in wholesale or retail nurseries, florists, landscape design and construction operations, or landscape management companies. In addition, the program helps prepare students for careers with local, state, and federal government agencies involved with the technical phases of the Landscape Horticulture industry.

Suggested Course Plan Sequenced by Semester:

Track I
https://www.mesacc.edu/programs/course-sequences/urban-horticulture-track-i-residential-landscape-d

Track II
https://www.mesacc.edu/programs/course-sequences/urban-horticulture-track-ii-landscape-contracting-

## CAREER AND TECHNICAL EDUCATION

## Program Notes:

Students must earn a grade of "C" or better for all courses required within the program.
The course SSH111 cannot be used to satisfy both the Humanities, Arts and Design and Social-Behavioral Sciences areas.

Program Prerequisites:
None
Credits: 44-49
Required Courses
AGB130 Establishing and Running an Agribusiness 3
AGB139 Agribusiness Computer Operations 3
AGS164 Plant Growth and Development 4
AGS182AA Gardening Practices and Techniques 2
AGS183 Urban Plant Identification and Use 3
+AGS262 Irrigation Design, Installation, Operation, and Trouble Shooting 3
AGS284 Lawn and Turf Care 3
AGL189 Landscape Design I 3
AGL181 Landscape Construction Techniques 3
AGS 192 Urban Plant Care 3
AGS268 Integrated Pest Management in the Cultivated
Environment 4
+AGS296WC Cooperative Education (3)
SSH111 Sustainable Cities 3

CHM130 Fundamental Chemistry (3) or
Permission of Program Director 0-3

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

Track I: Residential Landscape Design Credits: 6 DFT105AA Computer Aided Drafting I: AutoCAD 3 +AGL269/CAD269 Computer Aided Landscape Design 3

Track II: Nursery and Greenhouse Operations Credits: 6 AGS186 Greenhouse Management and Construction 3 AGS285 Propagation of Horticultural Plants 3

General Education Requirements
Credits: 19-22
General Education Core
Credits: 12-15
First-Year Composition
Credits: 6
Any approved general education course in the First Year Composition area.

Oral Communication
Credits: 3

## Communication area 3

Critical Reading
Credits: 0-3
CRE101 College Critical Reading 3 OR
Equivalent as indicated by assessment 0-3
Mathematics
Credits: 3
Any approved general education course in the Mathematics area 3

General Education Distribution
Credits: 7
Humanities and Fine Arts
Credits: 0-3
Met by SSH111 in Required Courses area or any approved general education course from the Humanities, Arts and Design area

## Social and Behavioral Sciences

Credits: 0-3
Met by SSH111 in Required Courses area or any approved general education course in the Social-Behavioral Sciences area

Natural Sciences
Credits: 4
+AGS260 Soils 4

## Applied Science (AAS) in Sustainable Agriculture

Total Credits: 64-67
Major Code: 3014

Description: The Associate in Applied Science (AAS) in Sustainable Agriculture program focuses on sustainable agriculture, agribusiness, and urban farming. This program is designed to prepare individuals for employment in Agribusiness.

Suggested Course Plan Sequenced by Semester:
https://www.mesacc.edu/programs/course-sequences/sustainable-agriculture-aas

Program Notes:

+ indicates course has prerequisites and/or corequisites.
++ indicates any module/suffixed courses.
Students must earn a grade of "C" or better for all courses required within the program.

Program Prerequisites: None
Required Courses
Credits: 39-42
+CHM130 Fundamental Chemistry (3) OR
permission of Program Director. 0-3
SSH111 Sustainable Cities 3

## CAREER AND TECHNICAL EDUCATION

FON161 Sustainable Food Production Systems 3
AGB130 Establishing and Running an Agribusiness 3
AGB139 Agribusiness Computer Operations 3
AGB231 Marketing of Agricultural Products 3
AGS164 Plant Growth and Development 4
+AGS165AA Fall Sustainable Crop Production 3
+AGS165AB Spring Sustainable Crop Production 3
AGS166 Aquaponics 3
+AGS260 Soils 4
AGS262 Irrigation Design, Installation, Operation, and Trouble Shooting 3
AGS268 Integrated Pest Management in the Cultivated Environment 4

## Restricted Electives

Students must select two (2) of the following courses:
AGB132 Agribusiness and Management 3
AGB144 Agriculture Processing 3
AGS186 Greenhouse Management and Construction 3

## General Education Requirements

Credits: 15-18
General Education Core
Credits: 12-15

## First-Year Composition

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6
Oral Communication
Any approved general education course in the Oral Communication area

Critical Reading
Credits: 0-3
CRE101 College Critical Reading I (3) OR
Equivalent as indicated by assessment 0-3
Mathematics
Credits: 3
+MAT112 Mathematical Concepts and Applications (3) OR
Higher level mathematics course 3
General Education Distribution
Credits: 3
Humanities and Fine Arts
Credits: 3
Any approved general education course in the Humanities, Arts and Design area. 3

Social and Behavioral Sciences
Met by SSH111 in the Required Courses area.

Natural Sciences
Credits: 0
Met by AGS260 in the Required Courses area.

## Certificate of Completion (CCL) in Landscape Aide

Total Credits: 16
Major Code: 5069

Description: The Certificate of Completion (CCL) in Landscape Aide program emphasizes the technology of production and management. The program is designed to prepare students to become employed as technicians, supervisors, managers, or owners in nurseries or landscape construction. In addition the program prepares students for jobs with government agencies or other agencies involved with the technical phases of the Urban Horticulture industry.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/gainful-employment

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/course-sequences/landscape-aide-ccl

Program Notes:
Students must earn a grade of "C" or better for all courses within the program.
Program Prerequisites: None

## Required Courses

Credits: 16
AGL181 Landscape Construction Techniques 3
AGL189 Landscape Design I 3
AGS164 Plant Growth and Development 4
AGS183 Urban Plant Identification and Use 3
+CHM130 Fundamental Chemistry 3

## Certificate of Completion (CCL) in Landscape Specialist

Total Credits: 30
Major Code: 5073
Description: The Certificate of Completion (CCL) in Landscape Specialist program emphasizes the technology of production and management. The program is designed to prepare students to become employed as technicians, supervisors, managers, or owners in nurseries or landscape construction and maintenance.

## CAREER AND TECHNICAL EDUCATION

In addition the program prepares students for jobs with government agencies or other agencies involved with the technical phases of the Urban Horticulture industry.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/gainful-employment/ view/01.0605-5073

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/course-sequences/landscape-specialist-ccl

## Program Notes:

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

Program Prerequisites:
None

## Required Courses

Credits: 30
Certificate of Completion in Landscape Aide (5069) 16
AGB139 Agribusiness Computer Operations 3
AGB130 Establishing and Running an Agribusiness 3
AGS260 Soils 4
AGS268 Integrated Pest Management in the Cultivated Environment 4

## Certificate of Completion (CCL) in Sustainable Agriculture

Total Credits: 33
Major Code: 5886
Description: The Certificate of Completion (CCL) in Sustainable Agriculture program focuses on hands-on skills in sustainable agriculture, agribusiness, and urban farming.

Consumer Program Costs and Career Information

Suggested Course Plan Sequenced by Semester

Program Notes:

+ indicates course has prerequisites and/or corequisites.
++ indicates any suffixed course.
Students must earn a grade of "C" or better for all courses required within the program.

Program Prerequisites:
None
Required Courses
Credits: 30
+AGS165AA Fall Sustainable Crop Production 3
+AGS165AB Spring Sustainable Crop Production 3
+AGS260 Soils 4
AGS262 Irrigation Design, Installation, Operation, and Trouble
Shooting 3
AGS268 Integrated Pest Management in the Cultivated
Environment 4
+CHM130 Fundamental Chemistry 3
FON161 Sustainable Food Production Systems 3

## Restricted Electives

Credits: 3
Students must select one (1) of the following courses:
AGB132 Agribusiness and Management 3
AGB144 Agriculture Processing 3
AGS166 Aquaponics 3
AGS186 Greenhouse Management and Construction 3

## Interior Design Certificates and Degrees

- Associate in Applied Science in Interior Design
- Certificate of Completion in Interior Merchandising

Department Contact Information: (480) 461-7144

## Associate in Applied Science (AAS) in Interior Design

Total Credits: 64-67
Major Code: 3093

Description: 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.

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/interior-design-aas

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.


## CAREER AND TECHNICAL EDUCATION

## Program Prerequisites:

## Required Courses

INT105 Introduction to Interior Design 3
INT115 Historical Architecture and Furniture 3
INT120 Modern Architecture and Furniture 3

+ INT140 Introduction to CAD for Interior Design 3
+ INT145 Drawing and Rendering 3
INT150 Color and Design 3
INT160 Fabrics for Interiors 3
+ INT170 Interior Materials 3
+ INT175 Custom Design 3
+ INT190 Space Planning 3
+ INT200 Advanced CAD for Interior Design 3
+ INT205 Residential Design 3


## Restricted Electives

+ INT215 Professional Practices 3
+ INT225 History of Decorative Arts 3
+ INT230 Presentation Techniques 3
+ INT260 Interior Codes and Regulations 3
+ INT268 Lighting Design 3
+ INT271AC Interior Design Internship 3
ARC265 Sketchup I: Introduction to Sketchup 3


## General Education Requirements

Credits: 19-22
General Education Core
First-Year Composition
Credits: 12-15

+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3)
Oral Communication
Credits: 3
+ Any approved general education course from the Oral
Communication area.
Critical Reading
++ CRE101 College Critical Reading (3) OR
Equivalent as indicated by assessment 0-3


## Mathematics

Credits: 3

+ MAT112 Mathematical Concepts and Applications (3) OR
higher approved general education course from the Mathematics area 3

General Education Distribution

Credits: 7

Credits: 9

Humanities and Fine Arts
Credits: 0
Met by INT115 and INT120 in Required Courses area.
Social and Behavioral Sciences
Credits: 3
PSY101 Introduction to Psychology (3) OR
SOC180 Social Implications of Technology (3) 3
Natural Sciences
Credits: 4

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


## Certificate of Completion (CCL) in Interior Merchandising

Total Credits: 30
Major Code: 5429

Description: The Certificate of Completion (CCL) in Interior Merchandising program 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.

Consumer Program Costs and Career Information: https://www.mesacc.edu/programs/gainful-employment/
view/50.0408-5429

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/interior-merchandising-ccl

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/suffixed courses.
Program Prerequisites:
None
Required Courses
Credits: 21
INT100 Interior Design Drafting 3
INT105 Introduction to Interior Design 3
INT115 Historical Architecture and Furniture 3
INT120 Modern Architecture and Furniture 3
INT150 Color and Design 3
INT160 Fabrics for Interiors 3


## CAREER AND TECHNICAL EDUCATION

+ INT170 Interior Materials 3
Restricted Electives
AGB140 Commercial Floral Design 3
AGS187 Indoor Foliage Plants 3
ARH100 Introduction to Art 3
ART111 Drawing I 3
ART112 Two-Dimensional Design 3
ART131 Photography I 3
+ GTC130 Furniture Construction I 3
+ GTC131 Furniture Construction II 3
GTC144 Introduction to Cabinetmaking 3
+ GTC145 Advanced Cabinetmaking 3
MGT251 Human Relations in Business 3
MKT/TEC151 Display and Visual Merchandising 3
MKT263 Advertising Principles 3
MKT268 Merchandising 3
MKT271 Principles of Marketing 3
SCT100 Introduction to Sustainable Built Environments 3
TEC126 Sewing for the Home 3
TEC128 Home Upholstery 3

INT+++++ Any INT Interior Design course except courses used to satisfy Required Courses area (3) OR
ART++++++ Any ART Art course (3) OR
MKT+++++ Any MKT Marketing course (3) 3
Prefixed course must be approved by Department Advisor.

## Journalism/Public Relations Certificates and Degrees

- Associate in Applied Science in Journalism and New Media Studies
- Associate in Applied Science in Public Relations

Department Contact Information: (480) 461-7636

## Associate in Applied Science (AAS) in

 Journalism and New Media StudiesTotal Credits: 60
Major Code: 3120

Description: The Associate in Applied Science (AAS) in Journalism and New Media Studies program is designed to provide students with general, practical and marketable skills that will enable them to seek entry-level employment in 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. News judgment is also
integrated as a critical component of the program. An awareness of global and cultural differences also forms a key element of this degree for the successful graduate. The curriculum combines coursework in journalism with a General Education component.

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/journalismaas

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

+ indicates course has prerequisites and/or corequisites.
++ indicates any module/suffixed courses.
Program Prerequisites:
None


## Required Courses

Credits: 34-36
Students should choose thirty-four (34) to thirty-six (36) credits from the following courses to complete a minimum of 60 credits for the AAS degree in consultation with program advisor.

CIS105 Survey of Computer Information Systems 3

+ ENG216 Persuasive Writing on Public Issues 3
JRN125 Photo Editing 3

JRN133 Development of Small Publications (3) OR

+ JRN205 Copyediting (3) 3
+ JRN201 News Writing 3
+ JRN203 Writing for Online Media 3
JRN215 News Production 3
JRN225 Photojournalism 3
+ JRN234 Feature Writing 3
+ JRN240++ Journalism Internship (any module) 1-3
MCO120 Media and Society 3
+ MCO220 Cultural Diversity and the Media 3


## Restricted Electives

Credits: 3
ENH110 Introduction to Literature 3
ENH112 Chicano Literature 3
ENH113 Writers/Directors and Current Issues 3
ENH114 African-American Literature 3
ENH206 Nature and Environmental Literature 3

+ GBS233 Business Communication 3
HUM107 Humanities Through the Arts 3
HUM125 The Urban Experience 3
HUM201 Humanities: Universal Themes 3
+ HUM250 Ideas and Values in the Humanities 3


## CAREER AND TECHNICAL EDUCATION

+ HUM251 Ideas and Values in the Humanities 3
+ JRN212 Broadcast Writing 3
+ JRN236 Advanced Practicum: Public Relations 3
MGT251 Human Relations in Business 3
REL100 World Religions 3


## General Education Requirements

Credits: 22-27
General Education Core
Credits: 12-17

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

## Oral Communication

Credits: 3
COM100 Introduction to Human Communication (3) OR COM110 Interpersonal Communication (3) OR
+COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3
Critical Reading
Credits: 0-3
+CRE101 College Critical Reading (3) OR equivalent as indicated by assessment 0-3

## Mathematics

Credits: 3-5
+MAT112 Mathematical Concepts and Applications (3) OR
+MAT120 Intermediate Algebra (5) OR
+MAT121 Intermediate Algebra (4) OR
+MAT122 Intermediate Algebra (3) OR
Satisfactory completion of a higher level mathematics courses 3-5

General Education Distribution
Humanities and Fine Arts
Credits: 10

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

## Social and Behavioral Sciences

Credits: 3
Any approved general education course from the SocialBehavioral Sciences area.

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

## Associate in Applied Science (AAS) in Public Relations

Total Credits: 61-66
Major Code: 3674

Description: The Associate in Applied Science (AAS) in Public Relations program provides students with general, practical, and marketable skills that will enable them to seek entrylevel employment in public relations, such as press relations, community or consumer relations, market research, in-house publications, political campaigns, fund raising and volunteer recruitment. The program includes development of a portfolio that will exhibit students` ability to write both news and feature stories, to develop and plan events, and to produce brochures, advertisements, or small publications with desktop publishing. The curriculum combines coursework in public relations with a General Education component.

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/public-relations-aas

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.
Program Prerequisites:
None
Required Courses
Credits: 36
BPC110 Computer Usage and Applications (3) OR
CIS105 Survey of Computer Information Systems (3) 3

GBS151 Introduction to Business 3

+ JRN201 News Writing 3
JRN215 News Production 3
JRN225 Photojournalism 3

JRN125 Photo Editing (3) OR
CIS120DF Adobe Photoshop Level I: Digital Imaging (3) 3

+ JRN234 Feature Writing (3) OR
ENG235 Magazine Article Writing (3) 3
+ JRN235 Practicum: Public Relations 3
+ MCO120 Media and Society 3
+ MCO220 Cultural Diversity and the Media 3


## CAREER AND TECHNICAL EDUCATION

MKT101 Introduction to Public Relations (3) OR
MKT110 Marketing and Social Networking (3) 3
MKT263 Advertising Principles 3

## Restricted Electives

GBS110 Human Relations in Business and Industry 3
MGT251 Human Relations in Business 3

+ GBS233 Business Communication 3
+ JRN236 Advanced Practicum: Public Relations 3
General Education Requirements
Credits: 22-27
General Education Core
Credits: 12-17


## First-Year Composition

Credits: 6
Any approved general education courses from the First-Year Composition area 6

## Oral Communication

Credits: 3
COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR

+ COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3
Critical Reading
Credits: 0-3
+ CRE101 College Critical Reading (3) OR
equivalent as indicated by assessment. 0-3


## Mathematics

Credits: 3-5

+ MAT112 Mathematical Concepts and Applications (3) OR
+ MAT120 Intermediate Algebra (5) OR
+ MAT121 Intermediate Algebra
(4) OR
+ MAT122 Intermediate Algebra (3) OR
satisfactory completion of a higher level mathematics courses 3-5
General Education Distribution
Credits: 10
Humanities and Fine Arts
Credits: 3
Any approved general education course from the Humanities,
Arts and Design area 3
Social and Behavioral Sciences
Credits: 3
Any approved general education course from the Social-
Behavioral Sciences area 3
Natural Sciences
Credits: 4
Any approved general education course from the Natural Sciences area 4


## Manufacturing Technology <br> Certificates/Degrees

- 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 CNC Machining I
- Certificate of Completion in CNC Machining II
- Advanced CAM Systems Programming
- Certificate of Completion in Machining I
- Certificate of Completion in Machining II
- Certificate of Completion in Manufacturing Management
- Certificate of Completion in Manufacturing Welding

Department contact information: (480) 461-7144

## Associate in Applied Science (AAS) in Machining and Product Development

Total Credits: 66-69
Major Code: 3542

Description: 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.

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/detail/machining-and-product-development-aas

Program Notes:

+ indicates course has prerequisites and/or corequisites.
++ indicates any module/suffixed courses.
Students must earn a grade of "C" or better for all courses required within the program.


## CAREER AND TECHNICAL EDUCATION

Program Prerequisites
GTC107 Technical Mathematics I (3) OR
Satisfactory score on math placement test
Required Courses
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
GTC/MET/OSH106 Industrial Safety 2
+ GTC108 Technical Mathematics II 3
+ GTC185 Electro-Mechanical Devices 4
+ GTC/MET206 CNC Programming 3
GTC216 Properties of Materials 3
+ GTC223 Advanced Machine Tools 3
+ GTC208 Statistical Process Control (3) OR
MET131 Lean Manufacturing (3) 3

GTC129 Manufacturing Welding (3) OR
WLD101 Welding I (3) 3

GTC296++ Cooperative Education (any suffixed course) (1-4) OR

GTC298++ Special Projects (any suffixed course) (1-3) 1-4

## General Education Requirements

 Credits: 22General Education Core
Credits: 12
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

+ Any approved General Education course in the Oral
Communication area

Critical Reading
Credits: 3
CRE101 Critical and Evaluative Reading I (3) OR Equivalent as indicated by assessment.

Credits: 3

Credits: 44-47

Mathematics
Credits: 0
Met by GTC/MET108 in the Required Courses area.
General Education Distribution
Credits: 10

Humanities and Fine Arts
Credits: 3
Any approved general education course in the Humanities and Fine Arts area

Social and Behavioral Sciences
Credits: 3
Any approved general education course from the Social and Behavioral Sciences area

Natural Sciences
Credits: 4
Any approved general education course from the Natural Sciences area

Associate in Applied Science (AAS) in Manufacturing Engineering Technology
Total Credits: 66
Major Code: 3512
Description: 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.

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/detail/manufacturing-engineering-technology-aas

Program Notes:

+ indicates course has prerequisites and/or corequisites.
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)
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


## CAREER AND TECHNICAL EDUCATION

+ ELE105 Algebra-Trigonometry for Technology 5
GTC102 Machine Process, Theory and Application 3
GTC104 Manufacturing Processes 4
GTC106AA Industrial Safety 2
GTC185 Electro-Mechanical Devices 4
+ GTC206 CNC Programming 3
GTC216 Properties of Materials 3
+ PHY111 General Physics I 4
+ PHY112 General Physics II 4
WLD101 Welding I (3) OR
GTC129 Manufacturing Welding (3) 3
General Education Requirements Credits: 18
General Education Core
Credits: 12
First-Year Composition
Credits: 6
+ ENG101 First-Year Composition (3) AND
+ ENG102 First-Year Composition (3)
Oral Communication
Credits: 3
COM225 Public Speaking
Critical Reading
Credits: 3
+ Any approved General Education course in the Critical Reading area

Mathematics
Credits: 0
Met by ELE105 in Required Courses area OR Met by GTC108 in Program Prerequisites area.

General Education Distribution
Credits: 6
Humanities and Fine Arts
REL101 Introduction to Religion (3) OR
HUM108 Contemporary Humanities (3)
Social and Behavioral Sciences
Credits: 3
ECN211 Macroeconomic Principles
Natural Sciences Credits: 0

## Associate in Applied Science (AAS) in Manufacturing Technology

Total Credits: 61-75
Major Code: 3616

Description: The Associate in Applied Science (AAS) in Manufacturing Technology helps prepare 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.

Suggested Course Plan Sequenced by Semester
Track I:
https://www.mesacc.edu/programs/course-sequences/
manufacturing-technology-track-I-cnccadcam-aas

Track II:
https://www.mesacc.edu/programs/course-sequences/ manufacturing-technology-track-ii-cnc-machining-aa

Track III:
https://www.mesacc.edu/programs/course-sequences/ manufacturing-technology-track-iii-manual-machinin

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/suffixed courses.


## Program Prerequisites

Credits: 0-3
GTC107 Technical Mathematics I (3) OR
Satisfactory score on math placement test.
Required Courses
Credits: 42-50
MET100AA Tool Room I: Introduction to Machine Processes 2
+MET109 Machine Trades Print Reading 3
+MET112 Inspection Techniques 3
+MET113 Applied Geometric Dimensioning and Tolerance 3
+MET231 Manufacturing Processes and Materials 3
+DFT105AA Computer Aided Drafting I: AutoCAD 3
GTC104 Manufacturing Processes 4
GTC/MIT/OSH106 Industrial Safety 2

## CAREER AND TECHNICAL EDUCATION

+GTC108 Technical Mathematics II 3 GTC216 Properties of Materials 3
+GTC296++Cooperative Education (any suffixed course) (1-4) OR
+GTC298++Special Projects (any suffixed course) (1-3) 1-4

Students must select one of the following three (3) tracks.

Track I: CAM Systems Programming: Credits: 12
+GTC/MET206 CNC Programming 3
+GTC236 CAD/CAM Computer Numerical Control (CNC)
Programming 3
+GTC266 Solids Modeling-Solidworks 3
+GTC276 Solids Programming (3) OR
+GTC246 Advanced CAD/CAM CNC Programming (3) 3

Track II: CNC Machining: Credits: 15
+GTC/MET206 CNC Programming 3
+MET207 CNC Mill: Operator Training I 3
+MET208 CNC Lathe: Operator Training I 3
+MET209 CNC Mill: Operator Training II 3
+MET210 CNC Lathe: Operator Training II 3

Track III: Manual Machining Credits: 17
GTC102 Machine Processes, Theory and Application 3
+GTC223 Advanced Machine Tools 3
+MET250 Machining Practices II 8
+MET260 Tooling and Fixturing 3

## General Education Requirements

Credits: 19-22
General Education Core
Credits: 9-12
First-Year Composition
Credits: 6
ENG101 First-Year Composition (3) OR
ENG107 First-Year Composition for ESL (3) AND
ENG102 First-Year Composition (3) OR
ENG108 First-Year Composition for ESL (3) OR
ENG111 Technical and Professional Writing (3) 6
Oral Communication
Credits: 3
COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR
COM230 Small Group Communication (3) 3
Critical Reading
Credits: 0-3
CRE101 College Critical Reading and Critical Thinking (3) OR Equivalent as indicated by assessment. 0-3

Mathematics
Credits: 0
Met by GTC108 in Required Courses area
General Education Distribution
Credits: 10

Humanities and Fine Arts
Credits: 3
Any approved general education course in the Humanities, Arts and Design area

Social and Behavioral Sciences
Credits: 3
Any approved general education course from the SocialBehavioral Sciences area. 3

Natural Sciences
Credits: 4
Any approved general education course from the Natural Sciences area

## Certificate of Completion (CCL) in Electromechanical Manufacturing Technology

Total Credits: 34
Major Code: 5621

Description: 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 electromechanical equipment. The basis for the program is the ability to read engineering drawings and electrical schematics in the quest to maintain and repair equipment. These skills are augmented with a good basis of mathematical theory, an introduction to machines and the machining processes, and instruction regarding the support of manufacturing equipment through effective maintenance of equipment.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-29/gedt-29.html

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/detail/electromechanical-manufacturing-technology-ccl

Program Notes: None
Program Prerequisites
Credits: 3
GTC107 Technical Mathematics I (3) or Satisfactory score on math placement test.

Required Courses
Credits: 34
DFT114 Machine Trades Blueprint Reading 3
DFT252AA Computer Aided Drafting I: AutoCAD 3

## CAREER AND TECHNICAL EDUCATION

ELE100 Concepts of Electricity and Electronics 3
GTC104 Manufacturing Processes 4
GTC106 Industrial Safety 2

+ GTC108 Technical Mathematics II 3
GTC181 Introduction to Fluid Power 3
+ GTC185 Electro-mechanical Devices 4
GTC216 Properties of Materials 3
MET131 Lean Manufacturing 3
GTC208 Statistical Process Control (3) OR
QCT143 Principles of Quality Assurance (3) 3


## Certificate of Completion (CCL) in CNC Machining I

Total Credits: 30-32
Major Code: 5616

Description: The Certificate of Completion (CCL) in CNC Machining 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 for Metalworking Skills (NIMS) Level One CNC credentials.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/gainful-employment

Suggested Course Plan Sequenced by Semester https://mesacc.edu/programs/course-sequences/cnc-machining-i-ccl

## Program Notes:

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

+ indicates course has prerequisites and/or corequisites.
++ indicates any module/suffixed courses.


## Program Prerequisites

Credits: 18
Certificate of Completion in Machining I (5614) 18
CCL/5614 is not eligible for Title IV Federal Financial Aid.

## Required Courses

Credits: 12-14
GTC/MIT/OSH106 Industrial Safety 2
+GTC/MET206 CNC Programming 3
+GTC298++ Special Projects (any suffixed course) 1-3
+MET207 CNC Mill: Operator Training I 3
+MET208 CNC Lathe: Operator Training I 3

## Certificate of Completion (CCL) in CNC Machining II <br> Total Credits: 43-47 <br> Major Code: 5647

Description: The Certificate of Completion (CCL) in CNC Machining II builds on the skills and knowledge developed by the student in the Level I Program. The additional courses are designed to improve the student's understanding of the manufacturing processes employed in a modern manufacturing business to produce the CAD designs into an end product. The focus of these classes is to understand the limitations and capabilities of the manufacturing equipment in producing precision products.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/gainful-employment

## Suggested Course Plan Sequenced by Semester

https://mesacc.edu/programs/course-sequences/cnc-machining-ii-ccl

## Program Notes:

## This program is currently not Title IV Federal Financial Aid

 eligible.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/suffixed courses.


## Program Prerequisites

Credits: 33-35
CCL/5616 is not eligible for Title IV Federal Financial Aid.
Certificate of Completion CNC Machining I (5616) 33-35
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

## Certificate of Completion (CCL) in Advanced CAM Systems Programming

Total Credits: 56-62
Major Code: 5795

Description: The Certificate of Completion (CCL) in Advanced CAM Systems Programming program introduces the skills needed to translate product sketches and engineering designs into electronic design systems that are the basis for Computer Aided

## CAREER AND TECHNICAL EDUCATION

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.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/gainful-employment

Suggested Course Plan Sequenced by Semester https://mesacc.edu/programs/course-sequences/advanced-cam-systems-programming-ccl

Program Notes:
This program is currently not Title IV Federal Financial Aid eligible.
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/suffixed courses.


## Program Prerequisites

Credits: 43-47
Certificate of Completion in CNC Machining II (5647) 43-47
CCL/5647 is not eligible for Title IV Federal Financial Aid.

## Required Courses

Credits: 13-15
GTC236 CAD/CAM Computer Numerical Control (CNC) Programming 3
+GTC246 Advanced CAD/CAM CNC Programming 3
+GTC266 Solids Modeling - Solidworks 3
+GTC276 Solids Programming 3
+GTC298++ Special Projects (any suffixed course) 1-3

## Certificate of Completion (CCL) in Machining I

Total Credits: 21-24
Major Code: 5614
Description: 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 machine tools, students will learn to shape metals and other materials to close tolerances and customer specifications.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/gainful-employment

## Suggested Course Plan Sequenced by Semester

 https://www.mesacc.edu/programs/course-sequences/machining-i-cclProgram Notes:
This program is currently not Title IV Federal Financial Aid eligible.

+ indicates course has prerequisites and/or corequisites.
Students must earn a grade of "C" or better for required within the program.

Program Prerequisites
Credits: 0-3
GTC107 Technical Mathematics I (3) OR
Satisfactory score on math placement test
Required Courses
Credits: 21
MET100AA Tool Room I: Introduction to Machine Processes 2
+MET109 Machine Trades Print Reading 3
+MET113 Applied Geometric Dimensioning and Tolerance 3
+MET231 Manufacturing Processes and Materials 3
GTC104 Manufacturing Processes 4
+GTC108 Technical Mathematics II 3
+MET112 Inspection Techniques 3

## Certificate of Completion (CCL) in Machining II

Total Credits: 33
Major Code: 5645

Description: 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.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/gainful-employment

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/machining-ii-ccl

## Program Notes: <br> This program is currently not Title IV Federal Financial Aid eligible. <br> + indicates course has prerequisites and/or corequisites. <br> Students must earn a grade of "C" or better for required within the program.

## CAREER AND TECHNICAL EDUCATION

## Required Courses

GTC102 Machine Processes, Theory and Application 3
GTC/MIT/OSH106 Industrial Safety 2
GTC216 Properties of Materials 3
+GTC223 Advanced Machine Tools 3
+GTC298AA Special Projects 1
+MET260 Tooling and Fixturing 3

## Certificate of Completion (CCL) in Manufacturing Management

Total Credits: 29-30
Major Code: 5625

Description: 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.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-47/gedt-47.html

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/course-sequences/ manufacturing-management-ccl

Program Notes:

+ indicates course has prerequisites and/or corequisites.


## Program Prerequisites

Credits: 3
GTC107 Technical Mathematics I (3) OR
Satisfactory score on math placement test

## Required Courses

Credits: 29-30
Students must earn a grade of "C" or better for each course listed in the Required Courses area

DFT114 Machine Trades Blueprint Reading 3
GTC104 Manufacturing Processes 4
GTC106 Industrial Safety 2

+ GTC108 Technical Mathematics II 3
+ GTC208 Statistical Process Control 3
+ GTC216 Properties of Materials 3
MGT229 Management and Leadership I 3
MGT147 Supply Chain Management 3
MET131 Lean Manufacturing 3
Credits: 15
3
$\square$
(3) OR

TQM220 Leadership and Empowerment Strategies (2) OR
TQM230 Teamwork Dynamics (2) OR
TQM240 Project Management in Quality Organizations (2) 2-3

## Certificate of Completion (CCL) in Manufacturing Welding

Total Credits: 26
Major Code: 5620
Description: 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.

Consumer Program Costs and Career Information
https://www.mesacc.edu/programs/ge/gedt-48/gedt-48.html
Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/course-sequences/ manufacturing-welding-ccl

Program Notes:

+ indicates course has prerequisites and/or corequisites.
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.
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


## CAREER AND TECHNICAL EDUCATION

## Micro Circuit Mask Design Certificates/Degrees

- Associate in Applied Science in Micro Circuit Mask Design
- Certificate of Completion in Micro Circuit Mask Design

Department Contact Information: (480) 461-7144

## Associate in Applied Science (AAS) in Micro Circuit Mask Design

Total Credits: 60-63
Major Code: 3505

Description: The Associate in Applied Science (AAS) in Micro Circuit Mask Design program prepares students 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.

## Suggested Course Plan Sequenced by Semester

 https://www.mesacc.edu/programs/course-sequences/micro-circuit-mask-design-aas
## Program Notes:

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

+ indicates course has prerequisites and/or corequisites.
Program Prerequisites
CSC100 Introduction to Computer Science (C++) 3
ELE101 Beginning Algebra for Technology 3
Required Courses
Credits: 41
DFT110 Technical Drafting I 3
+ DFT245AA Integrated Circuit Design-CMOS IA 3
+ DFT245AB Integrated Circuit Design-CMOS IB 3
+ DFT252AA Computer Aided Drafting I: AutoCAD 3
+ DFT254AA Computer Aided Drafting II: AutoCAD 3
+ ELE105 Algebra-Trigonometry for Technology 5
+ ELE111 Circuit Analysis I 4
+ ELE112 Circuit Analysis II 4
+ ELE121 Solid-State Devices and Circuits I 4
+ ELE131 Digital Logic and Circuits 3
ELE181 Computer Programming for Technology 3
DFT240 Cadence Virtuoso XL 3


## General Education Requirements

 Credits: 19-22General Education Core
Credits: 9-12
First-Year Composition
Credits: 6

+ ENG101 First-Year Composition (3) OR
ENG107 First-Year Composition for ESL (3) AND
ENG111 Technical and Professional Writing (3)
Oral Communication
Credits: 3
COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR
COM230 Small Group Communication (3)
Critical Reading
Credits: 0-3
CRE101 College Critical Reading (3) OR
Equivalent as indicated by assessment. 0-3
Mathematics
Credits: 0
Met by ELE105 in Required Courses area.
General Education Distribution
Credits: 10
Humanities and Fine Arts
Credits: 3
Any approved general education course from the Humanities, Arts and Design area.


## Social and Behavioral Sciences

Credits: 3
Any approved general education course from the SocialBehavioral Sciences area.

## Natural Sciences

Credits: 4
CHM130 Fundamental Chemistry (3) AND
CHM130LL Fundamental Chemistry Laboratory (1)

## The Certificate of Completion (CCL) in Micro Circuit Mask Design

Total Credits: 36
Major Code: 5504

Description: The Certificate of Completion (CCL) in Micro Circuit Mask Design program 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.

## CAREER AND TECHNICAL EDUCATION

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-51/gedt-51.html

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/course-sequences/micro-circuit-mask-design-ccl

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

+ indicates course has prerequisites and/or corequisites.
Program Prerequisites
Credits: 6
CSC100 Introduction to Computer Science (C++) 3
ELE101 Beginning Algebra for Technology 3
Required Courses
Credits: 36
DFT110 Technical Drafting I 3
+ DFT245AA Integrated Circuit Design-CMOS IA 3
+ DFT245AB Integrated Circuit Design-CMOS IB 3
+ DFT252AA Computer Aided Drafting I: AutoCAD 3
+ DFT254AA Computer Aided Drafting II: AutoCAD 3
+ ELE105 Algebra-Trigonometry for Technology 5
+ ELE111 Circuit Analysis I 4
+ ELE131 Digital Logic and Circuits 3
ELE181 Computer Programming for Technology 3
DFT240 Cadence Virtuoso XL 3
+ GTC296WC Cooperative Education 3


## Music Certificates/Degrees

- Associate in Applied Science in Disc Jockey Techniques
- Associate in Applied Science in Music Business
- Certificate of Completion in Disc Jockey Techniques
- Certificate of Completion in Music Business
- Certificate of Completion in Sound Design
- Certificate of Completion in Beginning Piano Pedagogy
- Certificate of Completion in Intermediate Piano Pedagogy

Department Contact Information: (480) 461-7575

## Associate in Applied Science (AAS) in Disc Jockey Techniques

Total Credits: 60-65
Major Code: 3159

Description: The Associate in Applied Science (AAS) in Disc Jockey Techniques program is designed to prepare students for employment as a live-performance disc jockey (DJ). This program is designed to provide the student an understanding of how businesses related to the DJ profession are organized and operated in this highly competitive and rapidly changing
profession.
Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/detail/disc-jockey-techniquesaas

## 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.
Program Prerequisites: None
Required Courses
Credits: 27
MKT101 Introduction to Public Relations 3
MTC103 Introduction to Aural Perception 1
MUC109 Music Business: Merchandising and the Law 3
MUC110 Music Business: Recording and Mass Media 3
MUC135 Introduction to Disc Jockey Techniques 3
MUC136 Turntablism: The Art of the Scratch DJ 3
MUC137 Digital DJ Performance Techniques 3
MUC197 Live Sound Reinforcement I 3
+ MUC198 Live Sound Reinforcement II 3
+ MUC291AA Disc Jockey Internship 1
MUC295AA Self-Promotion for Music 1
Restricted Electives
Credits: 6-11
Students should choose six (6) to eleven (11) credits from the following list of courses to complete a minimum of 60 credits for the AAS degree.

COM/THP271 Voice and Diction 3

+ COM225 Public Speaking 3
DAN102AA Hip Hop I 1
DAN103AA Break Dancing I 1
DAN106AA Latin I 1
HRM145 Events Management 3
MHL145 American Jazz and Popular Music 3
MHL153 Rock Music and Culture 3
MKT210 Applied Marketing Strategies 3
+ MTC105 Music Theory I 3
+ MTC106 Aural Perception I 1
MTC191 Electronic Music I 3
+ MTC192 Electronic Music II 3
+ MUC111 Digital Audio Workstation I (DAW I) 3
+ MUC112 Digital Audio Workstation II (DAW II) 3
MUC130 Music Electronic Components 3
MUC139 Introduction to Emcee-Rapping Techniques 3
+ MUC194 Introduction to Audio Mixing Techniques 3


## CAREER AND TECHNICAL EDUCATION

## MUC195 Studio Music Recording I 3

+ MUC196 Studio Music Recording II 3
+ MUC209 Music Industry Entrepreneurship 3
+MUC237 Electronic Dance Music Production 3
+ MUC295 Studio Music Recording III 3
TCM100 Digital Multimedia 3
TCM101 Fundamentals of Radio and TV 3
+ MTC/TCM120 Introduction to Sound Design for Film and Video 3

TCM131AA Radio-Television Announcing 4

+ TCM202 The Music Video 4
+ MTC/TCM220 Advanced Sound Design for Film and Video 3
+ TCM290 Professional Media Marketing 3
General Education Requirements
Credits: 22-27
General Education Core
Credits: 12-17
First-Year Composition
Credits: 6
+ Any approved general education course from the First-Year Composition area 6

Oral Communication
Credits: 3
Any approved general education course from the Oral
Communication area not taken as a restricted elective 3
Critical Reading
Credits: 0-3

+ CRE101 College Critical Reading (3) OR
Equivalent as indicated by assessment 0-3
Mathematics
Credits: 3-5
+ Any approved general education course from the Mathematics area 3-5


## General Education Distribution

Credits: 10

Humanities and Fine Arts
Credits: 3
Any approved general education course from the Humanities, Arts and Design area 3

## Social and Behavioral Sciences

Credits: 3
Any approved general education course from the SocialBehavioral Sciences area 3

Natural Sciences
Credits: 4
Any approved general education course from the Natural Sciences area 4

## Associate in Applied Science (AAS) in Music Business

Total Credits: 60-63
Major Code: 3017
Description: 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.

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/music-business-aas

## Program Notes:

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

+ indicates course has prerequisite and/or corequisites.
++ indicates any suffixed courses.


## Program Prerequisites: <br> None

Required Courses
Credits: 14
MUC109 Music Business: Merchandising and the Law 3
MUC110 Music Business: Recording and Mass Media 3
MUC293 Self Promotion for Music 1
+MUC209 Music Industry Entrepreneurship (3) OR
MGT253 Owning and Operating a Small Business (3) 3
+MUC290AA Music Business Internship (1) OR
+MUC296WA Cooperative Education (1) 1

MHL+++++ Any MHL Music: History/Literature course 3
Restricted Electives
Credits: 12

Students must select twelve (12) credits from the approved list of Restricted Elective courses below 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.

## CAREER AND TECHNICAL EDUCATION

Free Electives
Credits: 12

Students should choose twelve (12) credits from the following list of Free Elective courses except courses used to satisfy the Restricted Electives area.

ACC111 Accounting Principles I 3
BPC128 Introduction to Desktop Publishing 1
CIS131AA Doing Business on the Internet 1
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
MTC105 Music Theory I (3) OR
MTC103 Introduction to Aural Perception (1) OR
MTC106 Aural Perception I (1) 1-3

MTC113 Songwriting Techniques 1
+MUC111 Digital Audio Workstation I (DAWI) 3
MUC135 Introduction to Disc Jockey Techniques 3
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 Development 3
MUC215 Music Industry Seminar: Innovation in Music
Technology 1
+MUC240 Creative Music Production 4
+MUC241 Business Principles of Music Production 3
MUC274 Music Industry Study Tour 2
+MUC294 Portfolio for Music 1
+MUC298AA Special Projects 1
+MUC298AB Special Projects 2
+MUC298AC Special Projects 3
SBS230 Financial and Tax Management for Small Business 2

## General Education Requirements

Credits: 22-25
General Education Core
Credits: 12-15
Credits: 6
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 and Professional Writing (3) 6
Oral Communication
Credits: 3
Any approved general education course from the Oral Communication area

Critical Reading
Credits: 0-3

+ CRE101 College Critical Reading and Critical Thinking (3) OR
+ CRE111 Critical Reading for Business and Industry (3) OR
Equivalent as indicated by assessment 0-3
Mathematics
Credits: 3
+Any approved general education course from the Mathematics area

General Education Distribution
Credits: 10
Humanities and Fine Arts
Credits: 3
Any approved general education course from the Humanities,
Arts and Design area
Social and Behavioral Sciences
Credits: 3
Any approved general education course from the Social-
Behavioral Sciences area
Natural Sciences
Credits: 4
Any approved general education course from the Natural Sciences area

## Certificate of Completion (CCL) in Disc Jockey Techniques

Total Credits: 33
Major Code: 5745
Description: The Certificate of Completion (CCL) in Disc Jockey Techniques is designed to prepare students for entry level employment as a live-performance disc jockey (DJ). This program is designed to 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.

## CAREER AND TECHNICAL EDUCATION

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-25/gedt-25.html

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/disc-jockey-techniques-cel

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.
Program Prerequisites:


## Required Courses

MKT101 Introduction to Public Relations 3
MTC103 Introduction to Aural Perception 1
MUC109 Music Business: Merchandising and the Law 3
MUC110 Music Business: Recording and Mass Media 3
MUC135 Introduction to Disc Jockey Techniques 3
MUC136 Turntablism: The Art of the Scratch DJ 3
MUC137 Digital DJ Performance Techniques 3
MUC197 Live Sound Reinforcement I 3

+ MUC198 Live Sound Reinforcement II 3
+ MUC291AA Disc Jockey Internship 1
MUC295AA Self-Promotion for Music 1
Restricted Electives
COM/THP271 Voice and Diction 3
+ COM225 Public Speaking 3
DAN102AA Hip Hop I 1
DAN103AA Break Dancing I 1
DAN106AA Latin I 1
HRM145 Events Management 3
MHL145 American Jazz and Popular Music 3
MHL153 Rock Music and Culture 3
MKT210 Applied Marketing Strategies 3
+ MTC105 Music Theory I 3
+ MTC106 Aural Perception I 1
MTC191 Electronic Music I 3
+ MTC192 Electronic Music II 3
+ MUC111 Digital Audio Workstation I (DAW I) 3
+ MUC112 Digital Audio Workstation II (DAW II) 3
MUC130 Music Electronic Components 3
MUC139 Introduction to Emcee-Rapping Techniques 3
+ MUC194 Introduction to Audio Mixing Techniques 3
MUC195 Studio Music Recording I 3
+ MUC196 Studio Music Recording II 3
+ MUC209 Music Industry Entrepreneurship 3
+MUC237 Electronic Dance Music Production 3
+ MUC295 Studio Music Recording III 3
TCM100 Digital Multimedia 3
TCM101 Fundamentals of Radio and TV 3
+ MTC/TCM120 Introduction to Sound Design for Film and Video 3
TCM131AA Radio-Television Announcing 4
+ TCM202 The Music Video 4
+ MTC/TCM220 Advanced Sound Design for Film and Video 3
+ TCM290 Professional Media Marketing 3


## Certificate of Completion (CCL) in Music Business

Total Credits: 26
Major Code: 5258

Description: 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.

Consumer Program Costs and Career Information
https://www.mesacc.edu/programs/ge/gedt-53/gedt-53.html

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/music-business-ccl

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

+ indicates course has prerequisite and/or corequisites.
Program Prerequisites:
None
Required Courses
Credits: 11
MUC109 Music Business: Merchandising and the Law 3
MUC110 Music Business: Recording and Mass Media 3
MUC293 Self Promotion for Music 1
+MUC209 Music Industry Entrepreneurship (3) OR
MGT253 Owning and Operating a Small Business (3) 3
+MUC290AA Music Business Internship (1) OR
+MUC296WA Cooperative Education (1) 1


## CAREER AND TECHNICAL EDUCATION

## Restricted Electives

Credits: 15
Students must select fifteen (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.

## Certificate of Completion (CCL) in Sound Design

 Total Credits: 41Major Code: 5686
Description: The Certificate of Completion (CCL) in Sound Design program 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 and Television, Animation, Radio, Theatre, and Commercial Advertising.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-72/gedt-72.html

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/sound-design-ccl

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

+ indicates course has prerequisites and/or corequisites

Admission Criteria: Formal application and admission to the program is required.

Program Prerequisites:
None

## Required Courses

Credits: 41

+ MTC105 Music Theory I 3
+ MTC106 Aural Perception I 1
+MUC122 Sound Design I (3) OR
+ MTC/TCM120 Introduction to Sound Design for Film and Video (3) 3
MTC191 Electronic Music I 3
+ MTC192 Electronic Music II 3
+MUC222 Sound Design II (3) OR
+ MTC/TCM220 Advanced Sound Design for Film and Video (3) 3

MUC109 Music Business: Merchandising and the Law 3
MUC110 Music Business: Recording and Mass Media 3

+ MUC111 Digital Audio Workstation I (DAW I) 3
+ MUC112 Digital Audio Workstation II (DAW II) 3
+ MUC194 Introduction to Audio Mixing Techniques 3
MUC195 Studio Music Recording I (3) OR
MUC195AA Studio Music Recording I (3) 3
+ MUC196 Studio Music Recording II 3
+ MUC297AA Music Internship 1
+ MUC292 Sound Design III 3


## Certificate of Completion (CCL) in Beginning Piano Pedagogy

Total Credits: 15
Major Code: 5743N
Description: The Certificate of Completion (CCL) in Beginning Piano Pedagogy program is for pianists who want to teach beginning piano students. Classes offered include learning various methods, techniques, repertoire, skills, style and musicianship necessary to teach piano effectively.

## Suggested Course Plan Sequenced by Semester

https://www.mesacc.edu/programs/course-sequences/beginning-piano-pedagogy-ccl

Program Notes:

## This program is not eligible for Title IV Federal Financial

 Aid.+ indicates course has prerequisites and/or corequisites.
Program Prerequisites
Credits: 0
Acceptance into the program and permission of Program Director is required.

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

## CAREER AND TECHNICAL EDUCATION

+MUP152AD Private Instruction: Piano 2

MUP181 Chamber Music Ensembles (1) 2
(Two (2) semesters of course is required)
+MUP240 Piano Literature 2

## Certificate of Completion (CCL) in Intermediate Piano Pedagogy

Total Credits: 15
Major Code: 5749N

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

## Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/course-sequences/ intermediate-piano-pedagogy-ccl

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

+ indicates course has prerequisites and/or corequisites.
Program Prerequisites
Credits: 15
Certificate of Completion in Beginning Piano Pedagogy (5743N) 15
CCL/5743N is not eligible for Title IV Federal Financial Aid.


## 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) 1
(Two (2) semesters of course is required)
+MUP141 Intermediate Piano Pedagogy 2
+MUP166 Jazz Piano I 1

MUP181 Chamber Music Ensembles (1) 2
(Two (2) semesters of course is required)

[^1]
## Network Administration Certificates/ Degrees

- Associate of Applied Science in Information Technology: Cisco Networking
- Associate in Applied Science Linux Networking Administration
- Associate of Applied Science in Networking System Administration
- Certificate of Completion in Linux Networking Administration
- Certificate of Completion in Linux Associate
- Certificate of Completion in Linux Professional
- Certificate of Completion in Network Administration: Cisco
- Certificate of Completion in Network Administration: Cisco Network Professional
- Certificate of Completion in Network Administration: Microsoft Windows Server

Department Contact Information: (480) 461-7711
Associate in Applied Science (AAS) in Information Technology: Cisco Networking
Total Credits: 63-71
Major Code: 3095

Description: The Associate in Applied Science (AAS) in Information Technology: Cisco Networking program focuses on the skills needed to prepare for industry-recognized certifications with an emphasis on certifications at the professional-level. Knowledge and skills are developed to install, configure, maintain, and troubleshoot Cisco routers and components, advanced routing protocols, Local Area Networks (LANs), and Wide Area Networks (WANs); troubleshoot problems with various common hardware and software configurations, and perform administrative tasks in a network. Courses in the program also focus on the skills needed to prepare for various Cisco certifications including the Cisco Certified Networking Associate (CCNA) and Cisco Certified Network Professional Certifications (CCNP). A Certificate of Completion (CCL) is also available.

## Suggested Course Plan Sequenced by Semester

https://www.mesacc.edu/programs/detail/information-technology-cisco-networking-aas

Program Notes:
Students must earn a grade of "C" or better in all courses within the program.
Students should select from the following courses in consultation with a Department Advisor.

+ indicates course has prerequisites and/or corequisites.
++ indicates any module/suffixed courses.


## CAREER AND TECHNICAL EDUCATION

## Program Prerequisites

Credits: 0-3
CIS105 Survey of Computer Information Systems (3) OR
Permission of Program Director 3
Required Courses
Credits: 41
CNT140AA Introduction to Networks 4

+ CNT150AA Cisco - Routing and Switching Essentials 4
+ CNT160AA Scaling Networks 4
+ CNT170AA Cisco - Connecting Networks 4

Select any 200-level CNT courses to complete 16 credits: + CNT2++++ Any 200-level CNT Cisco Network Technology courses 16

CIS126DL Linux Operating System 3
MST150++ Microsoft Windows (any suffixed course) 3

+ BPC170 A+ Exam Prep: Computer Hardware Configuration and Support 3


## General Education Requirements

Credits: 22-27
General Education Core
Credits: 12-17
First-Year Composition
Credits: 6
Any approved general education courses from the First-Year
Composition area 6

## Oral Communication

Credits: 3
Any approved general education course from the Oral Communication area 3

Critical Reading
Credits: 0-3
Any approved general education course from the Critical Reading area OR Equivalent as indicated by assessment 0-3

Mathematics
Credits: 3-5
MAT120 Intermediate Algebra (5) OR
MAT121 Intermediate Algebra (4) OR
MAT122 Intermediate Algebra (3) OR
MAT151 College Algebra/Functions (4) 3-5
General Education Distribution
Credits: 10

## Humanities and Fine Arts

Any approved general education course from the Humanities, Arts and Design area 3

## Social and Behavioral Sciences

Credits: 3
Any approved general education course from the SocialBehavioral Sciences area 3

Natural Sciences
Credits: 4
Any approved general education course from the Natural Sciences area 4

## Associate in Applied Science (AAS) in Linux

 Networking AdministrationTotal Credits: 60-64
Major Code: 3013

Description: The Associate in Applied Science (AAS) in Linux Networking Administration program is designed to help to prepare students for a variety of industry recognized Linux certification exams as well as provide practical hands-on skills for the work place. 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.

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/course-sequences/linux-networking-administration-aas

## 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/suffixed courses.
Program Prerequisites: None
Required Courses
Credits: 24-25

+ BPC170 A+ Exam Prep: Computer Hardware Configuration and Support 3

CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) 3
+CIS238DL Linux System Administration (3)OR
+CIS238RH Red Hat System Administration II (3) 3
+CIS239DL Linux Shell Scripting 3
+CIS240DL Linux Network Administration 3
+CIS271DL Linux Security 3
+CIS190 Introduction to Local Area Networks (3) OR
CNT140AA Introduction to Networks (4) OR
MST140 Microsoft Networking Essentials (3) 3-4

## CAREER AND TECHNICAL EDUCATION

MST150++ Microsoft Windows (any suffixed course) 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 A+ Exam Prep: Operating System Configuration and Support 3
+BPC273 Advanced Server Computer Maintenance: Server+ Prep 3
CIS121AH Microsoft PowerShell/Command Line Operations 3
+CIS197 VMware ESXI Server Enterprise 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 Linux Enterprise Network Security 3
+CIS275DL Linux Capstone 3
+CIS296WC Cooperative Education 3
+CIS290++ Computer Information Systems Internship 1-3
+CIS298AC Special Projects 3
+CIS190 Introduction to Local Area Networks (3) OR
CNT140AA Introduction to Networks (4) OR
MST140 Microsoft Networking Essentials (3) 3-4
+CNT150AA Cisco - Routing and Switching Essentials 4
+CNT160AA Scaling Networks 4
+CNT170AA Cisco - Connecting Networks 4 MST150++ Microsoft Windows (any MST150 suffixed course) 3
+MST155++ Windows Server (any suffixed course) 3-4
+MST157 Implementing Windows Directory Services (3) OR
+MST157++ Windows Server (any suffixed course) (4) 3-4
+MST158++ Windows Server (any suffixed course) 4
General Education Requirements
Credits: 22-25
General Education Core
Credits: 12-15
First-Year Composition
Credits: 6
+ENG101 First-Year Composition (3) OR
+ENG107 First-Year Composition for ESL (3) AND
+ENG102 First-Year Composition (3) OR
+ENG108 First-Year Composition for ESL (3) 6
Oral Communication
Credits: 3
+ COM225 Public Speaking (3) OR
Any approved general education course from the Oral Communication area. 3

Critical Reading
Credits: 0-3
+CRE101 College Critical Reading (3) OR
Equivalent as indicated by assessment. 0-3
Mathematics
Credits: 3
Any approved general education course from the Mathematics area. 3

General Education Distribution
Credits: 10

Humanities and Fine Arts
Credits: 3
Any approved general education course from the Humanities,
Arts and Design area. 3
Social and Behavioral Sciences
Credits: 3
Any approved general education course from the Social-
Behavioral Sciences area. 3

## Natural Sciences

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

Associate in Applied Science (AAS) in
Networking System Administration Networking System Administration
Total Credits: 63-66
Major Code: 3208

Description: The Associate in Applied Science (AAS) in Networking System Administration program 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.

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/detail/networking-system-administration-aas

Program Notes:
Students must earn a grade of "C" or better in all courses within

## CAREER AND TECHNICAL EDUCATION

the program.

+ indicates course has prerequisites and/or corequisites.
++ indicates any module/suffixed courses.
The Network core courses will also prepare students towards industry certifications.

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

## Required Courses

Credits: 26-27
CIS105 Survey of Computer Information Systems (3) OR
BPC110 Computer Usage and Applications (3) 3
+BPC170 A+ Exam Prep: Computer Hardware Configuration and Support 3

+ BPC270 A+ Exam Prep: Operating System Configuration and Support 3

CIS126++ Linux Operating System (any module) (1-3) 3

MST150 Microsoft Windows Professional (3) OR
MST150++ Microsoft Windows (any module) (3) 3
+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 Introduction to Networks 4

## Restricted Electives

Credits: 15
Students should select 15 credits from the following, except any courses used to satisfy Required Courses area.
+CIS163AA Java Programming: Level I 3
+CIS238DL Linux System Administration 3
+CIS239DL Linux Shell Scripting 3
+CIS240DL Linux Network Administration 3
+CIS247DA Cyber Forensics and Incident Handling 3
+CIS270 Essentials of Network and Information Security 3
+CIS271DL Linux Security 3
MST150 Microsoft Windows Professional (3) OR
MST150++ Microsoft Windows (any module) (3) 3
+MST155DA Windows Server Network Infrastructure
Configuration 4
+MST157DA Active Directory Windows Server Configuration 4

MST158DA Windows Server Administration 4
+CNT150AA Cisco - Routing and Switching Essentials 4
+CNT160AA Scaling Networks 4

+ CNT170AA Cisco - Connecting Networks 4
+CNT2++++ Any 200-level CNT Cisco Network Technology
course 4


## General Education Requirements

Credits: 22-24
General Education Core
Credits: 12-14

First-Year Composition
Credits: 6
ENG101 First-Year Composition (3) OR
ENG107 First-Year Composition for ESL (3) AND
ENG102 First-Year Composition (3) OR
ENG108 First-Year Composition for ESL (3) 6
Oral Communication
Credits: 3
COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR
COM225 Public Speaking (3) OR
COM230 Small Group Communication (3) 3
Critical Reading
Credits: 0
Met by CRE101 or equivalent as indicated by assessment in the
Program Prerequisites area
Mathematics
Credits: 3-5
MAT142 College Mathematics (3) OR
satisfactory completion of a higher level mathematics course 3-5
General Education Distribution
Credits: 10

Humanities and Fine Arts
Credits: 3
Any approved general education course in the Humanities and Fine Arts area

## Social and Behavioral Sciences

Credits: 3
Any approved general education course in the Social and
Behavioral Sciences area
Natural Sciences
Credits: 4
Any approved general education course in the Natural Sciences area

Certificate of Completion (CCL) in Linux
Networking Administration
Total Credits: 36-37
Major Code: 5225

## CAREER AND TECHNICAL EDUCATION

Description: The Certificate of Completion (CCL) in Linux Networking Administration program is designed to help prepare students for a variety of industry recognized Linux certification exams as well as provides practical hands-on skills for the work place. 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 course and program objectives.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-45/gedt-45.html

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/course-sequences/linux-networking-administration-ccl

## Program Notes:

Students must earn a grade of "C" or better for all courses required withinthe program.
+indicates course has prerequisites and/or corequisites.
++ indicates any module/suffixed courses.

## Program Prerequisites:

Required Courses
Credits: 24-25

+ BPC170 A+ Exam Prep: Computer Hardware Configuration and Support 3

CIS126DL Linux Operating System (3) OR CIS126RH Red Hat System Administration I (3) 3
+CIS238DL Linux System Administration (3) OR
+CIS238RH Red Hat System Administration II (3) 3
+CIS239DL Linux Shell Scripting 3
+CIS240DL Linux Network Administration 3
+CIS271DL Linux Security 3
+CIS190 Introduction to Local Area Networks (3) OR
CNT140AA Introduction to Networks (4) OR
MST140 Microsoft Networking Essentials (3) 3-4

MST150++ Microsoft Windows (any suffixed course) 3
Restricted Electives
BPC110 Computer Usage and Applications (3) OR

CIS105 Survey of Computer Information Systems (3) 3
+BPC270 A+ Exam Prep: Operating System Configuration and Support 3
+BPC273 Advanced Server Computer Maintenance: Server+Prep
3
+CIS197 VMware ESXI Server Enterprise 3
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 Linux Enterprise Network Security 3
+CIS275DL Linux Capstone 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
CNT140AA Introduction to Networks (4) OR
MST140 Microsoft Networking Essentials (3) 3-4
+CNT150AA Cisco - Routing and Switching Essentials 4
+CNT160AA Scaling Networks 4

+ CNT170AA Cisco - Connecting Networks 4
MST150++ Microsoft Windows (any suffixed course) 3
+MST155++ Windows Server (any suffixed course) 3-4
+MST157 Implementing Windows Directory Services (3) OR
+MST157++ Windows Server (any suffixed course) (4) 3-4
+MST158++ Windows Server (any suffixed course) 4


## Certificate of Completion (CCL) in Linux Associate

Total Credits: 24
Major Code: 5219

Description: The Certificate of Completion (CCL) in Linux Associate 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 work place. The program includes a core of Linux classes including Linux Operating System Basics, System Administration, Network Administration and Network Security. These classes will help

## CAREER AND TECHNICAL EDUCATION

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 course and program objectives.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-44/gedt-44.html

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/linux-associate-ccl

## 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/suffixed courses.
Program Prerequisites:
None
Credits: 12
Required Courses
CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) 3
+CIS238DL Linux System Administration (3) OR
+CIS238RH Red Hat System Administration II (3) 3
+CIS240DL Linux Network Administration 3
+CIS271DL Linux Security 3
Restricted Electives
Credits: 12
+BPC170 A+ Exam Prep: Computer Hardware Configuration and Support 3
+BPC270 A+ Exam Prep: Operating System Configuration and Support 3
CIS105 Survey of Computer Information Systems 3
CIS121AH Microsoft PowerShell/Command Line Operations 3
+CIS197 VMware ESXI Server Enterprise 3
+CIS226AL Internet/Intranet Server Administration-Linux 3
+CIS239DL Linux Shell Scripting 3
+CIS241DL Apache Web Server Administration (Linux/Unix) 3
+CIS270 Essentials of Network and Information Security 3
+CIS274DL Linux Enterprise Network Security 3
+CIS275DL Linux Capstone 3
CIS280 Current Topics in Computing 3
+CIS290++ Computer Information Systems Internship (any suffixed course) 1-3
+CIS190 Introduction to Local Area Networks (3) OR CNT140AA Introduction to Networks (4) OR

MST140 Microsoft Networking Essentials (3) 3-4
+CNT150AA Cisco - Routing and Switching Essentials 4
MST150++ Microsoft Windows (any suffixed course) 3
+MST155++ Windows Server (any suffixed course) 3-4

## Certificate of Completion (CCL) in Linux Professional

Total Credits: 12
Major Code: 5204 N
Description: The Certificate of Completion (CCL) in Linux Professional program is designed to help to prepare students for a variety of industry-recognized Linux certification exams as well as provide practical hands-on skills for the work place. 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 course and program objectives.

## Suggested Course Plan Sequenced by Semester

https://www.mesacc.edu/programs/course-sequences/linux-professional-ccl

## Program Notes:

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

+ indicates course has prerequisites and/or corequisites.
++ indicates any module/suffixed courses.


## Program Prerequisites:

None
Required Courses
Credits: 6
CIS126DL Linux Operating System (3) OR
CIS126RH Red Hat System Administration I (3) 3
+CIS238DL Linux System Administration (3)OR
+CIS238RH Red Hat System Administration II (3) 3
Restricted Electives
Credits: 6

+ BPC170 A+ Exam Prep: Computer Hardware Configuration and Support 3
+ BPC270 A+ Exam Prep: Operating System Configuration and
Support 3


## CAREER AND TECHNICAL EDUCATION

CIS105 Survey of Computer Information Systems 3

+ CIS197 VMware ESXI Server Enterprise 3
CIS121AH Microsoft PowerShell/Command Line Operations 3
+ CIS226AL Internet/Intranet Server Administration-Linux 3
+ CIS239DL Linux Shell Scripting 3
+ CIS240DL Linux Network Administration 3
+ CIS241DL Apache Web Server Administration (Linux/Unix) 3
+ CIS270 Essentials of Network and Information Security 3
+ CIS271DL Linux Security 3
+ CIS190 Introduction to Local Area Networks (3) OR
CNT140AA Introduction to Networks (4) OR
MST140 Microsoft Networking Essentials (3) 3-4
+ CNT150AA Cisco - Routing and Switching Essentials 4 MST150++ Microsoft Windows (any suffixed course) 3 CIS280 Current Topics in Computing 3
+ CIS290++ Computer Information Systems Internship (any suffixed course) 1-3


## Certificate of Completion (CCL) in Networking Administration: Cisco

Total Credits: 14-18
Major Code: 5969N

Description: The Certificate of Completion (CCL) in Networking Administration: Cisco provides training for those interested in working with Cisco Systems networking and Internet hardware. Knowledge and skills are developed to install, configure, maintain, and troubleshoot Cisco routers and switches, and configure advanced routing protocols, Local Area Networks (LANs), and Wide Area Networks (WANs). The courses in the program are designed to help prepare students for the Cisco Certified Networking Associate (CCNA) examination and are taught by Cisco Certified Professionals using the Cisco Networking Academy program curriculum.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-55/gedt-55.html

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/networking-administration-cisco\ track\ I\ Exploration-ccl

## Program Notes:

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

+ indicates course has prerequisite and/or corequisites.
Program Prerequisites:
None
Required Courses
Credits: 14-18
One of the following 2 tracks must be fulfilled:
Track 1 Exploration:
Credits: 14-18
CNT140 Cisco Networking Basics (4) OR
CNT140AA Introduction to Networks (4) OR
CNT138 CCNA Discovery - Networking for Home and Small Businesses (3) AND
+ CNT148 CCNA Discovery - Working at a Small-to-Medium
Business or Internet Service Provider (3) 4-6
+ CNT150 Cisco Networking Router Technologies (4) OR
+ CNT150AA Cisco - Routing and Switching Essentials (4) 4
+ CNT160 Cisco Switching Basics and Intermediate Routing (3) OR
+ CNT160AA Scaling Networks (4) 3-4
+ CNT170 Cisco Wide Area Networks (WAN) Technologies (3) OR
+ CNT170AA Cisco - Connecting Networks (4) 3-4
Track 2 Discovery:
Credits: 14
CNT138 CCNA Discovery - Networking for Home and Small
Businesses 3
+ CNT148 CCNA Discovery - Working at a Small-to-Medium
Business
or Internet Service Provider 3
+ CNT158 CCNA Discovery - Introduction to Routing and Switching
in the Enterprise 4
+ CNT168 CCNA Discovery - Designing and Supporting
Computer Networks 4


## Certificate of Completion (CCL) in Network Administration: Cisco Network Professional Total Credits: 16 <br> Major Code: 5328

Description: The Certificate of Completion (CCL) in Network Administration: Cisco Network Professional program 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

## CAREER AND TECHNICAL EDUCATION

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.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-54/gedt-54.html

## Suggested Course Plan Sequenced by Semester

https://www.mesacc.edu/programs/detail/network-administration-cisco-network-professional-ccl

Program Notes:

+ indicates course has prerequisites and/or corequisites.
++ indicates any module/suffixed courses.
Students must earn a grade of "C" or better for all courses within the program.


## Program Prerequisites

Credits: 0-4
CNT170AA Cisco - Connecting Networks (4) OR
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 Appliance Configuration (4) OR
+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

## Certificate of Completion (CCL) in Network Administration: Microsoft Windows Server

Total Credits: 18
Major Code: 5124

Description: The Certificate of Completion (CCL) in Network Administration: Microsoft Windows Server program 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.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/gainful-employment

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/network-administration-microsoft-windows-server-cc

## Program Notes:

## This program is currently not Title IV Federal Financial Aid eligible.

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

+ indicates course has prerequisites and/or corequisites.
++ indicates any module/suffixed courses.
The Network core courses will also prepare students towards certification in Microsoft and Novell.

Program Prerequisites:
None
Required Courses
Credits: 15
+MST150 Microsoft Windows Professional (3) OR
+MST150++ Microsoft Windows Operating Systems (3) 3
+MST155++ Windows Server Network (any suffixed course) 4
+MST157++ Windows Server (any suffixed course) 4
+MST158++ Windows Server (any suffixed course) 4
Restricted Electives
Credits: 3
Students must select three (3) credits from the following courses: CIS121AH Microsoft PowerShell/Command Line Operations 3 +CIS126++ Linux Operating System (any suffixed course) 1-3 +CIS166AC Web Scripting with Active Server Pages (ASP).NET 3
+CIS197 VMware ESXI Server Enterprise 3
+CIS238++ UNIX/Linux System Administration (any suffixed course) 3
+CIS276DB SQL Server Database 3
CNT+++++ Any CNT Cisco Network Technology course 1-4 MST+++++ Any MST Microsoft Technology course except courses used to satisfy Required Courses area 1-4

## Nursing Certificates/Degrees <br> - Associate in Applied Science in Nursing

- Certificate of Completion in Nurse Assisting
- Certificate of Completion in Nursing Refresher
- Certificate of Completion in Practical Nursing


## Associate in Applied Science (AAS) in Nursing

Total Credits: 62-75
Major Code: 3812

Description: The Associate in Applied Science (AAS) in Nursing Program is available at eight of the Maricopa Community Colleges. Clinical experiences are provided in a variety of healthcare settings. Nursing Program graduates are eligible to apply for the national exam for the registered nurse license. Licensing requirements are the exclusive responsibility of the State Board of Nursing.

Accreditation Commission for Education in Nursing (ACEN) at 3343 Peachtree Road, NE Suite 850, Atlanta, GA 30326. State approval for the Nursing Programs is provided by the Arizona State Board of Nursing (AZBN) at 4747 N. 7th St. Suite 200, Phoenix, AZ 85014, 602.771.7800.

## Program offerings:

This program is offered at the following sites:
Chandler-Gilbert Community College
Estrella Mountain Community College
GateWay Community College
Glendale Community College
Mesa Community College
Paradise Valley Community College
Phoenix College
Scottsdale Community College

Waiver of Licensure/Certification Guarantee:
Admission or graduation from the Nursing Program does not guarantee obtaining a license to practice nursing. Licensure requirements and the subsequent procedures are the exclusive right and responsibility of the Arizona State Board of Nursing. Students must satisfy the requirements of the Nurse Practice Act: Statutes, Rules and Regulations, independently of any college or school requirements for graduation.

Pursuant to A.R.S. 32-1606(B)(17), an applicant for professional or practical nurse license by examination is not eligible for licensure if the applicant has any felony convictions and has not received an absolute discharge from the sentences for all felony convictions. The absolute discharge must be received five
or more years before submitting this application. If you cannot prove that the absolute discharge date is five or more years, the Board cannot process your application.

Level One Fingerprint Clearance is required for admission into the program. Applicants must present a Level One Fingerprint Clearance Card to be copied by the advisor or designee. For a Department of Public Safety Fingerprint Clearance Card application, contact MCCCD Healthcare/Nursing Advisor. If there is any question about eligibility for licensure or certification, contact the nursing education consultant at the Arizona State Board of Nursing (602.771.7800).

Health Declaration:
It is essential that nursing students be able to perform a number of physical activities in the clinical portion of the program. At a minimum, students will be required to lift patients, stand for several hours at a time and perform bending activities. Students who have a chronic illness or condition must be maintained on current treatment and be able to implement direct patient care. The clinical nursing experience also places students under considerable mental and emotional stress as they undertake responsibilities and duties impacting patients` lives. Students must be able to demonstrate rational and appropriate behavior under stressful conditions. Individuals should give careful consideration to the mental and physical demands of the program prior to making application. All must provide documentation of compliance with all health and safety requirements required to protect patient safety. Only students in compliance are permitted to enroll in nursing courses. Students will meet these requirements by providing the required documentation for the Health/Safety Requirements Documentation Checklist and the signed Health Declaration Form.

Health and Safety Requirements for the MaricopaNursing Program:

1. Students must submit a Health and Safety Documentation Checklist verifying completion of all requirements and maintain current status throughout the program.
2. Students must submit the Health Declaration Form signed by a licensed health care provider.
3. Students must test negative on a timed urine drug screen.
4. Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Supplemental Background Check policy. Program applications will not be accepted without a copy of an Arizona Department of Public Safety Level One Fingerprint Clearance Card. Upon conditional program admission, the student must

## CAREER AND TECHNICAL EDUCATION

comply with all requirements of the current MCCCD background check policy.

## University Transfer Students:

Students who are planning to earn the Bachelor of Science in Nursing may obtain their prerequisite courses at the Maricopa Community Colleges. For information on courses that meet requirements for admission into a baccalaureate program, please contact a program advisor.

## REGISTERED NURSE PATHWAY

Associate in Applied Science Degree in Nursing Program The Associate in Applied Science (AAS) degree in Nursing graduate is eligible to apply for licensure as a Registered Nurse ( RN ). The RN is educated as a generalist who delivers health care to clients and family groups and has competencies related to the art and science of nursing. The RN may be employed in a variety of acute, long term, and community-based healthcare settings. The AAS degree in Nursing provides the graduate with an educational foundation for articulation into the university setting.

## Suggested Course Plan Sequenced by Semester

https://www.mesacc.edu/programs/detail/nursing-aas

## Program Notes:

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

+ indicates course has prerequisites and/or corequisites.

Course Fee Information:
Please see class schedule for information regarding course fees.

MaricopaNursing is aligned with Nurse of the Future Competencies: Patient-Centered Care, Professionalism, Leadership, Systems-Based Practice, Informatics and Technology, Communication, Teamwork and Collaboration, Safety, Quality Improvement, and Evidence-Based Practice. These competencies focus on key stakeholders of healthcare clients, colleagues and communities. Demonstration of the competencies will signify preparation for successful transition into nursing practice and further professional development.

Admission Criteria: High School diploma or GED is required for the Associate in Applied Science degree in Nursing. Applicants must signify that they meet this requirement by providing high school diploma/transcripts or GED completion OR by signing the nursing application page containing the `Declaration of High

School Graduation or GED completion.` In some instances, high school diploma/transcripts or proof of GED completion may be required.

Formal application and admission to the program is required; all program prerequisites must be completed prior to submission of application.
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 previously dismissed for issues relating to academic integrity, unsafe patient care, and/or two (2) or more failures from any nursing program.

All applicants holding or receiving a certificate as a 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
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
+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) 3
+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR


## CAREER AND TECHNICAL EDUCATION

+ MAT142 College Mathematics (3) OR
Satisfactory completion of higher level math course 3-5

Students that are admitted into the MaricopaNursing Program for Fall 2015 and Spring 2016, AND completed MAT120/121/122 prior to Fall 2015 as an admission requirement, may complete the program without completing MAT140/141/142 as a graduation requirement, by waiver of the program director.

## Required Courses

Credits: 36

+ NUR152 Nursing Theory and Science I 9
+ NUR172 Nursing Theory and Science II 9
+ NUR252 Nursing Theory and Science III 9
+ NUR283 Nursing Theory and Science IV 9


## General Education Requirements

Credits: 16-19
General Education Core
Credits: 3-6
First-Year Composition
Credits: 3
Three (3) credits of First Year Composition are met by ENG101 or ENG107 in Program Prerequisites area.

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

Oral Communication
Credits: 0
Waived

Critical Reading
Credits: 0-3

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

Mathematics
Credits: 0
Met by MAT140 OR MAT141 OR MAT142 OR Satisfactory completion of higher level mathematics course in Program Prerequisites area.

General Education Distribution
Credits: 13

Humanities and Fine Arts
Credits: 2
Any approved general education course in the Humanities, Arts and Design area.

Social and Behavioral Sciences
PSY 101 Introduction to Psychology 3
Natural Sciences
Credits: 8

+ BIO202 Human Anatomy and Physiology II (4) AND
+ BIO205 Microbiology (4)


## Certificate of Completion (CCL) in Nurse Assisting

Total Credits: 6
Major Code: 5963 N
Description: 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, skilledcare 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.

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/detail/nurse-assistingccl

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

Program offerings:
This program is offered at the following sites:
Chandler Gilbert Community College
Estrella Mountain Community College
GateWay Community College
Glendale Community College
Mesa Community College
Mesa Community College/Boswell
Paradise Valley Community College

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

## CAREER AND TECHNICAL EDUCATION

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. Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Supplemental Background Check policy. Program applications will not be accepted without a copy of an Arizona Department of Public Safety Level One Fingerprint Clearance Card. Upon conditional program admission, the student must comply with all requirements of the current MCCCD background check policy.
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.

University Transfer Students:
For students planning a University Program
Students who are planning to earn the Bachelor of Science in Nursing may obtain their prerequisite courses at Maricopa Community Colleges. For information on courses that meet requirements for admission into a baccalaureate program, please contact a program advisor.

## THE NURSE ASSISTING PATHWAY

The nurse assisting pathway is designed to prepare students to complete the Nurse Assistant Certification 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.
This program is not eligible for Title IV Federal Financial Aid.

+ indicates course has prerequisites and/or corequisites.

Admission Criteria: Application and acceptance into the program, High School graduate or GED, current Health Care Provider CPR Card required before beginning courses.
All students must submit a copy of a fingerprint clearance card with their application for the Maricopa Community College
District Nursing Program.
Program Prerequisites: None
Required Courses
Credits: 6

+ NUR158 Nurse Assisting 6


## Certificate of Completion (CCL) in Nursing Refresher

Total Credits: 10
Major Code: 5739 N
Description: The Certificate of Completion (CCL) in Nursing Refresher program provides registered nurses with a review and update of nursing theory and practice. The goal of the program is to update and refine theoretical and practical nursing knowledge and facilitate the nurse's transition back into professional practice. The Nursing Refresher program is approved by the Arizona State Board of Nursing. Successful program completion satisfies the Arizona State Board of Nursing RN license renewal

## CAREER AND TECHNICAL EDUCATION

requirement for applicants who do not meet the practice mandate as stated in The Nurse Practice Act, R4-19312 (B).

Health Declaration: It is essential that Nursing Refresher students be able to perform a number of physical activities in the clinical portion of the program. At a minimum, students will be required to lift patients, stand for several hours at a time and perform bending activities. The clinical nursing experience also places students under considerable mental and emotional stress as they undertake responsibilities and duties impacting patients` lives. Students must be able to demonstrate rational and appropriate behavior under stressful conditions. Individuals should give careful consideration to the mental and physical demands of the program prior to making application.

## Suggested Course Plan Sequenced by Semester

 https://www.mesacc.edu/programs/detail/nursing-refreshercclProgram Notes:
Students must earn a grade of "C" or better for all courses within the program.
This program is not eligible for Title IV Federal Financial Aid.
Massachusetts Nurse of the Future Core Competencies are integrated into the student learning outcomes/program competencies.

Course Fee Information: Please see class schedule for information regarding course fees.

Admission Criteria: Formal application and admission to the program is required.

All applicants must have an active or inactive Registered Nurse (RN) license that is eligible for renewal per Regulatory Board requirements or has successfully passed the RN licensing examination, but has never worked as a registered nurse. All applicants must be eligible for issuance of an active or temporary registered nurse license.
All applicants must be in good standing with the Regulatory Board. RN's with restricted licenses are not eligible for the program. Once enrolled, students receiving any disciplinary actions against their license must notify the Nursing Program Chair within five (5) school days. The Nursing Program Chair reserves the right to restrict the student's participation in clinical experiences and involvement in patient care until the license is valid and unrestricted.

Health and Safety Requirements for the Nursing Refresher Program:

1. Students must submit a Health and Safety Documentation verifying completion of all requirements and maintain current status throughout the program.
2. Students must submit the Health Declaration Form signed by a licensed health care provider.
3. Students must test negative on a timed urine drug screen.
4. Students must provide a copy of their current and valid Level One Finger Print Clearance Card upon application.

## Program Prerequisites:

None
Required Courses
Credits: 10
NUR295 Registered Nurse Refresher 10

## Certificate of Completion (CCL) in Practical Nursing

Total Credits: 35-45
Major Code: 5957
Description: The Certificate of Completion (CCL) in Practical Nursing Program is available at eight of the Maricopa Community Colleges. Clinical experiences are provided in a variety of healthcare settings. Practical Nursing Program graduates are eligible to apply for the national exam for the practical nurse license. Licensing requirements are the exclusive responsibility of the State Board of Nursing.

The Certificate of Completion Practical Nursing Program is approved by the Arizona State Board of Nursing.

Program offerings:
This program is offered at the following sites:
Chandler Gilbert Community College
Estrella Mountain Community College
GateWay Community College
Glendale Community College
Mesa Community College
Paradise Valley Community College
Scottsdale Community College

## Waiver of Licensure/Certification Guarantee:

Admission or graduation from the Nursing Program does not guarantee obtaining a license to practice nursing. Licensure requirements and the subsequent procedures are the exclusive right and responsibility of the Arizona State Board of Nursing. Students must satisfy the requirements of the Nurse Practice Act:

## CAREER AND TECHNICAL EDUCATION

Statutes, Rules and Regulations, independently of any college or school requirements for graduation.

Pursuant to A.R.S. 32-1606(B)(17), an applicant for professional or practical nurse license by examination is not eligible for licensure if the applicant has any felony convictions and has not received an absolute discharge from the sentences for all felony convictions. The absolute discharge must be received five or more years before submitting this application. If you cannot prove that the absolute discharge date is five or more years, the Board cannot process your application.

Level One Fingerprint Clearance is required for admission into the program. Applicants must present a Level One Fingerprint Clearance Card to be copied by the advisor or designee. For a Department of Public Safety Fingerprint Clearance Card application, contact MCCCD Healthcare/Nursing Advisor. If there is any question about eligibility for licensure or certification, contact the nursing education consultant at the Arizona State Board of Nursing (602.771.7800).

## Health Declaration:

It is essential that nursing students be able to perform a number of physical activities in the clinical portion of the program. At a minimum, students will be required to lift patients, stand for several hours at a time and perform bending activities. Students who have a chronic illness or condition must be maintained on current treatment and be able to implement direct patient care. The clinical nursing experience also places students under considerable mental and emotional stress as they undertake responsibilities and duties impacting patients` lives. Students must be able to demonstrate rational and appropriate behavior under stressful conditions. Individuals should give careful consideration to the mental and physical demands of the program prior to making application. All must provide documentation of compliance with all health and safety requirements required to protect patient safety. Only students in compliance are permitted to enroll in nursing courses. Students will meet these requirements by providing the required documentation for the Health/Safety Requirements Documentation Checklist and the signed Health Declaration Form.

Health and Safety Requirements for the Nursing Program: 1. Students must submit a Health and Safety Documentation Checklist verifying completion of all requirements and maintain current status throughout the program.
2. Students must submit the Health Declaration Form signed by a licensed health care provider.
3. Students must test negative on a timed urine drug screen.
4. Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Supplemental Background Check policy. Program applications will not be accepted without a copy of an Arizona Department of Public Safety Level One Fingerprint Clearance Card. Upon conditional program admission, the student must comply with all requirements of the current MCCCD background check policy.

University Transfer Students:
Students who are planning to earn the Bachelor of Science in Nursing may obtain their prerequisite courses at the Maricopa Community Colleges. For information on courses that meet requirements for admission into a baccalaureate program, please contact a program advisor.

## 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) may be employed in acute, long-term, and community-based health care settings 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 (AAS) Nursing Program is approved by the Arizona State Board of Nursing and accredited by the Accreditation Commission for Education in Nursing (ACEN), 3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326; (404.975.5000); email: info@acennursing.org.

Consumer Program Costs and Career Information
https://www.mesacc.edu/programs/ge/gedt-62/gedt-62.html

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/detail/practical-nursingccl

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

+ indicates course has prerequisites and/or corequisites

Course Fee Information:
Please see class schedule for information regarding course fees. MaricopaNursing is aligned with Nurse of the Future

## CAREER AND TECHNICAL EDUCATION

Competencies: Patient-Centered Care, Professionalism, Leadership, Systems-Based Practice, Informatics and Technology, Communication, Teamwork and Collaboration, Safety, Quality Improvement, and Evidence-Based Practice. These competencies focus on key stakeholders of healthcare clients, colleagues and communities. Demonstration of the competencies will signify preparation for successful transition into nursing practice and further professional development.

Admission Criteria: High School diploma or GED is required for the Certificate of Completion in Practical Nursing. Applicants must signify that they meet this requirement by providing high school diploma/transcripts or GED completion OR by signing the nursing application page containing the `Declaration of High School Graduation or GED completion.` In some instances, high school diploma/transcripts or proof of GED completion may be required.

Formal application and admission to the program is required; all program prerequisites must be completed prior to submission. A passing score on a nursing program admission test is required to complete an application.

The Nursing Program Chair reserves the right to deny acceptance of an admission application if the applicant was previously dismissed for issues relating to academic integrity, unsafe patient care, and/or two (2) or more failures from any nursing program.

All applicants holding or receiving a certificate as a 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
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
+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) 3
+ MAT140 College Mathematics (5) OR
+ MAT141 College Mathematics (4) OR
+ MAT142 College Mathematics (3) OR
Satisfactory completion of higher level mathematics course 3-5
Students that are admitted into the MaricopaNursing Program for Fall 2015 and Spring 2016, AND completed MAT120/121/122 prior to Fall 2015 as an admission requirement, may complete the program without completing MAT140/141/142 as a graduation requirement, by waiver of the program director.


## Required Courses

Credits: 25

+ BIO202 Human Anatomy and Physiology II 4
+ NUR152 Nursing Theory and Science I 9
+ NUR172 Nursing Theory and Science II 9
+ NUR192 Practical Nursing Transition 3


## Nutrition Certificates/Degrees

- Associate in Applied Science in Sustainable Food Systems
- Certificate of Completion in Sustainable Food Systems
- Certificate of Completion in Nutrition for Fitness and Wellness

Department Contact Information: (480) 461-7551

## Applied Science (AAS) in Sustainable Food Systems

Total Credits: 61
Major Code: 3127

Description: The Associate in Applied Science (AAS) in Sustainable Food Systems program is designed for a diverse student population, including those who are currently working within the food service industry and are interested in building upon their culinary skills in sustainable practices, as well as those with no culinary background. The program provides students with an overview of 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,

## CAREER AND TECHNICAL EDUCATION

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.

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/course-sequences/sustainable-food-systems-aas

## Program Notes:

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

+ indicates course has prerequisite and/or corequisites.
Admission Criteria: Formal application and admission into the Sustainable Food Systems program is required. Applications are available from a program advisor.

Program Prerequisites:

## Required Courses

Credits: 21
Certificate of Completion in Sustainable Food Systems (5158) 21
Restricted Electives
Credits: 18-22

Students must select eighteen (18) to twenty-two (22) credits from the list of Restricted Electives below except courses used to satisfy the Required Courses area:
AGS260 Soils 4
CUL105 Principles and Skills for Professional Cooking 3
CUL113 Commercial Baking Techniques 3
FON100 Introductory Nutrition 3
FON135 Sustainable Cooking 3
FON143 Food and Culture 3
FON162 Organic Foods Production 3
FON163 Sustainable Restaurant Practices 3
FON165 Food Entrepreneurship 3

+ FON285 Food and Nutrition Studies Internship 4
PHI216 Environmental Ethics 3
SUS110 Sustainable World 3
SSH111 Sustainable Cities 3


## General Education Requirements

Credits: 18-22
General Education Core
Credits: 9-12
Credits: 3
First-Year Composition
Met by ENG101 or ENG107 in the Required Courses area AND

+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) OR
+ ENG111 Technical and Professional Writing (3) 3
Oral Communication
Credits: 3
COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) 3
Critical Reading
Credits: 0-3
+ CRE101 College Critical Reading (3) OR
+ CRE111 Critical Reading for Business and Industry (3) OR
Equivalent as indicated by assessment 0-3


## Mathematics

Credits: 3

+ MAT112 Mathematical Concepts and Applications (3) OR
Satisfactory completion of a higher level mathematics course 3
General Education Distribution
Credits: 9-10

Humanities and Fine Arts
Credits: 3
Any approved general education course from the Humanities and
Fine Arts area 3
(PHI216 or SSH111 is recommended.)
Social and Behavioral Sciences
Credits: 3
Any approved general education course from the Social and Behavioral Sciences area 3
(SSH111 is recommended.)
Natural Sciences
Credits: 3-4
BIO105 Environmental Biology (4) OR
CHM107 Chemistry and Society (3) 3-4

## Certificate of Completion (CCL) in Sustainable Food Systems

Total Credits: 21
Major Code: 5158

Description: 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 gardening concepts, food safety and security, sustainability principles and strategies, global food systems and sustainable food productions systems. 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.

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Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-74/gedt-74.html

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/sustainable-food-systems-ccl

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

+ indicates course has prerequisites and/or corequisites.

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


## Required Courses

Credits: 9
AGS182 Gardening Practices and Techniques 2
FON104 Certification in Food Service Safety and Sanitation 1
FON161 Sustainable Food Production Systems 3
SUS100 Introduction to Sustainability 3
Restricted Electives
Credits: 9
Students must choose nine (9) credits from the list of Restricted Electives below:
CUL105 Principles and Skills for Professional Cooking 3
CUL113 Commercial Baking Techniques 3
FON100 Introductory Nutrition 3
FON135 Sustainable Cooking 3
FON143 Food and Culture 3
FON163 Sustainable Restaurant Practices 3
FON165 Food Entrepreneurship 3

## Certificate of Completion (CCL) in Nutrition for Fitness and Wellness

Total Credits: 22
Major Code: 5302

Description: 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.

Consumer Program Costs and Career Information
https://www.mesacc.edu/programs/ge/gedt-56/gedt-56.html

## Suggested Course Plan Sequenced by Semester

https://www.mesacc.edu/programs/course-sequences/nutrition-for-fitness-and-wellness-ccl

## Program Notes:

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

+ indicates course has prerequisites and/or corequisites.
++ indicates any module/suffixed courses.
Program Prerequisites:
None

Required Courses
Credits: 22
EXS101 Introduction to Exercise Science 3
EXS125 Introduction to Exercise Physiology 3
EXS130 Strength Fitness-Physiological Principles and Training Techniques 3

FON100 Introductory Nutrition (3) OR
FON+++++ 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 3
+ FON230 Nutrition for Special Populations 3
+ FON247 Weight Management Science 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 Trainee
- Certificate of Completion in Real Estate
- Certificate of Completion in Real Estate: Prelicense

Department Contact Information: (480) 461-7711

## Associate in Applied Science (AAS) in Certified Residential Appraiser

Total Credits: 60-66
Major Code: 3104
Description: The Associate in Applied Science (AAS) in Certified Residential Appraiser program prepare 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

## CAREER AND TECHNICAL EDUCATION

the necessary education requirements designated by the National Appraisal Qualification board.

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/certified-residential-appraiser-aas

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.
Program Prerequisites:
None
Required Courses
Credits: 24-25
BPC110 Computer Usage and Applications (3) OR
CIS105 Survey of Computer Information Systems (3) 3
+GBS219 Statistics for Real Estate Appraisers (3) OR
+GBS221 Business Statistics (3) OR
+PSY230 Introduction to Statistics (3) AND
+PSY231 Laboratory for Statistics (1) 3-4

REA270 Basic Appraisal Principles 2
REA271 Basic Appraisal Procedures 2

+ REA272 Uniform Standards of Professional Appraisal Practice (USPAP) 1
REA273 Residential Market Analysis Highest and Best Use 1 REA274 Residential Appraiser Site Valuation and Cost Approach 1
+ REA275 Residential Sales Comparison and Income
Approaches 2
REA276AA Residential Report Writing and Case Studies I 1
REA277 Statistics, Modeling and Finance 1
+ REA278 Advanced Residential Applications and Case Studies
1
+ REA281 Principles of Real Estate Law 3
+ REA282 Real Estate Finance 3
Restricted Electives
OAS108 Business English 3
GBS151 Introduction to Business 3
MGT251 Human Relations in Business 3
MKT271 Principles of Marketing 3
REA179 Real Estate Principles I 3
+ REA180 Real Estate Principles II 3
+ REA285 Real Estate Selling 3
+ REA288 Real Estate Investment Strategy 3
CSM/TQM101 Quality Customer Service 3

TQM240 Project Management in Quality Organizations 2
General Education Requirements
Credits: 22-27
General Education Core
Credits: 12-17
First-Year Composition
Credits: 6
Any approved general education course from First Year
Composition area 6
Oral Communication
Credits: 3
Any approved general education course from the Oral
Communication area 3
Critical Reading
Credits: 0-3
CRE101 College Critical Reading (3) OR
Equivalent as indicated by assessment 0-3

## Mathematics

Credits: 3-5
Any approved general education course from the Mathematics area 3-5

General Education Distribution
Credits: 10
Humanities and Fine Arts
Credits: 3
Any approved general education course from the Humanities and Fine Arts area 3

Social and Behavioral Sciences
Credits: 3
ECN211 Macroeconomic Principles (3) OR
ECN212 Microeconomic Principles (3) 3
Natural Sciences
Credits: 4
Any approved general education course from the Natural
Sciences area 4

## Certificate of Completion (CCL) in Licensed Real Estate Appraiser

Total Credits: 30-31
Major Code: 5615

Description: The Certificate of Completion (CCL) in Licensed Real Estate Appraiser program 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.

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Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-43/gedt-43.html

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/course-sequences/licensed-real-estate-appraiser-ccl

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

+ indicates course has prerequisites and/or corequisites.
Program Prerequisites:
None

Required Courses
Credits: 30-31
BPC110 Computer Usage and Applications (3) OR
CIS105 Survey of Computer Information Systems (3) 3

OAS108 Business English (3) OR
+ENG101 First-Year Composition (3) OR
+ENG107 First-Year Composition for ESL (3) 3

ECN211 Macroeconomic Principles (3) OR
ECN212 Microeconomic Principles (3) 3

## REA282 Real Estate Finance 3

+GBS219 Statistics for Real Estate Appraisers (3) OR
+GBS221 Business Statistics (3) OR
+PSY230 Introduction to Statistics (3) AND
PSY231 Laboratory for Statistics (1) 3-4
+REA281 Principles of Real Estate law 3
REA270 Basic Appraisal Principles 2
+REA271 Basic Appraisal Procedures 2
+REA272 Uniform Standards of Professional Appraisal Practice (USPAP) 1
REA273 Residential Market Analysis Highest and Best Use 1
REA274 Residential Appraiser Site Valuation and Cost Approach 1
+REA275 Residential Sales Comparison and Income Approaches 2

REA276AA Residential Report Writing and Case Studies I 1
REA277 Statistics, Modeling and Finance 1
+REA278 Advanced Residential Applications and Case Studies 1

## Certificate of Completion (CCL) in Residential Appraisal Trainee

Total Credits: 15
Major Code: 5619N

Description: 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.

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/residential-appraisal-trainee-ccl

## Program Notes:

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

+ indicates course has prerequisites and/or corequisites.


## Program Prerequisites: None

## Required Courses

Credits: 15
REA179 Real Estate Principles I 3
REA270 Basic Appraisal Principles 2
REA271 Basic Appraisal Procedures 2

+ REA272 Uniform Standards of Professional Appraisal Practice (USPAP) 1
REA273 Residential Market Analysis Highest and Best Use 1
REA274 Residential Appraiser Site Valuation and Cost Approach 1
+ REA275 Residential Sales Comparison and Income
Approaches 2
REA276AA Residential Report Writing and Case Studies I 1
REA277 Statistics, Modeling and Finance 1
REA278 Advanced Residential Applications and Case Studies 1


## Certificate of Completion (CCL) in Real Estate

Total Credits: 18
Major Code: 5653

Description: 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

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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).

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/ge/gedt-66/gedt-66.html

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/real-estateccl

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

+ indicates course has prerequisites and/or corequisites.
Program Prerequisites:
None
Required Courses
Credits: 18
REA179 Real Estate Principles I 3
REA180 Real Estate Principles II 3
+ REA281 Principles of Real Estate Law 3
+ REA282 Real Estate Finance (3) OR
+ REA285 Real Estate Selling (3) 3
+ REA283 Property Management (3) AND
+ REA288 Real Estate Investment Strategy (3)
OR
REA270 Basic Appraisal Principles (2) AND
REA273 Residential Market Analysis Highest and Best Use (1)
AND
+ REA271 Basic Appraisal Procedures (2) AND
REA274 Residential Appraiser Site Valuation and Cost Approach
(1) 6


## Certificate of Completion (CCL) in Real Estate: Prelicense <br> Total Credits: 6.5 <br> Major Code: 5139 N

Description: 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.

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/detail/real-estate-prelicenseccl

Program Notes:
Students must earn a grade of "C" or better for each course listed in the program.

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

+ indicates course has prerequisites and/or corequisites.

Admission Criteria: High school diploma or GED or equivalent. Current ASSET/COMPASS/ACCUPLACER placement tests reflecting eligibility for the following:

CRE101 College Critical Reading OR Equivalent

ENG101 First Year Composition OR
ENG107 First-Year Composition for ESL OR Equivalent

MAT112 Mathematical Concepts and Applications OR
Completion of higher level mathematics course OR
GBS131 Business Calculations
Program Prerequisites
None
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 Certificates/Degrees
- Associate in Applied Science in Veterinary Technology

Department Contact Information: (480) 461-7144

## Associate in Applied Science (AAS) in Veterinary Technology/Animal Health <br> Total Credits: 73-78 <br> Major Code: 3015

Description: The Associate in Applied Science (AAS) in Veterinary Technology/Animal Health program prepares students for careers in veterinary technology which require knowledge and skills involving basic medical sciences, animal care and management, veterinary medical care, and client communications and service. Veterinary technicians function as the paraprofessional assistants to veterinarians, biomedical

## CAREER AND TECHNICAL EDUCATION

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.

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/veterinary-technologyanimal-health-aas

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/suffixed courses.

Admission Criteria: High school graduation or G.E.D. equivalency.
Completion of Program Prerequisites.
Formal application and admission to the Veterinary Technology/ Animal Health program.

## Program Prerequisites

Credits: 20-25
VET101 Introduction to Veterinary Technology 3

+ BIO181 General Biology (Majors) I 4
+ CHM130 Fundamental Chemistry (3) AND
+ CHM130LL Fundamental Chemistry Laboratory (1) 4
+ CRE101 College Critical Reading and Critical Thinking (3) OR
equivalent as indicated by assessment 0-3
+ ENG101 First Year Composition (3) OR
+ ENG107 First Year Composition for ESL (3) 3


## + ENG102 First Year Composition (3) OR

+ ENG108 First Year Composition for ESL (3) OR
+ ENG111 Technical and Professional Writing (3) 3
+ MAT120 Intermediate Algebra (5) OR
+ MAT121 Intermediate Algebra (4) OR
+ MAT122 Intermediate Algebra (3) 3-5
Required Courses
Credits: 44
+ VET132 Veterinary Office Management and Client
Communication 3

CIS105 Survey of Computer Information Systems (3) OR BPC110 Computer Usage and Applications (3) 3
+VET112 Animal Nursing I 2
+VET150 Veterinary Anatomy and Physiology I 3
+VET150LL Veterinary Anatomy and Physiology Laboratory I 1
+VET151 Veterinary Anatomy and Physiology II 3
+VET200 Veterinary Clinical Pathology Methods 3
+VET210 Animal Nursing II 2
+VET220 Veterinary Pharmacology for the Veterinary Technician 3
+VET223 Animal Diseases 3
+VET230 Veterinary Radiology and Imaging for the Veterinary
Technician 3
+VET240 Veterinary Anesthesia, Surgery, and Emergency
Nursing 3
+VET250AA Veterinary Technician Internship 0.5
+VET250AB Veterinary Technician Internship 0.5
+VET250AC Veterinary Technician Internship 0.5
+VET250AD Veterinary Technician Internship 0.5
+VET 235 Veterinary Technician Proficiency 2
+BIO205 Microbiology 4
EQS105 Principles of Equine Science 3
+EQS298AA Special Projects 1
General Education Requirements Credits: 9
General Education Core
Credits: 3

First-Year Composition
Credits: 0
Met by any combination of ENG courses in the Program Prerequisites area

Oral Communication
Credits: 3
Any approved general education course in the Oral
Communication area
Critical Reading
Credits: 0
Met by CRE101 or equivalent as indicated by assessment in Program Prerequisites area

## Mathematics

Credits: 0
Met by MAT120 or MAT121 or MAT122 in Program
Prerequisites area
General Education Distribution
Credits: 6

Humanities and Fine Arts
Credits: 3
Any approved general education course in the Humanities, Arts and Design area

Social and Behavioral Sciences
Credits: 3
ECN100 Economics in American Society (3) OR

## CAREER AND TECHNICAL EDUCATION

ECN211 Macroeconomic Principles (3) OR
ECN212 Microeconomic Principles (3)
Natural Sciences
Met by BIO181 in Program Prerequisites area

## Welding Certificates/Degrees

-Associate in Applied Science in Welding Technology
-Certificate of Completion in Welding
-Certificate of Completion in Manufacturing Welding

Department Contact Information: (480) 461-7144

## Associate in Applied Science (AAS) in Welding

Total Credits: 64-73
Major Code: 3244
Description: The Associate in Applied Science (AAS) in Welding program prepares students to work in the field using 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 Metal inert Gas (MIG) and Tungsten Inert Gas (TIG).

Suggested Course Plan Sequenced by Semester
https://www.mesacc.edu/programs/course-sequences/weldingaas

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/suffixed courses.


## Program Prerequisites

Credits: 0-3
GTC107 Technical Mathematics I (3) OR
Satisfactory score on Technical Mathematics placement test 0-3
Required Courses
Credits: 43
DFT110 Technical Drafting I 3
DFT114 Machine Trades Blueprint Reading 3

GTC106AA Industrial Safety 2

+ GTC108 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

WLD106AA Arc Welding 5

+ WLD225 Welding Inspection and Quality Control 3
Students must select three (3) courses for a total of 15 credits from the following courses:
+WLD106AB Arc Welding 6010 3G-4G 5
+WLD106AC Arc Welding 7018 3G-4G 5
+WLD106AD Arc Welding 6010, 7018 5G-6G 5
+WLD206AA GMAW and ATAW Welding 5
+WLD206AB Advanced GMAW and FCAW Welding 5
+WLD206AC Advanced GTAW Non-Ferrous Welding 5
+WLD206AD Advanced GRAW Ferrous Welding 5
+WLD208AA Advanced Arc Welding - 3G Certification 5


## Restricted Electives

Credits: 3-5
Select any prefixed DFT, GTC, and WLD courses except courses used to satisfy Required Courses area.

DFT+++++ Any DFT Drafting Technology course(s)
GTC+++++ Any GTC General Technology course(s)
QCT+++++ Any QCT Quality Control Technology course(s)
WLD+++++ Any WLD Welding Technology course(s)
General Education Requirements
Credits: 18-22
General Education Core
Credits: 9-12

First-Year Composition
Credits: 6
ENG101 First-Year Composition (3) OR
ENG107 First-Year Composition for ESL (3) AND
ENG102 First-Year Composition (3) OR
ENG108 First-Year Composition for ESL (3) OR
ENG111 Technical and Professional Writing (3)
Oral Communication
Credits: 3
COM100 Introduction to Human Communication (3) OR
COM110 Interpersonal Communication (3) OR
COM230 Small Group Communication (3)
Critical Reading
Credits: 0-3
CRE101 College Critical Reading (3) OR
Equivalent as indicated by assessment.
Mathematics
Credits: 0
Met by GTC108 in Required Courses area.
General Education Distribution
Credits: 9-10

## CAREER AND TECHNICAL EDUCATION

## Humanities and Fine Arts

Credits: 2-3
Any approved general education course from the Humanities, Arts and Design area.

Social and Behavioral Sciences Credits: 3
Any approved general education course from the SocialBehavioral Sciences area.

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

Certificate of Completion (CCL) in Welding
Total Credits: 24-26
Major Code: 5444

Description: The Certificate of Completion (CCL) in Welding develops skills in oxyacetylene (gas) and electric (arc) welding with emphasis on preparing for the American Welding Society Arc certification exam.

Consumer Program Costs and Career Information https://www.mesacc.edu/programs/gainful-employment

Suggested Course Plan Sequenced by Semester https://www.mesacc.edu/programs/course-sequences/welding-ccl

Program Notes:

+ indicates course has prerequisites and/or corequisites.
Students must earn a grade of "C" or better for all courses within the program.


## Program Prerequisites:

None

## Required Courses

Credits: 24-26
DFT114 Machine Trades Blueprint Reading 3
GTC216 Properties of Materials 3
WLD106AA Arc Welding 5

Any combination of WLD courses listed of combined 13-15
credits or more:
WLD101 Welding I 3
+WLD106AB Arc Welding 6010 3G-4G 5
+WLD106AC Arc Welding 7018 3G-4G 5
+WLD106AD Arc Welding 6010, 7018 5G-6G 5
+WLD206AA GMAW and ATAW Welding 5
+WLD206AB Advanced GMAW and FCAW Welding 5
+WLD206AC Advanced GTAW Non-Ferrous Welding 5
+WLD206AD Advanced GRAW Ferrous Welding 5
+WLD208AA Advanced Arc Welding - 3G Certification 5 +WLD225 Welding Inspection and Quality Control 3

## COURSE DESCRIPTIONS



AAA-Advancing Academic Achievement AAA115 Creating College Success

## 1 Credits 1 Periods

Strategies to create success in college. Methods for selecting and developing effective academic strategies, increasing selfawareness and developing self-management strategies. Elements of college resources and relationships with others explored in support of students` educational experience. Prerequisites: None.

## AAA150 Strategies for College Success

## 3 Credits 3 Periods

Focus on increasing student success through college orientation and personal growth, study skills development, and educational and career planning. Prerequisites: None.

## ACC-Accounting

## ACC107 Bookkeeping Theory and Practice <br> 4 Credits 5 Periods

Fundamental accounting practices; application to retail stores, professional firms, and personal service operations. Prerequisites: None.

## ACC109 Accounting Concepts

3 Credits 3 Periods
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 Accounting Principles I

## 3 Credits 3 Periods

Fundamental theory of accounting principles and procedures. Prerequisites: None.

## ACC112 Accounting Principles II

3 Credits 3 Periods
Continuation of the fundamental theory of accounting principles and procedures, including interpretation of general purpose financial statements. Prerequisites: ACC111 with a grade of "C" or better, or permission of Department or Division.

## ACC115 Computerized Accounting

2 Credits 3 Periods
Mastery of a microcomputer accounting system including the general ledger, accounts receivable, accounts payable and payroll. Prerequisites: ACC107 or ACC111 or ACC211 or ACC230, or permission of Instructor.

## ACC121 Income Tax Preparation

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

## ACC211 Financial Accounting

3 Credits 3 Periods
Introduction to theory and practice in the preparation and interpretation of general purpose financial statements. Prerequisites: None.

## ACC212 Managerial Accounting

3 Credits 3 Periods
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).

## ACC230 Uses of Accounting Information I

## 3 Credits 3 Periods

Introduction to the uses of accounting information for internal and external purposes with emphasis on financial statement analysis. Prerequisites: A grade of "C" or better in (ACC111 or ACC211) or [(ENG101 or ENG107) and MAT151 and CRE101] or (appropriate test scores on the District English, Reading, and Math placement exams).

## ACC240 Uses of Accounting Information II

3 Credits 3 Periods
Introduction to the uses of accounting information for internal and external purposes with emphasis on analysis for use by management. Prerequisites: ACC230.

[^2]
## ACC282AB Volunteerism Accounting: Service Learning Experience <br> 2 Credits 2 Periods

Service learning field experience within private/public agencies, educational institution, and citizen volunteer groups. ACC 282 AB may be repeated for a total of six (6) ACC282 credit hours. Standard grading available according to procedures in college catalog. Prerequisites: ACC111 or (ACC230 and ACC250) and permission of Instructor.

## AFR-African American Studies <br> AFR110 Introduction to African-American Studies C

3 Credits 3 Periods
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 Ethnic Relations in the United States

 C, H, SB3 Credits 3 Periods
Basic concepts and processes, including historic overview, of interethnic relations in the United States: culture, race, ethnicity, ethnocentrism, prejudice, discrimination, racism, assimilation, acculturation, and individual and group responses to interethnic contact. Cultural knowledge and intercultural communication skills and perspectives as fundamental tools for successful management of social relations in a multicultural world. Prerequisites: None.

## AGB-Agribusiness

## AGB130 Establishing and Running an Agribusiness

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

## AGB132 Agribusiness and Management

3 Credits 3 Periods
Application of management principle skills in day-to-day operations for decision-making techniques base on collection, use and analysis of financial, employee, and customer data to determine and evaluate the daily operations of an agribusiness venture. Prerequisites: None.

## AGB139 Agribusiness Computer Operations

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

## AGB142 Floriculture

3 Credits 5 Periods
Principles and species of floriculture Includes instruction in cultural and production requirements of cut flowers and foliage. Covers general production information and basic plant physiology principles, propagation, production temperatures, plant nutrients, pest management, and greenhouse construction and operations. Prerequisites: None.

## AGB144 Agriculture Processing

3 Credits 5 Periods
Agricultural processing and the meat industry as a business enterprise. Carcass evaluation, grading, judging for cut ability and quality, cut identification, meat cutting, wrapping, freezing, and storing. Prerequisites: None.

## AGB231 Marketing of Agricultural Products

3 Credits 3 Periods
Principles of agricultural marketing including consumer demand, economic system fundamentals, functions and methods of marketing agricultural commodities, market planning, and promoting and selling in the agricultural domain. Prerequisites: None.

## AGB290 Internship

3 Credits 6 Periods
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.

## AGB296WA Cooperative Education

1 Credits 5 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: 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 (students' present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.

## AGB296WC Cooperative Education

3 Credits 15 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: 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 (students' present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.

## AGL-Agricultural Landscape

## AGL181 Landscape Construction Techniques

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

## AGL189 Landscape Design I

3 Credits 6 Periods
Introduction to landscape design with an emphasis on residential and small scale projects. Application of design processes from inventory and analysis through design and development including program, measured base, study diagrams, rendered and colored plans, and sectional elevations. Architectural communication developed through hand sketch and hand drafting techniques with practice in client interview and design presentation. Prerequisites: None.

## AGL190 Landscape Design II <br> 3 Credits 6 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: 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 (students present job may qualify or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. Prerequisites: AGL189 or permission of Instructor.

## AGL296WA Cooperative Education

1 Credits 5 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: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.

## AGS-Agricultural Science

## AGS164 Plant Growth and Development

 SQ4 Credits 6 Periods
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.

## AGS165AA Fall Sustainable Crop Production

3 Credits 2 Periods
Study of the importance of Fall-planted crops for food, feed, and fiber. Cultural practices for raising the major crops in the State of Arizona, including planting, environmental modifications, harvesting, handling and quality control with an emphasis on sustainability. Prerequisites: AGS164 or permission of Instructor.

## AGS165AB Spring Sustainable Crop Production

3 Credits 2 Periods
Study of the importance of spring planted crops for food, feed, and fiber. Cultural practices for raising the major crops in the State of Arizona, including planting, environmental modifications, harvesting, handling and quality control with an emphasis on sustainability. Prerequisites: AGS164 or permission of Instructor.

## AGS166 Aquaponics

3 Credits 5 Periods
Establishment, care, and selection of facilities for commercial production of animals and plants in a water-based closed system. Prerequisites: None.

## AGS168 Grounds Equipment Management

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

## AGS182 Gardening Practices and Techniques

2 Credits 1 Periods
Cultural practices of vegetables, fruits and ornamental plants as they relate to organic and inorganic gardening. Prerequisites: None.

## AGS183 Urban Plant Identification and Use

3 Credits 3 Periods
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

 3 Credits 2 PeriodsPrinciples and practices of greenhouse operation; control of environmental factors and cultural practices affecting the production of greenhouse crops. Prerequisites: None.

## AGS187 Indoor Foliage Plants

## 3 Credits 3 Periods

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

## AGS192 Urban Plant Care

3 Credits 5 Periods
Establishment, care and preservation of ornamental trees, shrubs, vines, and ground cover plants used in landscape for human wellbeing and pleasure. Prerequisites: None.

## AGS260 Soils

SQ
4 Credits 3 Periods
Fundamental properties of the physical, chemical, and biological relation of soil to plant growth. Evaluation of the human impact on soil health. Prerequisites: CHM130 or permission of Instructor.

## AGS262 Irrigation Design, Installation, Operation, and Trouble Shooting

3 Credits 5 Periods
Design, installation, maintenance and troubleshooting of sprinklers, drip, and flood systems. Use of time clocks, pumps, filters, backflow devices, and other equipment to deliver water to the landscape. Types of water and their use in the landscape. Prerequisites: (AGS164 and AGL189) or permission of Instructor.

## AGS268 Integrated Pest Management in the Cultivated Environment

4 Credits 6 Periods
Identification and management of pests of the garden, farm and landscape in the arid west. Special emphasis is given to safe handling of pesticides Prerequisites: None

## AGS282AA Service-Learning Experience in Agriculture

1 Credits 1 Periods
Unpaid Service-Learning (SL) experience, completed with approved community partner. AGS282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. Prerequisites: Permission of Instructor.

## AGS284 Lawn and Turf Care

3 Credits 3 Periods
Factors that affect the establishment and maintenance of turf grasses. Includes budgets, schedules and selection of equipment. Prerequisites: None.

## AGS285 Propagation of Horticultural Plants

3 Credits 2 Periods
Principles and processes of propagation of crops using seed, budding, grafting, and cuttings in greenhouse structures and open ground. Prerequisites: None.

## AGS290 Internship

3 Credits 6 Periods
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.

## AGS296WA Cooperative Education

1 Credits 5 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: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.

## AGS296WC Cooperative Education <br> 3 Credits 15 Period

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

## AGS298AA Special Projects

1 Credits 1 Periods
Organized and tailored around 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.

## AGS29AC Special Projects

3 Credits 3 Periods
Organized and tailored around 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.

## AHU-Arabic Humanities

## AHU245 Arabic Culture and Islam G, HU <br> 3 Credits 3 Periods

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

C, SB
3 Credits 3 Periods
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.

## AIS105 Introduction to American Indian Studies C

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.

## AIS110 Navajo Government

## C, H

3 Credits 3 Periods
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.

## AIS141 Sovereign Indian Nations

## C, H, SB

3 Credits 3 Periods
Explores the sovereign status of American Indians as it relates to social relationships, traditions, and culture of American Indians. Reviews historic relations with non-Indian societies, the development of federal Indian law, tribal governments and their functions. Examines treaty rights, environmental issues, public policy, economic development, other current issues, and contemporary social problems. Prerequisites: None.

## AIS170 American Indian History of the Southwest

 C, H3 Credits 3 Periods
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

C, HU, L
3 Credits 3 Periods
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.

## AJS-Administration of Justice <br> AJS101 Introduction to Criminal Justice SB

3 Credits 3 Periods
An introduction to crime and society's responses to it. Examines the nature and causes of crime, the criminal law, constitutional safeguards, and the organization and operation of the criminal justice system including the police, courts, jails, prisons, probation and parole departments, and community corrections agencies. Covers the history of the criminal justice system, terminology and career opportunities. Prerequisites: None.

## AJS107 Patrol Procedures

3 Credits 3 Periods
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

3 Credits 3 Periods
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 and 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

3 Credits 3 Periods
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 Criminal Justice Crime Control Policies and Practices

3 Credits 3 Periods
Focus on changing the distribution of crime opportunities rather than offender motivation. Topics include application of situational crime prevention strategies, problem-oriented crime control approaches, hot spots policing, defensible space, and crime prevention through defensible space. Prerequisites: None.

## AJS119 Computer Applications in Justice Studies

3 Credits 4 Periods
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 HU

## 3 Credits 3 Periods

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

1 Credits 1 Periods
Moral aspects, legal provisions, safety precautions and restrictions covering the use of firearms, and the firing of sidearms. Prerequisites: None.

## AJS152 First Aid

3 Credits 3 Periods 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

## 1 Credits 1 Periods

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.

## AJS162 Domestic Violence

## 3 Credits 3 Periods

Explores domestic violence as a social problem within the United States from historical, cultural, political, legal, and law enforcement perspectives Provides an overview of theories, definitions and causes of, and interventions for domestic violence involving spousal, elder and child abuse along with teen dating violence Examines the dynamics and effects of domestic violence Addresses research issues and contemporary domestic violence policy Prerequisites: None

## AJS192 Serial Killers and Mass Murderers <br> \section*{3 Credits 3 Periods}

The study of serial killers, mass murderers and their victims. Examines the history and frequency of these crimes, profiles the killers and their victims, explores theories of causation, and discusses the problems and techniques of investigation, prosecution,
punishment, and prevention. Prerequisites: None

## AJS198AB Special Topics in the Administration of <br> Justice

1 Credits 1 Periods
Explores special topics related to the administration of justice with an emphasis on current issues. AJS198AB may be repeated for a total of nine (9) credit hours. Prerequisites: None.

## AJS200 Current Issues in Criminal Justice

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

## AJS201 Rules of Evidence

3 Credits 3 Periods
A practical insight into the rules of evidence to include how to recognize evidence: the general rules governing admissibility of evidence; the "hearsay" rule and its exceptions; the use of documentary evidence, written memoranda, photographs, and recordings; corpus delicti; opinion evidence, circumstantial evidence, evidential privileges. Required in AJS curriculum. Prerequisites: None.

## AJS205 Criminal Justice Report Writing

## 3 Credits 3 Periods

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.

## AJS210 Constitutional Law

3 Credits 3 Periods
An examination of the U.S. Constitution as it relates to the law enforcement function Includes statutory law and judicial decisions governing the areas of arrest, search and seizure, interrogations and confessions, self-incrimination and other constitutional guarantees. Required in AJS curriculum. Prerequisites: None.

## AJS212 Juvenile Justice Procedures

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

## AJS215 Criminalistics: Physical Evidence <br> 3 Credits 3 Periods

The scientific analysis and examination of physical evidence with emphasis on scientific investigation, recognition, collection, and preservation of evidence. Topics include fingerprints, shoe prints, tool marks, firearms identification, paint chips and arson. Prerequisites: None.

## AJS216 Criminalistics: Biological Evidence

3 Credits 3 Periods
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.

## AJS217 Court Procedures

3 Credits 3 Periods
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.

## AJS220 Organized Crime

## 3 Credits 3 Periods

Examines the history, structure and activities of organized crime groups. Reviews theories explaining the existence of organized crime and enforcement strategies used to combat it. Prerequisites: None.

## AJS225 Criminology

 SB3 Credits 3 Periods
Study of deviance, society's role in defining behavior; theories of criminality and the economic, social, and psychological impact of crime; relationships between statistics and crime trends. Examines crime victimization and the various types of crime and categories of offenders. Required in the AJS curriculum. Prerequisites: None.

## AJS230 The Police Function

## 3 Credits 3 Periods

Theories of procedures and methods of operations of public police with emphasis on discretionary powers available to the working police officer. Career opportunities and current trends in law enforcement presented. Prerequisites: None.

## AJS240 The Correction Function

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

## AJS241 Police Photography

## 3 Credits 3 Periods

Emphasis on proper procedure for photographing crime scenes, accident scenes, and laboratory specimens. Discussion of photographic techniques, equipment, lighting techniques, aerial photography, video and motion pictures, macro and micro photography, filters, and preparation for court presentation using selected simulations. Prerequisites: None.

## AJS258 Victimology and Crisis Management <br> C, SB <br> 3 Credits 3 Periods

Victimology, the criminal justice system, techniques of crisis intervention, and the importance of a multicultural and global perspective. Includes sexual assault, family violence, posttraumatic stress disorder, the role of substance abuse, effective coping skills, appropriate community resources and the responsiveness of the justice system. Prerequisites: None.

## AJS260 Procedural Criminal Law

3 Credits 3 Periods
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.

## AJS270 Community Relations

SB
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.

## AJS282AA Service-Learning Experience in Administration of Justice

1 Credits 1 Periods
Unpaid Studies-Learning (SL) experience, completed with approved community partner. AJS282AA may be repeated for a total of six (6) credit hours. Standard grading is available according to procedures outlined in catalog. Prerequisites: Permission of Instructor.

## AJS290AI Theories of Criminal Behavior

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

## AJS290AU Child Abuse Investigation

1 Credits 1 Periods
Definition and investigation of the causes and effects of child abuse. Prerequisites: None.

## AJS290AW Narcotics and Dangerous Drugs

1 Credits 1 Periods
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 Credits 1 Periods Current issues in probation and parole, including sentencing, parole revocation, and administrative procedure. Prerequisites: None.

## AJS290BH Sex Crimes Investigation

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

## AJS290BU Family Violence

1 Credits 1 Periods
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.

## ANH-Animal Health

ANH200 Veterinary Clinical Pathology Methods 3 Credits 3 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 3 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 2 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 <br> 3 Credits 3 Periods

Veterinary and radiographic terminology; radiation and electrica 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

3 Credits 3 Periods
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 Veterinary Technician Internship

0.5 Credits 0.5 Periods

Provides Veterinary Technology program students with offcampus 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 decisionmaking 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 Veterinary Technician Internship

 0.5 Credits 0.5 Periods Provides Veterinary Technology program students with offcampus 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 Veterinary Technician Internship

 0.5 Credits 0.5 PeriodsProvides 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 decisionmaking 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 Veterinary Technician Internship

0.5 Credits 0.5 Periods

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. Course Notes: ANH250AD allows the last-semester Veterinary Technology Program student to elect to repeat the offcampus clinical experience of either ANH250AA, ANH250AB, or ANH250AC, depending upon their career interest. Prerequisites: ANH250AC.

## Animal Science ANS

## ANS110 Introduction to Animal Science

3 Credits 2 Periods
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.

## ANS112 Animal Science and Health Practices

2 Credits 2 Periods
Training in and supervised performance of skills necessary in the husbandry and clinical care and treatment of animals. Occupational hazards and safety in livestock, companion animal, and laboratory animal facilities. Introduction to medical terminology. Restraint and handling, feeding and housing of a variety of animal species. Physical examination of various species of animals. Principles of sanitation, disinfection, sterilization, and aseptic technique. Principles and techniques of medication administration, fluid therapy, and vaccination. Familiarization with operation of various types of animal care equipment. Introduction to laboratory techniques. Professional ethics and the human-animal bond. Prerequisites: ANS110.

## ANS212 Livestock Production and Management

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

## ANS222 Animal Anatomy and Physiology

3 Credits 3 Periods
Comparative evaluation of the anatomy and physiological functions of various body systems of livestock, companion animals, and laboratory animals. Course Notes: 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<br>1 Credits 3 Periods<br>Laboratory experience in support of ANS222. Includes dissection of preserved animal specimens. Prerequisites: None. Corequisites: ANS222.

## ANS223AA Animal Diseases

## 3 Credits 5 Periods

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).

## ANS296WA Cooperative Education

## 1 Credits 5 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: Completion of 12 college credits min 2.6 GPA and be able to obtain a position related to academic or career goals or permission of Instructor. Corequisites: At least 1 class related to major or career interest or with permission of the Instructor.

## ANS298AA Special Projects

1 Credits 1 Periods
Organized and tailored around 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.

## APT-Automotive Performance Technology

## APT101 Automotive Service Operations

2 Credits 2 Periods
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 Internal Combustion Engines Theory

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

## APT121 Auto Transmission (General Motors)

3 Credits 5 Periods
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.

## APT122 Auto Transmission (Ford)

## 3 Credits 5 Periods

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

## APT123 Auto Transmission (Chrysler)

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

## APT131 Automotive Power Trains

6 Credits 3 Periods
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 Alignment, Steering, and Suspension

6 Credits 3 Periods
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 Automotive Brake Systems

## 4 Credits 2 Periods

Designed for beginning automotive students. Fundamentals of drum, disc, and ABS brakes Includes training in diagnosis, testing, service, and repair. Prerequisites: None.

## APT161 Auto Electrical/Electronic Systems I

4 Credits 2 Periods
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 Automotive Air Conditioning

4 Credits 2 Periods
Designed for beginning automotive students. Theory and principles of ventilation, heating, automotive refrigeration, vacuumelectric controls, and automatic temperature control systems. Includes training in diagnosis, testing, service and repair. Prerequisites: None.

## APT181 Engine Performance and Diagnosis I

6 Credits 3 Periods
Designed for beginning automotive students. Engine construction and operating principles, including lubrication, cooling, induction, exhaust, fuel, and ignition systems. Includes training in diagnosis, testing, service, and repair. Prerequisites: None.

## APT262 Auto Electrical/Electronic Systems II

 4 Credits 2 PeriodsDesigned for experienced students. This course develops knowledge of body control modules including skill development, diagnosis, testing, service, and repair of the following systems - advanced lighting circuits, vehicle stability control, traction control, basic and advanced climate control systems, integrated safety systems, collision avoidance systems, start-stop technology, hybrid technology, mobile connectivity, use of Digital Multi Meters (DMM) and automotive oscilloscopes. Prerequisites: APT161 or permission of Instructor.

## APT282 Engine Performance and Diagnosis II

 6 Credits 3 PeriodsDesigned for the experienced engine performance student. This course will include training in fuel systems, emission systems, ignition systems, turbocharging, computerized engine controls and engine driveability. Also, training in diagnosis, testing, service, repair, and documenting for customer understanding using the 3C's which are Concern, Cause and Correction will be addressed in this course. Prerequisites: APT181 or permission of Instructor.

## ARB-Arabic

## ARB101 Elementary Arabic I

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

## ARB102 Elementary Arabic II

## 4 Credits 5 Periods

A continuation of ARB101. Continued study of grammar and vocabulary, with emphasis on pronunciation and speaking skills. Prerequisites: ARB101 Completion of prerequisites within the last three years is required.

## ARB201 Intermediate Arabic I

G
4 Credits 5 Periods
Review of essential grammar of the Arabic language and study of the Arabic culture. Continued practice and development of reading, writing, and speaking skills. Emphasis on both fluency and accuracy in the spoken language. Prerequisites: ARB102 or permission of Department or Division. Completion of prerequisites within the last three years is required.

## ARC-Architecture

## ARC100 Introduction to Environmental Design 3 Credits 6 Periods

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 impacts design. Prerequisites: None.

## ARC120 Design Fundamentals I

## 3 Credits 6 Periods

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.

## ARC140 Rendering and Portfolio Development <br> \section*{3 Credits 6 Periods}

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.

## ARC160 Site Planning

## 3 Credits 6 Periods

Emphasis on the basic art of site planning, using professional design techniques and principles of architecture to develop site plans. Selection of materials, awareness of problems, and emphasis on the production of site plan drawings using board and/or computer aided drafting. Prerequisites: DFT122 or permission of Program Director.

## ARC163 Commercial Architectural Drafting

## 3 Credits 6 Periods

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.

## ARC164 Advanced Commercial Architectural Drafting

 3 Credits 6 PeriodsFurther 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.

## ARC165 Introduction to Architecture Professional Practice and Ethics

## 3 Credits 3 Periods

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.

## ARC225 Fundamentals of Architectural Detailing

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

## ARC250 Basic Revit

3 Credits 6 Periods
Basic skills required to complete architectural drawings with Revit software; simplified overview of the software program and operations gained through completing typical plan, ARC250 may be repeated for a total of six (6) credit hours related components. Prerequisites: None. ARC141 or ARC142 or previous AutoCAD/ industry experience recommended.

## ARC251 Intermediate Revit

3 Credits 6 Periods
Comprehensive use of Revit Design Development tools through the development of 3-D model(s) in working drawing and rendered formats. Includes completing a set of construction documents from creating walls, incorporating doors, windows, floor, stairs, etc., to adding views and annotation to various sheets and coordinating those sheets within the finished set. Course Notes:
ARC251 may be repeated for a total of six (6) credit hours. Prerequisites: None. ARC250 or previous architectural and CAD experience strongly recommended.

## ARC265 Sketchup I: Introduction to Sketchup

3 Credits 6 Periods
Provides students with introductory level instruction utilizing Sketchup rendering software for school and workplace applications. Addresses basic drawing/rendering commands, accessing external drawing files, and plotting through the creation of both three-dimensional schematic and rendered interior and exterior building views. Course Notes: ARC265 may be repeated for a total of six (6.0) credits. Prerequisites: None. Previous CAD experience recommended but not required.

## ARC282AC Volunteerism for Architecture: A Service Learning Experience

3 Credits 3 Periods
Service-learning field experience within private/public agencies and citizen volunteer groups
ARC282AC may not repeat specific assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in college catalog. Prerequisites: Permission of Department or Division.

## ARC290AC Architecture Internship

3 Credits 3 Periods
Architecture internship office and field experience with private agencies, public agencies, or citizen volunteer groups. Course Notes: ARC290AC 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.

## ARC296WC Cooperative Education

## 3 Credits 15 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: Completion of 12 college credits $\min 2.6 \mathrm{gpa}$ and obtain a position related to academic or career goals or permission of Instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.

## ARC298AA Special Projects

1 Credits 1 Periods
Organized and tailored around 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.

## ARH-Art History/Humanities

## ARH100 Introduction to Art

HU
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 H, HU <br> 3 Credits 3 Periods

History of art from prehistoric through medieval period. Prerequisites: None.

## ARH102 Renaissance through Contemporary Art H, HU <br> 3 Credits 3 Periods <br> History of art from around the world from the Renaissance through contemporary period. Prerequisites: None.

## ARH112 History of Modern Art

3 Credits 3 Periods
Development and significant aspects of modern art, including comparisons of relationships in expressionism, abstractions, fantasy, and art since mid-century. Prerequisites: None.

## ARH115 History of Photography

 HU3 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 Credits 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. ART106 may be repeated for a total of six (6) credit hours. Prerequisites: Permission of Instructor.

## 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: None.

## ART115 Three-Dimensional Design

3 Credits 6 Periods
Fundamental principles of three-dimensional design. Prerequisites: None.

## 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 photographic principles and techniques. Basic camera functions and controls. Experience in the image-making process by creating and editing photographs for various display environments. Introduction to the photographic aesthetic and photography's role in society. Course Notes: Camera required. Prerequisites: None.

## ART132 Photography II

## 3 Credits 6 Periods

Advanced camera and darkroom techniques. Aesthetic awareness with 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: ART132 or permission of Instructor.

## 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. Course Notes: Digital camera required. Prerequisites: None.

## 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. Semiadjustable, high-resolution digital camera is required. Prerequisites: ART142 or permission of Instructor.

## 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 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 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 <br> 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.

## ART192 Advanced Web Presentation Design

3 Credits 6 Periods
Advanced interactive application and training for Web designers and graphic artists using Quark, Illustrator, Photoshop, HTML Flash, Dreamweaver and Digital Video site optimization techniques. Development of design concepts for web pages that communicate and deliver Web content. Prerequisites: ART/MMT190 or permission of Instructor ART180AM and ART180AN suggested but not required.

## ART200 Animation and Interactivity

3 Credits 6 Periods
Animation and object-oriented programming concepts and techniques using industry standard authoring tools applied by the creative industry to animation productions, and interactive media. Introduction to animation and object-oriented programming concepts and techniques using industry standard authorizing tools. Includes tools used by the creative industry for animation productions and interactive media. Prerequisites: ART100 or permission of Instructor.

## 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.

## 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.

## ART262 Ceramics IV

3 Credits 6 Periods
Experimental work in clays and glazes. Prerequisites: ART261.

## ART263 Figure Painting

## 3 Credits 6 Periods

Study of the nude and clothed figure in painting with special attention upon relevant color palettes, direct and indirect figurative painting techniques, and development of anatomical knowledge and compositional structure. Students will draw upon both historical and contemporary modes of depicting the figure to develop a personalized approach to figure painting. Live models, photographs, drawings, Planes of the Head models, and the studio skeleton will be used as the basis of projects. Course Notes: Previous experience drawing from the live model recommended. Oil paint is the preferred medium but students may work in other painting media if they have previous experience. ART263 may be repeated for credit. Prerequisites: ART167 or permission of Instructor.

## ART265 Watercolor Painting III

3 Credits 6 Periods
Continuation of watercolor painting with emphasis on control and expression. Prerequisites: ART166.

## ART266 Watercolor Painting IV

3 Credits 6 Periods
Advanced problems directed toward more personal expression.
Prerequisites: ART265.

## ART267 Painting III

## 3 Credits 6 Periods

Development of materials and techniques of painting Individual problem-solving. Prerequisites: ART168 or permission of Instructor.

## ART268 Painting IV

3 Credits 6 Periods
Advanced problem in painting Study with greater emphasis on personal expression. Prerequisites: ART267 or permission of Instructor.

## ART270 Intermediate Computer Photographic Imaging <br> 3 Credits 6 Periods

Intermediate microcomputer-based photographic imaging techniques. Refinement of aesthetic awareness and personal expression. Prerequisites: ADA/ART177.

## ART274 Advanced Computer Photographic Imaging <br> 3 Credits 6 Periods

Advanced microcomputer-based photographic imaging techniques Advanced manipulation techniques of photographic images Continued development of aesthetic awareness and personal expression Prerequisites: ART270

## ART283 Computer Aided Graphic Arts II

## 3 Credits 6 Periods

Advanced skill development of graphic design through use of microcomputer. Emphasis on computer design and techniques for producing all types of camera-ready advertising art for printed matter and package design Includes illustration, typography, photo imaging, and color. Prerequisites: ADA/ART183, or permission of Instructor.

## ART289 Computer Illustration

## 3 Credits 6 Periods

Introduction to the multiple elements of commercial illustration using the microcomputer Basic foundation in the use of computer techniques including color paint and draw programs for the production of commercial illustrations for publications and printed matter. Use of and output Prerequisites or Corequisites: ART100 or permission of instructor

## ART290AA Studio Art

1 Credits 2 Periods
Studio course for art majors allowing continuation in a subject field. Course Notes: ART290AA may be repeated for credit. Prerequisites: Permission of Instructor.

## ART290AC Studio Art

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

## ART292AC Service-Learning Experience in Art

 3 Credits 3 PeriodsUnpaid Service-Learning (SL) experience, completed with approved community partner. Course Notes: ART292AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in college catalog. Prerequisites: Permission of Instructor.

## ART295BC Art Workshop/Seminar: Sculpture 3 Credits 6 Periods

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

1 Credits 2 Periods
Advanced level workshop seminar in art disciplines. Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair.

## ART295GB Art Workshop/Seminar: Ceramics

2 Credits 4 Periods
Advanced level workshop seminar in art disciplines. Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair.

## ART298AA Special Projects

1 Credits 1 Periods
Organized and tailored around 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.

## ASB-Anthropology: Social/Behavioral Science

## ASB100 Introduction to Global Health

G, SB
3 Credits 3 Periods
The study of human health patterns at an international and local scale. Focus on pressing global health challenges that the world faces today are examined from a broad social, ecological, and cultural context. Prerequisites: None.

## ASB102 Introduction to Cultural Anthropology

G, SB
3 Credits 3 Periods
Principles of cultural anthropology, with illustrative materials from a variety of cultures. The nature of culture; social, political, and economic systems; religion, aesthetics and language. Prerequisites: None.

## ASB202 Ethnic Relations in the States

C, H, SB
3 Credits 3 Periods
Basic concepts and processes, including historic overview, of interethnic relations in the States: culture, race, ethnicity, ethnocentrism, prejudice, discrimination, racism, assimilation, acculturation, and individual and group responses to interethnic contact. Cultural knowledge and intercultural communication skills and perspectives as fundamental tools for successful management of social relations in a multicultural world. Prerequisites: None.

## ASB211 Women in Other Cultures

G, HU, SB
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 Religions

G, HU
3 Credits 3 Periods
Origins 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

HU
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

 H, HU, SB3 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

 G, H, HU3 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 fragment societies. Examples drawn from North America, Central America, and South America. Prerequisites: None.

## ASB226 Human Impacts on Ancient Environments

 H, SB3 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

 SG4 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

H, SB
3 Credits 3 Periods
Anthropological perspective and comparative study of the cultures of prehistoric native peoples of the North American southwest. Prerequisites: None.

## ASB252 Sports and Culture

G, SB
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 <br> G, HU

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.

## ASB282AA Service-Learning Experience in Anthropol-

 ogy1 Credits 1 Periods
Unpaid Service-Learning (SL) experience, completed with approved community partner. ASB282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in college catalog. Prerequisites: Permission of Instructor.

## ASB282AB Service-Learning Experience in Anthropology

2 Credits 2 Periods
Unpaid Service-Learning (SL) experience, completed with approved community partner ASB282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in college catalog. Prerequisites: Permission of Instructor.

## ASB282AC Service-Learning Experience in Anthropology

3 Credits 3 Periods
Unpaid Service-Learning (SL) experience, completed with approved community partner. ASB282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in college catalog. Prerequisites: Permission of Instructor.

## ASB298AA Special Projects

1 Credits 1 Periods
Organized and tailored around 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.

## ASM-Anthropology: Science/Mathematics

ASM104 Bones, Stones, and Human Evolution SB, SG
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.

## ASM275 Introduction to Forensic Anthropology

 SB3 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.

## AST-Astronomy

## AST106 Life in the Universe

## SQ

3 Credits 3 Periods
Introduction to the search for life in the universe for the non-science major Earth's location in space and time, nature of life, light and the spectrum, origin and history of the universe, origin of life on Earth and possibility of life on other planets. Prerequisites: MAT090, MAT091, MAT092, or MAT093, or completion of higher level mathematics course, or satisfactory score on placement exam. General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: AST/GLG107.

## AST107 Life in the Universe Laboratory

SQ 1 Credits 3 Periods
Astronomy, Biology, and Planetary Science laboratory. Prerequisite or Corequisites: AST/GLG106. General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: AST/GLG106.

## AST111 Introduction to Solar System Astronomy

 SQ3 Credits 3 Periods Introduction to astronomy for the non-science major History of astronomy, properties of light, instruments, the solar system and nearby stars. Prerequisites: MAT092 or higher, or satisfactory score on district placement exam. General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: AST113.

## AST112 Introduction to Stars, Galaxies, and Cosmol-

 ogySQ
3 Credits 3 Periods
Introduction to astronomy for the non-science major. Structure and evolution of stars; star clusters; galaxies; cosmology. Prerequisites: MAT092 or higher, or satisfactory score on district placement exam. General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: AST114.

## AST113 Introduction to Solar System Astronomy <br> Laboratory

SQ
1 Credits 3 Periods
Astronomical observations and exercises to supplement AST111. Prerequisites or Corequisites: AST111. General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: AST111.

## AST114 Introduction to Stars, Galaxies, and Cosmology Laboratory <br> SQ

1 Credits 3 Periods
Astronomical observations and exercises to supplement AST112. Prerequisites or Corequisites: AST112. General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: AST112.

## AST282AA Service-Learning Experience in Astronomy

 1 Credits 1 PeriodsUnpaid Service-Learning (SL) experience, completed with approved community partner.
AST282AA may be repeated for a total of six (6) credit hours. Standard grading is available according to procedures outlined in catalog. Prerequisites: Permission of Instructor.

## AST282AB Service-Learning Experience in Astronomy

 2 Credits 2 PeriodsUnpaid Service-Learning (SL) experience, completed with approved community partner. AST282AB may be repeated for a total of six (6) credit hours. Standard grading is available according to procedures outlined in catalog. Prerequisites: Permission of Instructor.

## AST282AC Service-Learning Experience in Astronomy 3 Credits 3 Periods

Unpaid Service-Learning (SL) experience, completed with approved community partner. AST282AC may be repeated for a total of six (6) credit hours Standard grading is available according to procedures outlined in catalog. Prerequisites: Permission of Instructor.

## ATP-Automation Technology

## ATP101 Introduction to Automated Systems and Robotics

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

## ATP105 Engineering Documentation

## 2 Credits 2 Periods

Analysis and interpretation of engineering documentation, common to manufacturing processes. Prerequisites: None.

## ATP110 Basic Manufacturing Processes

2 Credits 2 Periods
Introduction to the traditional manufacturing processes used to cut, shape, process, and assemble materials into the tools and equipment used to support industry and consumer needs. Processes explored include machining, casting, welding, heat treating, coatings, and assembly. Prerequisites: None.

## ATP123 Electrical Wiring J-STD Soldering Certification

3 Credits 3 Periods
This course is an industrial certification for the full J-STD soldering certification, covering the soldering of wires, terminals, plated through hole (PTH), and surface mount technology (SMT), as well as cleanliness, inspection and the aerospace regulations addendum. Certification is verified by a certified IPC instructor. Prerequisites: Permission of Instructor.

## ATP130 DC Circuit Analysis

## 2 Credits 2 Periods

Direct current (DC) electric circuits Ohm's law, Kirchoff's laws, series, parallel and series-parallel circuits, network theorems, fundamentals of magnetism in electric circuits. Prerequisites: None.

## ATP135 AC Circuit Analysis

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

## ATP150 Fluid Power 1 - Hydraulics, Pneumatics, and Vacuum Concepts

2 Credits 3 Periods
Fundamental fluid power and vacuum for industry. Pneumatic, hydraulic, and vacuum system technologies with emphasis on assembly, integration, and measurement. Prerequisites: None.

## ATP160 Programmable Logic Controllers 1 - Introduction to Ladder Logic

3 Credits 3 Periods
Introductory lecture/laboratory class explores the origin and basic operation of programmable logic controllers (PLC) with laboratory exercises including wiring of hardware, ladder logic programming and basic troubleshooting concepts. Prerequisites or Corequisites: ATP135, or ELC119, or permission of Program Director.

## ATP175 Introduction to Motors and Motor Controls

 2 Credits 3 PeriodsIntroduction to direct current and alternating current (AC) motors, types of direct current and alternation motors. Prerequisites: None.

## ATP180 Programmable Logic Controllers 2 - HumanMachine Interfaces and Function Block Programming 2 Credits 3 Periods

Advanced lecture/laboratory class builds upon the foundations covered in introductory course, covering development and documentation of advanced ladder logic and function block programming, Programmable Logic Controller (PLC) control of variable frequency devices, and the installation and programming of Human Machine Interfaces (HMI). Prerequisites: ATP160 or permission of Program Director.

## ATP200 Sensors and Measurement

## 2 Credits 3 Periods

Applications of sensors and measurement including correct sizing and application. Prerequisites: ATP130 and ATP135, or permission of Instructor.

## ATP215 Digital and Analog Circuits

## 2 Credits 3 Periods

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 Fluid Power 2 - Automation Applications

 2 Credits 3 PeriodsApplication 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.

## ATP260 Industrial Automation System Integration 1

 2 Credits 3 PeriodsOverview of the evaluation and planning activities needed to establish a functioning automated manufacturing application. Prerequisites: ATP175 and ATP180, or permission of Instructor.

## ATP265 Industrial Automation System Integration 2

## 2 Credits 3 Periods

A coordinating course regarding the implementation of the planning, construction, and industrial control systems needed for the development of a functional automated system. Prerequisites: ATP260 or permission of Instructor.

## ATP290 Lean and Six Sigma Techniques

## 3 Credits 3 Periods

Survey and application course regarding the utilization of Lean and Six Sigma techniques to enhance manufacturing processes. Prerequisites: None.

## AUT-Automotive Technology <br> AUT097 General Automotive Maintenance <br> 3 Credits 3 Periods

A study of automotive systems operation and maintenance for the consumer. Purchasing service for cars and performing minor maintenance. Prerequisites: None.

## AUT270AC Automotive Technology Internship 3 Credits 3 Periods

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.

## AUT298AA Special Projects

## 1 Credits 1 Periods

An organized and tailored activity around the interests and needs of the individual student. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. Prerequisites: Permission of Program Director or Instructor.

## AUT298AB Special Projects

2 Credits 2 Periods
An organized and tailored activity around the interests and needs of the individual student. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. Prerequisites: Permission of Program Director or Instructor.

## AUT298AC Special Projects

## 3 Credits 3 Periods

An organized and tailored activity around the interests and needs of the individual student. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. Prerequisites: Permission of Program Director or Instructor.

## BIO-Biology

## BIO100 Biology Concepts

SQ
4 Credits 3 Periods
Introductory course covering basic principles and concepts of biology. Methods of scientific inquiry and behavior of matter and energy in biological systems are explored. Field trips may be required at students' expense. Prerequisites: None.

## BIO105 Environmental Biology

SQ
4 Credits 3 Periods
Fundamentals of ecology and their relevance to human impact on natural ecosystems. Field trips may be required at students' expense. Prerequisites: None.

## BIO106 Biotechnology and Society I

## 3 Credits 3 Periods

Introduction to biotechnology and its impact on society. Covers applications, limitations, benefits, risks, and legal and moral issues associated with biotechnology. Prerequisites: None.

## BIO107 Introduction to Biotechnology SQ

4 Credits 3 Periods
Introduction to biotechnology and its global impact on society. Covers applications, laboratory techniques, limitations and the international economic benefits, risks, and legal and moral issues associated with biotechnology. Prerequisites: None.

## BIO108 Plants and Society

SQ
4 Credits 3 Periods
A global study of plants in relation to humans; as a source of food, fiber, drugs, and other products; for aesthetic value, survival, and energy. Prerequisites: None.

## BIO111 Microbes and Society

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

## BIO145 Marine Biology

SG
4 Credits 3 Periods
A survey of marine environments and their biotic communities with emphasis on the natural history of marine organisms. Prerequisites: None.

## BIO149AH Field Biology: Marine Biology in Mexico

1 Credits 7 Periods
Introduction to marine experiments, marine biology, and ecology. On-site field experience in Mexico. Emphasis on observation and study of marine organisms along the shore. Prerequisites: Permission of Instructor.

## BIO149AI Biology: Tropical Biology/Costa Rica

2 Credits 14 Periods
A 14-day study of different tropical life zones, including hot wet jungle, hot dry jungle, and cloud forest. Emphasis on unusual plant and animal interactions, tropical ecology, and adaptations. Topics include diversity, competition, epiphytes, parasites, pollinators, reproductive strategies, and zonation. Field sites located in national parks of Costa Rica. Living conditions not developed but comfortable. Daily hikes required. Prerequisites: None.

## BIO160 Introduction to Human Anatomy and Physiology

## SG

4 Credits 3 Periods
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 General Biology (Majors) I

SQ
4 Credits 3 Periods
The study and principles of structure and function of organisms at the molecular and cellular levels. A detailed exploration of the chemistry of life, the cell, and genetics. Prerequisites: A grade of "C" or better in RDG091 or higher or eligibility for CRE101 as indicated by appropriate reading placement test score. One year of high school or one semester of college-level biology and chemistry is strongly recommended.

## BIO182 General Biology (Majors) II

SG

## 4 Credits 3 Periods

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, Field trips may be required y of organisms, and ecology. Prerequisites: A grade of "C" or better in BIO181 or BIO181XT.

## BIO201 Human Anatomy and Physiology I

SG
Credits 3 Periods
Study of structure and function of the human body. Topics include cells, tissues, integumentary system, skeletal system, muscular system, and nervous system. Prerequisites: Grade of C or better in BIO156 or BIO156XT or BIO181 or BIO181XT or 1 yr of high school biology and RDG091 or higher or CRE101 eligibility by reading test score. CHM130 or higher or 1 yr of high school chemistry suggested but not required.

## BIO202 Human Anatomy and Physiology II

 SG4 Credits 3 Periods
Continuation of structure and function of the human body. Topics include endocrine, circulatory, lymphatic, respiratory, digestive, urinary, and reproductive systems; and fluid and electrolyte balance. Prerequisites: A grade of C or better in BIO201 or BIO201XT.

## BIO205 Microbiology

SG
4 Credits 3 Periods
Study of microorganisms and their relationship to health, ecology, and related fields. Prerequisites: Grade of C or better in BIO156 or BIO156XT or BIO181 or BIO181XT or 1 yr of high school biology and RDG091 or higher or CRE101 eligibility by reading test score CHM130 or higher or 1 yr of high school chemistry suggested but not required.

## BIO211AA Biotechnology Seminar: Biomedical Applications <br> 1 Credits 1 Periods

Special topics in biotechnology with an emphasis on current issues not covered in other life science courses. Prerequisites: None BIO211AA may be repeated for a total of two (2) credit hours

## BIO212AA Biotechnology I

## 5 Credits 3 Periods

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 BIO212.

## BIO212AB Biotechnology II

5 Credits 3 Periods
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 Biotechnology III

5 Credits 3 Periods
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 Biology of Microorganisms <br> 4 Credits 3 Periods

Detailed study of microbial cells, their structure, genetics, physiology and taxonomy. Prerequisites: BIO181 Corequisites: (CHM152 and CHM152LL) or (CHM154 and CHM154LL).

## BIO240 General Genetics

## 4 Credits 4 Periods

Intensive introduction to the field of genetics including historical perspective, Mendelian insights and patterns of inheritance, exceptions to expected Mendelian ratios, quantitative genetics, nonMendelian 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 General Genetics Laboratory

1 Credits 3 Periods
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 Applied Biosciences: Biotechnology Internship

4 Credits 4 Periods
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 Animal Behavior

## 3 Credits 3 Periods

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.

## BIO282AA Service-Learning Experience in Biology

 1 Credits 1 PeriodsUnpaid Service-Learning (SL) experience, completed with approved community partner. BIO282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. Prerequisites: Permission of Instructor.

## BIO298AA Special Projects

1 Credits 1 Periods
Organized and tailored around 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.

## BIO298AB Special Projects

2 Credits 2 Periods
Organized and tailored around 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.

## BIO298AC Special Projects

3 Credits 3 Periods
Organized and tailored around 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.

## BLT-Building Safety and Construction Technology

## BLT140 Environmentally Responsible Building

3 Credits 3 Periods
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.

## BLT262 Introduction International Residential Code (Irc) <br> 3 Credits 3 Periods

Covers International Residential Code for various trades, including building, mechanical, plumbing and electric, for one and two family residential construction. Preparation for voluntary certification (IRC building inspection). Prerequisites: None.

## BLT263 Building Codes

3 Credits 3 Periods
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 <br> BPC100AA Business-Personal Computers I

0.5 Credits 0.5 Periods

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 Business-Personal Computers II 0.5 Credits 0.5 Periods

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 Computing Fundamentals

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

## BPC100BD Key Software Applications

1 Credits 1 Periods
Covers basic features of software applications for business and personal computers. Prerequisites: None.

## BPC100CD Living Online

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

## BPC100DD Internet and Computing Fundamentals

 3 Credits 4 Periods Fundamental computer and Internet concepts and terminology for business and personal computers. Covers basic features of software applications. Prerequisites: None.
## BPC101AA Introduction to Computers I

1 Credits 2 Periods
Computer software applications for the personal computer, including electronic spreadsheet and word processing, keyboarding review, and a desktop environment. Prerequisites: None.

BPC101 Introduction to Microcomputers I: Macintosh
1 Credits 2 Periods
Microcomputer software applications for the Macintosh personal computer, including electronic spreadsheet and word processing, keyboarding review, and a desktop environment. Prerequisites: None.

## BPC106AH MS Outlook: Level I

0.5 Credits 0.5 Periods

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

## BPC106BH Microsoft Outlook: Level II

0.5 Credits 0.5 Periods

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 Computer Usage and Applications CS

3 Credits 4 Periods
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 Computer Keyboarding I

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

## BPC111AB Computer Keyboarding II

1 Credits 1.7 Periods
Further development of microcomputer keyboard speed and accuracy. Emphasis on touch typing with speed and accuracy development of numerals as related to preparation and handling of documents. Prerequisites: BPC/OAS111AA or permission of Instructor.

## BPC125 Microcomputer Set Up and Maintenance 1 Credits 1 Periods

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 Introduction to Desktop Publishing: MS Publisher

1 Credits 2 Periods
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 Computer Maintenance: A+ Exam Prep Level I

3 Credits 4 Periods
Explore technical aspects of personal computers, including system components, installation, system configuration, peripheral devices, and notebooks. Emphasis placed on hardware installation, maintenance, mobile devices, and hardware troubleshooting. Helps prepare students for the CompTIA A+ examinations. Prerequisites: CIS105 or permission of Instructor.

## BPC210 Advanced Computer Usage and Applications

## 3 Credits 4 Periods

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.

BPC250 Post-Advanced Computer Usage and Applications

## 3 Credits 4 Periods

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 A+ Exam Prep: Operating System Configuration and Support

## 3 Credits 4 Periods

Explore advanced technical aspects of maintaining and servicing computers. Emphasis placed on OS installation, maintenance, mobile devices, security, software troubleshooting, and on proper usage of tools, safety procedures, and professionalism. Helps prepare students for the CompTIA A+ examinations. Prerequisites: CIS105 or permission of Instructor.

## CCS-Chicana and Chicano Studies

CCS101 Chicana and Chicano Studies
C, HU
3 Credits 3 Periods
Introduction to the wealth and diversity of Chicana and Chicano Studies research from a variety of disciplinary perspectives through the use of a series of historical and social scientific studies, novels, testimonies, and films. Prerequisites: ENG101 or ENG107 or equivalent.

## CFS-Child/Family Studies

## CFS101AH Art Activities for The Young Child

1 Credits 1 Periods
The creative use of art media and techniques at appropriate developmental levels. Prerequisites: None.

## CFS101AR Learning with Toys

1 Credits 1 Periods
Use of creative imagination with toys to enable the child alone or with others to explore the world. Includes evaluating proper use of toys and appropriate developmental skills. Prerequisites: None.

## CFS123 Health and Nutrition in Early Childhood Settings

1 Credits 1 Periods
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, current topics, resources, and innovative practices. Prerequisites: None.

## CFS125 Safety in Early Childhood Settings

1 Credits 1 Periods
Fundamental concepts of promoting a safe, but challenging learning environments. Establishing and maintaining safety procedures in the early childhood setting. Emphasis on indoor and outdoor equipment and activities, risk analysis, accident, evacuation, and emergency plans, regulations, regulatory agencies and resources, current topics, and innovative practices. Prerequisites: None.

## CFS157 Marriage and Family Life

## SB

3 Credits 3 Periods
Study of marriage and the family as a social system, including models of family analysis, intra- and interpersonal relations, and cross-cultural and historical patterns. Prerequisites: None.

## CFS160 Using Music, Speech, and Movement with Children's Literature <br> 1 Credits 1 Periods

Using elements of music, speech, and movement with children's literature, including rhymes, chants, songs, and books to enhance children's social, physical, cognitive, and emotional develomentPrerequisites: None.

## CFS176 Child Development

SB
3 Credits 3 Periods
Study of the science of human development from conception through adolescence. Includes observation skills, parent and adult roles in the lives of children, and contemporary issues. Prerequisites: None.

## CFS179 Child Care: A Multifaceted Career

1 Credits 1 Periods
Overview of the child care field. Focus on enhancing children's self esteem, providing for children's nutritional needs, and developing adequate safety and sanitation practices. Prerequisites: None.

## CFS205 Human Development SB

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

## CHI -Chinese

## CHI101 Elementary Chinese (Mandarin) I

G
5 Credits 6 Periods
Introduction to the basic grammar, pronunciation and vocabulary of the Mandarin Chinese language. Includes the study of Chinese culture, practice of listening, speaking, reading, and writing skills. Prerequisites: None.

## CHI102 Elementary Chinese (Mandarin) II

G
5 Credits 6 Periods
Study of grammar and vocabulary along with the study of Chinese culture. Emphasis on pronunciation and speaking skills. Prerequisites: CHI101 or permission of Department or Division. Completion of prerequisites within the last three years is required.

## CHI201 Intermediate Chinese I

G
5 Credits 6 Periods
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 permission of Department or Division. Completion of prerequisites within the last three years is required.

## CHM-Chemistry

## CHM090 Preparation for Fundamental Chemistry

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

## CHM095 Review of General Chemistry I

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

## CHM107 Chemistry and Society <br> SQ

3 Credits 3 Periods
A survey of chemistry and its impact on the environment.
Completion of CHM107LL required to meet the Natural Science requirement. General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM107LL. Prerequisites: None.

## CHM107LL Chemistry and Society Laboratory SQ

1 Credits 3 Periods
Laboratory experience in support of CHM107. General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM107. Prerequisites or Corequisites: CHM107.

## CHM130 Fundamental Chemistry <br> SQ

3 Credits 3 Periods
A survey of the fundamentals of general chemistry. Emphasis on essential concepts and problem solving techniques. Basic principles of measurement, chemical bonding, structure and reactions, General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM130LL Prerequisites: Grade of C or better in [CHM090 or MAT090 or MAT091 or MAT092 or MAT093 or (MAT103AA and MAT103AB) or higher or satisfactory score on math placement] and [RDG091 or higher or eligibility for CRE101 as indicated by reading placement].

## CHM130LL Fundamental Chemistry Laboratory SQ

1 Credits 3 Periods
Laboratory experience in support of CHM130. General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM130. Prerequisites or Corequisites: A grade of "C" or better in CHM130.

## CHM138 Chemistry for Allied Health

3 Credits 3 Periods
Elements of fundamental and organic chemistry Includes the general chemical behavior of inorganic matter and the structure of organic and biochemical systems. Course designed for specific allied health programs at MCCD. May not be applicable to other allied health programs. Prerequisites: A grade of "C" or better in CHM090, or one year of high school chemistry with a grade of "C" or better, or MAT092, or satisfactory score on placement exam.

## CHM138LL Chemistry for Allied Health Laboratory

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

## CHM151 General Chemistry I

SQ
3 Credits 3 Periods
Detailed study of principles of chemistry for science majors and students in pre-professional curricula. General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM151LL. Student may receive credit for only one of the following: CHM150 and CHM151LL, or CHM151 and CHM151LL, or CHM150AA, or CHM151AA. Prerequisites: A grade of "C" or better in [(CHM130 and CHM130LL), or CHM130AA, or one year of high school chemistry taken within the last five years] and (MAT151 or higher level mathematics course). Completion of all prerequisites within the last two years is recommended.

## CHM151LL General Chemistry I Laboratory SQ

1 Credits 3 Periods
Laboratory experience in support of CHM150 or CHM151. General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM150 or CHM151. Student may receive credit for only one of the following: CHM150 and CHM151LL, or CHM151 and CHM151LL, or CHM150AA, or CHM151AA. Prerequisites or Corequisites: A grade of "C" or better in CHM150 or CHM151.

## CHM152 General Chemistry II

SQ
3 Credits 3 Periods
A study of the chemical properties of the major groups of elements, equilibrium theory, thermodynamics, electrochemistry, and other selected topics. Completion of CHM152LL required to meet the Natural Science requirement. Student may receive credit for only one of the following: CHM152 and CHM152LL, or CHM152AA. Prerequisites: A grade of "C" or better in [(CHM150 or CHM151) and CHM151LL], or CHM150AA, or CHM151AA. Completion of prerequisites within the last two years recommended.

## CHM152 General Chemistry II Laboratory

 SQ1 Credits 3 Periods
Laboratory experience in support of CHM152. General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM152. Student may receive credit for only one of the following: CHM152 and CHM152LL, or CHM152AA. Prerequisites or Corequisites: A grade of "C" or better in CHM152.

## CHM230 Fundamental Organic Chemistry

 SQ3 Credits 3 Periods
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. General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM230LL 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 Fundamental Organic Chemistry Laboratory <br> SQ

1 Credits 3 Periods
Laboratory experience in support of CHM230. General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM230. Prerequisites: CHM130LL, or CHM151LL, or equivalent. Prerequisites or Corequisites: CHM230.

## CHM235 General Organic Chemistry I

3 Credits 3 Periods
Rigorous introduction to chemistry of carbon-containing compounds. Reaction mechanisms and recent methods of synthesis emphasized. Prerequisites: A grade of "C" or better in (CHM152 and CHM152LL), or CHM152AA, or (CHM154 and CHM154LL). Completion of prerequisites within the last two years recommended.

## CHM235LL General Organic Chemistry I Laboratory

1 Credits 4 Periods
Laboratory experience in support of CHM235. Prerequisites or Corequisites: A grade of "C" or better in CHM235. Completion of prerequisites within the last two years recommended.

## CHM236 General Organic Chemistry IIA

3 Credits 3 Periods
Study of chemistry of carbon-containing compounds continued. Structural determination and additional reaction mechanisms and modern methods of synthesis emphasized. Prerequisites: A grade of "C" or better in CHM235 and CHM235LL. Completion of prerequisites within the last two years recommended.

## CHM236LL General Organic Chemistry IIA Laboratory

1 Credits 4 Periods
Laboratory experience in support of CHM236. Prerequisites or Corequisites: A grade of "C" or better in CHM236. Completion of prerequisites within the last two years recommended.

## CHM260 Fundamental Biochemistry

3 Credits 3 Periods
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: A grade of "C" or better in (CHM230 and CHM230LL) or (CHM235 and CHM235LL) Completion of prerequisites within the last two years recommended.

## CHM260LL Fundamental Biochemistry Laboratory 1 Credits 3 Periods

Laboratory experience in support of CHM260. Prerequisites or Corerequisites: A grade of "C" or better in CHM260. Completion of prerequisites within the last two years recommended.

## CHM282AA Service-Learning Experience in Chemistry

## 1 Credits 1 Periods

Unpaid Service-Learning (SL) experience, completed with approved community partner.
CHM282AA may be repeated for a total of six (6) credit hours. Standard grading is available according to procedures outlined in catalog. Prerequisites: Permission of Instructor.

## CHM282AC Service-Learning Experience in Chemis-

 try
## 3 Credits 3 Periods

Unpaid Service-Learning (SL) experience, completed with approved community partner. CHM282AC may be repeated for a total of six (6) credit hours. Standard grading is available according to procedures outlined in catalog. Prerequisites: Permission of Instructor.

## CHM298AA Special Projects

## 1 Credits 1 Periods

Organized and tailored around 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.

## CHM298AB Special Projects

## 2 Credits 2 Periods

Organized and tailored around 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.

## CHM298 Special Projects

3 Credits 3 Periods
Organized and tailored around 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.

## CIS-Computer Information Systems

## CIS100 Internet: A Tool for Learning

0.5 Credits 0.5 Periods

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

3 Credits 4 Periods
Identify and explain social media and Web 2.0 technologies for personal, academic, professional, and business applications. 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

 CS
## 3 Credits 4 Periods

Overview of computer technology, concepts, terminology, and the role of computers in business and society. Discussion of social and ethical issues related to computers. Use of word processing, spreadsheet, database, and presentation software. Includes uses of application software and the Internet for efficient and effective problem solving. Exploration of relevant emerging technologies. Prerequisites: None.

## CIS107 The Electronic Game Industry

3 Credits 4 Periods
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

1 Credits 2 Periods
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.

## CIS111 Ethics in Information Technology

3 Credits 3 Periods
Ethical issues that arise as a result of increasing use of computers, and the responsibilities of those who work with computers, either as computer science professionals or end users. Critical inquiry and review of ethical challenges in information technology business, including professional and corporate responsibility, government regulation, fiduciary responsibilities of information, infringement of intellectual property, security risk assessment, Internet crime, identity theft, employee surveillance, privacy, compliance, social networking, and the ethics of IT corporations. Prerequisites: None.

## CIS113AE Microsoft Word: Word Processing Level I

1 Credits 1.3 Periods
Using word processing software to create, name and manage files, edit text, and do basic formatting of documents. Prerequisites: None.

## CIS113BE Microsoft Word: Word Processing Level II

## 1 Credits 1.3 Periods

Using more advanced features of word processing software to format documents, create lists, mail-merged documents, and documents with themes and styles. Prerequisites: CIS113AE or permission of Instructor.

## CIS113CE Microsoft Word: Word Processing Level III

 1 Credits 1.4 PeriodsUtilizing more advanced features of word processing software to incorporate style and theme elements, use desktop publishing capabilities, and insert tables. Prerequisites: CIS113BE or permission of Instructor.

## CIS114AE Excel: Level I

## 1 Credits 2 Periods

Computer spreadsheet skills for solving business problems using Excel, including calculations, forecasting, and projections. Prerequisites: None.

## CIS114BE Excel: Level II

## 1 Credits 2 Periods

Additional Excel spreadsheet techniques, including macro programming, database searching, extraction, and linking to obtain prescribed reports and graphs. Prerequisites: CIS114AE or permission of Instructor.

## CIS114CE Excel: Level III

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

## CIS114DE Excel Spreadsheet

## 3 Credits 5 Periods

Computer spreadsheet skills for solving business problems using Excel, including calculations, forecasting, projections, macro programming, database searching, extraction, linking, statistics, and matrix manipulation. Production of graphs and reports. Project design using multiple, integrated spreadsheets. Prerequisites: None.

## CIS117AM Database Management: Microsoft Access Level I

1 Credits 2 Periods
Introduction to the basic elements of a current version of the Microsoft Access database management program, for casual and beginning users. Prerequisites: None.

## CIS117BM Database Management: Microsoft Access Level II

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

## CIS117CM Database Management: Microsoft Access Level III

1 Credits 1 Periods
Application of the features of the Microsoft Access program to some common database management problems. Prerequisites: CIS117BM.

## CIS117DM Microsoft Access: Database Management

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

## CIS118AB Powerpoint: Level I

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

## CIS118BB Powerpoint: Level II

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

## CIS120DA Introduction to Digital Video Editing: Adobe Premiere

3 Credits 4 Periods
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.

## CIS120DB Computer Graphics: Adobe Illustrator

3 Credits 4 Periods
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.

## CIS120 Adobe Animate: Digital Animation

3 Credits 4 Periods
Focuses on entry-level skill expectations for digital animation using Adobe Animate. Covers basic animation techniques used in the creation, manipulation, and editing of animation graphics. Helps students prepare for the Adobe certifications related to Adobe Animate. Prerequisites: None

## CIS120 Adobe Photoshop Level I: Digital Imaging 3 Credits 4 Periods

Focuses on entry-level skill expectations for digital imaging using Adobe Photoshop Helps students prepare for the Adobe Certifications related to Photoshop Prerequisites: None

## CIS120DK Introduction to Digital Video Editing

3 Credits 4 Periods
Introduction to digital video editing comprises of a foundation for video import, export, and editing functions. Includes parts and function of a video camera, preproduction and production, incorporating photographs, titles, graphics, animation and audio, capturing, editing, rendering and outputting digital video. Prerequisites: None.

## CIS120DL Digital Video Compositing: After Effects

 3 Credits 4 Periods 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.
## CIS120DP Adobe Acrobat Pro: Portable Document Format (PDF) Files

3 Credits 4 Periods
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.

## CIS121AE Windows Operating System: Level I

1 Credits 2 Periods
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.

## CIS121AI Mac Operating System

## 1 Credits 2 Periods

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.

## CIS124AA Project Management Software: Level I

1 Credits 1.7 Periods
Utilization of project management software packages by managers and advanced business students to solve critical management planning tasks. Evaluation of management opportunities utilizing software packages to monitor project progress and resource allocation. Includes "what-if" analyses, and preparation of management reports. Prerequisites: None.

## CIS124BA Project Management Software: Level II

1 Credits 1.7 Periods
Advanced use of project management software. Covers features and functions to solve critical management planning tasks. Project communications, scheduling, resource allocation, tracking processes and importing and exporting data also covered. Project consolidation emphasized. Prerequisites: CIS124AA or permission of Instructor.

## CIS126DL Linux Operating System

3 Credits 4 Periods
Introduction to the Linux Operating system. Develop knowledge and skills required to install, configure and troubleshoot a Linuxbased workstation including basic network functions. Learn basic command line and Graphical User Interface (GUI) desktop environment utilities and applications. Fundamental abilities to achieve the entry-level industry certification covered. Prerequisites: None.

## CIS130DA 3D Studio Max: Modeling <br> 3 Credits 4 Periods

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, subobject editing, extruding, Booleans, lofting, lathing and compound object modeling. Introduction to basic lighting, texturing and rendering techniques. Prerequisites: CIS105.

## CIS130DB 3D Studio Max: Animation

3 Credits 4 Periods
Introduction to three-dimensional animation tools and principles, with an emphasis on character construction and animation. 3D Studio Max will be the primary application for use in this class. Prerequisites: CIS105.

## CIS131AA Doing Business on the Internet

1 Credits 1 Periods
Overview of different ways businesses are taking advantage of and using the Internet. Includes how companies are selling items and services over the Internet; techniques used to expand customer contacts; marketing strategies; availability of government and financial information; future potential and disadvantages; using the Internet for customer service; establishing a World Wide Web site. Some previous computer experience preferred. Prerequisites: None.

## CIS133AA Internet/Web Development Level I-A

1 Credits 2 Periods
Overview of the Internet and its resources. Hands-on experience with various Internet communication tools. Prerequisites: None.

## CIS133DA Internet/Web Development Level I

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

## CIS138DA Desktop Design and Publishing Using Adobe InDesign <br> 3 Credits 4 Periods

Use of Adobe InDesign to compose and print textual and graphic materials of high quality Includes word processing of copy, use of graphics programs, layout of design elements, printing alternatives, and file formats. Prerequisites: CIS105 or BPC110 or permission of Instructor.

## CIS150AB Object-Oriented Programming Fundamen-

 tals
## 3 Credits 4 Periods

Structured and Object-Oriented design and logic tools. Use of computer problems to demonstrate and teach concepts using an appropriate programming language. Prerequisites: CIS105 or permission of Instructor.

## CIS151 Computer Game Development -Level I

3 Credits 4 Periods
Introduction to object-oriented game development, game design, and game theory. Use of computer software to demonstrate and teach concepts using an appropriate game development platform to model real-time simulations and create computer games using object oriented tools. Introduction to developing PC games, educational software, and training software using windows based object oriented developments tools. Prerequisites: CIS105 or permission of Instructor.

## CIS159 Visual Basic Programming I

3 Credits 4 Periods
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

CS
3 Credits 4 Periods
Introduction to $\mathrm{C}++$ 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

## CS

3 Credits 4 Periods
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

CS
3 Credits 4 Periods
Introduction to Java programming Includes features needed to construct Java Applets, Java Applications, control structures, methods, arrays, character and string manipulation, graphics, and object-oriented programming. Prerequisites: CIS105 or permission of Instructor.

## CIS166AA Introduction to Javascripting

3 Credits 4 Periods
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: CIS133CA, or CIS133DA, or permission of the Instructor.

## CIS166AC Web Scripting with Active Server Pages (ASP) NET

3 Credits 4 Periods
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: (CIS133CA or CIS133DA) and (CIS159 or CIS162AD), or permission of Instructor.

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

3 Credits 4 Periods
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: CIS133CA, or CIS133DA, or permission of the Instructor.

## CIS166AF Web Scripting with Python

3 Credits 4 Periods
Introduction to web scripting with Python Web application development using HTML, Python and Structured Query Language (SQL). Prerequisites: CIS133CA, or CIS133DA, or permission of the Instructor.

## CIS197 VMware ESXI Server Enterprise

## 3 Credits 4 Periods

Introduction to vSphere and VMware ESXI server in the enterprise. Covers many aspects of virtualization for VMware ESXI server administration. Designed to develop knowledge and skills required to install, configure and troubleshoot a VMware ESXI Server (vSphere) including basic network functions. Prerequisites: (CIS126DL or MST150 (any module)) and (CIS190 or MST140 or CNT140) or permission of Instructor.

## CIS198 VMware vSphere: Optimize and Scale

 3 Credits 4 PeriodsVMware vSphere: Optimize and Scale is designed for experienced VMware vSphere users. It teaches advanced skills for configuring and maintaining a highly available and scalable virtual infrastructure. Through a mix of lecture and hands-on labs, you will configure and optimize the vSphere features that build a foundation for a truly scalable infrastructure and discuss when and where these features have the greatest effect. It enables you to understand vSphere at a deeper level and how to use advanced features and controls. Prerequisites: CIS197.

## CIS213DE Advanced Microsoft Word: Word Processing

## 3 Credits 4 Periods

Using advanced word processing software features to perform tasks such as mail merge, collaboration, web pages, math functions, macros, photo enhancements, graphics, tables, forms and manage long documents. Prerequisites: CIS113DE or (CIS113AE and CIS113BE and CIS113CE) or permission of Instructor.

## CIS220DC Flash: Advanced Animation and ActionScript

3 Credits 4 Periods
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: CIS120DC or permission of Instructor.

## CIS220DF Adobe Photoshop Level II: Advanced Digital Imaging

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

## CIS220DK Advanced Digital Video Production: Premiere

3 Credits 4 Periods
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

3 Credits 4 Periods
Introduction to project management concepts while working with MS Project to solve complex project management networks, including creating Gantt and PERT charts, tracking project progress, planning for restrictions, and integrating MS Project with other software packages such as Excel, Word, Powerpoint, and cc Mail. Prerequisites: None.

## CIS226AL 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) 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. Prerequisites: CIS130DA, or CIS120DF, or CIS120DG, or permission of Instructor.

## CIS230DB 3D Studio Max: Lighting and Rendering

3 Credits 4 Periods
Emphasis on lighting and rendering for three-dimensional environments. Techniques for illuminating scenes and characters will be explored. Prepare scenes for rendering to video, film and realtime rendering using 3D Studio Max. Prerequisites: CIS130DA 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. Prerequisites: CIS133CA, or CIS133DA, or permission of the Instructor.

## CIS233DC Internet Web Development: Dreamweaver

 3 Credits 4 PeriodsDesign 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. Prerequisites: CIS132, or CIS133CA, or CIS133DA, or permission of 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 managing of XML files. Prerequisites: CIS133CA, or CIS133DA, or permission of the 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 transaction covered. Also includes current issues in e-commerce. Prerequisites: CIS133CA, or 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: CIS126 DL 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.

## CIS250 Management of Information Systems

3 Credits 4 Periods
The study of business information systems and its management, communication, e-business strategies, emerging technologies, database concepts, and project management. Overview of systems analysis and design. Learn about the competitive and strategic uses of information systems and how they are transforming organizations and their management Prerequisites: CIS105.

## CIS251 Computer Game Development - Level II

## 3 Credits 4 Periods

Advanced object-oriented game development, advanced game design, and advanced game theory. Use of game development software tools to demonstrate advanced concepts for modeling real-time simulations and creating computer games using object oriented development tools. In depth coverage of game programming (scripting) techniques, and decision logic using object oriented techniques. Prerequisites: CIS151 or permission of Instructor.

## CIS259 Visual Basic Programming II

3 Credits 4 Periods
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.

## CIS262AD C\# Level II

3 Credits 4 Periods
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.

## CIS263AA Java Programming: Level II

3 Credits 4 Periods
Intermediate Java programming Includes features needed to construct object-oriented programming, multithreading, multimedia, files, streams and data structure. Prerequisites: CIS163AA or permission of Instructor.

## CIS266 Network Integration Capstone

4 Credits 5 Periods
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 (CNT170 or CNT170AA) or [(MST155 or MST155DA) and (MST157 or MST157DA)] and (CIS270 or CIS271DL or CNT205) or associated industry certifications or permission of Instructor.

## CIS270 Essentials of Network and Information Security

3 Credits 4 Periods
Threats to security of information systems; responsibilities and basic tools for information security, including communication security, infrastructure security, organizational security and basic cryptography. Introduction to the language of network security and hardware, software and firmware components of an information security system for local, metropolitan, enterprise, and wide area networks. Helps prepare participants for the Comptia Security+ exam and the GIAC Security Essentials Certificate (GSEC) Prerequisites: CNT150 or (MST150 or MST150 any module) or permission of Instructor.

## CIS271DL Linux Security

3 Credits 4 Periods
Implementing in-depth security methods and techniques in a Linux-based network environment. Utilize programs, utilities and configuration techniques to provide user-level, file system, and network security. Gain knowledge in a variety of security cracking techniques and how to guard against them. In all aspects of security, the standard of practicing professional ethics seriously emphasized. Preparation for industry certifications such as the SAIR/GNU LCP and LCA certificates, CompTIA`s Linux+, RHCT, RHCE, and LPIC Prerequisites: CIS240DL or Permission of Instructor.

## CIS276DA MySQL Database

3 Credits 4 Periods
A broad overview of the MySQL database. Includes Structured Query Language (SQL) instruction for data definition, data manipulation, and data retrieval. Develops knowledge and skills required to install MySQL, model and create new databases, manage users, authentication, and stored procedures, and develop backup/restore strategies. Prerequisites: CIS105 or permission of Instructor.

## CIS276DB SQL Server Database

3 Credits 4 Periods
A broad overview of the Microsoft Structured Query Language (SQL) Server database. Includes SQL instruction for data definition, data manipulation, and data retrieval. Develops knowledge and skills required to install SQL Server, model and create new databases, manage users, authentication, and stored procedures, and develop backup/restore strategies. Prerequisites: CIS105 or permission of Instructor.

## CIS276DC Oracle Database

3 Credits 4 Periods
A broad overview of the Oracle database. Includes Structured Query Language (SQL) instruction for data definition, data manipulation, and data retrieval. Develops knowledge and skills required to install Oracle, model and create new databases, manage users, authentication, and stored procedures, and develop backup/restore strategies. Prerequisites: CIS105 or permission of Instructor.

## CIS280 Current Topics in Computing

3 Credits 4 Periods
Critical inquiry of current topics in computing. Application of industry trends to solve problems and/or investigate issues. Prerequisites: None.

## CIS280AA Current Topics in Computing

1 Credits 2 Periods
Critical inquiry of current topics in computing. Application of industry trends to solve problems and/or investigate issues. Prerequisites: None.

## CIS282AA Volunteerism for Computer Information Systems: A Service Learning Experience

1 Credits 1 Periods
Service learning field experience within private/public agencies, educational institution, and citizen volunteer groups. CIS282AA may be repeated for a total of six (6) CIS282 credit hours. Standard grading available according to procedures outlined in catalog. Prerequisites: Permission of Instructor.

## CIS284 Certified Internet Web (CIW) Associate Certification Preparation Course

## 4 Credits 5 Periods

Explain and implement Internet technologies, network infrastructure, and protocols. Utilize a variety of markup languages and web technologies to design web pages. Utilize job skills such as project management. Explore best practices/issues for web design, publishing, and e-commerce. Prepare for Certified Internet Web (CIW) Associate Examinations Prerequisites: CIS233DA or permission of Instructor

## CIS290AA Computer Information Systems Internship

## 1 Credits 6 Periods

Work experience in business or industry. Prerequisites: Permission of Instructor.

## CIS290AB Computer Information Systems Internship

2 Credits 12 Periods
Work experience in business or industry. Prerequisites: Permission of Instructor.

## CIS290AC Computer Information Systems Internship

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

## CIS298AA Special Projects

1 Credits 1 Periods
Organized and tailored around 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.

## CIS298AC Special Projects

3 Credits 3 Periods
Organized and tailored around 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.

## CNS-Construction

## CNS101 Construction and Culture

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3 Credits 3 Periods
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

3 Credits 6 Periods
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 threedimensional drawing, sketching, scaling, and dimensioning with computer and board. Prerequisites: None.

## CNS175 Working Drawing Analysis: Blueprint Reading <br> 3 Credits 3 Periods

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

## CNS181 Cost Estimating I

3 Credits 3 Periods
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

3 Credits 3 Periods
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.

## CNS201 Construction Management: Office Operation

 3 Credits 3 PeriodsSkills and techniques required to manage construction office operations. Includes establishing and financing the business, marketing, office operations, and maintaining relationships with other construction industry entities through a systematic planning approach. Prerequisites: (CNS130, CNS175, and CNS181), or permission of Department or Division.

## CNS221 Engineering Mechanics - Statics

3 Credits 3 Periods
Emphasis on response of bodies to the action of forces. Elementary analytical and practical approach to the principles and physical concepts of statics, focuses on mastery of basic principles of trigonometry, application of vectors and forces, and moments, with analysis of basic structures and structural components, trusses, shear and moment diagrams, centroids, and moments of inertia. Prerequisites: MAT187 or permission of Program Director or Instructor.

## CNS230 Computer Aided Design and Drafting (CADD) 3D For Construction \& Architecture

3 Credits 6 Periods
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 Advanced Computer Aided Design and Drafting (CADD) For Construction \& Architecture <br> 3 Credits 6 Periods

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 Heavy Construction Equipment, Methods, and

 Materials3 Credits 3 Periods
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.

## CNS260 Strength of Materials

3 Credits 3 Periods
Strength and application of materials of construction, including mechanics of beams, shafts, and bolted and welded connections under various loading conditions. Construction behavior of various materials externally and internally. Prerequisites: CNS221 or permission of Instructor.

## CNS261 Microcomputers for Constructors

3 Credits 3 Periods
Effective application of computers in support of construction management, administration, and technical aspects of the construction industry Uses of the computer as a problem- solving tool, including multimedia software, information management, and spreadsheet applications in construction. Prerequisites: None.

## CNS263 Electrical Construction Fundamentals

3 Credits 3 Periods
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.

## CNS270 Construction Safety

3 Credits 3 Periods
Overview of safety methods and procedures for accident prevention and equipment used by construction workers to maximize field safety during various phases of a construction project, including requirements and regulations for construction safety set by Occupational Safety and Health Administration (OSHA) standards along with biological aspects of construction safety. Prerequisites: CNS175 or permission of Program Director or Instructor.

## CNS282AC Volunteerism for Construction: A Service Learning Experience

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

## CNS290AA Construction Internship

1 Credits 5 Periods
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 catalog. Prerequisites: Permission of Department or Division.

## CNS290AC Construction Internship

3 Credits 15 Periods
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 catalog. Prerequisites: CNS282, or permission of Department or Division.

## CNS296WC Cooperative Education

## 3 Credits 15 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: Completion of at least twelve (12) college credits minimum 2.6 grade point average and ability to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of Instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.

## CNS298AC Special Projects

3 Credits 3 Periods
Organized and tailored around 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.

## CNT-Cisco Network Technology

## CNT140AA Introduction to Networks

4 Credits 6 Periods
Introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced. Students will build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes. Preparation for Cisco certification examination. Prerequisites: None.

## CNT150AA Cisco - Routing and Switching Essentials

4 Credits 6 Periods
Architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. Configuration and troubleshooting routers and switches and resolving common issues with RIPv1, RIPng, single-area and multi-area OSPF, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks. Preparation for Cisco certification examination. Prerequisites: CNT140AA or permission of Instructor.

## CNT158 CCNA Discovery - Introduction to Routing and Switching in the Enterprise

4 Credits 6 Periods
Familiarizes students with the equipment, applications and protocols installed in enterprise networks, with a focus on switched networks, Internet Protocol (IP) Telephony requirements, and security. Introduces advanced routing protocols such as Enhanced Interior Gateway Routing Protocol (EIGRP) and Open Shortest Path First (OSPF) Protocol. Hands-on exercises include configuration, installation, and troubleshooting Prerequisites: CNT148.

## CNT160AA Scaling Networks

4 Credits 6 Periods
Architecture, components, and operations of routers and switches in large and complex networks. Configuring routers and switches for advanced functionality. Configuring and troubleshooting routers and switches and resolving common issues with OSPF, EIGRP, and STP in both IPv4 and IPv6 networks. Developing the knowledge and skills needed to implement a WLAN in a small-to-medium network. Preparation for Cisco certification examination. Prerequisites: CNT150AA or permission of Instructor.

## CNT170AA Cisco - Connecting Networks

4 Credits 6 Periods
Wide Area Network (WAN) technologies and network services required by converged applications in a complex network. Criteria selection of network devices and WAN technologies to meet network requirements. Configuring and troubleshooting network devices, and resolving common issues with data link protocols issues, and developing the knowledge and skills needed to implement Internet Protocol Security (IPSec) and Virtual Private Network (VPN) operations. Preparation for Cisco certification examination. Prerequisites: CNT160AA or permission of Instructor.

## CNT200 CCNP ROUTE: Implementing Cisco IP Routing

4 Credits 6 Periods
Development of knowledge and skills needed to manage Internet Protocol (IP) traffic and access, understand scalable internetworks and Quality of Service (QoS), configure advanced routing protocols Border Gateway Protocol [BGP], Intermediate System to Intermediate System [IS-IS], Enhanced Interior Gateway Routing Protocol [EIGRP], Open Shortest Path First [OSPF], as well as multicast routing, Internet Protocol (IPv6), and perform advanced IP addressing configuration, (Dynamic Host Configuration Protocol (DHCP). Preparation for Cisco Certified Network Professional (CCNP) exam Prerequisites: CNT170AA, or CCNA industry certification, or permission of Instructor. Corequisites: CNT220.

## CNT205 Cisco Certified Network Associate Security

4 Credits 6 Periods
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 CCNP SWITCH: Implementing Cisco IP Switching

4 Credits 6 Periods
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 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: CNT200.

## CNT231 CCNP TSHOOT: Maintaining and Troubleshooting Cisco IP

4 Credits 6 Periods
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 SB

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 SB

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.

## 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

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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

SB
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

 C, G, SB3 Credits 3 Periods
Basic concepts, principles, and skills for improving oral communication between persons from different minority, racial, ethnic, and cultural backgrounds. Prerequisites: None.

## 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.

## COM282AA Service-Learning Experience in Communication

1 Credits 1 Periods
Unpaid Service-Learning (SL) experience, completed with approved community partner. COM282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. Prerequisites: Permission of Instructor.

## COM282AB Service-Learning Experience in Communication

2 Credits 2 Periods
Unpaid Service-Learning (SL) experience, completed with approved community partner. COM282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. Prerequisites: Permission of Instructor.

## COM282AC Service-Learning Experience in Communication

3 Credits 3 Periods
Unpaid Service-Learning (SL) experience, completed with approved community partner. COM282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. Prerequisites: Permission of Instructor.

## COM298AA Special Projects

1 Credits 1 Periods
Organized and tailored around 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.

## COM298AB Special Projects

2 Credits 2 Periods
Organized and tailored around 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.

## COM298AC Special Projects

3 Credits 3 Periods Organized and tailored around 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.

## CPD-Counseling and Personal Development CPD102AB Career Exploration

2 Credits 2 Periods
Designed to assist students make informed career decisions. Focuses on current occupational trends and outlook. Explores career-related interests, values, needs, preferences, skills, and strengths with the use of various assessments. Aids in the development of individualized educational/career goals and action plan. CPD102AB may be repeated for a total of six (6) credit hours. 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, under achievement 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.

## CPD103BE Native American Cultural Pride and Awareness

2 Credits 2 Periods
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 Strategies for College Success

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

## CPD160 Introduction to Multiculturalism

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3 Credits 3 Periods
Examination of the multiple cultures and subcultures within the contemporary United States. Personal exploration of awareness and appreciation of multiculturalism. Activities for experiencing diverse cultural perspectives. Critical thinking skills for recognizing, analyzing, and mediating cultural and psychological factors impacting conflict and accord between diverse cultures through written and oral discourse. Prerequisites: ENG101, or ENG107, or permission of Instructor.

## CPD282AA Volunteerism for Counseling and Personal Development: A Service Learning Experience

1 Credits 1 Periods
Service-learning field experience within private/public agencies, and citizen volunteer groups. CPD282AA 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.

## CPD282AB Volunteerism for Counseling and Personal Development: A Service Learning Experience 2 Credits 2 Periods

Service-learning field experience within private/public agencies, and citizen volunteer groups. CPD282AB 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.

## CPD282AC Volunteerism for Counseling and Personal Development: A Service Learning Experience <br> \section*{3 Credits 3 Periods}

Service-learning field experience within private/public agencies, and citizen volunteer groups. CPD282AC 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.

## CPD298AA Special Projects

## 1 Credits 1 Periods

Organized and tailored around 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.

## CPD298AB Special Projects

2 Credits 2 Periods
Organized and tailored around 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.

## CPD298AC Special Projects

## 3 Credits 3 Periods

Organized and tailored around 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.

## CRE-Critical Reading

## CRE101 College Critical Reading

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3 Credits 3 Periods
Develop and apply critical thinking skills through critically reading varied and challenging materials. Includes analysis, evaluation, interpretation, and synthesis through at least two substantial writing and/or speaking tasks. Prerequisites: (A grade of "C" or better in ENG101 or ENG107) and (appropriate reading placement test score or a grade of "C" or better in RDG091 or RDG095 or RDG100 or RDG111 or RDG112 or RDG113 or permission of Instructor).

## CRW-Creative Writing

## CRW150 Introduction to Creative Writing

3 Credits 3 Periods
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 Introduction to Writing Poetry

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

## CRW170 Introduction to Writing Fiction

3 Credits 3 Periods
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. Prerequisites: None. CRW150 recommended but not required.

## CRW180 Introduction to Writing Nonfiction

3 Credits 3 Periods
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 Introduction to Screenwriting

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

## CRW200 Readings for Writers

1 Credits 1 Periods
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 CRW200 may be repeated for a total of six (6) credits. Prerequisites: CRW150 or permission of Instructor.

## CRW201 Portfolio

1 Credits 1 Periods
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. CRW201 may be repeated for a total of two (2) credit hours. Prerequisites: (Acceptance into Creative Writing Certificate Program and completion of at least nine (9) credit hours in creative writing (CRW)), or permission of Program Director.

## CRW260 Intermediate Poetry Writing

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 workshopping. Prerequisites: CRW160 or permission of Instructor.

## CRW270 Intermediate Fiction Writing

3 Credits 3 Periods
Writing original short stories; analysis of works of fiction; concentration on revising students' fiction through intensive workshopping. Prerequisites: CRW170.

## CRW272 Planning and Structuring the Novel

 3 Credits 3 PeriodsFocus on planning, structuring, and beginning a novel; prewriting, writing, analysis, evaluation, and revision of novel plans and excerpts. Prerequisites: CRW150 or permission of Instructor.

## CRW273 Writing the Novel

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: CRW272 or permission of Instructor.

## CSC-Computer Science

## CSC100AB Introduction to Computer Science (C++)

 CS4 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) CS

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, flipflops, 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

CS
4 Credits 4 Periods
Covers Object-Oriented design and programming; elementary data structures; arrays; lists; stacks; queues; binary trees; recursion; searching and sorting algorithms. Prerequisites: CSC110, or permission of Instructor.

## CSC230 Computer Organization and Assembly Language

4 Credits 5 Periods
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 procedural (C/C++), applicative (LISP), and declarative (Prolog) languages. Prerequisites: CSC205 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: Permission of Department or Division Corequisites: CTT114.

## CTT111 Caterpillar Engine Fundamentals

4 Credits 8 Periods
Introduction to diesel engine theory and service procedures.
Focuses on Caterpillar engine systems and applications. Prerequisites: None Corequisites: CTT110.

## CTT112 Hydraulic Fundamentals

3 Credits 5 Periods
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: CTT110.

## CTT113 Fuel Systems

3 Credits 5 Periods
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: CTT111.

## CTT114 Basic Electrical Fundamentals

3 Credits 5 Periods
Basic electrical and electronic principles used by the technician to diagnose and repair electrical systems in Caterpillar machines. Prerequisites: None Corequisites: CTT110.

## CTT115 Air Conditioning Fundamentals

3 Credits 5 Periods
Introduction to principles, systems, components, and servicing of air conditioning systems used in Caterpillar products. Prerequisites: CTT110.

## CTT116 Power Train I

3 Credits 5 Periods
Basic components and operations of power train systems used in Caterpillar machines. Covers basic components, clutches, manual shift transmissions, and power shift transmissions. Prerequisites: CTT110.

## CTT117 Machine Hydraulic Systems

3 Credits 5 Periods
Operation, testing, and adjustment procedures for pilot operated hydraulic systems, load sensing pressure compensated (LSPC) hydraulic systems, electro-hydraulic systems, and hydrostatic systems. Components of hydraulic systems and oil flow through the system. Prerequisites: CTT112.

## CTT118 Caterpillar Dealer Internship I

3 Credits 3 Periods
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, com-
puters and service information systems, air intake and exhaust systems, lubrication systems, cooling systems, fuel systems, engines, and electrical systems. Requires intern to complete a list of learning objectives, keep a logbook, and be evaluated by dealership supervisor and internship coordinator. Prerequisites: CTT110.

## CTT119 Caterpillar Dealer Internship II

3 Credits 3 Periods
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 pilotoperated 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 Power Train II

3 Credits 5 Periods
Methods of transferring power. Hydraulic-driven machines and mechanical power train components, including differentials, brakes, final drives, and undercarriage. Prerequisites: CTT116.

## CTT201 Machine Electronics

3 Credits 5 Periods
Introduction to machine electronic systems and diagnostic tooling used to diagnose and repair the complex electrical/electronic systems installed in Caterpillar machines. Prerequisites: CTT114.

## CTT202 Engine Diagnostics and Repair

3 Credits 5 Periods
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: CTT111.

## CTT203 Machine Diagnostics

3 Credits 5 Periods
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: CTT201.

## CTT204 Machine Specific Systems

3 Credits 5 Periods
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: CTT119.

## CTT205 Caterpillar Dealer Internship III

3 Credits 3 Periods
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 Caterpillar Dealer Internship IV

3 Credits 3 Periods
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.

## DAH-Dance Humanities

## DAH100 Introduction to Dance

G, HU
3 Credits 3 Periods
Overview of the field of dance focusing on origins, historical development, and cultural characteristics of the various styles of dance. Prerequisites: None.

## DAH201 World Dance Studies

G, HU
3 Credits 3 Periods
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 Dance in Popular Culture

## C, HU

3 Credits 3 Periods
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.

## DAN-Dance - Performing Arts

## DAN102AA Hip Hop I

## 1 Credits 3 Periods

Theory and practice of Hip Hop dance at the beginning level.
Development of movement quality and performance skills. Prerequisites: None. DAN102AA may be repeated for credit.

## DAN102AB Hip Hop II

1 Credits 3 Periods
Theory and practice of Hip Hop dance at the advanced beginning level. Development of movement quality and performance skills. Prerequisites: DAN102AA or permission of Instructor.

## DAN104AA Ballroom I

1 Credits 3 Periods
Theory and practice of Ballroom dance at the beginning level. Development of movement quality and performance skills. Prerequisites: None.

## DAN104AB Ballroom II

1 Credits 3 Periods
Theory and practice of Ballroom dance at the advanced beginning level. Development of movement quality and performance skills. Prerequisites: DAN104AA or permission of Instructor.

## DAN106AA Latin I

## 1 Credits 3 Periods

Theory and practice of Latin dance at the beginning level. Development of movement quality and performance skills. Prerequisites: None.

## DAN106AB Latin II

1 Credits 3 Periods
Theory and practice of Latin dance at the advanced beginning level. Development of movement quality and performance skills. Prerequisites: DAN106AA or permission of Instructor.

## DAN131 Ballet I

1 Credits 3 Periods
Introduction to the theory and practice of ballet at the beginning level. Development of movement quality and performance skills. Prerequisites: None. DAN131 may be repeated for credit.

## DAN132 Modern Dance I

1 Credits 3 Periods
Introduction to the theory and practice of modern dance at the beginning level. Development of movement quality and performance skills. Prerequisites: None. DAN132 may be repeated for credit.

## DAN133 Jazz Dance I

1 Credits 3 Periods
Introduction to the theory and practice of jazz dance at the beginning level. Development of movement quality and performance skills. Prerequisites: None. DAN133 may be repeated for credit.

## DAN134 Ballet II

1 Credits 3 Periods
Theory and practice of ballet at the advanced beginning level. Development of movement quality and performance skills. DAN134 may be repeated for credit. Prerequisites: DAN131 or permission of Instructor.

## DAN135 Modern Dance II

## 1 Credits 3 Periods

Theory and practice of modern dance at the advanced beginning level. Development of movement quality and performance skills. DAN135 may be repeated for credit. Prerequisites: DAN132 or permission of Instructor.

## DAN136 Jazz Dance II

1 Credits 3 Periods
Theory and practice of jazz dance at the advanced beginning level. Development of movement quality and performance skills. DAN136 may be repeated for credit. Prerequisites: DAN133 or permission of Instructor.

## DAN141 Dance Workshop

1 Credits 3 Periods
An intensive experience in the process of choreography, performance, and production elements. Prerequisites: None. DAN141 may be repeated for credit.

## DAN146 Tap Dance Ensemble

1 Credits 3 Periods
Introduction to the process and practice of dance performance, specific to the genre of tap dance. DAN146 may be repeated for credit. Prerequisites: DAN140 or permission of Instructor.

## DAN150 Dance Performance I

1 Credits 3 Periods
An introduction to the process and practice of dance performance. Prerequisites: None. DAN150 may be repeated for credit. Corequisites: Any level of any of the following dance technique courses with a DAN prefix: ballet, modern, jazz, hip hop, tap, social, or world dance.

## DAN155 Dance Performance II

## 1 Credits 3 Periods

Continued study of the process and practice of dance performance at advanced beginning level DAN155 may be repeated for credit. Prerequisites: DAN150 or permission of Instructor. Corequisites: Any level of any of the following dance technique courses with a DAN prefix: ballet, modern, jazz, hip hop, tap, social, or world dance.

## DAN210 Dance Production I

3 Credits 3 Periods
Introduction to the elements of light, sound, and scenery as they relate to the art of dance. Prerequisites: None.

## DAN221 Rhythmic Awareness I

3 Credits 3 Periods
Exploration of rhythm in dance performance, choreography and pedagogy. Emphasis on the basic understanding of rhythm and cultivating awareness of rhythm in everyday life. Prerequisites: None.

## DAN222 Rhythmic Awareness II

3 Credits 3 Periods
Study at the intermediate level of rhythm and how it can be applied in dance and choreography. Emphasis on awareness of rhythm in everyday life as well as creative practice in rhythm and movement. Prerequisites: DAN221 or permission of Instructor.

## DAN231 Ballet III

## 1 Credits 3 Periods

Theory and practice of ballet at the beginning intermediate level. Development of movement quality and performance skills. DAN231 may be repeated for credit. Prerequisites: DAN134 or permission of Instructor.

## DAN232 Modern Dance III

1 Credits 3 Periods
Theory and practice of modern dance at the beginning intermediate level. Development of movement quality and performance skills. DAN232 may be repeated for credit. Prerequisites: DAN135 or permission of Instructor.

## DAN233 Jazz Dance III

1 Credits 3 Periods
Theory and practice of jazz dance at the beginning intermediate level. Development of movement quality and performance skills. DAN233 may be repeated for credit. Prerequisites: DAN136 or permission of Instructor.

## DAN234 Ballet IV

1 Credits 3 Periods
Theory and practice of ballet at the intermediate level. Development of movement quality and performance skills. DAN234 may be repeated for credit. Prerequisites: DAN231 or permission of Instructor.

## DAN235 Modern Dance IV

1 Credits 3 Periods
Theory and practice of modern dance at the intermediate level. Development of movement quality and performance skills. DAN235 may be repeated for credit. Prerequisites: DAN232 or permission of Instructor.

## DAN236 Jazz Dance IV

1 Credits 3 Periods
Theory and practice of jazz dance at the intermediate level. Development of movement quality and performance skills. DAN236 may be repeated for credit. Prerequisites: DAN233 or permission of Instructor.

## DAN250 Dance Performance III

1 Credits 3 Periods
Continued study of the process and practice of dance performance at beginning intermediate level. DAN250 may be repeated for credit. Prerequisites: DAN155 or permission of Instructor. Corequisites: Any level of any of the following dance technique courses with a DAN prefix: ballet, modern, jazz, hip hop, tap, social, or world dance.

## DAN255 Dance Performance IV

1 Credits 3 Periods
Continued study of the process and practice of dance performance at the intermediate level. DAN255 may be repeated for credit. Prerequisites: DAN250 or permission of Instructor. Corequisites: Any level of any of the following dance technique courses with a DAN prefix: ballet, modern, jazz, hip hop, tap, social, or world dance.

## 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 choreography at the intermediate level. Experimentation with the various approaches to creative practice as established by 20th and 21st century artists. Prerequisites: DAN264 or permission of instructor.

## 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.

## DAN282AA Service-Learning Experience in Dance

 1 Credits 1 PeriodsUnpaid Service-Learning (SL) experience, completed with approved community partner. DAN282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. Prerequisites: Permission of Instructor.

## DFT-Drafting Technology <br> 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 CS 3 Credits 6 Periods

Industrial use of AUTOCAD equipment (hardware and software) in the areas of mechanical, electronic and construction drawings. General Education Designation: Computer/Stats/Quantitative Apps - [CS] in combination with: CSC100 or CSC100AA or CSC100AB. 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.

## 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. Government. Prerequisites or Corequisites: DFT110, or MET109, or permission of Department or Division.

## DFT240 Cadence Virtuoso XL

3 Credits 6 Periods
Use of the Virtuoso XL Layout Editor to automate mask design, from component generation through automatic and interactive routing. Focuses on generating custom layouts from schematics or netlist and edit existing layouts that have defined connectivity. Prerequisites: None.

## DFT245AA Integrated Circuit Design - CMOS IA

3 Credits 6 Periods
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 Integrated Circuit Design - CMOS IB

3 Credits 6 Periods
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 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: DFT110, or DFT121, or Permission of Department or Division.
## DFT254AA Computer Aided Drafting II: Autocad 3 Credits 6 Periods

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 of Division.

## DFT255 Additive Manufacturing

4 Credits 4 Periods
Rapidly advancing additive manufacturing (AM) technologies, often called 3D printing, provide us a direct way of converting digital data into physical objects. Additive manufacturing enables the building of customized parts previously impossible to fabricate. Design for Additive Manufacturing teaches background, terminology, fundamentals designing for additive manufacturing, and current AM technology as well as advantages and limitations of 3D printing, materials, and post-processing. Students will learn and apply technique through lab activities, machine operation and maintenance, part design and analysis, adapting stereolithography files, printing models, and post-processing. Prerequisites: DFT254AA, or GTC266, or permission of Department or Division.

## DFT256AA Computer Aided Drafting III: Autocad

 3 Credits 6 PeriodsUse 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; use of macro programs to solve design problems. Prerequisites: DFT254AA or equivalent.

## DFT296WA Cooperative Education

1 Credits 5 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: Completion of 12 college credits $\min 2.6$ GPA and obtain a position related to academic or career goals or permission of Instructor. Corequisites: At least 1 class related to major or career interest or with permission of the Instructor.

## DFT296WC Cooperative Education

3 Credits 15 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: Completion of 12 college credits $\min 2.6$ GPA and obtain a position related to academic or career goals or permission of Instructor. Corequisites: At least 1 class related to major or career interest or with permission of the Instructor.

## DHE-Dental Hygiene Education <br> DHE110 Pharmacology

3 Credits 3 Periods
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 Oral Pathology

3 Credits 3 Periods
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. Multi-media resources are used extensively for identification of oral lesions. Prerequisites: Admission to the Dental Hygiene Program or permission of Instructor.

## DHE115 Emergency Medicine

2 Credits 2 Periods
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 Dental Radiography

2 Credits 2 Periods
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 Head and Neck Anatomy

3 Credits 3 Periods
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 multi-media resources. Prerequisites: Admission to the Dental Hygiene Program or permission of Instructor.

## DHE120 Pre-Clinical Dental Hygiene

## 6 Credits 12 Periods

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 Dental Anatomy, Embryology and Histology

2 Credits 3 Periods
Includes the histology and embryology of oral tissues; developmental disturbance of the face, oral cavity, and related structures; tooth composition and morphology; eruption patterns and occlusal evaluation. Use of skulls, models and multi-media resources also covered. Prerequisites: Admission to the Dental Hygiene Program.

## DHE125 Dental Radiography Laboratory

1 Credits 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. Multi-media 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. Corequi-
sites: 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
Composition, properties and criteria for use of dental materials. Principles of mixing techniques of restorative, preventative, and laboratory dental materials. Prerequisites: Admission to the Dental Hygiene Program or permission of instructor. Corequisites: DHE202.

## DHE202 Dental Materials Laboratory

1 Credits 3 Periods
Manipulate permanent and temporary restorative materials, impression material, dental waxes, cements, peridontal dressings, bases and liners Fabricate mouth protectors, study models, and custom impression trays. Laboratory proficiency in margination of permanent restorative materials. Prerequisites: Admission to the Dental Hygiene Program or permission of instructor. Corequisites: DHE201.

## DHE212 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 multi-media resources are used extensively. Prerequisites: Admission to the Dental Hygiene Program or permission of Instructor.

## DHE227 Dental Anesthesia

## 2 Credits 1 Periods

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 documentations. 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 Engineering Analysis Tools and Techniques

2 Credits 4 Periods
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 Engineering Problem Solving and Design

2 Credits 4 Periods
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 or ECE102AA) and (high school physics, or PHY111, or PHY111AA).

## ECE201 Introduction to Engineering Statics

2 Credits 2 Periods
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 Introduction to Engineering Dynamics

2 Credits 2 Periods
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.

## ECE211 Engineering Mechanics-Statics

3 Credits 3 Periods
Mathematical treatment of the basic physical principles of statics. Methods of vector algebra and vector calculus. Prerequisites: ECE103 and (MAT230 or MAT231) and (PHY115 or PHY121). Corequisites: MAT240 or MAT241.

## ECE212 Engineering Mechanics - Dynamics

3 Credits 3 Periods
Kinematics and kinetics of particles, translating and rotating coordinate systems, rigid body kinematics, dynamics of systems of particles and rigid bodies, and energy and momentum principles. Prerequisites: ECE211 and (MAT240 or MAT241).

## ECE214 Engineering Mechanics

4 Credits 4 Periods
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.

## ECE230 Introduction to the Chemical Engineering Process

3 Credits 5 Periods
Introduces fundamental skills and principles needed to analyze the industrial processes of importance to the chemical engineering profession. Prerequisites: CHM152 and MAT231.

## ECH-Early Childhood Education

## ECH126AB Play Lab-Toddlers

1 Credits 2 Periods
Participant observation within a laboratory play environment with children 13-35 months of age. Focus on preparation, management and evaluation of developmentally appropriate activities. ECH126AB may be repeated for credit.

## ECH128 Early Learning: Play and The Arts

3 Credits 3 Periods
Examines theory, research and practices relating to play and the creative arts in early childhood. Considers practical constraints and alternative perspectives. Prerequisites: None.

## ECH176 Child Development

SB 3 Credits 3 Periods
Study of the science of human development from conception through adolescence. Includes observation skills, parent and adult roles in the lives of children, and contemporary issues. Prerequisites: None.

## ECH238 Computers in Early Childhood

## 1 Credits 1 Periods

Comparison of computers as a teaching device with traditional early childhood learning materials. Hands-on experience with child/computer interaction and software evaluation. Prerequisites: None.

## ECH270 Observing Young Children

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

## ECH271 Arranging the Environment

## 1 Credits 1 Periods

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 Science for the Young Child

1 Credits 1 Periods
Methods and techniques for encouraging beginning scientific thinking among young children. Focus upon the theory of Jean Piaget. Prerequisites: None.

## ECH273 Math for the Young Child

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

## ECH275 Literacy Development and the Young Child

1 Credits 1 Periods
Literacy from birth through the early childhood years. Focus on developmentally appropriate ways to encourage speaking, listening, writing, and reading in the home and classroom. Prerequisites: None.

## ECH279 Early Childhood Curriculum Development

1 Credits 1 Periods
An intensive focus on the process of building curriculum units appropriate to the developmental needs and abilities of the young child. Design, use and evaluation of materials and activities. ECH279 may be repeated for a total of four (4) credit hours. Prerequisites: None.

## ECH282 Discipline/Guidance of Child Groups

1 Credits 1 Periods
Exploration of techniques for guiding children in groups with focus on individual child and adult needs for a disciplined environment. Prerequisites: None.

## ECH287 Professional Development in Early Childhood Education <br> 1 Credits 1 Periods <br> Emerging professionalism within the field of early childhood education. Consideration of job responsibilities, rewards, ethics and current issues facing practitioners. Includes assessment and career planning. Prerequisites: None.

## ECH298AA Special Projects

1 Credits 1 Periods
Organized and tailored around 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.

## ECN-Economics

## ECN105 Consumer Economics

3 Credits 3 Periods
The relationship between the consumer and the economy in American society. Socioeconomic forces that impact on consumer purchases, debt, and budgeting. Consumerism as a movement. Prerequisites: None.

## ECN160 Economic History of the United States H, SB

3 Credits 3 Periods
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.

## ECN208 Microeconomics Issues

3 Credits 3 Periods
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 <br> SB

3 Credits 3 Periods
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 <br> SB

3 Credits 3 Periods
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.

## ECN250 World Economic Systems

G, SB
3 Credits 3 Periods
A descriptive analysis of capitalist, socialist and mixed economies. Some consideration also given to the problems of less developed economies. Prerequisites: None.

## EDU-Education

## EDU101AA Tutor Training and Practicum

## 1 Credits 1 Periods

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

## EDU111 Inquiry-Based Instructional Approaches for Science and Mathematics I

## 1 Credits 2 Periods

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. EDU111 requires additional lab time outside of class. Prerequisites: None.

## EDU112 Inquiry-Based Instructional Approaches for Science and Mathematics II

1 Credits 2 Periods
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. EDU112 requires additional lab time outside of class. Prerequisites: EDU111.

## EDU220 Introduction to Serving English Language Learners (ELL)

3 Credits 3 Periods
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/Dual Language Immersion(DLI). Includes SEI, ESL, and bilingual/DLI strategies. Approved school-based practicum is required. EDU220 incorporates the 45-clock hour curricular framework for SEI endorsement through the Arizona Department of Education. Prerequisites: None.

## EDU221 Introduction to Education

 SB3 Credits 3 Periods
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. Requires minimum of 30 hours of field experience in elementary or secondary classroom environment. Prerequisites: None.

## EDU222 Introduction to the Exceptional Learner C, SB

3 Credits 3 Periods
Overview of the exceptional learner with emphasis on factors relating to current practices, identification, characteristics, and educational adaptations. Issues related to mild disabilities, severe disabilities, emotional and behavioral disorders, intellectual disabilities, and students who are gifted. EDU222 requires an approved field experience. Prerequisites: None.

## EDU230 Cultural Diversity in Education

## C

3 Credits 3 Periods
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 Structured English Immersion, English as a Second Language,

3 Credits 3 Periods
Methods of planning, developing, and analyzing lesson plans in all content areas using English Language Learners (ELL) proficiency 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 state 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. EDU233 incorporates curricular framework for the 45 -clock hour requirement for SEI endorsement through the Arizona Department of Education. Prerequisites: (EDU220 or EPD220) or permission of Department or Division.

## EDU250 Teaching and Learning in the Community College

3 Credits 3 Periods
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.

## EDU282AA Service-Learning Experience in Education 1 Credits 1 Periods

Unpaid Service-Learning (SL) experience, completed with approved community partner. EDU282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. Prerequisites: Permission of Instructor.

## EDU282AC Service-Learning Experience in Education

 3 Credits 3 PeriodsUnpaid Service-Learning (SL) experience, completed with approved community partner. EDU282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. Prerequisites: Permission of Instructor.

## EDU291 Children's Literature

HU
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.

## EDU292 The Art of Storytelling

C, HU
3 Credits 3 Periods
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.

## EDU298AA Special Projects

1 Credits 1 Periods
Organized and tailored around 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.

## EED-Early Education

## EED200 Foundations of Early Childhood Education SB

3 Credits 3 Periods
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 EED200 requires a minimum of 30 hours of field experience in birth to age eight environments. Prerequisites: None.

## EED205 The Developing Child: Prenatal to Age Eight SB

3 Credits 3 Periods
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 Guidance, Management and the Environment 3 Credits 3 Periods <br> 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 Early Learning: Health, Safety, Nutrition and Fitness

3 Credits 3 Periods
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 Child, Family, Community and Culture

 C
## 3 Credits 3 Periods

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

## EED222 Introduction to the Exceptional Young Child: Birth to Age Eight <br> \section*{C, SB}

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

## EED245 Early Learning: Language Acquisition and Literacy Development

3 Credits 3 Periods
Overview of language acquisition and development, emergent literacy, early literacy development, and appropriate early experiences with books, reading, and writing for typical and atypical children birth to age eight. Emphasis placed on reading and writing readiness, methods to enhance literacy development, and strategies for selecting and using children's books. Prerequisites: None.

## EED255 Portfolio Development and Writing for the Profession

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

## EED260 Early Childhood Infant/Toddler Internship

1 Credits 1 Periods
Work experience with infants and toddlers in early care and education settings. 80 hours of designated work per credit. May be repeated for a total of six (6) credit hours. Prerequisites: Permission of Department or Division.

## EED261 Early Childhood Preschool Internship

1 Credits 1 Periods
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.

## EED262 Early Childhood Internship: Infant/Toddler

2 Credits 2 Periods
Work experience with infants and toddlers in early care and education settings. Prerequisites: Permission of Department or Division.

## EED263 Early Childhood Internship: Preschool

2 Credits 2 Periods
Work experience with preschoolers in early care and education settings. Prerequisites: Permission of Department or Division.

## EED272 Early Childhood Educational Psychology

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

## EED278 Early Learning: Curriculum and Instruction -

 Birth/Preschool3 Credits 3 Periods
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.

## EED280 Standards, Observation and Assessment of Typical/Atypical Behaviors of Young Children Birth to

 Age Eight3 Credits 3 Periods
Standards, observation, and assessment of typical and atypical behaviors, overview of standards, observation and assessment methodologies for typical and atypical young children (birth to age eight). Includes ethics, referral and reporting procedures, and collaboration with families and other professionals. Prerequisites: CFS/ECH176, or CFS235, or EED205.

## EED282AA Service-Learning Experience in Early Childhood Education

1 Credits 1 Periods
Unpaid Service-Learning (SL) experience, completed with approved community partner. EED282AA may be repeated for a total of six (6) credit hours. Standard grading is available according to procedures outlined in catalog. Prerequisites: Permission of Instructor.

## EEE-Electrical Engineering

## EEE120 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, flipflops, simple counters, registers, ROMs, PLDs, synchronous and asynchronous sequential circuits, and state reduction techniques. Building physical circuits. Prerequisites: CSC100, or CSC110, or CSC181, or ELE181, or NET181, or equivalent, or permission of Instructor.

## EEE202 Circuits and Devices

5 Credits 3 Periods
Introduction to circuits and devices. Component models, transient analysis, steady state analysis, Laplace transform, and active and passive filter networks. Prerequisites: ECE 103 or ECE103AB Corequisites: (MAT276 or MAT277) and (PHY116 or PHY131).

## EEE230 Computer Organization and Assembly Language <br> \section*{4 Credits 5 Periods}

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.

## ELE-Electronics

## ELE100 Concepts of Electricity and Electronics

## 3 Credits 4 Periods

Principles of electric circuits, magnetism and electromagnetism including basic motors and generators. Use of basic measuring instruments Includes an overview of electronics in the modern world. Prerequisites: None.

## ELE105 Algebra-Trigonometry for Technology <br> 5 Credits 5 Periods

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

## ELE111 Circuit Analysis I

4 Credits 6 Periods
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. Corequisites: ELE105, or MAT120, or MAT121, or MAT122, or equivalent.

## ELE112 Circuit Analysis II

4 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

2 Credits 4 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, soldering, surface-mount soldering, de-soldering/re-work, inspection, printed circuit board construction and repair, automated assembly, and Electrostatic Discharge (ESD) awareness and procedures. Prerequisites: None. Corequisites: ELE121.

## ELE181 Computer Programming for Technology

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: ELE112 and 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

Communication systems. Amplitude modulation (AM), frequency modulation (FM), single-sideband (SSB), radio receivers, pulse systems, radiation, antennas and wave propagation. Prerequisites: ELE121 and ELE131. Corequisites: ELE222.

## ELE263 Digital Data Communications

4 Credits 6 Periods
Overview of modern telephone system. Telephone switching and modulation techniques Familiarization with AM(amplitude modulation) and FM(frequency modulaation) circuits. Operation of asynchronous and sychronous modems. Prerequisites: ELE121 and ELE241.

## ELT-Electronics Technology

## ELT298AC Special Projects

3 Credits 3 Periods
Organized and tailored around 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.

## EMT-Emergency Medical Technology

## EMT101 Basic Life Support/Cardiopulmonary Resus-

 citation (CPR) for Health Care Providers0.5 Credits 0.45 Periods

Designed to provide the allied healthcare provider with the knowledge and skills to perform Basic Life Support (BLS) according to current guidelines for emergency cardiovascular care (ECC). EMT101 may be repeated for credit. Prerequisites: None.

## EMT104 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, patient-assisted medication administration, automated external defibrillators (AEDs), and blood-glucose monitoring. Students
are required to complete additional hours in a competency-based clinical, vehicular, and/or scenario based experience. This may be completed through EMT104AB or program director-approved rotation. Students must meet National Registry of EMTs requirements for certification. Additional information available at nremt. org EMT/FSC104 may be repeated for credit. Prerequisites: EMT101 or a current validation in Basic Life Support (BLS) Health Care Provider/Professional Rescuer and (appropriate score on Reading placement test to demonstrate minimum tenth grade level reading or completion of an Associate`s degree or higher from an accredited institution).

## EMT104AB Applied Practical Studies for Emergency Medical Technology

0.5 Credits 0.5 Periods

Simulation of actual emergency responses, with practical application of techniques and skills covered in EMT curricula. Scenario based learning applied to the techniques of emergency medical care in accordance with national and state curriculum. Practical application of anatomy, physiology, patient assessment, and treatment of medically or traumatically compromised patients, special hazards and medical operations. Also includes patient-assisted medication administration, semi-automatic external defibrillator and blood glucose monitoring. Students function in outside, scenario based environment. EMT/FSC104AB may be repeated for credit. Prerequisites: None. Corequisites: EMT/FSC104, or EMT200, or (EMT272AA, EMT272AB, and EMT272LL), or EMT273, or certified EMT Basic, IEMT, or Paramedic in the State of Arizona, or permission of Instructor.

## EMT200 Refresher Course for Certified Emergency Medical Technicians

2 Credits 2.7 Periods
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.

## EMT200AA EMT Certification Renewal Challenge

 0.6 Credits 0.6 PeriodsDesigned to contribute to Arizona Department of Health Services (A-DHS) Bureau of Emergency Medical Services (B-EMS) recertification requirements for Emergency Medical Technician (EMT) according to the U.S. Department of Transportation (DOT) EMT National Curriculum and the Arizona EMT Refresher Curriculum Guidelines. Prerequisites: Current validation in Basic Life Support (BLS) Health Care Provider/Professional Rescuer or proof of current registry with the National Registry of Emergency Medical Technicians (NREMT).

## EMT235 Basic ECG Rhythm Analysis and Interpretation in the Emergency Setting

3 Credits 3 Periods
Designed to provide the allied healthcare provider with basic skills in analysis and interpretation of sinus, atrial, junctional and ventricular rhythms from electrocardiographs (ECG) in the emergency setting. Also addresses heart block and electronically paced rhythms. Prerequisites: Current basic life support (BLS) healthcare provider/professional rescuer card and (EMT/FSC104 or permission of Instructor).

## EMT236 Pharmacology in an Emergency Setting

 3 Credits 3 Periods Designed for the allied healthcare provider to integrate knowledge of pharmacology and pharmacologic agents to formulate a management plan in the emergency setting. Includes principles of pharmacology, pharmacokinetics, pharmacodynamics, physiology of pharmacology, calculating medication dosages, and medication profiles. Prerequisites: Current basic life support (BLS) healthcare provider/professional rescuer card and (EMT/FSC104 or permission of Instructor). MAT082 or higher suggested but not required.
## EMT240 Advanced Cardiac Life Support (ACLS)

2 Credits 4 Periods
Designed for the allied healthcare provider who initiates, directs, or participates in the management of cardiopulmonary arrest and other cardiovascular emergencies. Provides the allied healthcare provider with the knowledge and skills to recognize and manage cardiopulmonary arrest, acute arrhythmia, stroke, and Acute Coronary Syndromes (ACS) according to current advanced Emergency Cardiovascular Care (ECC) guidelines. Requires prior knowledge of basic electrocardiograph rhythm interpretation, pharmacologic agents, and other interventions used in Advanced Cardiac Life Support (ACLS). Prerequisites: Current Basic Life Support (BLS) healthcare provider/professional rescuer card and (EMT235 and EMT236, or permission of Instructor).

## EMT242 Pediatric Advanced Life Support (PALS)

1 Credits 2 Periods
Designed for the allied healthcare provider who initiates, directs, or participates in the management of an infant or child in respiratory compromise, circulatory compromise, or cardiopulmonary arrest according to current CPR and Emergency Cardiovascular Care (ECC) guidelines. Requires prior knowledge of basic electrocardiograph rhythm interpretation, pharmacologic agents, and other interventions used in Pediatric Advanced Life Support (PALS). EMT242 is required for American Heart Association Provider approval and validation. Prerequisites: Current Basic Life Support (BLS) healthcare provider/professional rescuer card and (EMT235 and EMT236, or permission of Instructor).

## EMT245 Trauma Management I

2 Credits 3.5 Periods
Designed to instruct prehospital care personnel in the critical skills necessary to manage the trauma victim and the emergency scene through the Incident Command System (ICS). Enhances basic emergency medical technology (EMT) skills by focusing on emergency care interventions. Provides exposure to victim assessment, initial treatment, resuscitative techniques, victim stabilization, transportation of the victim to an emergency care facility, and documentation. Prerequisites: Basic EMT certification or nurse with emergency room experience or permission of Department or Division.

## EMT249 12 Lead ECG Rhythm Analysis

0.5 Credits 0.5 Periods

Designed to acquaint all levels of emergency care providers with electrocardiographic (ECG) rhythm analysis and interpretation using the 12-lead electrocardiogram (ECG) Required content for identification and treatment of myocardial infarction and its complications Prerequisites: EMT235, or permission of Instructor

## EMT265 Pediatric Education for Prehospital Providers: Advanced

1 Credits 1.4 Periods
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 intraosseous 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, and 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 17.37 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. EMT272AA may be repeated for credit. Prerequisites: [Valid Arizona EMT certification and (MAT090 or higher, or a satisfactory score on the ASSET, or COMPASS, or Accuplacer placement exam), (ENG101 or ENG107), EMT235, and EMT236], or permission of Program Director. Comprehensive written, oral and practical evaluation on all EMT272AA prerequisite courses.

## EMT272AB Advanced Emergency Medical Technology

12.5 Credits 17.38 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. EMT272AB may be repeated for credit. Prerequisites: Valid Arizona EMT certification and EMT272AA. Comprehensive written, oral and practical evaluation on EMT272AA.

## EMT272LL Advanced Emergency Medical Technology Practicum

7.5 Credits 37.5 Periods

Clinical and vehicular practicum using diagnostic and advanced emergency medical treatment skills learned in the classroom.
Emphasis on hands-on application of skills to real-life scenarios involving acute illness and serious injuries. Prerequisites or Corequisites: EMT272AA and EMT272AB.

## EMT296WA Cooperative Education

1 Credits 5 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: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.

## EMT296WB Cooperative Education

## 2 Credits 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: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.

## EMT298AA Special Projects

1 Credits 1 Periods
Organized and tailored around 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

## ENG-English

ENG081 Preparatory Academic Writing II
3 Credits 3 Periods
Emphasizes preparation for college-level composition and related reading tasks with a focus on critical writing, reading, and thinking skills and processes. Prerequisites: Appropriate writing placement test score, or a grade of "C" or better in ENG071 or ESL077, or permission of Department or Division.

## ENG091 Preparatory Academic Writing III

3 Credits 3 Periods
Emphasizes preparation for first year composition with a focus on critical writing, reading, and thinking skills and processes at an increased level of academic complexity. Prerequisites: Appropriate writing placement test score, or a grade of "C" or better in ENG081 or ESL087, or permission of Department or Division.

## ENG100AA American-English Spelling System

1 Credits 1 Periods
American-English spelling system rules, mnemonic devices. Prerequisites: Appropriate English placement test score, or a grade of "C" or better in ENG091 or ESL097, or permission of Instructor.

## ENG100AB Vocabulary Development

1 Credits 1 Periods
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 ENG091 or ESL097, or permission of Instructor

## ENG100AC The Mechanics of Written English

 1 Credits 1 PeriodsReview 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 ENG091 or ESL097, or permission of Instructor.

## ENG100AD Grammar and Usage

1 Credits 1 Periods
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 ENG091 or ESL097, or permission of Instructor.

## ENG101 First-Year Composition <br> FYC

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.

## ENG102 First-Year Composition

FYC
3 Credits 3 Periods
Emphasis on rhetoric and composition with a focus on persuasive, research-based writing and understanding writing as a process. Developing advanced college-level writing strategies through three or more writing projects comprising at least 4,000 words in total. Prerequisites: Grade of C or better in ENG101.

## ENG107 First-Year Composition for ESL FYC

3 Credits 3 Periods
Equivalent of ENG101 for students of English as a Second Language (ESL). Emphasis on rhetoric and composition with a focus on expository writing and understanding writing as a process. Establishing effective college-level writing strategies through four or more writing projects. Prerequisites: Appropriate writing placement test score, or a grade of C or better in ENG091 or ESL097.

## ENG108 First-Year Composition for ESL

FYC
3 Credits 3 Periods
Equivalent of ENG102 for students of English as a Second Language (ESL). Emphasis on rhetoric and composition with a focus on persuasive, research-based writing and understanding writing as a process. Developing advanced college-level writing strategies through three or more writing projects comprising at least 4,000 words in total. Prerequisites: Grade of C or better in ENG107.

## ENG111 Technical and Professional Writing

 L3 Credits 3 Periods
Covers analyzing, planning, organizing, researching, and writing correspondence, reports, and presentations for specific work-related audiences. Includes integrating data and graphics into workrelated documents and presentations. Prerequisites: ENG101 with a grade of C , or better, or permission of Instructor.

## ENG200 Reading and Writing About Literature <br> HU, L

3 Credits 3 Periods
Emphasis on critical analysis of various genres of literature; includes study of necessary terminology, introduction to methods of literary criticism, and practice in interpretation and evaluation. Prerequisites: ENG102.

## ENG213 Introduction to the Study of Language

 HU, SB3 Credits 3 Periods
Study of language as code; phonetics, phonology, morphology, syntax, semantics; language acquisition; historical and sociolinguistics. Prerequisites: A grade of C or better in ENG102, or ENG111, or permission of Instructor.

## ENG215 Strategies of Academic Writing

L
3 Credits 3 Periods
Advanced course in techniques of analyzing and writing academic expository prose. Writing to be research based. Prerequisites:
A grade of C or better in ENG102, or ENG111, or permission of Instructor.

## ENG216 Persuasive Writing on Public Issues

 L3 Credits 3 Periods
Advanced course in techniques of analyzing and writing persuasive arguments addressing topics of current public interest. Papers research based. Prerequisites: ENG102.

## ENG217 Personal and Exploratory Writing

 L3 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.

## ENG235 Magazine Article Writing

3 Credits 3 Periods
Basic skills and techniques used by professional writers for publication in magazines Includes analyzing markets, identifying article slant, research techniques, editing, and submission procedures. Emphasis on nonfiction. Prerequisites: None.

## ENH-English Humanities

## ENH110 Introduction to Literature

C, HU
3 Credits 3 Periods
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.

## ENH112 Chicano Literature

C, HU
3 Credits 3 Periods
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.

## ENH113 Writers/Directors and Current Issues HU

3 Credits 3 Periods
In-depth analysis of literary texts by contemporary writers/ directors throughout the world, including essayists, journalists, playwrights, novelists, directors, short story writers, and/or poets. Examines perspectives representing a variety of cultures. Critical
responses to current issues of worldwide interest examined, including topics as environment, technology, medicine, economics, politics, education, human rights, law and order. Prerequisites: None.

## ENH190 Introduction to US Ethnic Literature

C, H, HU
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

HU
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

HU
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 H, HU <br> 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 HU

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 HU

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 <br> HU

3 Credits 3 Periods
Includes literature written prior to 1860 in the United States.
Prerequisites: None.

## ENH242 American Literature After 1860 <br> HU

3 Credits 3 Periods
Includes literature written after 1860 in the United States. Prerequisites: None.

## ENH250 Classical Backgrounds in Literature

3 Credits 3 Periods
Introduction to selected readings of Greek and Latin literature in translation and to the key elements as integral aspects of Western culture through successive ages. Prerequisites: None.

## ENH251 Mythology

G, HU
3 Credits 3 Periods
Deals with the myths and legends of civilizations with the greatest influence upon the development of the literature and culture of the English speaking people, and compares those myths with myths from other cultures. Prerequisites: None.

## ENH254 Literature and Film

HU, L
3 Credits 3 Periods
Presents works of literature and their film versions and analyzes distinguishing techniques of each medium. Prerequisites: ENG101, or ENG107, or equivalent.

## ENH255 Contemporary U.S. Literature and Film C, HU, L <br> 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

HU
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

C, HU
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 C, HU

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.

## ENH290 Modern Irish Literature and Culture

3 Credits 3 Periods
Literature of Ireland from 1880 to the present. Examines how uniquely Irish themes have been reflected in high and popular culture and how these cultures and themes have influenced Ireland's literary tradition. Prerequisites: None.

## ENH291 Children's Literature HU

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 <br> C, HU

3 Credits 3 Periods
History, motivations, and effects of censorship in a democratic society. Censorship and book banning as a method of silencing diverse voices. Critical analysis of banned or challenged literature for children and adults. Prerequisites: None.

## EPD-Education Professional Development

## EPD244 Reading and Writing in SEI/ESL/Bilingual

 Settings3 Credits 3 Periods
Introduction to Structured English Immersion (SEI)/English as a Second Language (ESL)/Dual Language Immersion (DLI) terminology, second language acquisition theories, and literacy terminology. Emphasis on instructional and assessment strategies as well as reading comprehension and writing skills. EPD244 incorporates the 45 -clock hour curricular framework for SEI endorsement through the Arizona Department of Education. Prerequisites: Provisional or standard teaching certificate for elementary, secondary, special, or career and technical education and (EDU220 or EPD220) or permission of Department or Division.

## EPD246 Teaching and Assessment of English Language Learners (ELL)

3 Credits 3 Periods
Teaching and assessment of English/Language Learners. Covers differentiated instruction, special education needs vs. language needs, learning environments in multilingual and multicultural classrooms, identification, exiting, and ongoing assessment of student learning. Legal issues and historical perspectives also covered. Linking assessment to instruction and the review of methods and techniques employed for language and academic assessment included. Standards emphasized. Prerequisites:
(EDU220 or EPD220) and must hold a provisional or standard teaching certificate for elementary, secondary, special, or career and technical education, or permission of Department or Division.

## EPD247 Practicum for English as a Second Language (ESL) / Bilingual

3 Credits 45 Periods
Provides an opportunity to receive guided practical, on-site experience working with English/Language Learners (ELL). Requires observations of ELL students in a variety of settings, evaluation of teaching techniques, and critical review of academic standards as they relate to English as a Second Language (ESL) learners. Prerequisites: (EDU220 or EPD220) and EDU230 and (ENG213 or SLC201) and (EDU233 or EPD233 or EPD241) and (provisional or standard teaching certificate for elementary, secondary, special, or career and technical education), or permission of Department or Division.

## EPS-Entrepreneurial Studies

## EPS150 Introduction to Entrepreneurship

3 Credits 3 Periods
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 Business Start-Up and Planning

2 Credits 2 Periods
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 Principles of Equine Science

3 Credits 3 Periods
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 ((MAT081, or MAT082, or MAT083) with a C or better or equivalent as indicated by placement), and (ENG091 with a C or better or equivalent as indicated by placement).

## EQS298AA Special Projects

1 Credits 1 Periods
Organized and tailored around 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.

## ESL-English Second Language

ESL010 English as a Second Language I: Grammar 3 Credits 3 Periods
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 ESL010 may be repeated for a maximum of six (6) credits. Credit (P) or no credit (Z) Standard grading available according to procedures outlined in catalog. Prerequisites: Appropriate ESL placement test score.

## ESL011 English as a Second Language I: Listening and Speaking

## 3 Credits 3 Periods

Emphasis on listening and speaking skills involving survival skills. Asking and answering questions related to work, shopping, and personal safety. ESL011 may be repeated for a total of six (6) credit hours. Prerequisites: Appropriate ESL placement test score or ESL002.

## ESL012 ESL I-Writing with Oral Practice <br> 3 Credits 3 Periods

Emphasis on basic conventions of writing in English. Includes introduction to the alphabet, capitalization, punctuation, and simple sentence structure. ESL012 may be repeated for a total of six (6) credit hours. Prerequisites: Appropriate ESL placement test score or permission of instructor.

## ESL020 English as a Second Language II: Grammar

 3 Credits 3 PeriodsSecond 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. ESL020 may be repeated for a maximum of six (6) credits. Credit (P) or no credit (Z) Standard grading available according to procedures outlined in catalog. Prerequisites: Appropriate ESL placement test score, or a grade of "P" or "C" or better in ESL010, or (ESL010AA, ESL010AB, and ESL010AC).

## ESL021 English as a Second Language II: Listening and Speaking

3 Credits 3 Periods
Emphasis on listening and speaking skills involving social exchange. Asking and answering questions, using tag questions. Practice with question and answer patterns. Polite questions ESL021 may be repeated for a total of six (6) credit hours. Prerequisites: Appropriate ESL placement test score, or ESL010, or ESL011, or ESL012, or ESL/RDG016.

## ESL022 ESL II-Writing with Oral Practice

3 Credits 3 Periods
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 English as a Second Language III: Grammar

 3 Credits 3 PeriodsThird level of English as a Second Language (ESL) Emphasis on sentence structure and paragraph building. Extensive grammar study and writing practice. ESL030 may be repeated for a maximum of six (6) credits Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. Prerequisites: Appropriate ESL placement test score, or a grade of "P" or "C" or better in ESL020, or (ESL020AA, ESL020AB, and ESL020AC).

## ESL031 English as a Second Language III: Listening and Speaking

3 Credits 3 Periods
Emphasis on listening and speaking skills related primarily to the academic environment. Asking questions, working in small groups, using college resources, informal oral presentation. ESL031 may be repeated for a total of six (6) credit hours. Prerequisites: Appropriate ESL placement test score, or ESL020, or ESL021, or ESL022, or ESL/RDG026.

## ESL032 ESL III-Writing with Oral Practice

3 Credits 3 Periods
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 English as a Second Language IV: Grammar

 3 Credits 3 PeriodsFourth-level of English as a Second Language (ESL). Continued emphasis on sentence structure and paragraph building. Extensive grammar study and writing practice. ESL040 may be repeated for a maximum of six (6) credits. Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. Prerequisites: Appropriate ESL placement test score, or a grade of "P" or "C" or better in ESL030, or (ESL030AA, ESL030AB, and ESL030AC).

## ESL041 English as a Second Language IV: Listening and Speaking

3 Credits 3 Periods
Emphasis on academic skills Listening to lectures, notetaking, peer interaction, accessing and using media resources, formal oral presentations. ESL041 may be repeated for a total of six (6) credit hours. Prerequisites: Appropriate ESL placement test score, or ESL030, or ESL031, or ESL032, or ESL/RDG036.

## ESL042 ESL IV-Writing with Oral Practice

3 Credits 3 Periods
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.

## ESL051 Pronunciation Improvement for ESL Speakers

 3 Credits 3 PeriodsIndividualized pronunciation practice and drills for English as a second language (ESL) speakers. ESL051 may be repeated for a total of six (6.0) 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.

## ESL097 Preparatory Academic Writing III for ESL

 3 Credits 3 PeriodsEmphasizes preparation for first year composition with a focus on critical writing, reading, and thinking skills and processes at an increased level of academic complexity. Prerequisites: Appropriate writing placement score, or a grade of C or better in ESL087 or ENG081, or permission of Department or Division.

## ESL298AA Special Projects

1 Credits 1 Periods
Organized and tailored around 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.

## ESL298AC Special Projects

3 Credits 3 Periods
Organized and tailored around 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.

## ETL-Excellence/Teaching/Learning

ETL102 Educational Application of Technology
1 Credits 1 Periods
Principles and practice of using technological tools for teaching across the curriculum. Designed for 21st Century teaching and learning. ETL102 may be repeated for a total of sixteen (16) credit hours. Prerequisites: None.

## ETL211AA Curriculum Mapping and Instructional Design

1 Credits 1 Periods
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. Prerequisites: Permission of Department or Division.

## ETL211AB Outcomes-Based Learning and Informative Assessment

1 Credits 1 Periods
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 Lesson Design and Delivery

1 Credits 1 Periods
Emphasis on theoretical foundations of good teaching. Includes lesson design and delivery based on effective learning strategies and best instructional practices. ETL211AC 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

3 Credits 3 Periods
Introductory course that will provide the student with a general overview of the disciplines, professions and research areas associated with the field of Exercise Science. Basic history, philosophy, theory, educational pathways and career options will be examined. Prerequisites: None.

## EXS112 Professional Applications of Fitness Principles

 3 Credits 3 PeriodsBasic principles of fitness for the prospective fitness professional and characteristics of quality communication and fitness leadership. Topics include behavior modification, enhancing motivation components of fitness, fitness assessment, risk stratification, exercise programming and modifications. Prerequisites: None.

## EXS125 Introduction to Exercise Physiology

3 Credits 3 Periods
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

3 Credits 3 Periods
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

3 Credits 3 Periods
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

 1 Credits 1 PeriodsOverview 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

3 Credits 4.5 Periods
Follows the current ACSM guidelines for health appraisal, risk assessment, safety of exercise, exercise testing, and exercise prescription. Prerequisites: None.

## EXS150 Introduction to Sports Management

3 Credits 3 Periods
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.

## EXS214 Instructional Competency: Flexibility and

 Mind-Body Exercises2 Credits 3 Periods
Fundamental methods of instructing and leading fitness activities including flexibility activities. Core competencies identified by professional certification agencies. Prerequisites: None.

## EXS216 Instructional Competency: Muscular Strength and Conditioning

2 Credits 3 Periods
Fundamental methods of instructing and leading fitness activities including strength and conditioning activities. Core competencies identified by professional certification agencies. Prerequisites: None.

## EXS218 Instructional Competency: Cardiorespiratory Exercises and Activities

2 Credits 3 Periods
Fundamental methods of instructing and leading fitness activities including cardiorespiratory exercises and activities. Core competencies identified by professional certification agencies. Prerequisites: None.

## EXS239 Practical Applications of Personal Training Skills and Techniques Internship

3 Credits 5.4 Periods
Work experience in a fitness or health related facility. Eighty (80) hours of designated work per credit. CPR certification must be current through the duration of the internship. EXS239 may be repeated for a maximum of six (6) credits. Prerequisites: Completion of nine (9) credits of EXS courses required for the (AAS in Exercise Science and Personal Training, or CCL in Personal Training Specialist, or CCL in Personal Trainer), current CPR card, and permission of Department or Division.

## EXS239AA Practical Applications of Personal Training Skills and Techniques Internship

## 1 Credits 1.8 Periods

Work experience in a fitness or health related facility. Eighty (80) hours of designated work per credit CPR certification must be current through the duration of the internship. EXS239AA may be repeated for a maximum of six (6) credits. Prerequisites: Completion of nine (9) credits of EXS courses required for the (AAS in Exercise Science and Personal Training, or CCL in Personal Training Specialist, or CCL in Personal Trainer), current CPR card, and permission of Department or Division.

## EXS239AB Practical Applications of Personal Training Skills and

2 Credits 3.6 Periods
Work experience in a fitness or health related facility. Eighty (80) hours of designated work per credit. CPR certification must be current through the duration of the internship. EXS239AB may be repeated for a maximum of six (6) credits. Prerequisites: Completion of nine (9) credits of EXS courses required for the (AAS in Exercise Science and Personal Training, or CCL in Personal Training Specialist, or CCL in Personal Trainer), current CPR card, and permission of Department or Division.

## EXS265BA Baseball Theory of Coaching

## 3 Credits 3 Periods

Reviews the principles, philosophy, strategies and theory of coaching baseball, as a competitive sport Prerequisites: None.

## EXS265FB Football Theory of Coaching

3 Credits 3 Periods
Reviews the principles, philosophy, strategies and theory of coaching football, as a competitive sport. Prerequisites: None.

## EXS281BA Baseball Methods of Coaching

3 Credits 3 Periods
Overview of the art and science of coaching baseball including: identifying various coaching styles, elements of effective communication, methods and techniques of coaching baseball. Prerequisites: None.

## EXS281FB Football Methods of Coaching

## 3 Credits 3 Periods

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.

## EXS282AC Service-Learning Experience in Exercise Science

3 Credits 3 Periods
Unpaid Service-Learning (SL) experience, completed with approved community partner. EXS282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. Prerequisites: Permission of Instructor.

## EXS290 Introduction to Evidence-Based Practice

 L3 Credits 3 Periods
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.

## EXS298AC Special Projects

3 Credits 3 Periods
Organized and tailored around 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.

## FON-Food and Nutrition

## FON100 Introductory Nutrition

3 Credits 3 Periods
Introduction to the science of food and human nutrition. Current sustainable dietary recommendations and applications for maximizing well-being and minimizing risk of chronic disease throughout the life cycle. An overview of the nutrients, emphasizing the importance of energy and fluid balance, and optimal functioning of the digestive system. Understanding factors that influence food intake in different cultures. Methods for evaluating credibility of nutrition claims, a focus on modern food safety and technology practices, and a worldview of nutrition are included. Emphasis is on personal dietary behavior change for a holistic life of wellness. Prerequisites: None.

## FON104 Certification in Food Service Safety and Sanitation

1 Credits 1 Periods
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

1 Credits 1 Periods
Overview and discussion of career opportunities in the fields of food, nutrition, and dietetics. Includes information about history, ethics, standards of practice, communication and counseling skills. Emphasis on how to become a Registered Dietitian Nutritionist or a Dietetic Technician Registered. Prerequisites: None.

## FON135 Sustainable Cooking

3 Credits 4 Periods
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

3 Credits 5 Periods
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

## G

3 Credits 3 Periods
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

3 Credits 3 Periods
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.

## FON165 Food Entrepreneurship

3 Credits 3 Periods
Overview of the process for starting a small food business. Covers stages for introducing a variety of food products into the market, food safety, and sanitation requirements. Includes business and marketing strategies, processing, labeling, and distribution requirements for different food product types such as dairy, meat, poultry, and fish. Also covers available resources for small food business support. Prerequisites: None.

## FON210 Sports Nutrition and Supplements for Physical Activity

## 3 Credits 3 Periods

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

3 Credits 3 Periods
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 SG

3 Credits 3 Periods
Scientific principles of human nutrition. Emphasis on scientific literacy and the study of nutrients for disease prevention. Includes micro and macro nutrients, human nutrient metabolism and nutrition`s role in the health of the human body throughout
the life cycle. Addresses nutrition principles for prevention of nutrition-related health conditions. Natural Sciences (General) [SG] in combination with: FON241LL Prerequisites: None.

## FON241LL Principles of Human Nutrition Laboratory SG

1 Credits 3 Periods
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. Natural Sciences (General) - [SG] in combination with: FON241. Prerequisites: or Corequisites: FON241.

## FON247 Weight Management Science

3 Credits 3 Periods
The comprehensive study of obesity as a disease of modern society due to multiple determinants. Use of evidence-based data and methods to assess and manage weight in various settings. Use of client-centered counseling strategies, including behavior change theories. Focus on discovering successful healthful longterm weight management strategies. Prerequisites: FON100 or FON241 or permission of Instructor.

## FON285 Food and Nutrition Studies Internship <br> 3 Credits 15 Periods

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. FON285 requires a minimum of 210 hours of instruction in an internship setting. FON285 may be repeated for a total of six (6) credits. Prerequisites: FON161 or permission of Department Chairperson or Program Director.

## FRE-French

## FRE101 Elementary French I <br> G

4 Credits 4 Periods
Basic grammar, pronunciation and vocabulary of the French language. Includes the study of French culture, practice of listening, speaking, reading and writing skills. Prerequisites: None.

## FRE102 Elementary French II

G
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 FRE101AA, or permission of Department or Division. Completion of prerequisites within the last three years is required.

## 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

G
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 or FRE102AA with a grade of "C" or better), or two years of high school. French with an average of "C" or better, or permission of Department or Division. Completion of prerequisites within the last three years is required.

## FRE202 Intermediate French II

G
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 Completion of prerequisites within the last three years is required.

## FSC-Fire Science Technology

## FSC101 Introduction 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 20 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: (EMT104 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 handson 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 firefighting 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.

## 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 Credits 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. Offered as credit (P) or no credit (Z) basis. Standard grading available according to procedures outlined in catalog. Prerequisites: None.

## 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.

## FSC174 Functions of Command

1 Credits 1.8 Periods
Basic functions of command in the fire service. Includes brief history and future trends of incident command. Analysis of recent local, national, and international tactical and strategic concerns. Utilizes a Command Training Center to provide real-time, com-puter- and prop-enhanced simulations. Prerequisites: Permission of Instructor.

## 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 multicasualty 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 PeriodsActions 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.

## 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.

## FSC215 Customer Service in the Public Sector

3 Credits 3 Periods
Examines the personal and practical skills needed to enhance customer service in the public sector with an emphasis on application, basic management requirements, and training. Prerequisites: None.

## FSC224 Incident Command Systems

3 Credits 3 Periods
Methods for managing emergency incidents including command, control and coordination of response to all types of incidents, including hazardous materials, natural hazards, fire and multiple causality incidents. Emphasis on stabilization and protecting life, property, and environment. Prerequisites: None.

## FSC258 Victimology and Crisis Management

 C, SB3 Credits 3 Periods
Victimology, the criminal justice system, techniques of crisis intervention, and the importance of a multicultural and global perspective. Includes sexual assault, family violence, post-traumatic stress disorder, the role of substance abuse, effective coping skills, appropriate community resources and the responsiveness of the justice system. Prerequisites: None.

## FSC282AA Service-Learning Experience in Fire Science

1 Credits 1 Periods
Unpaid Service-Learning (SL) experience, completed with approved community partner. FSC282AA may be repeated for a total of six (6) credit hours. Standard grading is available according to procedures outlined in catalog. Prerequisites: Permission of Instructor.

## GBS-General Business

## GBS104 Quality Telephone Techniques

1 Credits 1 Periods
Specific telephone communication techniques for delivering professional customer service. Prerequisites: None.

## GBS110 Human Relations in Business and Industry

 3 Credits 3 PeriodsExploration of fundamental theories and concepts of human relations in business and industry. Particular emphasis is placed on developing effective interpersonal relationships and leadership skills within an organization. Prerequisites: None.

## GBS131 Business Calculations

3 Credits 3 Periods
Review of basic arithmetic and application of mathematics to business problems, includes percentage, interest, discount, and markups. Prerequisites: None.

## GBS132 Personal and Family Financial Security

3 Credits 3 Periods
Principles and practices of personal and family financial planning, includes savings, budgeting, credit, buying versus renting, and general principles of consumerism. Prerequisites: None.

## GBS151 Introduction to Business

3 Credits 3 Periods
Characteristics and activities of current local, national, and international business. An overview of economics, marketing, management and finance. Prerequisites: None.

## GBS175 Professional Development

3 Credits 3 Periods
Examines personal qualities and professional skills needed to find a good job. Explores techniques required to build a successful career. Prerequisites: None.

## GBS205 Legal, Ethical, and Regulatory Issues in Business

3 Credits 3 Periods
Legal theories, ethical issues and regulatory climate affecting business policies and decisions. Prerequisites: None.

## GBS206 Business Law (UCC)

## 3 Credits 3 Periods

Legal and ethical aspects of contracts, sales, commercial paper, secured transactions, documents of title, letter of credit, bank deposits, and collections. Prerequisites: None.

## GBS207 Business Law (General Corporate)

## 3 Credits 3 Periods

Legal and ethical aspects of agency, partnerships, corporations, bankruptcy, antitrust, securities, and other regulations of business. Prerequisites: None.

## GBS211 Legal, Ethical and Regulatory Issues of the Internet Studies

3 Credits 4 Periods
Legal, ethical and regulatory issues of the Internet environment, including personal, commercial and business electronic transactions in cyberspace. Prerequisites: GBS210 or permission of Instructor.

## GBS220 Quantitative Methods in Business

3 Credits 3 Periods
Business applications of quantitative optimization methods in operations management decisions. Prerequisites: (A grade of "C" or better in MAT150 or MAT151 or MAT152) or satisfactory score on the District math placement test.

## GBS221 Business Statistics

CS
3 Credits 3 Periods
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 Business Communication

L
3 Credits 3 Periods
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.

## GBS261 Investments I

## 3 Credits 3 Periods

Evaluation of various investment forms including study of inflation, taxation, government securities, stocks and bonds, real estate and retirement plans. Prerequisites: None.

## GBS270AC Business Internship

3 Credits 3 Periods
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.

## GBS282AA Volunteerism General Business: Service Learning Experience

1 Credits 1 Periods
Service learning field experience within private/public agencies, educational institution, and citizen volunteer groups. GBS282AA may be repeated for a total of six (6) GBS282 credit hours. Standard grading available according to procedures outlined in catalog. Prerequisites: GBS151 and permission of Instructor.

## GBS282AB Volunteerism General Business: Service Learning Experience <br> 2 Credits 2 Periods

Service learning field experience within private/public agencies, educational institution, and citizen volunteer groups. GBS282AB may be repeated for a total of six (6) GBS282 credit hours. Standard grading available according to procedures outlined in catalog. Prerequisites: GBS151 and permission of Instructor.

## GBS282AC Volunteerism General Business: Service Learning Experience

3 Credits 3 Periods
Service learning field experience within private/public agencies, educational institution, and citizen volunteer groups. GBS282AC may be repeated for a total of six (6) GBS282 credit hours. Standard grading available according to procedures outlined in catalog. Prerequisites: GBS151 and permission of Instructor.

## GBS298AA Special Projects

## 1 Credits 1 Periods

Organized and tailored around 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.

## GBS298AC Special Projects

3 Credits 3 Periods Organized and tailored around 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.

## GCU-Geography: Cultural

## GCU102 Introduction to Human Geography

G, SB
3 Credits 3 Periods
Systematic study of human use of the earth. Spatial organization of economic, social, political, and perceptual environments. Prerequisites: None.

## GCU121 World Geography I: Eastern Hemisphere G, SB

3 Credits 3 Periods
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 World Geography II: Western Hemisphere G, SB

3 Credits 3 Periods
Description and analysis of variations in social, economic, and political phenomena in major world regions. Emphasis on SubSaharan Africa, Latin America, and Anglo America. Prerequisites: None.

## GCU221 Arizona Geography

C, H, SB
3 Credits 3 Periods
The historical to modern development of Arizona. The interplay between the physical, cultural and economic factors affecting Arizona today. Prerequisites: None.

## GER-German

## GER101 Elementary German I

4 Credits 4 Periods
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 Elementary German II

4 Credits 4 Periods
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 GER101AA, or permission of Department or Division Completion of prerequisites within the last three years is required.

## GER201 Intermediate German I

G
4 Credits 4 Periods
Review of essential grammar of the German language and study of the German culture. Continued practice and development of reading, writing, and speaking skills. Prerequisites: GER102, or GER102AA, or two years of high school German, or permission of Department or Division. Completion of prerequisites within the last three years is required.

## GER202 Intermediate German II

G
4 Credits 4 Periods
Continued development of German language skills and continued study of the German culture. Prerequisites: GER201 or permission of Department or Division. Completion of prerequisites within the last three years is required.

## GIS-Geographic Information Technology

## GIS205 Geographic Information Technologies

CS
3 Credits 3 Periods
Introduces modern geographic information technologies, including cartography, Geographic Information System (GIS), remote sensing, global positioning systems, and statistical analyses. Prerequisites: None.

## GIS211 Geographic Information Science I

CS
4 Credits 4 Periods
Introduces students to digital map creation including vector and raster data, map elements, and design, symbology, and the geo database using Esri (Environmental Systems Research Institute) desktop and online mapping environments. Prerequisites: CIS105, or CSC180, or permission of Instructor.

## GIS220 Introduction to ArcPy Scripting

3 Credits 3 Periods
Students will learn how to automate geoprocessing tasks and apply scripting fundamentals using the ArcGIS Python-based scripting language ArcPy. The course emphasizes problem solving using geoprocessing analysis, identifying system integration and data management tasks, determining programming tools and order based upon workflow analysis. Prerequisites: GIS211.

## GIS222 Geographic Information Science II

3 Credits 3 Periods
Geographic Information Science (GIS) as a basis for microcomputer spatial analysis and synthesis. Includes digitizing, database organization, spatial retrieval and graphics. Prerequisites: GIS211 or permission of Instructor.

## GIS223 Introduction to Digital Image Processing

## 3 Credits 3 Periods

Uses and application of remote sensing and imagery in Geographic Information Systems (GIS). Uses and application of Global Positioning Systems to GIS and remote sensing. Prerequisites: None.

## GLG-Geology

## GLG101 Introduction to Geology I - Physical Lecture

 SQ3 Credits 3 Periods
A study of the kind and arrangement of materials composing the earth's crust and the geological processes at work on and within the earth's surface. General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: GLG103. Prerequisites: None.

## GLG102 Introduction to Geology II - Historical Lecture

H, SG
3 Credits 3 Periods
Outlines the origin and history of the earth with emphasis on North America--its dynamic, geographic, and climatic changes; animals and plants of the past; the evolution of life. General Education Designation: Natural Sciences (General) - [SG] in combination with: GLG104. Prerequisites: None.

## GLG103 Introduction to Geology I - Physical Lab SQ

1 Credits 3 Periods
May accompany GLG101 Study of common rock-forming minerals, rocks, and maps. General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: GLG101. Prerequisites: None.

## GLG104 Introduction to Geology II - Historical Lab SG

1 Credits 3 Periods
May accompany GLG102 Study of geological structures and rocks, fossils, and geologic maps. May require field trips. General Education Designation: Natural Sciences (General) - [SG] in combination with: GLG102. Prerequisites: None.

## GLG105 Introduction to Planetary Science SG

4 Credits 6 Periods
A survey of solar system objects and their geologic evolution, surfaces, interiors, and atmospheres, and the methods used to study them; weekly laboratory for data analysis and experiments; possible weekend field trip. Prerequisites: None.

## GLG110 Geological Disasters and the Environment G, SG

3 Credits 3 Periods
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 earthquakes, volcanoes, floods and landslides. Examines environmental impact and use of mineral and energy resources. General Education Designation: Natural Sciences (General) - [SG] in combination with: GLG111. Prerequisites: None.

## GLG111 Geological Disasters and the Environment Lab SG

1 Credits 3 Periods
May accompany GLG110 Basic geological processes and concepts. Emphasis on geology-related environmental problems concerning Arizona Case histories and field studies. May require field trips. General Education Designation: Natural Sciences (General) - [SG] in combination with: GLG110. Prerequisites: None.

## GLG121 Geology of the Grand Canyon

1 Credits 2 Periods
Introduction to the physiography and geology of the Grand Canyon. Includes a hiking field trip to the Grand Canyon. Prerequisites: None. GLG103 suggested but not required.

## GLG230AA Field Geology of the Southwest

1 Credits 5 Periods
Field trips to selected areas in the Southwest, such as Arizona, Utah, California, and Sonora to observe and interpret various geological features and phenomena. GLG230AA may be repeated for a total of four (4) credit hours. Prerequisites: None.

## GLG280 Geology of Arizona Lecture

3 Credits 3 Periods
Acquaints students with the physical and historical geology of Arizona, including the origin of present-day land forms and outstanding modern geologic features and processes now in operation. Prerequisites: None.

## GLG282AA Volunteerism for Geology: A Service Learning Experience

1 Credits 1 Periods
Service-learning field experience within human service organizations, government offices, public schools, or hospitals. GLG282AA 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 college catalog. Prerequisites: Permission of Instructor.

## GLO-Global Citizenship

## GLO298AA Special Projects

## 1 Credits 1 Periods

Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. Prerequisites: Permission of Program Director or Instructor.

## GPH- Physical Geography

## GPH111 Introduction to Physical Geography

 SQ3 Credits 3 Periods
Spatial and functional relationships among climates, landforms, soils, water, and plants. Prerequisites: None.

## GPH112 Introduction to Physical Geography Lab

 SQ1 Credit 3 Periods
Laboratory experience in support of GPH111. Prerequisites or Corequisites: GPH111.

## GPH113 Introduction to Physical Geography

SQ
4 Credits 3 Periods
Spatial and functional relationships among climates, landforms, soils, water, and plants. Prerequisites: None.

## GPH210 Society and Environment

G
3 Credits 3 Periods
Principles of physical geography relating to environmental problems pertinent to contemporary society. Pollution, maladjusted land use, resource exploitation. Prerequisites: ENG101, or ENG107, or equivalent.

## GPH211 Landform Processes

SQ
4 Credits 3 Periods
Geographic characteristics of landforms and earth-surface processes emphasizing erosion, transportation, deposition and implications for human management of the environment. Prerequisites: ENG101, or ENG107, or equivalent.

## GPH212 Introduction to Meteorology I

SQ
3 Credits 3 Periods
Atmospheric processes and elements. General and local circulation, heat exchange and atmospheric moisture. General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: GPH214. Prerequisites: None.

## GPH213 Introduction to Climatology

## SG

## 3 Credits 3 Periods

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. General Education Designation: Natural Sciences (General) - [SG] in combination with: GPH215. Prerequisites: None.

## GPH214 Introduction to Meteorology Laboratory I

 SQ1 Credits 3 Periods
Basic meteorological and climatological measurements. General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: GPH212. Prerequisites: None. Corequisites: GPH212.

## GPH215 Introduction to Climatology Laboratory

SG
1 Credits 3 Periods
A mathematical, statistical, and spatial analysis of climatological phenomena. General Education Designation: Natural Sciences (General) - [SG] in combination with: GPH213. Prerequisites: None. Corequisites: GPH213.

## GPH219 Introduction to GIS Using ArcGIS

3 Credits 3 Periods
An introduction to desktop Geographic Information Systems (GIS) technology using ArcGIS software. Prerequisites: CIS105, or CSC180, or permission of Instructor.

## GPH220 Intermediate GIS Using ArcGIS

CS
3 Credits 3 Periods
Further development of knowledge and skills in Geographic Information Systems (GIS), including evolution of GIS, GIS users, statistical applications, spatial databases, spatial analysis and related technology, and overview of spatial data. Prerequisites: GPH219 or permission of Instructor

## GPH267 Extreme Weather and Climate

L
3 Credits 3 Periods
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 Introduction to Cartography and Geospatial Technologies

3 Credits 3 Periods
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 Advanced GIS Using ArcGIS

3 Credits 3 Periods
Advanced data and spatial analysis techniques in Geographic Information Systems (GIS), using ArcGIS. Prerequisites: GPH220 or permission of Instructor.

## GPH275 Introduction to Remote Sensing

3 Credits 3 Periods
Uses and applications of remote sensing and imagery in Geographic Information Systems (GIS). Uses and application of Global Positioning Systems to GIS and Remote Sensing. Prerequisites: None.

## GPH282AA Service-Learning Experience in Physical Geography

1 Credits 1 Periods
Unpaid Service-Learning (SL) experience, completed with approved community partner. GPH282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. Prerequisites: Permission of Instructor.

## GPH282AB Service-Learning Experience in Physical Geography

2 Credits 2 Periods
Unpaid Service-Learning (SL) experience, completed with approved community partner. GPH282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. Prerequisites: Permission of Instructor.

## GPH298AA Special Projects

## 1 Credits 1 Periods

Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are 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.

## GPH298AB Special Projects

2 Credits 2 Periods
Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are 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.

## GPH298AC Special Projects

3 Credits 3 Periods
Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are 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.

## GTC-General Technology

## GTC102 Machine Processes, Theory and Application

 3 Credits 6 PeriodsStudy and application of principles and theory of common metal removal processes including drilling, reaming, boring, milling, turning, and grinding. Cutting tool geometry and materials, cutting speeds and feeds, coolants, and precision measurement. Prerequisites: None

## GTC104 Manufacturing Processes

4 Credits 7 Periods
Introduces students to manufacturing processes used in conversion of raw materials into useful products. Presents the basic manufacturing processes in logical groups, based on similarities of purpose and applications. Prerequisites: None.

## GTC106 Industrial Safety

## 2 Credits 2 Periods

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 Technical Mathematics I

3 Credits 3 Periods
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 hand held calculator. Technology related problems. Prerequisites: None.

## GTC108 Technical Mathematics II

3 Credits 3 Periods
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 Beginning Woodworking

3 Credits 4 Periods
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.

## GTC128 Intermediate Woodworking

3 Credits 4 Periods
Further development and application of basic woodworking skills. Complex projects with emphasis on planning and calculating and buying needed materials. Introduction of jointery, complex fitting, more advanced finishing, and wood carving. Prerequisites: GTC127 or previous woodworking experience.

## GTC129 Manufacturing Welding

## 3 Credits 8 Periods

Technical theory, safety considerations, and application of shop and welding processes commonly used in manufacturing, including oxyacetylene welding, brazing, and cutting, SMAW (Elec ARC), GMAW (MIG), GTAW (TIG) and plasma cutting. Prerequisites: None.

## GTC130 Furniture Construction I

3 Credits 6 Periods
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 Introduction to Cabinetmaking

3 Credits 5 Periods
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 Electro-Mechanical Devices

4 Credits 6 Periods
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 GTC108 or (MAT103AA and MAT103AB) or permission of Instructor.

## GTC206 CNC Programming

## 3 Credits 4 Periods

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 Properties of Materials

3 Credits 3 Periods
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 Advanced Machine Tools

3 Credits 6 Periods
Advanced machining practices; emphasis on application of machines and tool theory. Prerequisites: GTC102 or (MET101 and MET150).

## GTC236 CAD/CAM Computer Numerical Control (CNC) Programming

## 3 Credits 6 Periods

Programming of Computer Numerical Control (CNC) machine tools such as CNC Milling Machines, and Truning 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.

## GTC246 Advanced CAD/CAM CNC Programming

3 Credits 6 Periods
Programming of Computer Numerical Control (CNC) Mill, Lathe, and Wire Electrical Discharge Machine (EDM) utilizing multiaxis and three-dimensional graphics input. Prerequisites: GTC236.

## GTC266 Solids Modeling-Solidworks

3 Credits 6 Periods
CAD modeling, solid part generation, assembly of parts, and working drawing creation. Applications of CAD/CAM in Computer Integrated Technology (CIM). Prerequisites: GTC246, or DFT254AA, or permission of Instructor.

## GTC276 Solids Programming

3 Credits 6 Periods
Parametric modeling, CNC part production, model to CAM system integration, and solid model part representation. Applied CAD/CAM in the role of Computer Integrated Technology (CIM). Prerequisites: GTC266.

## GTC296WC Cooperative Education

3 Credits 15 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: 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 (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.

## GTC298AA Special Projects

## 1 Credits 1 Periods

Organized and tailored around 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.

## GTC298AB Special Projects

## 2 Credits 2 Periods

Organized and tailored around 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.

## GTC298AC Special Projects

3 Credits 3 Periods
Organized and tailored around 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.

## HCC-Health Care

## HCC130 Fundamentals in Health Care Delivery

3 Credits 3 Periods
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 Medical Terminology for Health Care Workers

## 3 Credits 3 Periods

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.

## HCC145AA Medical Terminology for Health Care Workers I

1 Credits 1 Periods
Introduction to medical terms used in health care. Body systems approach to selected terms related to structures, functions, diseases, procedures, and diagnostic tests. Building and analyzing terms using basic word parts. Selected medical abbreviations and symbols and term spelling. Prerequisites: None.

## HCR-Health Care Related

## HCR210 Clinical Health Care Ethics

HU
3 Credits 3 Periods
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 or ENG108 or permission of Instructor.

## HCR220 Introduction to Nursing and Health Care Systems <br> H

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: A grade of "C" or better in ENG102 or ENG108 or permission of Instructor.

## HCR230 Culture and Health

C, G
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 permission of Instructor.

## HES-Health Science \& First Aid

## HES100 Healthful Living

## SB

3 Credits 3 Periods
Health and wellness and their application to an optimal life style. 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 <br> 0.5 Credits 0.5 Periods <br> 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 (CPR) and first aid for the adult, child and infant patients includes Automated External Defibrillator (AED), rescue breathing, obstructed airway, and other first aid procedures. Designed to train citizen responders in skills and procedures required during emergency situation. Prerequisites: None

## 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

C, G
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 PeriodsPrevention 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.

## HES275 Rehabilitation and Therapeutic Interventions in Sports

3 Credits 4 Periods
Exploration of current trends in the basic and advanced methodologies used in the rehabilitation of athletic injuries. Incorporates demonstrations of injury-appropriate strength and fitness training and therapeutic exercise techniques. Prerequisites: HES271.

## HIS-History

HIS100 History of Western Civilization to Middle Ages H, SB
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.

## HIS101 History of Western Civilization Middle Ages to

 1789H, HU, SB
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.

HIS102 History of Western Civilization 1789 to Present G, H, HU
3 Credits 3 Periods
Survey of origin and development of Western civilization and its institutions from French Revolution through the present. Prerequisites: None.

## HIS103 United States History to 1865

H, HU, SB
3 Credits 3 Periods
The political, economic, and social development of the United States from the Pre-Columbian period through the end of the Civil War (1865). Prerequisites: None.

## HIS104 Credits United States History 1865 to Present

H, SB
3 Credits 3 Periods
The political, economic, and social development of United States from 1865 to the present time. Prerequisites: None.

## HIS105 Arizona History

H, SB
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.

## HIS106 Southwest History

C, H, SB
3 Credits 3 Periods
Survey of Hispanic, Anglo, African-American and Native cultures of the peoples who have settled the American Southwest. Emphasis on cattle, mining, fur trade and transportation industries and role development of the region. Prerequisites: None.

## HIS107 Selected Issues in United States History

3 Credits 3 Periods
Survey of selected major issues in history of United States from early times to present. Prerequisites: None.

## HIS108 United States History 1945 to the Present

H, HU, SB
3 Credits 3 Periods
Survey of American history from 1945 to the present. Focuses on the political, social, economic and cultural history of the United States from the end of World War II to the present time. Includes domestic developments and foreign policy. Prerequisites: None.

## HIS110 World History to 1500

H, SB
3 Credits 3 Periods
Survey of the economic, social, cultural, and political elements of world history from the beginning of human civilization to 1500 . Prerequisites: None.

## HIS111 World History 1500 to the Present

G, H, HU
3 Credits 3 Periods
Survey of the economic, social, cultural, and political elements of world history from 1500 to the present. Prerequisites: None.

## HIS140 American Indian History

C, H, SB
3 Credits 3 Periods
Survey of American Indian history with emphasis on the last 200 years including developments in the 20th century. Focuses on selected groups such as the Cherokee, Iroquois Confederation, Navajo, Sioux and Indians of the Southwest in relation to cultural, economic, political and social continuity and changes. Topics include development and influence of federal policies, past
and present issues confronting Native Americans and how Native American individuals and communities maintain their identities as they confront social changes. Prerequisites: None.

## HIS145 History of Mexico

## G, H, SB

3 Credits 3 Periods
Survey of the political, economic, and social forces which have shaped the development of Mexico from pre-Columbian times to the present. Prerequisites: None.

## HIS173 United States Military History

H, SB
3 Credits 3 Periods
Focuses on the impact of the United States military in both peace and war on American society, politics and foreign relations from the colonial period to the present. Prerequisites: None.

## HIS201 History of Women in America <br> C, H, SB

3 Credits 3 Periods
Introduction to women's history from the colonial period to the present. Deals chronologically with changes and developments which have influenced the lives of women. Prerequisites: None.

## HIS212 Historical Foundations of Religion

H, HU
3 Credits 3 Periods
Survey of the historical contexts in which the major religions have emerged and evolved. Focuses on social and political events throughout history and their impact on religious beliefs and practices. Prerequisites: None.

## HIS251 History of England to 1700

H, HU
3 Credits 3 Periods
History of England to 1660. Analysis of the major political, cultural, social, and intellectual, and social factors in English historical development from its earliest times till 1660. Prerequisites: None.

## HIS252 History of England 1700 to Present <br> H, HU

3 Credits 3 Periods
Analysis of the major political, cultural, social, and intellectual factors in English historical development from 1650 to present. Prerequisites: None.

## HLR-Health Related

## HLR286 Women and Health: Body/Mind/Spirit/Connection

3 Credits 3 Periods
Economic, sociopolitical, and demographic factors affecting women's health. Methods for optimizing physical, emotional, and spiritual health. Specific health concerns of women throughout the lifespan. Activism for health promotion. Prerequisites: None.

## HRM-Hotel Restaurant Management

## HRM110 Introduction to Hospitality and Tourism Management

3 Credits 3 Periods
A fundamental overview of the hotel, restaurant, and tourism segments of the hospitality and tourism industry. Provides an overview of the operational sectors of the industry and reviews management components and skills. Contains components to develop communication skills and a professional career plan. Prerequisites: None.

## HRM145 Events Management

3 Credits 3 Periods
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 International Meetings, Conventions and Exhibitions

3 Credits 3 Periods
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 Hospitality Human Resource Management

3 Credits 3 Periods
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 permission of Instructor.

## HRM270 Hospitality Marketing

3 Credits 3 Periods
Essential skills of defining a service market, developing a market plan, and directing personnel to follow market plan. Emphasis on marketing in the hospitality industry and understanding segmentation, positioning and promotion in that market. Prerequisites: HRM110.

## HRM280 Hospitality and Tourism Law

3 Credits 3 Periods
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 Great Ideas Symposium

1 Credits 1 Periods
Interrelationships among cultures and behavior in the modern world. Focuses on selected themes and topics. Prerequisites: None.

## HUM107 Humanities Through the Arts <br> HU

3 Credits 3 Periods
Introduction to humanities including film, drama, music, literature, painting, sculpture, and architecture. Prerequisites: None.

## HUM201 Humanities: Universal Themes <br> G, HU

3 Credits 3 Periods
Study of worldviews in a variety of historical and contemporary world cultures, including analysis of origin and creation myths, artistic expression, spirituality, and the natural environment. Prerequisites: None.

## HUM202 Humanities: Universal Themes <br> HU

3 Credits 3 Periods
The hero/heroine; fool, the social world, and the future as themes in the humanities. Prerequisites: None.

## HUM205 Introduction to Cinema <br> HU

3 Credits 3 Periods
Survey of the history and development of the art of motion pictures, including criticism of aesthetic and technical elements. Prerequisites: None.

## HUM209 Women and Films

C, HU
3 Credits 3 Periods
Analysis of images of women in films from both historical and contemporary perspectives. Prerequisites: None.

## HUM210 Contemporary Cinema

HU
3 Credits 3 Periods
A study of contemporary films, directors and critics with emphasis on evaluating film as an art form. Prerequisites: None.

## HUM211 Foreign Films: Classics

G, HU
3 Credits 3 Periods
Analysis of contributions of foreign directors to the art and history of motion pictures through a study of selected films. Prerequisites: None.

## HUM214 African-Americans in Film C, HU

3 Credits 3 Periods
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 Film Comedy

HU
3 Credits 3 Periods
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 Introduction to Popular Culture

L
3 Credits 3 Periods
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.

## HUM245 Introduction to Holocaust Studies HU <br> 3 Credits 3 Periods

Introduction to essential information about the Holocaust. Provides theological, social and political background to establish contexts of anti-Semitism, especially in 19th and 20th centuries, with particular attention to National Socialist ideologies. Ghetto and camp life, including resistance, are explored. Emphasis is on texts of the Holocaust, including historical documents, participant testimonies, fiction, creative non-fiction, and poetry, much of which involves theological and moral debate. Includes analysis of supplementary visual material and some performing arts. Prerequisites: None. CRE101, or CRE111, or equivalent as indicated by appropriate reading placement test score recommended but not required.

## HUM250 Ideas and Values in the Humanities

H, HU, L
3 Credits 3 Periods
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 Ideas and Values in the Humanities H, HU, L

3 Credits 3 Periods
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 The Art of Storytelling

C, HU
3 Credits 3 Periods
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 Introduction to International Business G

3 Credits 3 Periods
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 Cultural Dimension for International Trade

 G, SB3 Credits 3 Periods
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 Export/Import Management

3 Credits 3 Periods
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 International Marketing Management

3 Credits 3 Periods
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 Prerequisites: IBS101, or permission of Instructor.

## IBS123 U S Customs and Export Licensing Regulations

 3 Credits 3 PeriodsRequirements for importing into the United States, and for export clearance, licensing, and foreign entry Includes role of customs brokers, duty rate structure and determination as well as Commerce Control List (CCL) and Export Control Commodity Numbering (ECCN), export licenses, and governmental requirements regarding exports. Prerequisites: IBS101, or permission of Instructor.

## IBS140 International Financial Management

3 Credits 3 Periods
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.

## IBS298AC Special Projects

3 Credits 3 Periods
Organized and tailored around 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

## IFS-Information Studies

## IFS112 Library Resource Concepts and Skills

2 Credits 2 Periods
Information access skills for print and electronic resources. Use of libraries and their structure, tools, and staff to identify, locate, evaluate and make effective and ethical use of information. Emphasizes critical thinking skills. Prerequisites: None.

## IFS201 Information in a Post-Truth World

L
3 Credits 3 Periods
Development of critical thinking skills in using information. Exploration of how information can be used as a tool or a weapon. Explanation of the role of information as a consumer and creator. Recognition of the impact of culture and worldview on how information is understood, created, and disseminated. Prerequisites: A grade of "C" or better in ENG101 or ENG107.

## IFS210 Research in a Global Society

G, SB
3 Credits 3 Periods
A comparative study focused on access to digital information in a global environment. Explore the global culture developing around the Internet and the impact of local, national and global cultures as well as economic and social factors related to the flow of information in a global society. Examine emerging technologies to produce and distribute information across cultures in a global society in an ethical manner. Prerequisites: None.

## INT-Interior Design

## INT100 Interior Design Drafting

3 Credits 6 Periods
Basic manual drafting techniques used in the interior design industry. Focus on industry standards of equipment use, lettering, line work, dimensioning, scaling, and annotation. Introduction and practice of industry-specific drawing types, including floor plans, elevations, sections, details, multi-view projection, and paraline. Brief exploration of hand sketching and Computer-Aided Design (CAD) techniques as they relate to manual drafting. Prerequisites: None.

## INT105 Introduction to Interior Design

3 Credits 3 Periods
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 Historical Architecture and Furniture H, HU

3 Credits 3 Periods
Historical survey of the development of furniture, interiors, and architecture from antiquity to the 19th Century. Prerequisites: None.

## INT120 Modern Architecture and Furniture

H, HU
3 Credits 3 Periods
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 Introduction to CAD for Interior Design

3 Credits 6 Periods
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

3 Credits 6 Periods
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 or permission of Department or Division.

## INT150 Color and Design

3 Credits 6 Periods
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

3 Credits 3 Periods
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

3 Credits 6 Periods
Properties, performance, maintenance, sustainability and general characteristic 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

3 Credits 6 Periods
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

3 Credits 6 Periods
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 or permission of Department or Division). Prerequisites or Corequisites: ARC141 or INT140.

## INT200 Advanced CAD for Interior Design

## 3 Credits 6 Periods

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

3 Credits 6 Periods
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 environmental considerations. Refinement of presentation skills. Prerequisites: INT145, INT170, and INT190.

## INT215 Professional Practices

3 Credits 3 Periods
Marketing and business processes used in interior design studios. Ethical issues facing interiors industry. Development of business plan. Prerequisites: INT190

## INT230 Presentation Techniques

3 Credits 6 Periods
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

## 3 Credits 3 Periods

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. Prerequisites or Corequisites: INT190 or permission of Department or Division.

## INT271AA Interior Design Internship

1 Credits 5 Periods
Interior design work experience in the interiors industry. Required to work 80 hours. Supervised and evaluated by a faculty coordinator. May be repeated for a total of four (4) credits with department permission. Prerequisites: Permission of Department or Division.

## INT271AB Interior Design Internship

2 Credits 10 Periods 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

## 3 Credits 15 Periods

Interior design work experience in the interiors industry. Required to work 240 hours. Supervised and evaluated by a faculty coordinator. Prerequisites: Permission of Department or Division.

## INT298 Special Projects

3 Credits 3 Periods
Organized and tailored around 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.

INV-Innovation

## INV150 Innovation Skill Development for the Individual

3 Credits 3 Periods
Individual skill development for the innovation process Includes the importance of imagination, experience, and situational awareness as well as emotional intelligence. Prerequisites: None. INV150 may be repeated for a total of six (6) credits.

## ITA-Italian

## ITA101 Elementary Italian I

G
4 Credits 4 Periods
Introduction to basic grammar, pronunciation, and vocabulary of Italian. Development of speaking, listening, reading, and writing skills. Study of the Italian culture. Prerequisites: None.

## ITS-Information Technology Security <br> ITS240 Ethical Hacking and Network Defense

3 Credits 4 Periods
Preparation for the EC-Council Certified Ethical Hacking examination. In-depth exploration of how to effectively protect computer networks from risks ranging from malicious infiltration to cyber-warfare. Includes examination of ethical hacking, relevant tools and methodologies, and its importance to network security. Resources to identify new computer network vulnerabilities and counter security strategies will be discussed as well as an overview of relevant computer crime laws and penalties. Prerequisites: ITS110, or CNT205, or CIS270, or permission of Instructor.

## JPN-Japanese

## JPN101 Elementary Japanese I G <br> 5 Credits 6 Periods

Basic grammar, pronunciation, and vocabulary of Japanese. Study of Japanese culture. Development of speaking, listening, reading and writing skills. Prerequisites: None.

## JPN102 Elementary Japanese II

G
5 Credits 6 Periods
Continued study of basic grammar, pronunciation and vocabulary of Japanese. Study of the Japanese culture Intensive practice in oral communication and development of reading and writing skills. Prerequisites: JPN101 or permission of Department or Division. Completion of prerequisites within the last three years is required.

## JPN115 Beginning Japanese Conversation I

3 Credits 3 Periods
Conversational Japanese. Basic sentence structure, pronunciation, and vocabulary necessary to develop speaking ability in Japanese. Designed for students seeking speaking and listening abilities, with little emphasis on grammar, reading, or writing. Prerequisites: None

## JPN201 Intermediate Japanese I

G

## 5 Credits 6 Periods

Expansion of sentence structures through oral/aural practice. Increased emphasis on reading and writing in Japanese and study of Japanese culture. Prerequisites: JPN102 or permission of Department or Division. Completion of prerequisites within the last three years is required.

## JPN202 Intermediate Japanese II G

5 Credits 6 Periods
Extensive review of Japanese grammar; development of vocabulary and idiomatic expressions through reading and writing. Continued practice of oral communication skills and study of Japanese culture. Prerequisites: JPN201 or permission of Department or Division. Completion of prerequisites within the last three years is required.

## JRN-Journalism

## JRN125 Photo Editing

3 Credits 3 Periods
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.

## JRN201 News Writing <br> <br> L

 <br> <br> L}3 Credits 5 Periods
Writing and producing news for the media. Associated Press editing style, writing skills, and organizational structure for news. Prerequisites: ENG101 or ENG107

## JRN203 Writing for Online Media

3 Credits 3 Periods
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.

## JRN205 Copyediting

## 3 Credits 3 Periods

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 C's of writing clarity, completeness and conciseness. Prerequisites: ENG101 or permission of Instructor.

## JRN215 News Production

L
3 Credits 5 Periods
Writing, editing, and publishing the student newspaper on multiple platforms. Emphasis may vary according to student goals. JRN215 may be repeated for a total of nine (9) credit hours.

## JRN225 Photojournalism

## 3 Credits 3 Periods

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 professional photo editing and design software. Prerequisites: None.

## JRN234 Feature Writing

L
3 Credits 3 Periods
Emphasis on crafting stylized human interest stories for publications. Includes research, interviewing, writing techniques, editing and professional concerns. Includes best practices for writing features for traditional and digital media. Prerequisites: ENG101, or ENG107, or permission of Instructor.

## JRN235 Practicum: Public Relations

3 Credits 5 Periods
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.

## 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.

## JRN240AA Journalism Internship

1 Credits 1 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.

## JRN240AB Journalism Internship

## 2 Credits 2 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.

## JRN240AC Journalism Internship

3 Credits 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.

## JRN298AA Special Projects

1 Credits 1 Periods
Organized and tailored around 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.

## JRN298 Special Projects

3 Credits 3 Periods
Organized and tailored around 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.

## JUD-Judicial Studies

## JUD101 The Courts in Arizona

## 1 Credits 1 Periods

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 Credits 1 Periods

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 Credits 1 Periods
Judicial writing skills, including research skills, organization, grammar, and style. Goals and objectives of writing in courts. Prerequisites: None.

## JUD111 Sentencing Misdemeanants

1 Credits 1 Periods
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 Credits 1 Periods
Techniques for conflict resolution. Prerequisites: None.

## JUD121 Appeals

1 Credits 1 Periods
Processing of appeals from limited jurisdiction to general jurisdiction courts. Prerequisites: None.

## 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 Department or Division. Completion of prerequisites within the last three years is required.

## LAT201 Intermediate Latin I <br> HU

4 Credits 4 Periods
Introduction to translation techniques using selections from various authors; emphasis on use of primary texts. Prerequisites: LAT102. Completion of prerequisites within the last three years is required.

## LDR-Leadership

## LDR102 Emerging Leaders II

2 Credits 2 Periods
Focus on implementing collaborative practices and organizational leadership skills to promote positive social change. Apply value-based leadership behavior in diverse settings. Prerequisites: LDR101 or permission of Instructor.

## MAT-Mathematics

## MAT081 Basic Arithmetic

4 Credits 4 Periods
Primary emphasis on conceptual understanding of and solving problems involving whole numbers, integers, mathematical operations, decimals, decimal operations, fractions, percentages, angles and geometric figures. Use of systems of measure, similarity, proportionality and the Pythagorean theorem. Focus on mathematical language, connections, patterns and reasoning, and additive and multiplicative reasoning. Student may receive credit for only one of the following: MAT051 and MAT052 and MAT053 and MAT054, or MAT081, or MAT082. Prerequisites: Satisfactory score on district placement exam.

## MAT082 Basic Arithmetic

3 Credits 3 Periods
Primary emphasis on conceptual understanding of and solving problems involving whole numbers, integers, mathematical operations, decimals, decimal operations, fractions, percentages, angles and geometric figures. Use of systems of measure, similarity, proportionality and the Pythagorean theorem. Focus on mathematical language, connections, patterns and reasoning, and additive and multiplicative reasoning. Student may receive credit for only one of the following: (MAT051 and MAT052 and MAT053 and MAT054), or MAT081, or MAT082. Prerequisites: Satisfactory score on district placement exam.

## MAT090 Developmental Algebra

## 5 Credits 5 Periods

Emphasis on meanings related to variable, equality, inequality, equivalence. The use of additive and multiplicative reasoning in solving linear equations and inequalities in one variable. Validation of solution(s) through a reasonable mathematical defense. Transfer and apply knowledge through a process of sense making and reasonableness in mathematical problems and practical application situations. Recognize patterns and organize data to represent situations where output is related to input. Understand the concept of function and be able to represent functions in multiple ways, including tables, algebraic rules, graphs and contextual
situations, and make connections among these representations. Read, represent, and interpret linear function relationships numerically, analytically, graphically and verbally and connect the different representations. Model and solve real world problems involving constant rate of change. Student may receive credit for only one of the following: MAT055 and MAT056 and MAT057, or MAT090, or MAT091, or MAT092. Prerequisites: A grade of "C" or better in MAT081 or MAT082, or appropriate mathematics placement test score, or (a grade "C" or better or a passing assessment score for each of the following courses: MAT051 and MAT052 and MAT053 and MAT054).

## MAT092 Introductory Algebra

3 Credits 3 Periods
Emphasis on meanings related to variable, equality, inequality, equivalence. The use of additive and multiplicative reasoning in solving linear equations and inequalities in one variable. Validation of solution(s) through a reasonable mathematical defense. Transfer and apply knowledge through a process of sense making and reasonableness in mathematical problems and practical application situations. Recognize patterns and organize data to represent situations where output is related to input. Understand the concept of function and be able to represent functions in multiple ways, including tables, algebraic rules, graphs and contextual situations, and make connections among these representations. Read, represent, and interpret linear function relationships numerically, analytically, graphically and verbally and connect the different representations. Model and solve real world problems involving constant rate of change. Student may receive credit for only one of the following: MAT055 and MAT056 and MAT057, or MAT090, or MAT091, or MAT092. Prerequisites: An appropriate mathematics placement score, OR a grade of "C" or better for MAT081, or MAT082, OR (an appropriate diagnostic score, or a grade of "C" or better in each of the following courses: MAT051, MAT052, MAT053, and MAT054).

## MAT108 Tutored Mathematics

## 2 Credits 2 Periods

Structured tutorial assistance and math study skills to help students achieve success in a mathematics course in which they are concurrently enrolled. Mathematics study skills emphasized. MAT108 may be repeated for a total of ten (10) credits. Corequisites: MAT082, or MAT090, or MAT091, or MAT092, or MAT120, or MAT121, or MAT122, or MAT140, or MAT141, or MAT142, or MAT150, or MAT151, or MAT152, or permission of Department Chair.

## MAT112 Mathematical Concepts and Applications

 3 Credits 3 PeriodsA problem solving approach to mathematics as it applies to real-life situations. Development, use and communication of mathematical concepts and applications that relate to measurement, percentage, practical geometry, statistics, finance, and unit conversions. Prerequisites: A grade of "C" or better in MAT090, or MAT091, or MAT092, or MAT093, or successful completion of Maricopa modules, or satisfactory score on District placement exam.

## MAT120 Intermediate Algebra

5 Credits 5 Periods
Analysis of rational, radical, quadratic and exponential equations, functions and applications; graphs of radical, quadratic and exponential functions; operations on polynomial, rational, and radical expressions. Students may receive credit for only one of the following: MAT120, MAT121, or MAT122. Prerequisites: (A grade of "C" or better in MAT090, or MAT091, or MAT092, or MAT093), or successful completion of required Maricopa Modules, or satisfactory score on District placement exam.

## MAT121 Intermediate Algebra

4 Credits 4 Periods
Analysis of rational, radical, quadratic and exponential equations, functions and applications; graphs of radical, quadratic and exponential functions; operations on polynomial, rational, and radical expressions. May receive credit for only one of the following:
MAT120, MAT121, or MAT122. Prerequisites: (A grade of "C" or better in MAT090, or MAT091, or MAT092, or MAT093), or successful completion of required Maricopa Modules, or satisfactory score on District placement exam.

## MAT122 Intermediate Algebra

3 Credits 3 Periods
Analysis of rational, radical, quadratic and exponential equations, functions and applications; graphs of radical, quadratic and exponential functions; operations on polynomial, rational, and radical expressions. May receive credit for only one of the following: MAT120, MAT121, or MAT122. Prerequisites: (A grade of "B" or better in MAT090, or MAT091, or MAT092, or MAT093), or successful completion of required Maricopa Modules, or satisfactory score on District placement exam.

## MAT141 College Mathematics

MA
4 Credits 4 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. Students may receive credit for only one of the following: MAT140, MAT141, or MAT142. Prerequisites: (A grade of "C" or better in MAT090, or MAT091, or MAT092, or MAT093), or successful completion of Maricopa Modules, or satisfactory score on District placement exam, or a grade of "C" or better in MAT120, or MAT121, or MAT122.

## MAT142 College Mathematics <br> MA

3 Credits 3 Periods
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. Students may receive credit for only one of the following: MAT140, MAT141, or MAT142. Prerequisites: (A grade of "B" or better in MAT090, or MAT091, or MAT092, or MAT093) or successful completion of Maricopa Modules, or satisfactory score on District placement exam, or (a grade of "C" or better in MAT120, or MAT121, or MAT122).

## MAT150 College Algebra/Functions

MA
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, using multiple methods including matrices, modeling and solving real world problems, and defining and illustrating sequences and series. May receive credit for only one of the following: MAT150, MAT151, MAT152, or MAT187. Prerequisites: A grade of "C" or better in MAT120, or MAT121, or MAT122, or satisfactory score on District placement exam.

## MAT151 College Algebra/Functions <br> MA

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, using multiple methods including matrices, modeling and solving real world problems, and defining and illustrating sequences and series. May receive credit for only one of the following: MAT150, MAT151, MAT152, or MAT187. General Education Designation: Mathematics - [MA] in combination with: MAT182. Prerequisites: A grade of "C" or better in MAT120, or MAT121, or MAT122, or satisfactory score on District placement exam.

## MAT152 College Algebra/Functions

MA
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, using multiple methods including matrices, modeling and solving real world problems, and defining and illustrating sequences and series. May receive credit for only one of the following: MAT150, MAT151, MAT152, or MAT187. Prerequisites: A grade of "B" or better in MAT120, or MAT121, or MAT122, or satisfactory score on a placement test.

## MAT182 Plane Trigonometry <br> MA

3 Credits 3 Periods
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. Students may receive credit for only one of the follow-
ing: 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

MA
5 Credits 5 Periods
A precalculus course combining topics from college algebra and trigonometry. Preparation for analytic geometry and calculus. May receive credit for only one of the following: MAT150, MAT151, MAT152, or MAT187. 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 CS

3 Credits 3 Periods
Basic concepts and applications of statistics, including data description, estimation and hypothesis tests. Prerequisites: Grade of "C" or better in MAT140, or MAT141, or MAT142, or MAT150, or MAT151, or MAT152, or equivalent, or satisfactory score on District placement exam.

## MAT212 Brief Calculus

MA
3 Credits 3 Periods
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 4 Credits 4 Periods

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 MA

5 Credits 5 Periods
Limits, continuity, differential and integral calculus of functions of one variable. MAT220 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.

## MAT221 Calculus with Analytic Geometry I <br> MA

4 Credits 4 Periods
Limits, continuity, differential and integral calculus of functions of one variable. Student 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

3 Credits 3 Periods
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 <br> 3 Credits 3 Periods

Introduction to lattices, graphs, Boolean algebras, and groups. Emphasis on topics relevant to computer science. Prerequisites: A grade of "C" or better in (CSC100 or CSC110) and (MAT220 or MAT221) or permission of Instructor.

## MAT231 Calculus with Analytic Geometry II

MA
4 Credits 4 Periods
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 MA <br> 4 Credits 4 Periods <br> 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.

## MAT256 Investigating Quantity: Number, Operations and Numeration

## 4 Credits 4 Periods

Explore number, numeration systems and operations on numbers. Techniques of problem solving with an emphasis on exploring a variety of strategies. Use a variety of visualization techniques to develop a conceptual understanding of these topics. MAT256 is designed to meet requirements for prospective elementary education teachers. Prerequisites: A grade of C or better in (MAT150 or MAT151 or MAT152 or higher), OR A grade of C or better in [(MAT120 or MAT121 or MAT122) AND (MAT140 or MAT141 or MAT142 or higher)], OR A grade of C or better in [(MAT140 or MAT141 or MAT142) AND satisfactory score on District placement exam to permit enrollment in (MAT150 or MAT151 or MAT152 or higher)].

## MAT257 Investigating Geometry, Probability and Statistics

4 Credits 4 Periods
Explores geometry, measurement, probability and statistics. Uses visualization, technologies, problem solving, reasoning and proof to develop a conceptual understanding of these topics. Prerequisites: MAT256 or permission of Instructor.

## MAT276 Modern Differential Equations <br> MA

4 Credits 4 Periods
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.

## MAT282AA Service-Learning Experience in Mathematics

1 Credits 1 Periods
Unpaid Service-Learning (SL) experience, completed with approved community partner. MAT282AA may be repeated for a total of six (6) credit hours. Standard grading is available according to procedures outlined in catalog. Prerequisites: Permission of Instructor.

## MAT282AB Service-Learning Experience in Mathematics

2 Credits 2 Periods
Unpaid Service-Learning (SL) experience, completed with approved community partner. MAT282AB may be repeated for a total of six (6) credit hours. Standard grading is available according to procedures outlined in catalog. Prerequisites: Permission of Instructor

## MAT282AC Service-Learning Experience in Mathematics

3 Credits 3 Periods
Unpaid Service-Learning (SL) experience, completed with approved community partner MAT282AC may be repeated for a total of six (6) credit hours Standard grading is available according to procedures outlined in catalog. Prerequisites: Permission of Instructor.

## MAT298AA Special Projects

1 Credits 1 Periods
Organized and tailored around 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.

## MCO-Mass Communication

## MCO120 Media and Society

## SB

3 Credits 3 Periods
Study of historical and contemporary roles of media and its pervasiveness in society as it relates to culture, politics and education. Prerequisites: ENG101 or ENG107.

## MCO220 Cultural Diversity and the Media

 C, L3 Credits 3 Periods
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 Tool Room I: Introduction to Machine Processes
2 Credits 2 Periods
Safe practices in the manufacturing environment. Organizational structure of a manufacturing organization. Equipment and processes used in material removal process. Required documentation. Tools and measurement devices used in manufacturing. Applied mathematics used in a manufacturing. Specific coolants, cooling oils and chemical used in the material removal process. Operator certification check sheet. Prerequisites: None.

## MET100AB Tool Room II: Machine, Processes, and Employment

2 Credits 2 Periods
Career selection process and completion of a resume and job application. Job interview under a simulated situation. Ideal work habits, ethics and career opportunities in the manufacturing field. Operator certification check sheet. Prerequisites: MET100AA.

## MET112 Inspection Techniques

3 Credits 5 Periods
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: (Math assessment score on District placement exam into MAT090 or MAT091 or MAT092 or higher) or permission of Department or Division. Prerequisites or Corequisites: MET109.

## MET131 Lean Manufacturing

3 Credits 3 Periods
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 CNC Mill: Operator Training I

3 Credits 3 Periods
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 or Corequisites: GTC/MET206 or permission of Program Director.

## MET208 CNC Lathe: Operator Training I

3 Credits 3 Periods
Computer Numerical Control (CNC) Lathe qualified setup and functioning program. Operation of lathe. Changing tool values. Replacing and qualify tooling. CNC Lathe operator training including machine controls, tooling and operations. Proper machine shop safety. Prerequisites: MET231 or permission of Program Director. Prerequisites or Corequisites: GTC/MET206 or permission of Program Director.

## MET209 CNC Mill: Operator Training II

3 Credits 6 Periods
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 communi-
cation techniques, and fixturing concepts. Proper machine shop safety Prerequisites: (GTC/MET206 and MET207) or permission of Department or Division.

## MET210 CNC Lathe: Operator Training II

3 Credits 6 Periods
Setup and operation of a Computer Numerical Control (CNC) lathe and CNC Mill/Turn. Manufacturing operation instructions and functioning program. Changing tool values. Replacing and qualify tooling. Advanced CNC lathe topics including production tooling and coolants, live tooling (mill/turn), tail stock, bar pull/feed, advanced program editing, CANNED cycle use and manipulation, and set up time reduction. Proper machine shop safety. Prerequisites: (GTC/MET206 and MET208) or permission of Department or Division.

## MET231 Manufacturing Processes and Materials

 3 Credits 5 PeriodsBasic machining operations related to drilling, milling, grinding, and lathe processes. Development of fundamental skills, practices and safety in working with machine tools, measurement instruments, and related equipment common to manufacturing. Theoretical and practical experiences related to the machining of plastics, ferrous and nonferrous metals. Laboratory projects and inspection sheets for each project. Prerequisites: (Math assessment score on District placement exam into MAT090 or MAT091 or MAT092 or higher) and MET112, or permission of Department or Division. Prerequisites or Corequisites: MET113.

## MET250 Machining Practices II

8 Credits 24 Periods
Hands-on experience in fabricating sophisticated metal components, complex level of planning, layout, measuring, setup and machine tool operations. Prerequisites: (GTC223 or MET231) and GTC108 or permission of Instructor.

## MGT-Management

## MGT101 Techniques of Supervision <br> 3 Credits 3 Periods

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 Supply Chain Management

## 3 Credits 3 Periods

Supply chain management, including basic concepts and underlying principles of logistics and inventory management. Prerequisites: None.

## MGT175 Business Organization and Management

 3 Credits 3 PeriodsCovers 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 Management and Leadership I

3 Credits 3 Periods
Covers management concepts and applications for business, industry, and government organizations. Prerequisites: None.

## MGT230 Management and Leadership II

3 Credits 3 Periods
Includes practical applications of activities, issues, and problems related to current managerial and supervisory skills and talents. Prerequisites: MGT229 or permission of Department or Division.

## MGT242 Project Scope and Procurement Management

 2 Credits 2 PeriodsScope 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 Project Time and Cost Management

2 Credits 2 Periods
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 Project Risk and Quality Management

 2 Credits 2 PeriodsRisk 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 Project, Human Resources and Communications Management

2 Credits 2 Periods
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 Principles of Project Management

3 Credits 3 Periods
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 Human Relations in Business

3 Credits 3 Periods
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 Owning and Operating a Small Business

 3 Credits 3 PeriodsStarting, organizing, and operating a small business, including location, finance management processes, advertisement and promotion, credit, inventory control and ethics. Prerequisites: None.

## MGT270AC Management Internship <br> 3 Credits 3 Periods

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 Personnel/Human Resources Management

 3 Credits 3 PeriodsHuman resource planning, staffing, training, compensating, and appraising employees in labor management relationships. Prerequisites: None. MGT101, or MGT175, or MGT229 suggested but not required.

## MGT296WA Cooperative Education

1 Credits 5 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: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.

## MGT298AC Special Projects

3 Credits 3 Periods
Organized and tailored around 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

## MHL-Music: History/Literature

MHL140 Survey of Music History
H, HU
3 Credits 3 Periods
Study of composers, compositions, styles, and periods in music history. Prerequisites: None.

## MHL143 Music in World Cultures

## G, HU

3 Credits 3 Periods
Non-European musical traditions including the study of music in rituals, musical instruments and the impact of cultures on musical styles. Prerequisites: None.

## MHL145 American Jazz and Popular Music <br> C, HU

3 Credits 3 Periods
The study of cultural and social contributions to the evolution of American jazz and popular music from the mid-1800s to present. Prerequisites: None.

## MHL146 Survey of Broadway Musicals HU

3 Credits 3 Periods
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 Rock Music and Culture

## H, HU

3 Credits 3 Periods
History of Rock music and how cultural, social, political, and economic conditions have shaped its evolution. Prerequisites: None.

## MHL155 Survey of American Music

C, H, HU
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.

## MHL194 Music and Culture

G, HU
3 Credits 3 Periods
Introduction to the study of multicultural music in its social, cultural, historical and economic contexts. Performance of music using percussion, rhythm, and the human body. Historical and social aspects of global cultures' musical expressions. Prerequisites: (MTC105 and MTC106) or permission of Instructor.

## MHL241 Music History and Literature to 1750

HU
3 Credits 3 Periods
In-depth study of music history from the primitive era through the Baroque period. Prerequisites or Corequisites: MTC155 and MTC156, or permission of Instructor.

## MHL242 Music History and Literature 1750 to Present HU

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 3 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 3 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 3 Periods

Introduces interpersonal dynamics involved in military team operations; theory and application of military leadership principles. Prerequisites: None.

## MIS202 Intro to Leadership Dynamics II

3 Credits 2 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

Theory and practice in the use of social media in marketing. Topics may include a history of social media, preparation for social
marketing, the power of collective influence, and how to engage with social media. Reviews social mediums, social networks, platforms and other marketing tools used to create a social media campaigns. Prerequisites: None.

## MKT111 Applied Marketing and Social Networking 3 Credits 4 Periods

Examination of the strategic use of digital and social media marketing platforms and tools for global communication and networking, including analysis of various digital and social media platforms and tools for developing brands, creating professional networks and creating engaging content. Hands-on use of social media platforms and tools to conduct research, develop strategies for creating, integrating, and evaluating social media marketing campaigns, and development of metrics to measure effectiveness. Prerequisites: MKT110.

## MKT151 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.

## MKT200 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.

## 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.

## MKT267 Principles of Salesmanship

## 3 Credits 3 Periods

Analyzes and applies the steps and techniques used in personal selling. Highlights the role of the professional sales representative and his/her functions as they relate to the company's mission and customer expectations. Prerequisites: None.

## 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.

## MKT280AA Marketing Internship

1 Credits 1 Periods
Marketing work experience in a business or industry. 80 hours of designated work per credit. MKT280AA may be repeated for a total of four (4) credits. Prerequisites: Permission of Department or Division.

## MKT280AC Marketing Internship

3 Credits 3 Periods
Marketing work experience in a business or industry. 80 hours of designated work per credit. MKT280AC may be repeated for a total of six (6) credits. Prerequisites: Permission of Department or Division.

## MKT296WA Cooperative Education

1 Credits 5 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: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.

## MKT296WC Cooperative Education <br> \section*{3 Credits 15 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: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.

## MKT298AA Special Projects

1 Credits 1 Periods
Organized and tailored around 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.

## MKT298AC Special Projects

## 3 Credits 3 Periods

Organized and tailored around 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.

## MMT-Multimedia Technology

## MMT184 Computer Animation

3 Credits 6 Periods
The art of animation (animated sequences, special effects, titles, etc.) using the computer. Construction characters, background graphics, color, scaling, storyboard, cells, timing, editing, and surface rendering. Screening and discussion of selected animated short films and videos. Prerequisites: ART100, or ART111, or ART116, or permission of Instructor.

## MMT185 3-D Modeling for Animation

3 Credits 6 Periods
Basic concepts of 3-D modeling. Anatomy of computer geometry; basic elements that make computer models-curves, surfaces, nurbs, and polygons 3-D translation, shading, materials, and rendering. Prerequisites: ADA/ART/MMT184 or ADA/ART184AC or permission of the Instructor.

## MMT186 Modeling for Digital Media

3 Credits 6 Periods
Development of 3-D models for multimedia productions. 3-D logos, objects, and advanced animation projects using special effects. Prerequisites: ADA/ART/MMT184 or permission of Instructor.

## MST-Microsoft Technology

## MST150EI Configuring Windows 8

3 Credits 4 Periods
In-depth exploration of how to effectively install and configure Windows 8. Includes features of Windows 8, virtualization with Hyper-V, network connectivity, access to resources, monitor and maintain Windows clients and backup and recovery. Designed
to prepare students for the Microsoft Windows 8 certification examination. Prerequisites: MST140, or CNT140++, or permission of Instructor.

## MST150SV Microsoft Windows 7 Configuration

3 Credits 4 Periods
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.

## MST150WT Installing and Configuring Microsoft Windows 10

3 Credits 4 Periods
In-depth exploration of how to effectively install and configure Windows 10. Includes features of Windows 10, virtualization improvements, network connectivity, access to resources, monitor and maintain Windows clients and backup and recovery. Designed to prepare students for the Microsoft Windows 10 certification examination. Prerequisites: None. CIS190, or CNT140AA, or MST140 suggested but not required.

## MST155 Implementing Windows Network Infrastructure

3 Credits 4 Periods
Knowledge and skills to install, configure, maintain, and support a Microsoft Windows network infrastructure. Preparation for Microsoft certification examination. Prerequisites or Corequisites: MST150, or any MST150++ course, or permission of Instructor.

## MST155DB Configuring Advanced Windows Server Services

4 Credits 5 Periods
In-depth exploration of how to effectively install and configure Windows Server. Designed to prepare students for the Microsoft Configuring Advanced Windows Server Services examination (70-412). Prerequisites: MST158++ or permission of Instructor. Recommend that prerequisite course completed was for the same version of Windows server as will be taught in this course.

## MST157DB Administering Windows Server

4 Credits 5 Periods
In-depth exploration of how to effectively manage Windows Server Designed to prepare students for the Administering Microsoft Windows Server examination (70-411). Prerequisites: MST158++ or permission of Instructor. Recommend that prerequisite course completed was for the same version of Windows server as will be taught in this course.

## MST158DB Installing and Configuring Windows <br> Server

4 Credits 5 Periods
In-depth exploration of how to effectively install and configure Windows Server. Includes roles and features of Server, virtualization with Hyper-V, core network services, Active Directory, and Group Policy. Designed to prepare students for the corresponding

Microsoft Windows Server Installation and Configuration examination. Prerequisites: (MST140 or CNT140++) and MST150++, or permission of Instructor.

## MTC-Music: Theory/Composition <br> MTC101 Introduction to Music Theory

3 Credits 3 Periods
Designed to develop written and aural skills necessary for advanced study of music theory and skills. Recommended for music majors. Prerequisites: None.

## MTC103 Introduction to Aural Perception

1 Credits 2 Periods
An introduction to the aural skills necessary to hear relationships of intervals, rhythms, melody, and harmony in music. MTC103 may be repeated for a total of two (2) credit hours. Prerequisites: None.

## MTC105 Music Theory I

3 Credits 3 Periods
The chronological study of music theory including: harmony, melody, texture, structure and timbre through analysis, original compositions and basic exercises to demonstrate musical concepts. Prerequisites: MTC100, or MTC101, or permission of Instructor. Corequisites: MTC106.

## MTC106 Aural Perception I

1 Credits 2 Periods
The development of listening and performing skills through dictation, sight singing and keyboard harmony. Prerequisites: None. Corequisites: MTC105.

## MTC111 Lyric Writing

1 Credits 1 Periods
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. Basic note reading and/or music theory is advisable. MTC111 may be repeated for credit. Prerequisites: None.

## MTC113 Songwriting Techniques

1 Credits 1 Periods
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 or writing songs with a partner or small group. Basic note reading and/or music theory is advisable. MTC113 may be repeated for credit. Prerequisites: None.

## MTC130 Jazz Theory

## 2 Credits 2 Periods

Develop written and aural theory skills necessary in the jazz idiom. MTC130 is recommended for students taking jazz improvisation, jazz composition and jazz combo. Prerequisites: (MTC101 and MTC103), or permission of Instructor.

## MTC155 Music Theory II

3 Credits 3 Periods
A continuation of Music Theory I with emphasis on harmony and part-writing procedures. Prerequisites: MTC105. Corequisites: MTC156.

## MTC156 Aural Perception II

1 Credits 2 Periods
A continuation of Aural Perception I, including harmonic practices. Prerequisites: None. Corequisites: MTC155.

## MTC180 Computer Literacy for Musicians <br> CS

3 Credits 4 Periods
Instruction in basic computer literacy, including generic applications and music-specific programs with hands-on experience. Ability to read music notation required. Prerequisites: None.

## MTC191 Electronic Music I

3 Credits 4 Periods
An introduction to producing music with Musical Instrument Digital Interface (MIDI) configurations consisting of computers, printers, synthesizers, and other compatible MIDI instruments. Prerequisites: None.

## MTC192 Electronic Music II

3 Credits 4 Periods
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.

## MTC203 Jazz Composition

3 Credits 3 Periods
Composition and analysis of standard song forms as well as other standard compositional practices and forms idiomatic to jazz.
Prerequisites: MTC155, or MUP165, or permission of Instructor.

## MTC205 Music Theory III

3 Credits 3 Periods
The study of chromatic harmony and melody, modulation techniques and expanded chords. The analysis of formal structure. Prerequisites: MTC155. Corequisites: MTC206.

## MTC206 Aural Perception III

1 Credits 2 Periods
A development of listening and performing skills, including an introduction of chromatic harmonic techniques and concepts of style. Prerequisites: None. Corequisites: MTC205.

## MTC240 Composition

## 3 Credits 0.6 Periods

Introduction to the basics of music composition, stressing techniques and procedures for developing original ideas. MTC240 may be repeated for a total of twelve (12) credit hours. Prerequisites: (MTC105 and MTC106, or equivalent), and permission of Instructor.

## MTC255 Music Theory IV

3 Credits 3 Periods
A continuation of Music Theory III, including 20th century theories and techniques. Prerequisites: MTC205. Corequisites: MTC256.

## MTC256 Aural Perception IV

1 Credits 2 Periods
A continuation of Aural Perception III, including extended chords. Prerequisites: None. Corequisites: MTC255.

## MUC-Music: Commercial/Business

MUC109 Music Business: Merchandising and the Law 3 Credits 3 Periods
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 Music Business: Recording and Mass Media

 3 Credits 3 PeriodsThe 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 Digital Audio Workstation I (DAW I)

3 Credits 5 Periods
Use of digital mixing and automation software in conjunction with editing and recording. Includes computer operation, troubleshooting, and file management. Prerequisites: MUC195, or MUP195AA, or TCM/VPT105, or permission of Instructor.

## MUC112 Digital Audio Workstation II (DAW II)

 3 Credits 5 PeriodsUse of digital mixing and automation software in conjunction with editing and recording. Includes computer operation, troubleshooting, and file management. Prerequisites: MUC111, and (MUC195 or MUC195AA).

## MUC122 Sound Design I

3 Credits 5 Periods
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: MTC191 or TCM/VPT105 Prerequisites or Corequisites: MUC111 or permission of Instructor.

## MUC135 Introduction to Disc Jockey Techniques

3 Credits 3 Periods
Development of beginning level live-performance disc jockey techniques. Emphasis on understanding the construction of in-dustry-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. MUC135 may be repeated for a total of six (6) credits. Prerequisites: None.

## MUC137 Digital DJ Performance Techniques

3 Credits 3 Periods
Covers the skills required for live performance employing digital media with an emphasis on programs such as Serato Scratch Live and Ableton Live. MUC137 may be repeated for a total of six (6) credits Prerequisites: None.

## MUC138 Disc Jockey Laboratory

1 Credits 3 Periods
Operation, scope, roles and responsibilities in the commercial music production process. MUC138 may be repeated for a total of six (6) credit hours. Prerequisites: None.

## MUC145 Recording Studio Business Operations

2 Credits 2 Periods
Operation, scope, roles and responsibilities in the commercial music production process. Focuses on the business aspects and daily management of the professional recording studio. Includes strategies for project management, client service, marketing, equipment acquisition, staffing and employment. Prerequisites: None.

## MUC194 Introduction to Audio Mixing Techniques

3 Credits 3 Periods
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.

## MUC195 Studio Music Recording I

3 Credits 5 Periods
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.

## MUC195AA Studio Music Recording I

3 Credits 3 Periods
Basic principles of studio sound recording. Emphasis on musical acoustics, operation of recording equipment, studio setups, and multitrack recording. Includes studio session process and musical production decisions. Prerequisites: None.

## MUC196 Studio Music Recording II

3 Credits 5 Periods
Emphasis on signal-processing equipment, mixing consoles, and advanced musical recording session procedures, production, and engineering Includes mix-down and resultant master tape of a musical recording session. Prerequisites: MUC195 or MUC195AA.

## MUC197 Live Sound Reinforcement I

3 Credits 3 Periods
Basic principles of live sound engineering. Emphasis on signal flow, acoustic, sound reinforcement set-ups and installation, signal processing, microphone selections and placement. Includes setting up sound systems and mixing live music. Prerequisites: None.

## MUC198 Live Sound Reinforcement II

3 Credits 3 Periods
Emphasis on musical production decisions. Front-of-house and monitor console placement, loudspeaker arrangements, power considerations, program material and sound pressure levels. Includes setting up of sound system and mixing live performances with various styles of music. In addition to mixing at alternate locations. Prerequisites: MUC197.

## MUC209 Music Industry Entrepreneurship <br> 3 Credits 3 Periods

Operation, scope, and career opportunities in the music business. Focuses on music in the areas of entrepreneurship, visionary development and the collaboration process. Prerequisites: (MUC109 and MUC110) or permission of Instructor.

## MUC210 Advanced Industry Topics: Concert Promotion and Touring <br> 3 Credits 3 Periods

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 or Division Chair.

## MUC211 Advanced Industry Topics: Artist Management and Development

3 Credits 3 Periods
Operation, scope, and career opportunities in the music business. Focus on advanced aspects of artist management and development. Include roles and responsibilities of an Artist Manager, the nature and structure of the relationship between an Artist and Artist Manager, and the development of business, and career management techniques for Artist Managers. Prerequisites: MUC109, or permission of Instructor or Department or Division Chair.

## MUC222 Sound Design II

3 Credits 5 Periods
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 or MTC/TCM120), or permission of Instructor.

## MUC237 Electronic Dance Music Production

3 Credits 4 Periods
Process and skills required for music production employing digital media, with an emphasis on producing music on digital audio workstations. MUC237 may be repeated for a total of six (6) credits. Prerequisites: MTC191 or permission of Instructor.

## MUC280 Recording Studio Maintenance

3 Credits 3 Periods
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.

## MUC290AA Music Business Internship

1 Credits 1 Periods
Music Business Internship work experience. Perform a variety of activities, to fulfill the routines and responsibilities of the department or business where the internship is served. Eighty (80) hours of designated work per credit. MUC290AA may be repeated for a total of twelve (12) credit hours. Prerequisites: Permission of Department or Division.

## MUC292 Sound Design III

## 3 Credits 6 Periods

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: (MTC105, MTC106, MTC192, MTC/TCM220, MUC112, MUC196, and MUC222), or permission of Instructor.

## MUC293 Self Promotion for Music

1 Credits 1 Periods
Career goal development Includes self-presentation and communication skills, keeping files and records, and developing self-promotional materials. Prerequisites: None.

## MUC295 Studio Music Recording III

## 3 Credits 6 Periods

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 and (MUC111 or permission of Instructor).

## MUC297AA Music Internship

1 Credits 1 Periods
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 Music Internship

2 Credits 2 Periods
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.

## MUC298AA Special Projects

## 1 Credits 1 Periods

Organized and tailored around 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.

## MUC298AB Special Projects

2 Credits 2 Periods
Organized and tailored around 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.

## MUC298AC Special Projects

3 Credits 3 Periods
Organized and tailored around 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.

## MUE-Music: Education

## MUE235 Class Percussion I

2 Credits 3 Periods
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.

## 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.

## MUP-Music: Performance

## MUP101BH Private Instruction: Oboe

1 Credits 0.6 Periods
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. MUP101BH may be repeated for credit. Prerequisites: None.

## MUP101BN Private Instruction: Bassoon

1 Credits 0.6 Periods
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. MUP101BN may be repeated for credit. Prerequisites: None.

## MUP101CI Private Instruction: Percussion

1 Credits 0.6 Periods
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. MUP101CI may be repeated for credit. Prerequisites: None.

## MUP102AV Private Instruction: Trombone

## 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. MUP102AV may be repeated for credit. Prerequisites: None.

## MUP102BQ Private Instruction: Saxophone

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. MUP102BQ may be repeated for credit. Prerequisites: None.

## MUP102BW Private Instruction: Viola

## 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. MUP102BW may be repeated for credit. Prerequisites: None.

## MUP123AA Studio Class/Piano

### 0.5 Credits 0.5 Periods

Performance and laboratory class for students enrolled in private piano instruction. Emphasis on demonstration and discussion of specific piano problems. MUP123AA may be repeated for credit. Prerequisites: None. Corequisites: Private Piano Instruction.

## MUP123AB Studio Class/Voice

### 0.5 Credits 0.5 Periods

Performance and laboratory class for students enrolled in private voice instruction. Emphasis on demonstration and discussion of specific vocal problems. MUP123AB may be repeated for credit. Prerequisites: None. Corequisites: Private Voice Instruction.

## MUP123AC Studio Class/Guitar

### 0.5 Credits 0.5 Periods

Performance and laboratory class for students enrolled in private guitar instruction. Emphasis on demonstration and discussion of specific guitar problems. MUP123AC may be repeated for credit. Prerequisites: None. Corequisites: Private Guitar Instruction.

## MUP123AD Studio Class: Instrumental

0.5 Credits 0.5 Periods

Performance and laboratory class for students enrolled in private instrumental instruction. Emphasis on demonstration and discussion of specific instrumental problems. MUP123AD may be repeated for credit. Prerequisites: None. Corequisites: Private Instrumental Instruction.

## MUP123AE Studio Class: Jazz Styles

0.5 Credits 0.5 Periods

Performance and laboratory class for students enrolled in private jazz styles instruction. Emphasis on demonstration and discussion of specific jazz styles problems. MUP123AE may be repeated for credit. Prerequisites: None. Corequisites: Private Jazz Styles Instruction.

## MUP130 Beginning Group Piano

## 2 Credits 3 Periods

Basic introduction to playing piano through music reading, chords, rhythmic, 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 harmonizations 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 Instructor or department or division.

## MUP150 Community Chorus

## 1 Credits 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. MUP150 may be repeated for credit. Prerequisites: None.

## MUP151AJ Private Instruction: Organ

## 1 Credits 0.6 Periods

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. MUP151AJ may be repeated for credit. Prerequisites: MUP101AJ.

## MUP151AS Private Instruction: French Horn

1 Credits 0.6 Periods
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. MUP151AS may be repeated for credit. Prerequisites: MUP101AS.

## MUP151BK Private Instruction: Clarinet

1 Credits 0.6 Periods
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. MUP151BK may be repeated for credit. Prerequisites: MUP101BK.

## MUP151BT Private Instruction: Violin

1 Credits 0.6 Periods
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. MUP151BT may be repeated for credit. Prerequisites: MUP101BT.

## MUP151BZ Private Instruction: Violoncello

## 1 Credits 0.6 Periods

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. MUP151BZ may be repeated for credit. Prerequisites: MUP101BZ.

## MUP152AS Private Instruction: French Horn

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. MUP152AS may be repeated for credit. Prerequisites: MUP102AS.

## MUP152AY Private Instruction: Baritone Horn

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. MUP152AY may be repeated for credit. Prerequisites: MUP102AY.

## MUP152BT Private Instruction: Violin

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. MUP152BT may be repeated for credit. Prerequisites: MUP102BT.

## MUP152BW Private Instruction: Viola

## 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. MUP152BW may be repeated for credit. Prerequisites: MUP102BW.

## MUP152BZ Private Instruction: Violoncello

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. MUP152BZ may be repeated for credit. Prerequisites: MUP102BZ.

## MUP153 Concert 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 each semester. Auditions may be required. MUP153 may be repeated for credit. Prerequisites: None.

## MUP154AA Jazz Vocal Ensemble

## 1 Credits 3 Periods

Practical and performing experience in vocal jazz. Includes music from the 1920s through the present. MUP154AA may be repeated for credit. Prerequisites: Auditions required or permission of Instructor.

## MUP159 Community Orchestra

## 1 Credits 3 Periods

Emphasis on college/community participation and the preparation of orchestral literature for public performance. MUP159 may be repeated for credit. Auditions may be required. Prerequisites: None.

## MUP161 Community Band

1 Credits 3 Periods
Emphasis on college/community participation and the preparation of band literature for public performance. MUP161 may be repeated for credit. Auditions may be required. 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. MUP162 may be repeated for credit. Auditions may be required. Prerequisites: None.

## MUP163 Jazz Ensemble

1 Credits 3 Periods
Practical and performance experience in various jazz styles.
MUP163 may be repeated for credit. Open to all students on the basis of auditions. Prerequisites: None.

## MUP164 Jazz Improvisation I

## 2 Credits 3 Periods

Theoretical and performance skills in many styles of jazz improvisation. MUP164 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. MUP165 may be repeated for a total of six
(6) credit hours. Prerequisites: MUP164 or permission of instructor.

## MUP166 Jazz Piano I

1 Credits 2 Periods
Introduction to basic jazz piano skills, including chord construction, chord voicings, accompanying and solo piano arrangements. MUP166 may be repeated for a total of four (4) credit hours. Prerequisites: MUP131 or permission of instructor.

## MUP167 Jazz Piano II

1 Credits 2 Periods
Continued development of jazz piano techniques with emphasis on voicing formulas for ninth, eleventh, thirteenth, and altered dominant chords. Prerequisites: MUP166 or permission of instructor.

## MUP181 Chamber Music Ensembles

1 Credits 2 Periods
Practical and performance experience in instrumental, vocal, and mixed ensembles. MUP181 may be repeated for credit. Prerequisites: None.

## MUP182 Chamber Singers

1 Credits 3 Periods
Practical and performance experience in various styles of vocal music. Open to all students on the basis of auditions. MUP182 may be repeated for credit. Prerequisites: None.

## MUP185 Flute Choir

1 Credits 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 Credits 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, Japanese music, Indonesian music, Mexican, Central, and South American music, and percussion compositions from the American Experimental Tradition rehearsed and performed. Concerts presented throughout the semester. Percussion techniques are studied and refined as they relate to the literature performed. Emphasis placed on reading and listening skills, increased aesthetic discrimination. Informed performance practice and skills on all percussion instruments and traditions. MUP190 may be repeated for up to six (6) credits. Prerequisites: None.

## MUP201AM Private Instruction: Guitar

## 1 Credits 0.6 Periods

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. MUP201AM may be repeated for credit. Prerequisites: MUP151AM.

## MUP202AS Private Instruction: French Horn

## 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. MUP202AS may be repeated for credit. Prerequisites: MUP152AS.

## MUP202AY Private Instruction: Baritone Horn

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. MUP202AY may be repeated for credit. Prerequisites: MUP152AY.

## MUP202BQ Private Instruction: Saxophone

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. MUP202BQ may be repeated for credit. Prerequisites: MUP152BQ.

## MUP202CF Private Instruction: Bass Guitar

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. MUP202CF may be repeated for credit. Prerequisites: MUP152CF.

## MUP209 Elements of Conducting

2 Credits 2 Periods
Essentials of conducting techniques used in choral and instrumental ensembles including terminology, interpretation, and styles. Prerequisites: None.

## MUP217 Music Theatre: Broadway Solos

2 Credits 3 Periods
Study and in-class performance of scenes and solos from Broadway musical literature. MUP217 may be repeated for credit. Prerequisites: None.

## MUP225 Class Guitar I

2 Credits 3 Periods
Emphasis on note-reading and folk-style harmonic accompaniment. Includes finger-style playing. Stresses development of efficient practice techniques and proper sitting and hand positions. Prerequisites: None.

## MUP226 Class Guitar II

## 2 Credits 3 Periods

Note-reading range including second position and parts of higher positions. Classical, popular, Latin, and other styles of music. Theory including scales, keys, and chord construction. Technical exercises of both hands. Prerequisites: MUP225 or permission of instructor.

## MUP227 Class Guitar III

2 Credits 3 Periods
Additional fingerboard positions. Ensemble techniques and performance. Prerequisites: MUP226 or permission of instructor.

## MUP228 Class Guitar IV

2 Credits 3 Periods
Advanced fingerboard positions. Duet and trio performances. Advanced ensemble techniques. MUP228 may be repeated for credit. Prerequisites: MUP227 or permission of Instructor.

## MUP231 Class Piano III

## 2 Credits 3 Periods

Development of intermediate piano techniques including selected solo literature, transposition of harmonic patterns, and secondary dominants. Prerequisites: MUP132 or permission of instructor.

## MUP232 Class Piano IV

## 2 Credits 3 Periods

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.

## MUP233 Class Voice III

2 Credits 3 Periods
Interpretive singing through a closer examination of coloring, tone production, dynamics, and tempo indications. Prerequisites: MUP134.

## MUP234 Class Voice IV

2 Credits 3 Periods
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.

## MUP240 Piano Literature

## 2 Credits 2 Periods

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: MUP140 or permission of Instructor.

## MUP241 Piano Artistry

## 2 Credits 2 Periods

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.

## MUP250AA Survey of Diction for Singers (English)

 1 Credits 2 PeriodsIntroduction to the use of phonetics in the study of English song literature. Prerequisites: None.

## MUP250AB Survey of Diction for Singers (Italian/

 Latin)
## 1 Credits 2 Periods

Introduction to the use of phonetics in the study of Italian/Latin song literature. Prerequisites: None.

## MUP250AC Survey of Diction for Singers (German)

1 Credits 2 Periods
Introduction to the use of phonetics in the study of German song literature. Prerequisites: None.

## MUP250AD Survey of Diction for Singers (French)

1 Credits 2 Periods
Introduction to the use of phonetics in the study of French song literature. Prerequisites: None.

## MUP251CI Private Instruction: Percussion

1 Credits 0.6 Periods
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. MUP251CI may be repeated for credit. Prerequisites: MUP201CI.

## MUP252AS Private Instruction: French Horn

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. MUP252AS may be repeated for credit. Prerequisites: MUP202AS.

## MUP252BB Private Instruction: Tuba

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. MUP252BB may be repeated for credit. Prerequisites: MUP202BB.

## MUP252BH Private Instruction: Oboe

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. MUP252BH may be repeated for credit. Prerequisites: MUP202BH.

## MUP252BT Private Instruction: Violin

## 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. MUP252BT may be repeated for credit. Prerequisites: MUP202BT.

## MUP252BW Private Instruction: Viola

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. MUP252BW may be repeated for credit. Prerequisites: MUP202BW.

## MUP270 Musical Theatre Workshop

## 2 Credits 5 Periods

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. MUP270 may be repeated for credit. Prerequisites: None.

## MUP282AA Volunteerism for Music: A Service Learning Experience

1 Credits 1 Periods
Service-learning field experience within private/public agencies, citizen volunteer groups, and on-campus sites. 50 hours of designated work per credit. Standard grading available according to procedures outlined in catalog. MUP282AA may be repeated for a total of six (6) MUP282 credit hours; may not repeat specific agency assignment for more than four (4) credit hours. Prerequisites: None.

## NAV-Navajo

## NAV101 Elementary Navajo I

## 4 Credits 4 Periods

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 Beginning Navajo Conversation I

3 Credits 3 Periods
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 Interpretation of Laboratory Diagnostic Examinations

0.5 Credits 0.5 Periods

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 Math/Methods for Beginning Nursing Students

0.5 Credits 0.5 Periods

Focus on basic mathematical concepts to calculate metricapothecary 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.

## NCE214OP Orientation to Nursing Program

3 Credits 5 Periods
Overview of the philosophy, mission, vision, Nurse of the Future Competencies, student learning outcomes, and the constructivist framework of the MaricopaNursing program. Student expected to be prepared with basic concepts of therapeutic communication, the nursing process, pharmacology, introductory concepts of intravenous therapy and knowledge of fundamental concepts. Primary content areas: nursing process, with emphasis on the use of the nursing process to develop a plan of care; utilization of critical thinking skills; problem-solving strategies, the communication process; psychiatric nursing competencies and role transition between LPN and RN scope of practice. NCE214OP designed for advanced placement students (i.e., transfer students, returning students, and/or Practical Nurses). Prerequisites: Designee/advanced placement into the Nursing Program or permission of the Nursing Director.

## NCE267 IV Medication Administration and Advanced Metrology

## 1 Credits 2 Periods

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 (5.0) credits. Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or permission of Instructor.

## NCE282AA Volunteerism for Nursing: A Service Learning Experience <br> \section*{1 Credits 1 Periods}

Service-learning field experience within human service organization/agency. NCE282AA 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 college catalog. Prerequisites: Permission of Instructor.

## NUR-Nursing

## NUR102 Nursing Process Transition

4 Credits 4 Periods
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, psychological, mental health, and childbearing problems. 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 Nursing Science Transition

4 Credits 12 Periods
Application of nursing concepts and theories of health promotion to nursing care to meet basic human needs. Provides opportunity for the paramedic to develop clinical competency in selected nursing skills and care of clients across the lifespan experiencing altered physiologic functioning. Includes clinical experience with individuals, families, and small groups of clients in acute, long-term, and community settings to develop care plans, teaching plans, and discharge plans. Prerequisites: Arizona or National Paramedic Registry Certificate, and application and admission to Maricopa Nursing with advanced placement. Minimum of one year current healthcare work experience required or permission of Nursing Department Chairperson.

## NUR104AA Structured Nursing Review 0.5 Credits 0.5 Periods

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. NUR104AA may be repeated for a total of six (6) credit hours. Course offered as Credit (P) No credit (Z) basis. Prerequisites: None. Corequisites: Enrollment in the Nursing program or permission of Department Chair.

## NUR104AB Structured Nursing Review

1 Credits 1 Periods

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. Course offered as Credit (P) No credit (Z) basis. NUR104AB may be repeated for a total of eight (8) credits. Prerequisites: None. Corequisites: Concurrent enrollment in the Nursing program or permission of Department Chair.

## NUR106 Nursing Theory and Science Transition (Paramedic Bridge)

9 Credits 5.5 Periods
Introduction and utilization of Nurse of the Future competencies to develop knowledge, skills, and attitudes to provide safe, quality patient care across the wellness-illness continuum in selected medical-surgical and mental health patients. Basic care concepts and nursing process are utilized to meet the needs of adult and older adult patients. NUR106 is intended for experienced paramedics seeking advanced placement to Maricopa Nursing. Prerequisites: (Arizona or National Paramedic Registry Certificate), acceptance into the Maricopa Nursing advanced placement, NUR187, and (one year current work experience utilizing Paramedic scope of practice or permission of Nursing Department Chairperson).

## NUR151 Nursing Theory and Science I

## 10 Credits 5 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, and 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.

## NUR152 Nursing Theory and Science I

9 Credits 4 Periods
Introduction of Nurse of the Future competencies as a foundational framework for development of the professional nurse. Basic care concepts and the nursing process are utilized to meet the needs of adult and older adult patients. Prerequisites: Admission into the Nursing Program.

## NUR158 Nurse Assisting

## 6 Credits 4 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 elder client in the acute and long-term care settings, and basic emergency care skills and procedures. Provides opportunity for the development of clinical competency in the performance of selected nurse assisting skills and procedures through participation in the care of clients. Prerequisites: (A grade of "C" or better in RDG091 or higher RDG reading course or eligibility for CRE101 as indicated by appropriate reading placement test score, or HESI-A2 exam English Composite score of $75 \%$ or higher) AND (a grade of "C" or better in MAT082, or eligibility for MAT090 or higher as indicated by appropriate math placement test score, or HESI-A2 exam Math score of $75 \%$ or higher). Must provide current Level One DPS Fingerprint Clearance Card, meet pass status on MCCD Background Check, and submit required health and safety documentation.

## NUR171 Nursing Theory and Science II

8 Credits 4 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, psychosocial 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.

## NUR172 Nursing Theory and Science II

## 9 Credits 5.5 Periods

Utilization of Nurse of the Future competencies to develop knowledge, skills, and attitudes to provide safe, quality patient care across the wellness-illness continuum in selected medicalsurgical and mental health patients. Prerequisites: (BIO202 and NUR152) or permission of Nursing Department Chair.

## NUR187 Pharmacology and Medication Administration II

1.5 Credits 1.5 Periods

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.

## NUR251 Nursing Theory and Science III <br> 8 Credits 4 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, 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.

## NUR252 Nursing Theory and Science III

9 Credits 5.5 Periods
Application of critical thinking strategies related to holistic care of the newborn and childbearing patients. Integration of concepts related to holistic care of adults and older adult patients with selected acute and chronic alterations in health. Integration of professional nursing standards in role development. Utilization of previous knowledge of physical, biologic, psycho-social sciences, and the cultural, spiritual aspects of nursing care. Integration of concepts of nutrition, pharmacology, communication, health promotion, and pathophysiology into nursing care. Prerequisites: (CRE101 and NUR172 and PSY101) or permission of Nursing Department Chair.

## NUR271 Nursing Theory and Science IV

7 Credits 4 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.

## NUR283 Nursing Theory and Science IV

9 Credits 5.5 Periods
Applies Nurse of the Future competencies to practice and manage care for the child/family unit and adults requiring complex care throughout the wellness/illness continuum, and prepare for transition from student to professional nurse. Prerequisites: (BIO205 and NUR252) or permission of Nursing Department Chair.

## NUR291 Nursing Clinical Capstone

2 Credits 6 Periods
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.

## NUR295 Registered Nurse Refresher

## 6 Credits 6 Periods

Update of current principles of nursing theory and practice for registered nurses. Didactic instruction meets all Arizona State Board of Nursing requirements: nursing process and patient centered care; pharmacology, medication calculation, and medication administration; communication; critical thinking, clinical decision making and evidence-based practice; delegation, management, and leadership; working with interdisciplinary teams; meeting psychological and physiological needs of adult clients with medical-surgical conditions; ethics; documentation including electronic health records; informatics; and quality improvement. Concentrated preceptorship experience under the supervision of a registered nurse with faculty guidance. Individualized teaching and learning opportunities to build confidence, competence and an increased level of independent functioning. Prerequisites: Permission of Instructor.

## NUR298AA Special Projects

1 Credits 1 Periods
Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. Prerequisites: Permission of Program Director or Instructor.

## NUR298AB Special Projects

2 Credits 2 Periods
Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. Prerequisites: Permission of Program Director or Instructor.

## NUR298AC Special Projects

## 3 Credits 3 Periods

Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. Prerequisites: Permission of Program Director or Instructor.

## OAS-Office Automation Systems

OAS101 Computer Typing I: Keyboarding and Formatting
3 Credits 5 Periods
Keyboard mastery; letters, tables, and reports; office production; and manuscripts. Prerequisites: None.

## OAS101 Computer Typing I: Keyboard Mastery

1 Credits 1.7 Periods
Incorporates correct touch typing principles. Prerequisites: None.

## OAS108 Business English

3 Credits 3 Periods
Comprehensive coverage of correct use of English grammar including spelling, punctuation, capitalization, and number style mechanics in a business context. Prerequisites: None.

## OAS118 10-Key by Touch

1 Credits 1.7 Periods
Touch system of numeric keys on ten-key pads. Prerequisites: None.

## OAS125 Introduction to the Professional Office

3 Credits 3 Periods
Expectations of the professional in the electronic office of today Realistic and practical coverage of roles, responsibilities, and environment. Prerequisites: None.

## PED-Physical Education Activities

## PED101AD Aerobic Dance

1 Credits 2 Periods
A cardiovascular workout through dance. PED101AD may be repeated for credit. Prerequisites: None.

## PED101AK Aikido

1 Credits 2 Periods
Covers the fundamentals of Aikido including rules, moves, and traditional discipline of the sport. PED101AK may be repeated for credit. Prerequisites: None.

## PED101BA Baseball

1 Credits 2 Periods
Basic skills and game strategy of baseball. Class emphasis on competition and drills. PED101BA may be repeated for credit. Prerequisites: None.

## PED101BB Basketball

1 Credits 2 Periods
Basic skills and game strategy of basketball. Class emphasis on competition and drills. PED101BB may be repeated for credit. Prerequisites: None.

## PED101BC Boot Camp

## 1 Credits 2 Periods

Vigorous physical and mental conditioning incorporating cardiovascular, core fitness, strength training, and flexibility. Emphasis will be placed on proper body mechanics and safety. PED101BC may be repeated for credit. Prerequisites: None.

## PED101BD Ballroom Dancing

1 Credits 2 Periods
Basic level instruction on ballroom dancing footwork, timing, techniques, and style. Partners rotate. PED101BD may be repeated for credit. Prerequisites: None.

## PED101BE Belly Dance

## 1 Credits 2 Periods

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. PED101BE may be repeated for credit. Prerequisites: None.

## PED101BL Ballet

## 1 Credits 2 Periods

Basics of ballet incorporating steps, poses, and graceful movements including leaps and spins. PED101BL may be repeated for credit. Prerequisites: None.

## PED101BP Backpacking

1 Credits 2 Periods
Covers basic skills and techniques of backpacking and the application of these to wilderness travel. PED101BP may be repeated for credit. Prerequisites: None.

## PED101BS Body Sculpting

1 Credits 2 Periods
Stretch and strengthen Emphasizes increasing fitness, muscle tone, and body flexibility. Great for reducing stress. PED101BS may be repeated for credit. Prerequisites: None.

## PED101BW Bowling

1 Credits 2 Periods
Fundamental skills of bowling, including scoring and competition. PED101BW may be repeated for credit. Prerequisites: None.

## PED101CY Cycling - Indoor

1 Credits 2 Periods
Basic skills for bike set up and proper body mechanics Increase leg strength, lung capacity, and metabolism. PED101CY may be repeated for credit. Prerequisites: None.

## PED101DF Self Defense

## 1 Credits 2 Periods

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. PED101DF may be repeated for credit. Prerequisites: None.

## PED101FB Football

1 Credits 2 Periods
Basic skills and game strategy of football Class emphasis on competition and drills. PED101FB may be repeated for credit. Prerequisites: None

## PED101FE Fencing

1 Credits 2 Periods
Introduction to the sport of fencing Instruction and practice in proper body mechanics with the use of a foil, saber, and epee. PED101FE may be repeated for credit. Prerequisites: None.

## PED101FL Fitness for Life

1 Credits 2 Periods
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. PED101FL may be repeated for credit. Prerequisites: None.

## PED101FW Fitness Walking

1 Credits 2 Periods
Development of safe and effective walking skills through proper exercises and use of equipment to enhance a walking program PED101FW may be repeated for credit. Prerequisites: None.

## PED101GO Golf

1 Credits 2 Periods
Instruction and practice for all skill levels, beginning through advanced. Assistance on shot making, club selection and etiquette on the course. PED101GO may be repeated for credit. Prerequisites: None.

## PED101HH Hip Hop

1 Credits 2 Periods
Basic skills of hip hop with instruction, practice, and performance including proper body mechanics, choreography, and behavioral competencies. PED101HH may be repeated for credit. Prerequisites: None.

## PED101HK Hiking

1 Credits 2 Periods
Develop safe and effective hiking skills. Essentials and requirements for safe hiking; proper hiking clothing and attire; impact of hiking on the environment. PED101HK may be repeated for credit. Prerequisites: None.

## PED101JR Jogging/Running

## 1 Credits 2 Periods

Introduction to jogging/running Learn proper technique to decrease injury and increase training distance. All skill levels welcome. PED101JR may be repeated for credit. Prerequisites: None.

## PED101JS Japanese Swordmanship

1 Credits 2 Periods
Vigorous martial arts swordmanship training program utilizing historical principles that promotes the development of fitness, coordination, agility, balance, mindfulness/focus, and knowledge of strategy. PED101JS may be repeated for credit. Prerequisites: None.

## PED101JU Judo

1 Credits 2 Periods
Japanese martial art in which opponents use balance and body weight to throw, pin and lock. PED101JU may be repeated for credit. Prerequisites: None.

## PED101JZ Jazz

1 Credits 2 Periods
Learn various dance skills characterized by the use of improvisation and influenced by rhythms and techniques of Jazz music. PED101JZ may be repeated for credit. Prerequisites: None.

## PED101KA Karate

## 1 Credits 2 Periods

Training emphasizes fundamentals, traditional form, and applied sparring that follows the theory of karate. PED101KA may be repeated for credit. Prerequisites: None.

## PED101KB Kickboxing

## 1 Credits 2 Periods

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. PED101KB may be repeated for credit. Prerequisites: None.

## PED101PS Pilates

## 1 Credits 2 Periods

Mat-based exercise system focused on improving flexibility and strength for the total body Teaches core control and stabilization while improving postural alignment. PED101PS may be repeated for credit. Prerequisites: None.

## PED101QG Qi Gong

## 1 Credits 2 Periods

Ancient Chinese Qi Gong breathing exercises for healing and opening channels of energy. Includes Power of Positive thought along with relaxation and meditation techniques. PED101QG may be repeated for credit. Prerequisites: None.

## PED101RC Rock Climbing

1 Credits 2 Periods
Beginning climbing skills including equipment, knots, anchoring, belaying, and climbing techniques in an indoor climbing gym. No previous experience needed. Develop strength and confidence. PED101RC may be repeated for credit. Prerequisites: None.

## PED101SA Salsa

1 Credits 2 Periods
Basic moves for the popular, hot Latin dance Salsa. Partners rotate. PED101SA may be repeated for credit. Prerequisites: None.

## PED101SO Soccer

1 Credits 2 Periods
Basic skills and game strategy of soccer. Class emphasis on competition and drills. PED101SO may be repeated for credit. Prerequisites: None.

## PED101SR Stretch and Relaxation

1 Credits 2 Periods
A mat-based stretching class with guided meditation. Stretching increases flexibility and relieves stress, promoting an overall sense of well being. PED101SR may be repeated for credit. Prerequisites: None.

## PED101ST Strength Training

1 Credits 2 Periods
Introduction to techniques of basic weight training, concentrating on incorporating an exercise regimen for increased strength. PED101ST may be repeated for credit. Prerequisites: None.

## PED101SU SCUBA Diving

1 Credits 2.5 Periods
Introduction to the theory and practice of SCUBA diving. Course includes lectures, pool dives, open water dives, and SCUBA Certification. PED101SU may be repeated for credit. Prerequisites: None.

## PED101SW Swing Dancing

1 Credits 2 Periods
Popular Swing dance moves and rhythms, including basic Lindy. All students will rotate. PED101SW may be repeated for credit. Prerequisites: None.

## PED101TC Tai Chi

1 Credits 2 Periods
Fundamentals of Tai Chi including moves, breathing and meditation. PED101TC may be repeated for credit. Prerequisites: None.

## PED101TF Track and Field

1 Credits 2 Periods
Instruction and practice in track and field events, running, throwing and jumping. PED101TF may be repeated for credit. Prerequisites: None.

## PED101TK Taekwondo

## 1 Credits 2 Periods

Fundamentals of Taekwondo including the moves, rules, and traditional discipline of the sport. PED101TK may be repeated for credit. Prerequisites: None.

## PED101WT Weight Training

1 Credits 2 Periods
Access to Olympic and Free Weights with a qualified instructor. PED101WT may be repeated for credit. Prerequisites: None.

## PED101WW Weight Training for Women

## 1 Credits 2 Periods

Introduction for women to the use of free weights, strength machines and cardio equipment. PED101WW may be repeated for credit. Prerequisites: None.

## PED101YG Gentle Yoga

## 1 Credits 2 Periods

Focuses on the use of such props as blankets, blocks, and chairs to modify traditional Yoga poses, enabling participation with moderate effort and without strain; suitable for all levels but especially for students needing a slower pace. PED101YG may be repeated for credit. Prerequisites: None.

## PED101YH Hatha Yoga

1 Credits 2 Periods
Combination of traditional and flow style yoga that utilizes breathing, yoga poses, relaxation and meditation to create balance and inner peace. PED101YH may be repeated for credit. Prerequisites: None.

## PED101YO Yoga

1 Credits 2 Periods
Promotion of overall health by strengthening muscles and stimulating glands and organs. Basic postures, breathing and relaxation techniques. PED101YO may be repeated for credit. Prerequisites: None.

## PED101YR Restorative Yoga

## 1 Credits 2 Periods

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 and promoting the restoration of tranquility; suitable for all levels. PED101YR may be repeated for credit. Prerequisites: None.

## PED101ZU Zumba Fitness

## 1 Credits 2 Periods

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. PED101ZU may be repeated for credit. Prerequisites: None.

## PED102BA Baseball - Intermediate

1 Credits 2 Periods
To improve upon basic skills and game strategy of baseball at the intermediate level. Class emphasis on competition and drills. PED102BA may be repeated for credit. Prerequisites: None.

## PED102BB Basketball - Intermediate

1 Credits 2 Periods
To improve upon basic skills and game strategy of basketball at the intermediate level. Class emphasis on competition and drills. PED102BB may be repeated for credit. Prerequisites: None.

## PED102BD Ballroom Dancing - Intermediate

1 Credits 2 Periods
Intermediate level instruction on ballroom dancing footwork, timing, techniques, and style. Partners rotate. PED102BD may be repeated for credit. Prerequisites: None.

## PED102BE Belly Dance - Intermediate

1 Credits 2 Periods
Practice and demonstration of basic belly dance skills and movements at the intermediate level. Posture and muscularity, primary upper and lower body isolations, footwork, intermediate level combination movements. Rhythms broken down, and at least two props demonstrated. Routine, improvisation, and current styles and trends in belly dance. Belly dance etiquette and attire. PED102BE may be repeated for credit. Prerequisites: None. Prior experience recommended.

## PED102BL Ballet - Intermediate

1 Credits 2 Periods
Ballet steps, poses and graceful movements including leaps and spins at the intermediate level. PED102BL may be repeated for credit. Prerequisites: None. Prior experience recommended.

## PED102CH Cheerleaders - Intermediate

1 Credits 2 Periods
Intermediate skills of cheerleading with instruction, practice, and performance including proper body mechanics, choreography, and behavioral competencies. PED102CH may be repeated for credit. Prerequisites: None. Prior experience recommended.

## PED102DF Self Defense - Intermediate

1 Credits 2 Periods
Intermediate self-defense skills, ground-fighting skills, and standup fighting capabilities. Practice is based on real-life experiences and endurance enhanced drills. Develops self confidence. Not recommended for beginners. PED102DF may be repeated for credit. Prerequisites: None.

## PED102FB Football - Intermediate

1 Credits 2 Periods
Improve upon basic skills and game strategy of football at the intermediate level. Class emphasis on competition and drills. PED102FB may be repeated for credit. Prerequisites: None. Prior experience recommended.

## PED102FE Fencing - Intermediate

1 Credits 2 Periods
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. PED102FE may be repeated for credit. Prerequisites: None.

## PED102GO Golf - Intermediate

## 1 Credits 2 Periods

Improving techniques of putting, chipping, the full swing, rules and scoring will be covered in this class. PED102GO may be repeated for credit. Prerequisites: None. Prior experience recommended.

## PED102HH Hip Hop - Intermediate

1 Credits 2 Periods
Intermediate level dance instruction and practice in the skills of hip hop. Emphasis on performance including proper body mechanics, choreography, and behavioral competencies. PED102HH may be repeated for credit. Prerequisites: None. Prior experience recommended.

## PED102JZ Jazz - Intermediate

1 Credits 2 Periods
Intermediate dance skills for dancing Jazz. Not recommended for beginners. PED102JZ may be repeated for credit. Prerequisites: None. Prior experience recommended.

## PED102KA Karate - Intermediate

1 Credits 2 Periods
Applied technique and theory of Karate at the intermediate level. PED102KA may be repeated for credit. Prerequisites: None. Prior experience recommended.

## PED102PS Pilates - Intermediate

1 Credits 2 Periods
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. PED102PS may be repeated for credit. Prerequisites: None. Prior experience recommended.

## PED102RC Rock Climbing - Intermediate

1 Credits 2 Periods
Improve upon basic skills of climbing including, knots, anchoring, belaying, and climbing techniques in an indoor climbing gym. Develop strength and confidence. PED102RC may be repeated for credit. Prerequisites: None. Prior experience recommended.

## PED102SA Salsa - Intermediate

1 Credits 2 Periods
Learn the intermediate dance moves for Salsa. Not recommended for the beginning Salsa dancer. PED102SA may be repeated for credit. Prerequisites: None. Prior experience recommended.

## PED102SO Soccer - Intermediate

1 Credits 2 Periods
To improve upon basic skills and game strategy of soccer at the intermediate level. Class emphasis on competition and drills. PED102SO may be repeated for credit. Prerequisites: None. Prior experience recommended.

## PED102SW Swing Dancing - Intermediate

1 Credits 2 Periods
Learn the intermediate dance moves for Swing Dancing. PED102SW may be repeated for credit. Prerequisites: None. Prior experience recommended.

## PED102TF Track and Field - Intermediate <br> 1 Credits 2 Periods

To improve upon basic track and field event skills at the intermediate level. Class emphasis on competition and drills. PED102TF may be repeated for credit. Prerequisites: None. Prior experience recommended.

## PED102TK Taekwondo - Intermediate

1 Credits 2 Periods
Intermediate level training in Taekwondo. PED102TK may be repeated for credit. Prerequisites: None. Prior experience recommended.

## PED102WW Weight Training for Women - Intermediate

1 Credits 2 Periods
Intermediate level instruction for women on the use of free weights, strength machines and cardio equipment. PED102WW may be repeated for credit. Prerequisites: None. Prior experience recommended.

## PED102YO Yoga - Intermediate

1 Credits 2 Periods
Yoga for the experienced practitioner. PED102YO may be repeated for credit Prerequisites: None. Prior experience recommended.

## PED103YO Yoga

0.5 Credits 1 Periods

Promotion of overall health by strengthening muscles and stimulating glands and organs. Basic postures, breathing and relaxation techniques. PED103YO may be repeated for credit. Prerequisites: None.

## PED115 Lifetime Fitness

2 Credits 4 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. PED115 may be repeated for a total of eight (8) credit hours. Prerequisites: None

## PED120AF Special Emphasis Activities: Weight Training <br> 2 Credits 4 Periods <br> Intensive experience in weight training. PED120AF may be repeated for a total of 8 credits Prerequisites: None.

## PED133 Olympic Style Weight Lifting

2 Credits 4 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 Credits 2 Periods
To improve upon intermediate skills and game strategy of baseball at the advanced level. Class emphasis on competition and drills. PED201BA may be repeated for credit. Prerequisites: None. Prior experience at competitive level recommended.

## PED201BB Basketball - Advanced

1 Credits 2 Periods
To improve upon intermediate skills and game strategy of basketball at the advanced level. Class emphasis on competition and drills. PED201BB may be repeated for credit. Prerequisites: None. Prior experience at competitive level recommended.

## PED201BD Ballroom Dancing - Advanced

1 Credits 2 Periods
Advanced level instruction on ballroom dancing footwork, timing, techniques, and style. Partners rotate. PED201BD may be repeated for credit. Prerequisites: None. Prior experience at competitive level recommended.

## PED201CH Cheerleaders - Advanced

1 Credits 2 Periods
Advanced skills of cheerleading with instruction, practice, and performance including proper body mechanics, choreography, and behavioral competencies. PED201CH may be repeated for credit. Prerequisites: None. Prior experience at competitive level recommended.

## PED201FB Football - Advanced

## 1 Credits 2 Periods

Improve upon intermediate skills and game strategy of football at the advanced level. Class emphasis on competition and drills. PED201FB may be repeated for credit. Prerequisites: None. Prior experience at competitive level recommended.

## PED201SA Salsa - Advanced

1 Credits 2 Periods
Learn the advanced dance moves for Salsa. PED201SA may be repeated for credit. Prerequisites: None. Prior experience at competitive level recommended

## PED201SO Soccer - Advanced

1 Credits 2 Periods
To improve upon intermediate skills and game strategy of soccer at the advanced level. Class emphasis on competition and drills. PED201SO may be repeated for credit. Prerequisites: None. Prior experience at competitive level recommended.

## PED201SW Swing Dancing - Advanced <br> 1 Credits 2 Periods

Learn advanced moves for Swing Dancing. PED201SW may be repeated for credit. Prerequisites: None. Prior experience at competitive level recommended.

## PED201TF Track and Field - Advanced

1 Credits 2 Periods
Advanced level training in track and field events. Class emphasis on competition and drills. PED201TF may be repeated for credit. Prerequisites: None. Prior experience at competitive level recommended.

## PED202BA Baseball - Elite

## 1 Credits 2 Periods

Improve upon advanced skills and game strategy of baseball at the elite level. Class emphasis on competition and drills. PED202BA may be repeated for credit. Prerequisites: None. Prior experience at competitive level recommended.

## PED202BB Basketball - Elite

1 Credits 2 Periods
Improve upon advanced skills and game strategy of basketball at the elite level. Class emphasis on competition and drills. PED202BB may be repeated for credit. Prerequisites: None. Prior experience at competitive level recommended.

## PED202FB Football - Elite

1 Credits 2 Periods
Improve upon advanced skills and game strategy of football at the elite level. Class emphasis on competition and drills. PED202FB may be repeated for credit. Prerequisites: None. Prior experience at competitive level recommended.

## PED202SO Soccer - Elite

1 Credits 2 Periods
Improve upon advanced skills and game strategy of soccer at the elite level. Class emphasis on competition and drills. PED202SO may be repeated for credit. Prerequisites: None. Prior experience at competitive level recommended.

## PED202TF Track and Field - Elite

1 Credits 2 Periods
Improve upon advanced skills and game strategy of track and field at the elite level. Class emphasis on competition and drills. PED202TF may be repeated for credit. Prerequisites: None. Prior experience at competitive level recommended.

## PED287 Physical Education of the Atypical

2 Credits 2 Periods
Individualized activities programs for students with limited physical capacities. PED287 may be repeated for credit. Prerequisites: Permission of Instructor.

## PHI-Philosophy <br> PHI101 Introduction to Philosophy HU

3 Credits 3 Periods
General consideration of human nature and the nature of the universe Knowledge, perception, freedom and determinism, and the existence of God. Prerequisites: None.

## PHI103 Introduction to Logic

HU, L
3 Credits 3 Periods
Informal logic, logical fallacies, elementary symbolic logic, analysis of argument forms, and construction of proofs for validity. Prerequisites: ENG101, or ENG107, or equivalent.

## PHI105 Introduction to Ethics

## HU

3 Credits 3 Periods
A survey of ethical theory in Western Philosophy, including the major normative theories and selected metaethical theories. Prerequisites: None.

## PHI213 Medical and Bio-Ethics <br> HU

3 Credits 3 Periods
A philosophical consideration of moral problems that arise in relation to medicine and biology, e.g., death, patient's rights and biological experimentation. Prerequisites: None.

## PHI216 Environmental Ethics

HU
3 Credits 3 Periods
Philosophical consideration of diverse theories and perspectives on the environment, and application of these theories to global moral issues such as animal rights, preservation of wilderness and species, population, world hunger and poverty, and air and water pollution. Prerequisites: None.

## PHI218 Philosophy of Sexuality <br> HU, L

3 Credits 3 Periods
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 ENG107, or permission of Instructor. Student must be 18 years or older.

## PHI234 Plato

HU
3 Credits 3 Periods
The ideas of Plato and Socrates and their impact on western thought. Prerequisites: None.

## PHI244 Philosophy of Religion <br> HU

3 Credits 3 Periods
Religious language, the existence of God, miracles, and human destiny. Prerequisites: None.

## PHY-Physics

## PHY101 Introduction to Physics

SQ
4 Credits 3 Periods
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 General Physics I

## SQ

4 Credits 3 Periods
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 MAT220 or MAT221 or eligibility for MAT220 as indicated by appropriate placement test score or one year high school Trigonometry with a grade of "C" or better or permission of Department or Division.

## PHY112 General Physics II <br> SQ

4 Credits 3 Periods
Includes electricity, electromagnetism, and modern physics. Prerequisites: PHY105 or PHY111.

## PHY121 University Physics I: Mechanics SQ

4 Credits 3 Periods
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 University Physics II: Electricity and Magnetism

SQ
4 Credits 3 Periods
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.

## PHY241 University Physics III: Thermodynamics, Optics, and Wave Phenomena <br> 4 Credits 3 Periods

Heat, entropy, and laws of thermodynamics; wave propagation; geometrical and physical optics; introduction to special relativity. Prerequisites: PHY131.

## PHY282AA Service-Learning Experience in Physical Science

1 Credits 1 Periods
Unpaid Service-Learning (SL) experience, completed with approved community partner. PHY282AA may be repeated for a total of six (6) credit hours. Standard grading is available according to procedures outlined in catalog. Prerequisites: Permission of Instructor.

## PHY282AC Service-Learning Experience in Physical Science

## 3 Credits 3 Periods

Unpaid Service-Learning (SL) experience, completed with approved community partner. PHY282AC may be repeated for a total of six (6) credit hours. Standard grading is available. according to procedures outlined in catalog. Prerequisites: Permission of Instructor.

## PHY298AA Special Projects

1 Credits 1 Periods
Organized and tailored around 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.

## POS-Political Science

## POS100 Introduction to Political Science

 SB
## 3 Credits 3 Periods

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 American National Government

SB
3 Credits 3 Periods
Study of the historical backgrounds, governing principles, and institutions, of the national government of the United States. Prerequisites: None.

## POS113 United States and Arizona Social Studies <br> H, SB

3 Credits 3 Periods
Overview of government, history, and geography of the United States and Arizona. Includes the relationship of government to the United States economic system as well as the influences and developments that have shaped U.S. and Arizona history. Also covers geographical systems, regions, and study techniques. Prerequisites: None.

## POS114 World Social Studies

3 Credits 3 Periods
Introduction to the world from the integrated social science perspectives of history, geography, and government. Prerequisites: None.

## POS115 Issues in American Politics

L, SB
3 Credits 3 Periods
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 World Politics

G, SB
3 Credits 3 Periods
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.

## POS140 Comparative Government <br> G, SB

3 Credits 3 Periods
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 United Nations Studies

## G

3 Credits 3 Periods
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 Political Ideologies

SB
3 Credits 3 Periods
Survey of twentieth century nondemocratic ideologies and movements with emphasis on Marx, Lenin, Mussolini, Hitler, Stalin and Mao. Prerequisites: None.

## POS220 U.S. and Arizona Constitution

## 3 Credits 3 Periods

Examination of the United States Constitution and the constitution and government of the State of Arizona. Prerequisites: None.

## POS221 Arizona Constitution

1 Credits 1 Periods
Examination of the Constitution of the State of Arizona. Equivalent to the second part of POS220. May not enroll in POS220 and POS221 concurrently. Prerequisites: None.

## POS222 U.S. Constitution

2 Credits 2 Periods
Examination of the United States Constitution. Equivalent to the first part of POS220. May not enroll in POS220 and POS222 concurrently. Prerequisites: None.

## POS223 Civil Rights

C, SB
3 Credits 3 Periods
The historic background and current status of major civil rights issues in the United States. Prerequisites: None.

## POS227 United States and Arizona Social Studies H, SB

3 Credits 3 Periods
Overview of government, history, and geography of the United States and Arizona. Includes the relationship of government to the United States economic system as well as the influences and developments that have shaped U S and Arizona history. Also covers geographical systems, regions, and study techniques. Prerequisites: None.

## POS281AB Public Policy/Service Internship

3 Credits 3 Periods
Field experience in community service, public policy or public service. POS281AB 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 or Corequisites: POS280.

## POS282AA Volunteerism for Political Science: A Service Learning Experience <br> 1 Credits 1 Periods

Service field experience within government agencies, political organizations, citizen advocacy groups, and human service organizations/agency. POS282AA 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.

## POS285 Political Issues and Public Policy SB

3 Credits 3 Periods
Introduction to public policy, how policy is made, and how public policy decisions are affected. Prerequisites: None.

## POS298AC Special Projects

3 Credits 3 Periods
Organized and tailored around 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.

## PSY-Psychology

## PSY101 Introduction to Psychology

## SB

3 Credits 3 Periods
To acquaint the student with basic principles, methods and fields of psychology such as learning, memory, emotion, perception, physiological, developmental, intelligence, social and abnormal. Prerequisites: None.

## PSY102 Introduction to Psychology Lab

1 Credits 1 Periods
Optional laboratory designed to accompany PSY101. Application of psychological principles in areas such as learning, memory, emotion, motivation, cognition, language, development, personality, and intelligence. Prerequisites or Corequisites: PSY101 or permission of instructor.

## PSY123 Psychology of Parenting

3 Credits 3 Periods
The demonstration and application of psychological principles to the development and guidance of children and adolescents. Prerequisites: None.

## PSY132 Psychology and Culture

C, G, SB
3 Credits 3 Periods
Presents current knowledge about human diversity in behavior and culture using examples from a variety of contexts within western and global societies. Highlights topics in cross-cultural psychology, such as intergroup relations, diverse cognitive styles, ethnocentrism, gender, personality, emotion, language, communication, work and health. The role of enculturation throughout the lifespan will be explored to increase awareness of how behavioral and cognitive principles affect interactions in a multicultural world. Prerequisites: None.

## PSY143 Lesbian, Gay, Bisexual and Transgendered Studies

C
3 Credits 3 Periods
Introduction to the study of lesbian, gay, bisexual, and transgendered individuals. Includes psychological, developmental, social, biological, historical and cultural aspects. Review of research literature regarding the etiology and assessment of sexual orientation, prejudice, and discrimination, and family issues. Current issues in lesbian/gay/bisexual/transgendered studies. Prerequisites: None.

## PSY156 Understanding Death and Dying

3 Credits 3 Periods
Designed to give the student an understanding of the research and theories of death, dying and the bereavement process. Prerequisites: None.

## PSY210 Educational Psychology

3 Credits 3 Periods
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.

## PSY215 Introduction to Sport Psychology SB

3 Credits 3 Periods
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.

## PSY230 Introduction to Statistics

CS
3 Credits 3 Periods
An introduction to basic concepts in descriptive and inferential statistics, with emphasis upon application to psychology. Consideration given to the methods of data collection, sampling techniques, graphing of data, and the statistical evaluation of data collected through experimentation. Required of psychology majors. Prerequisites: (A grade of "C" or better in PSY101 and MAT092 or higher MAT course) or (a grade of "C" or better in PSY101 and eligibility for MAT112 or higher as indicated by appropriate mathematics placement test score) or permission of Instructor.

## PSY231 Laboratory for Statistics

1 Credits 2 Periods
Applications of inferential and descriptive statistics to computers in the field of psychology. Prerequisites: None. Corequisites: PSY230.

## PSY235 Psychology of Gender

C, SB
3 Credits 3 Periods
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 Developmental Psychology

SB
3 Credits 3 Periods
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 Psychology of Adolescent Development

 3 Credits 3 PeriodsExplores 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 Social Psychology

SB
3 Credits 3 Periods
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 Psychology of Personality

SB
3 Credits 3 Periods
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 Positive Psychology

3 Credits 3 Periods
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 Abnormal Psychology

SB

## 3 Credits 3 Periods

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 Introduction to Forensic Psychology

 3 Credits 3 PeriodsOverview 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 Biopsychology

SG
4 Credits 5 Periods
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 Psychology of Human Sexuality SB

## 3 Credits 3 Periods

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.

## PSY282AA Volunteerism Service Learning Experience in Psychology <br> 1 Credits 1 Periods

Service learning field experience within private/public agencies, and citizen volunteer groups. PSY282AA 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.

## PSY282AB Volunteerism Service Learning Experience in Psychology

2 Credits 2 Periods
Service learning field experience within private/public agencies, and citizen volunteer groups. PSY282AB 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 Research Methods

## 4 Credits 3 Periods

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.

## PSY292 Psychology of Altered States of Consciousness SB

3 Credits 3 Periods
Examines phenomena and history of altered states of consciousness. Surveys scientific principles, methods and applications in altered states research. Reviews current psychological research in topics related to sensory deprivation, daydreaming, meditation, hypnosis, sleep and dreams, and the effects of drugs. Prerequisites: PSY101 with a grade of "C" or better, or permission of Instructor.

## PSY298AA Special Projects

## 1 Credits 1 Periods

Organized and tailored around 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.

## PSY298AC Special Projects

3 Credits 3 Periods Organized and tailored around 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.

## RDG-Reading

## RDG016 Reading English as a Second Language I

 3 Credits 3 PeriodsDesigned 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.

## RDG026 Reading English as a Second Language II

3 Credits 3 Periods
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 of "C" or better in ESL/RDG016, or permission of Instructor.

## RDG036 Reading English as a Second Language III 3 Credits 3 Periods

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.

## RDG046 Reading English as a Second Language IV

 3 Credits 3 PeriodsDeveloped 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.

## RDG071 Basic Reading

3 Credits 3 Periods
Provide opportunities for practice and application of basic reading skills. Includes phonic analysis, word recognition, structural analysis, use of context clues, and use of dictionary, reinforced through practical application. Development of vocabulary required for success in content area courses. Emphasis on literal comprehension and development of inferential interpretation. Prerequisites: Appropriate reading placement test score, or grade of "C" or better in ESL/RDG046, or permission of Instructor.

## RDG081 Reading Improvement

3 Credits 3 Periods
Designed to improve basic reading skills. Includes word recognition, interdisciplinary vocabulary development, recognizing patterns of organization, interpreting inference. Reviews interpreting graphic materials. Emphasis on identifying main ideas and related details. Prerequisites: Appropriate reading placement test score, or grade of "C" or better in RDG071, or permission of Instructor.

## RDG095 Intensive Foundations for College Reading 6 Credits 6 Periods

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 a grade of "B" or better in RDG071, or permission of Instructor.

## RDG100 Successful College Reading

3 Credits 3 Periods
Emphasis on reading study strategies for any introductory class in any subject area. Introduction to Learning Management System (LMS), how to successfully read course textbooks and assessments, how to navigate information technology and development of academic vocabulary. RDG100 satisfies RDG091 requirement. RDG100 may be repeated for a total of twelve (12) credit hours. Prerequisites: A grade of "C" or better in RDG081 or appropriate reading placement score or permission of Instructor. Corequisites: Any 100-level course in another content area or permission of Instructor.

## RDG111 Successful College Reading for Cultural or Social Sciences

3 Credits 3 Periods
Emphasis on reading study strategies for an introductory class in the Cultural and Social Sciences. Introduction to Learning Management System (LMS), how to successfully read course textbook and assessments and development of academic vocabulary. RDG111 satisfies RDG091 requirement. Prerequisites: A grade of "C" or better in RDG081 or appropriate reading placement score or permission of Instructor. Corequisites: Any 100-level course in Cultural Science or Social Science area or permission of Instructor.

## RDG112 Successful College Reading for Life Sciences, Mathematics, Physical Sciences or Technology <br> 3 Credits 3 Periods

Emphasis on reading study strategies for an introductory class in the Life Science, Mathematics, Physical Sciences, or Technology. Introduction to Learning Management System (LMS), how to successfully read course textbook and assessments and development of academic vocabulary. RDG112 satisfies RDG091 requirement. Prerequisites: A grade of "C" or better in RDG081 or appropriate reading placement score or permission of Instructor. Corequisites: Any 100-level class in the Life Sciences or Mathematics or Physical Sciences or Technology or permission of Instructor.

## RDG113 Successful College Reading for Communication, Humanities or Behavioral Science <br> 3 Credits 3 Periods

Emphasis on reading study strategies for an introductory class in the Communication, Humanities, or Behavioral Science. Introduction to Learning Management System (LMS), how to successfully read course textbook and assessments and development of academic vocabulary. RDG113 satisfies RDG091 requirement. Prerequisites: A grade of "C" or better in RDG081 or appropriate reading placement score or permission of Instructor. Corequisites: Any 100 -level course in Communication or Humanities or Behavioral Sciences or permission of Instructor.

RDG282AA Service-Learning Experience in Reading 1 Credits 1 Periods
Unpaid Service-Learning (SL) experience, completed with approved community partner. RDG282AA may be repeated for a total of six (6) credit hours. Standard grading is available according to procedures outlined in catalog. Prerequisites: Permission of Instructor.

## RDG298AC Special Projects

3 Credits 3 Periods
Organized and tailored around 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.

## REA-Real Estate

## REA179 Real Estate Principles I

3 Credits 3 Periods
Basics of real estate principles including introduction to the profession and license law, definition of real property, legal descriptions, rights and interests in property, ownership, contracts, real estate economics, financing and foreclosure, land use, and valuation. Prerequisites: None.

## REA180 Real Estate Principles II

## 3 Credits 3 Periods

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.

## REA201AA Real Estate Principles Review

1 Credits 1 Periods
Comprehensive review of basic and state-specific real estate principles. This course is intended to satisfy additional classroom hours needed to fulfill the State of Arizona`s prelicense attendance requirement of 90 or more classroom hours of education. Prerequisites: [Grade of C or better and 90 hours of schoolverified attendance in (REA179 and REA180) or REA201] or permission of Department or Division.

## REA270 Basic Appraisal Principles

2 Credits 2 Periods
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.

## REA271 Basic Appraisal Procedures

2 Credits 2 Periods
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 Prerequisites: REA270 or permission of Instructor

## REA273 Residential Market Analysis Highest and Best Use <br> 1 Credits 1 Periods

Recognize and evaluate market conditions affecting the buyers' and sellers' activities in understanding and reporting values. Gather and evaluate market data. Markets, sub-markets, market segmentation, supply side analysis, demand analysis and the importance of market examination to the appraisal process. Prerequisites: None.

## REA274 Residential Appraiser Site Valuation and Cost Approach

1 Credits 1 Periods
Learn theories and methodologies for arriving at residential site values and applying the Cost Approach for new and reproduction factors. The advantages and disadvantages of using the cost methods for estimating accrued depreciation. Reading of residential building plans and specifications. Prerequisites: None.

## REA275 Residential Sales Comparison and Income Approaches

2 Credits 2 Periods
Basic understanding and knowledge of the residential sales comparison and income approaches to appraisal including valuation principles and procedures applicable to these approaches. Development of market analysis, including the application and use of matched pairs and capitalization rates, and gross rent multipliers. Includes organizing market data and reconciling value indications. Prerequisites: Permission of Instructor.

## REA276AA Residential Report Writing and Case Studies I

1 Credits 1 Periods
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.

## REA281 Principles of Real Estate Law

## 3 Credits 3 Periods

Incidents of ownership and use of real estate, legal principles, procedures, and methods of acquisition and disposition of real estate. Prerequisites: REA179 or permission of Department or Division.

## REA282 Real Estate Finance

## 3 Credits 3 Periods

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 permission of Instructor.

## REA283 Property Management

## 3 Credits 3 Periods

Emphasizes realty laws, survey of rentals, housing needs, and rents in Phoenix metropolitan area. Prerequisites: REA179 or permission of Instructor.

## REA290AH Real Estate Seminar: Contract Writing

 0.5 Credits 0.5 PeriodsContract writing skills, techniques, and requirements. Writing of basic real estate contracts, including purchase offers, counter offers, sales listing agreements, and riders. Prerequisites: None.

## REC-Recreation

## REC120 Leisure and the Quality of Life SB

3 Credits 3 Periods
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.

## REC150 Outdoor Adventure Skills Field Experience

1 Credits 2 Periods
Practical application of camping and outdoor skills including camping, equipment selection and use, cooking, fire building, camp programs, backpacking, and safety. Course may be repeated for a total of four (4) credits. Prerequisites: None.

## REC150 Outdoor Adventure Skills

3 Credits 3 Periods
Camping and outdoor skills including types of camping, equipment selection and use, cooking and fire building, camp programs, backpacking, and safety. Prerequisites: None.

## REC155 Caving

1 Credits 2 Periods
Basic caving skills. Includes cave ecology, navigation, safety systems, lighting systems and equipment selection. Prerequisites: None.

## REC282AA Volunteerism for Recreation: A Service Learning Experience

1 Credits 1 Periods
Service learning field experience within private/public agencies, educational institution, and citizen volunteer groups. REC282AA may be repeated for a total of six (6) REC282 credit hours. Standard grading available according to procedures outlined in catalog. Prerequisites: Permission of Instructor.

## REL-Religious Studies

## REL100 World Religions

G, HU
3 Credits 3 Periods
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.

## REL151 Religion in the Hispanic World <br> G, HU

3 Credits 3 Periods
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 Classics of Asian Religions <br> G, HU <br> 3 Credits 3 Periods

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 American Indian Religions <br> C, HU, L <br> 3 Credits 3 Periods

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.

## REL205 Religion and the Modern World HU, L

3 Credits 3 Periods
Introduction to the nature and role of religious beliefs and practices in shaping the lives of individuals and societies, with particular attention to the modern world. Prerequisites: ENG101, or ENG107, or equivalent.

## REL206 Religion in America

HU
3 Credits 3 Periods
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 Ritual, Symbol, and Myth

HU, L
3 Credits 3 Periods
Introduction to the academic study of religion through the study of myths, symbols, and rituals. Includes methods and theories used by scholars to study the complex subject of religion. Attention to literate and nonliterate cultures. Prerequisites: Grade of C or better in ENG101, or ENG107, or permission of Department or Division.

## REL250 Religion in Ireland: Neolithic to Early Medi-

 evalH, HU
3 Credits 3 Periods
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 Introduction to Christianity HU

3 Credits 3 Periods
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 Women and World Religions G, HU

3 Credits 3 Periods
Focus on the role of women in several organized religions and/ or religious sects. Study of myth and symbols as they are used to establish, maintain, and enforce sex-roles within specific cultural contexts around the world. Prerequisites: None.

## RUS-Russian

## RUS101 Elementary Russian I

4 Credits 4 Periods
Basic grammar, pronunciation, and vocabulary of the Russian language. Practice of listening, speaking, reading, and writing skills. Prerequisites: None.

## RUS102 Elementary Russian II

4 Credits 4 Periods
Continued study of grammar and vocabulary, with emphasis on speaking, reading, and writing skills. Prerequisites: RUS101, or permission of Department or Division. Completion of prerequisites within the last three years is required.

## SBS-Small Business Management

## SBS204 Small Business Marketing and Advertising

2 Credits 2 Periods
Introduction to marketing and advertising strategies and methods including business image, target market analysis, and customer buying behavior profile. Analysis and selection of advertising/ business promotion methods and timing. Methods of deciding product and market segment focus included. Design of an individual marketing and advertising/promotion plan. Prerequisites: None.

## SBS213 Hiring and Managing Employees

1 Credits 1 Periods
Methods and techniques for managing employees in a small business. Includes supervisor's role, leadership styles, interpersonal communications, staff planning, employee work styles, techniques for handling problem employees, and employee motivation. Focuses on real life situations to enable the business owner to gain high performance from their employee team. Includes segment on hiring, new employee orientation, training, benefits, and developing future staffing needs assessment. Prerequisites: None.

## SBS214 Small Business Customer Relations

1 Credits 1 Periods
Developing and improving customer relations for the small business. Planning and delivering quality customer service. Includes topics on attitude of employees, customer perceptions and motivations, handling customer dissatisfaction, and developing customer, supplier, vendor, and distributor loyalty. Prerequisites: None.

## SBS230 Financial and Tax Management for Small Business

2 Credits 2 Periods
An overview of accounting and record-keeping for the successful management of a small business. Develops an understanding of the accounting cycle and preparation of financial statements Includes section on tax consequences and the choice of legal entity choice based on taxation. Prerequisites: None.

## SBU-Society and Business

## SBU200 Society and Business

G, SB
3 Credits 3 Periods
The study and scientific inquiry of issues and demands placed on business enterprise by owners, customers, government, employees and society. Included are social, ethical and public issues and analysis of the social impact of business responses. Prerequisites: None.

## SCT-Sustainability/Career and Technical

## SCT100 Introduction to Sustainable Built Environments

3 Credits 3 Periods
Study of the built environment and implications on human health, the natural environment, and society. Understanding of strategies that achieve sustainable design. Exploration of positive and negative sustainable product attributes. Emphasis on Leadership in Energy and Environmental Design (LEED). SCT100 will not complete the requirements to sit for the LEED Accredited Professional examinations. Additional study is necessary to successfully pass the LEED Green Associates examination. Prerequisites: None.

## SLC-Studies in Language and Culture

## SLC201 Introduction to Linguistics

HU, SB
3 Credits 3 Periods
Introduction to the study of language Study of the nature and diversity of world languages, linguistic structures and functions of language, language variation, pragmatics and the learning/acquisition of first and second languages. Prerequisites: None.

## SLG-Sign Language

## SLG101 American Sign Language I

4 Credits 4 Periods
Introduction of principles, methods, and techniques for communicating with deaf people who sign. Development of expressive and receptive sign skills, manual alphabet, numbers, and sign vocabulary. Overview of syntax, grammar, and culture related to American Sign Language (A.S.L.). Prerequisites: None. SLG103 suggested as a corequisite but not required.

## SLG102 American Sign Language II

## 4 Credits 4 Periods

Continued development of knowledge and language skills for communicating with deaf people who sign. Includes numbers, fingerspelling, and culture. Emphasis on enhancement of receptive sign skills and continued development of expressive sign skills. Application of rudimentary, syntactical, and grammatical structure stressed with continued development of sign vocabulary. Prerequisites: SLG101 with a grade of "C" or better, or permission of Department or Division. Completion of prerequisites within the last three years is required.

## SLG103 Introduction to the Deaf Community

1 Credits 1 Periods
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 nonmanual 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 Reading ASSET exemption. Completion of prerequisites within the last 3 years is required.

## SLG202 American Sign Language IV

4 Credits 4 Periods
Conversational techniques in a cross-cultural framework. Continued work on conceptual accurate signing of English idioms and words with multiple meanings. Prerequisites: SLG201 with a grade of C or better or permission of Department or Division. Suggested but not required ENG101 or ENG107, SLG200, and CRE101 or CRE111 or Reading test exemption. Completed prerequisites within the last 3 years are required.

## SLG298AA Special Projects

1 Credits 1 Periods
Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE. Prerequisites: Permission of Program Director or Instructor.

## SLG298AB Special Projects

## 2 Credits 2 Periods

Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE. Prerequisites: Permission of Program Director or Instructor.

## SLG298AC Special Projects

## 3 Credits 3 Periods

Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE. Prerequisites: Permission of Program Director or Instructor.

## SOC-Sociology

## SOC101 Introduction to Sociology

 SB3 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.

## SOC130 Human Sexuality

SB
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 Race and Ethnic Relations <br> C, SB

3 Credits 3 Periods
Examines how the social construction of race shapes social interaction and social institutions. Explores the consequences of power, privilege and oppression among major ethnic and racial groups in the United States. Prerequisites: None.

## SOC141 Sovereign Indian Nations

C, H, SB
3 Credits 3 Periods
Explores the sovereign status of American Indians as it relates to social relationships, traditions, and culture of American Indians. Reviews historic relations with non-Indian societies, the development of federal Indian law, tribal governments and their functions. Examines treaty rights, environmental issues, public policy, economic development, other current issues, and contemporary social problems. Prerequisites: None.

## SOC157 Sociology of Families and Relationships SB

3 Credits 3 Periods
Systemic analysis of socio-cultural and historical origins of modern families in the U.S. and their importance, major challenges and changing trends. Explores being single, dating and attraction, love, cohabitation and marriage, family planning and parenthood, conflict and crisis within the family, and divorce. Prerequisites: None.

## SOC212 Gender and Society

C, SB
3 Credits 3 Periods
A sociological analysis 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. Prerequisites: None.

## SOC220 Sport and Society

## SB

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.

## SOC241 Race and Ethnic Relations

C, SB
3 Credits 3 Periods
Examines how the social construction of race shapes social interaction and social institutions Explores the consequences of power, privilege and oppression among major ethnic and racial groups in the United States. 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, and complementary health approaches from a cross-cultural and global sociological perspective. Prerequisites: None.

## SOC282AA Service-Learning Experience in Sociology

 1 Credits 1 PeriodsUnpaid Service-Learning (SL) experience, completed with approved community partner. SOC282AA may be repeated for a total of six (6) credit hours. Standard grading is available according to procedures outlined in College Catalog. Prerequisites: SOC101 and permission of Instructor.

## 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.

## SPA102 Elementary Spanish II

4 Credits 4 Periods
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: (A grade of "C" or better in SPA101 or SPA101AA), or permission of Department or Division. Completion of prerequisites within the last three years is required.

## SPA115 Beginning Spanish Conversation I

3 Credits 3 Periods
Basic pronunciation, vocabulary, sentence structures, and cultural awareness, necessary to develop speaking and listening skills in Spanish. Prerequisites: None.

## SPA117 Health Care Spanish I

## 3 Credits 3 Periods

Basic conversational Spanish for health care workers or students. Emphasis on basic sentence structure, pronunciation and vocabulary used in health care settings. Prerequisites: None.

## SPA119 Spanish for Educational Settings I

3 Credits 3 Periods
Basic conversational Spanish for teachers, counselors, administrators and other school personnel. Emphasis on basic sentence structure, pronunciation and vocabulary used in educational settings. Prerequisites: None.

## SPA201 Intermediate Spanish I

G
4 Credits 4 Periods
Continued study of essential Spanish grammar and Spanishspeaking cultures. Continued practice and development of reading, writing, and speaking skills in Spanish. Emphasis on fluency and accuracy in spoken Spanish. Prerequisites: A grade of "C" or better in SPA102, or SPA102AA, or SPA111, or permission of Department or Division. Completion of prerequisites within the last three years is required.

## SPA202 Intermediate Spanish II <br> \section*{G}

4 Credits 4 Periods
Review of grammar, continued development of Spanish language skills with continued study of the Spanish-speaking cultures. Prerequisites: A grade of "C" or better in SPA201, or permission of Department or Division. Completion of prerequisites within the last three years is required.

## SPA203 Spanish for Spanish-Speaking Students I G

4 Credits 4 Periods
Designed for Spanish-speaking students. Emphasis on written composition, grammar review, punctuation and spelling, literature and conversation. May be taken in lieu of SPA201. Prerequisites: Permission of Instructor or Department Chair.

## SPA225 Intermediate Spanish Conversation I

3 Credits 3 Periods
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: SPA102, or SPA102AA, or SPA116, or SPA116AA, or permission of Department or Division. Completion of prerequisites within the last three years is required.

## SPA265 Advanced Spanish I

## HU

3 Credits 3 Periods
Introduction and study of Spanish and Spanish-American literature. Selected readings from most Spanish-speaking countries. All discussions, oral reports, and written assignments are in Spanish. Prerequisites: SPA202 or permission of Department or Division. Completion of prerequisites within the last three years is required.

## SPA266 Advanced Spanish II

## HU

3 Credits 3 Periods
Further study of Spanish and Spanish-American literature. Reading selections from most Spanish-speaking countries. All oral reports, discussions, and written reports in Spanish. Graduated level of difficulty from the literature studied in SPA265. Prerequisites: SPA265, or permission of Department or Division. Completion of prerequisites within the last three years is required.

## SPA298AA Special Projects

## 1 Credits 1 Periods

Organized and tailored around 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.

## SPA298AB Special Projects

2 Credits 2 Periods
Organized and tailored around 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.

## SPA298AC Special Projects

3 Credits 3 Periods
Organized and tailored around 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.

## SPH-Spanish Humanities

## SPH241 Spanish and Latin American Film in Transla-

 tionG, HU
3 Credits 3 Periods
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.

## SPH245 Hispanic Heritage in the Southwest C, HU <br> 3 Credits 3 Periods

A survey of Hispanic heritage in the Southwest Cultural and social institutions and their contribution to the development of the region and its heritage. Prerequisites: None

## SSH-Sustainability/Social Sciences and Humanities

## SSH111 Sustainable Cities

G, HU, S
3 Credits 3 Periods
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.

## STO-Storytelling

## STO290 The Irish Storytelling Tradition

## 3 Credits 3 Periods

Introduction to the history and practice of storytelling in Ireland. Overview of Irish myths, legends, folktales, and humorous tales. Great story tellers and story collectors of the past and present. Researching, developing, and crafting Irish stories for telling. Prerequisites: None.

## SUS-Sustainability/Natural Sciences

## SUS100 Introduction to Sustainability

G
3 Credits 3 Periods
Introduction to the basic concepts of sustainability. Includes challenges of land, ocean, and resource management as well as the built environment. Also covers connections between global, local and personal sustainability challenges and responses at each level. Prerequisites: None.

## SUS110 Sustainable World SB

3 Credits 3 Periods
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.

## SUS232 Professional Skills in Sustainability Practice

3 Credits 3 Periods
Introduction to professional skills in sustainability through interpersonal competence. Emphasis on teamwork, project management, stakeholder engagement, communication, and continuous learning. Prerequisites: SUS110 and SSH111 and (ENG101 or ENG107).

## SWU-Social Work

## SWU130 Addictions and Substance Use Disorders

3 Credits 3 Periods
Sociological, psychological and physiological aspects of addictive behaviors and chemical abuse. Consideration of a variety of treatment programs offered in community agencies. Prerequisites: None.

## SWU171 Introduction to Social Welfare H, SB

3 Credits 3 Periods
Analysis of contemporary social welfare services and professional social work. Prerequisites: None.

## SWU225 Statistics for Social Research/Justice and Government <br> CS

3 Credits 3 Periods
Introductory course in descriptive and inferential statistics for social research. Designed to serve as preparation for interpreting and understanding research related to Justice and Government related agencies. Prerequisites: MAT092 or completion of higher level mathematics course.

## SWU250 Mindfulness for Stress Management SB

3 Credits 3 Periods
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.

## SWU258 Victimology and Crisis Management

 C, SB3 Credits 3 Periods
Victimology, the criminal justice system, techniques of crisis intervention, and the importance of a multicultural and global perspective. Includes sexual assault, family violence, post-traumatic stress disorder, the role of substance abuse, effective coping skills, appropriate community resources and the responsiveness of the justice system. Prerequisites: None.

## SWU282AA Volunteerism for Social Work: A Service Learning Experience <br> <br> 1 Credits 1 Periods

 <br> <br> 1 Credits 1 Periods}Service-learning field experience within private/public agencies, and citizen volunteer groups. SWU282AA 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.

## SWU282AB Volunteerism for Social Work: A Service Learning Experience

2 Credits 2 Periods
Service-learning field experience within private/public agencies, and citizen volunteer groups. SWU282AB may be repeated for a total of six (6) SWU282 credit hours; may not repeat specific assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in catalog. Prerequisites: Permission of Instructor.

## SWU291 Social Service Delivery Systems

3 Credits 3 Periods
Purposes, structures, and delivery systems of human service agencies. Includes 40 hours of volunteer experience in local human service agencies. Prerequisites or Corequisites: SWU102, or SWU171, or Permission of Department or Division.

## SWU292 Effective Helping in a Diverse World

 C, SB3 Credits 3 Periods
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.

## TCM-Telecommunications

## TCM101 Fundamentals of Radio and TV

3 Credits 3 Periods
History of American radio and television, government regulations, self-regulation of broadcasting, the relationship of networks and stations, the social and political aspects of radio and television programming, the role of mass communications in America, the socioeconomic pressures on the medium, and the responsibilities and purposes of mass communications. Prerequisites: None.

## TCM107 Career Pathways in the Media

HU
3 Credits 3 Periods
Emphasis on theories of broadcasting, how the media functions in our society, the business structure of the U.S. media environment, the cultural import and potential impact of the programming and films, and the growth of new communications technologies. Prerequisites: None.

## TEC-Clothing \& Textiles

## TEC102 Strategic Fashion Business Planning

2 Credits 2 Periods
Developing a strategy for a fashion business or fashion service. Merchandise and management planning for a fashion business entity. Emphasis on fashion merchandise and successful fashion business development. Prerequisites: None.

## TEC103 Developing Your Fashion Business

2 Credits 2 Periods
Creating and understanding a financial plan, developing operating and control systems, planning growth strategies and a business plan for the Fashion Entrepreneur. Emphasis on fashion merchandise and successful fashion business development. Prerequisites: None.

## TEC105 Cultural Aspects of Clothing

## 3 Credits 3 Periods

Psychological, aesthetic, and economic factors applied to the systematic study of dress and adornment in relationship to world cultures and the global fashion industry. Prerequisites: None.

## TEC106 History of Fashion

3 Credits 3 Periods
Consideration of historic factors influencing fashion and fashion change with special emphasis on historic costume. Prerequisites: None.

## TEC109 Introduction to Fashion Merchandising

 3 Credits 3 PeriodsExplores 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

3 Credits 5 Periods
Basic clothing construction techniques. Use of commercial patterns and sewing machine in the construction of basic garments. Prerequisites: None.

## TEC111 Clothing Construction

3 Credits 5 Periods
Construction of garments applying basic construction principles and techniques using patterns suitable for the individuals and their capabilities. May be repeated for a total of 12 credit hours with permission of instructor. Prerequisites: None. If student has no previous sewing experience, TEC110 Basic Sewing Skills should be taken prior to and not during this course.

## TEC112AB Alteration of Ready Made Garments

2 Credits 2 Periods
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

2 Credits 3 Periods
Structural features of patterns and altering patterns to achieve proper fit. Includes figure irregularities, pattern style variations, fashion, and individual figure problems. May be repeated for a total of six (6) credit hours with instructor permission. Prerequisites: TEC111 or permission of Instructor.

## TEC112AU Sewing Clothing Accessories

3 Credits 5 Periods
Construction of clothing accessories for personal or professional use. Includes overview of accessories, principles of design, selection of fabrics and trims, use of commercial patterns, creation of custom patterns, construction techniques, and evaluation of accessories. May be repeated for a total of twelve (12) credit hours. Prerequisites: TEC111 or permission of Instructor.

## TEC113 Textiles: Dyeing

1 Credits 1.5 Periods
Demonstrations and projects emphasizing skills and techniques in creating textile designs on fabric for fashion and interior design applications. Fabric dyeing techniques through hands-on practices such as tie dyeing, shibori dyeing and batik dyeing. May be repeated for a total of three (3) credits. Prerequisites: None.

## TEC114 Textiles: Block Printing/Silk Screening

1 Credits 2 Periods
Block printing and silk screening techniques used to create designs on fabric for apparel and interiors. May be repeated for a total of three (3) credits. Prerequisites: None.

## TEC115 Textiles: Hand Painting

1 Credits 1.5 Periods
Techniques used to hand paint designs on textiles for fashion and interior design. Techniques include water color and ombre, marbleizing, stenciling, stamping and various resist methods such as gutta and taping. Includes color theory and design development. May be repeated for a total of three (3) credits. Prerequisites: None.

## TEC116 Textiles: Stitchery and Embellishment

1 Credits 1.5 Periods
Materials and techniques used for stitchery and embellishment on textiles Includes color schemes and design development. May be repeated for a total of three (3) credits.
Prerequisites: None.

## TEC117 Beginning Quilting

## 2 Credits 4 Periods

Basic construction techniques used in hand and machine quilting. Includes fabric and thread selection, equipment, batting choices, fabric preparation, pattern selection, cutting methods, patchwork assembly techniques by hand and machine, finishing methods, and uses for quilted items. Prerequisites: None.

## TEC120 Intermediate Clothing Construction <br> 3 Credits 5 Periods

Application of intermediate clothing and fitting techniques. Emphasis on improving basic construction skills. May be repeated for a total of 9 credit hours with permission of instructor. Prerequisites: TEC111 or permission of Instructor.

## TEC122 Sewing with Knits

## 3 Credits 5 Periods

Skills and techniques used in the construction of garments made from knit fabrics. Prerequisites: None.

## TEC124 Advanced Clothing Construction <br> 3 Credits 5 Periods

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

3 Credits 3 Periods
Overview of the fashion design industry. Includes terminology, fashion trends, elements and principles of design, sources of inspiration, fabric selection, sketching and costing a collection, an introduction to pattern making techniques, and global fashion centers' design and manufacturing specialties. Prerequisites: None.

## TEC129 Sewing with a Serger

3 Credits 5 Periods
Operation of a home serger. Use in constructing, finishing, and decorating garments and home decorations. Home serger required. Prerequisites: None.

## TEC134 Fashion Illustration I

3 Credits 5 Periods
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

## 3 Credits 5 Periods

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. TEC141 may be repeated for a total of six (6) credits. Prerequisites: None.

## 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.

## 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, yarns, fabrication, color and finishes and their impact on product performance Includes labeling laws, fiber manufacturing processes, technical textiles, fiber properties, care, end use, and global sustainability efforts. Prerequisites: None.

## 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.

## TEC224 Pattern Drafting

2 Credits 3 Periods
Draft patterns with measurements of dress forms and human figures. Development of slopers, blocks, and garment patterns. Design and produce an original garment using pattern drafting techniques. Prerequisites: TEC111 or permission of Instructor.

## TEC225 Pattern Design I

3 Credits 5 Periods
Creation of pattern designs by flat pattern methods. Produce a variety of styles. Production of an original pattern design and garment. TEC225 may be repeated for a total of twelve (12) credits. 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, fabric preparation, hand sewing, garment shaping, edge finishes, embellishments, and closures. Emphasis on fitting and couture construction techniques used to construct skirts, pants, blouses, dresses, sleeves, pockets, jackets, coats, and evening wear. TEC227 may be repeated for a total of twelve (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

## 3 Credits 5 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.

## 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. TEC230 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. TEC231 may be repeated for a total of six (6) credit hours. Prerequisites: TEC111 or permission of Instructor.

## TEC232 Costume Construction

## 3 Credits 5 Periods

Costume construction techniques applied to period reproduction, vintage, fantasy and anime; stage and dance costumes. Includes alteration of commercial patterns, drafting of original patterns, and fitting techniques. TEC232 may be repeated for a total of twelve (12) credit hours with permission of Instructor. Prerequisites: TEC111 and (TEC224, or TEC225, or TEC226, 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. TEC233 may be repeated for a total of twelve (12) credit hours with permission of Instructor Prerequisites: TEC225 or permission of Instructor.

## TEC236 Portfolio Development

## 1 Credits 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.

## 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.

## 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.

## 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 fashion 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 Credits 1 Periods

Design of an original garment for a line/collection. Includes sketching design, developing pattern for design, selecting fabrics for design, and construction of design. Course may be repeated for a total of 4 credit hours with permission of instructor. Prerequisites: TEC225 or TEC226.

## TEC271AA Fashion Design Internship

1 Credits 5 Periods
Work experience in fashion design business or industry. Work hours are coordinated for a minimum of 80 hours per semester. Supervision and evaluation by internship coordinator. TEC271AA may be repeated for a total of three (3) credit hours. Prerequisites: Permission of Department or Division.

## TEC271AC Fashion Design Internship

3 Credits 15 Periods
Work experience in fashion design business or industry. Fifteen hours of work weekly. Supervision and evaluation by an internship coordinator. Prerequisites: Permission of Department or Division.

## TEC272AA Retail Merchandising Internship

## 1 Credits 1 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 (students present job may qualify or permission of Instructor.

## TEC272AC Retail Merchandising Internship

3 Credits 3 Periods
Retail Merchandising 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 (students present job may qualify or permission of Instructor.

## TEC274AA Fashion Merchandising Study Tour

 1 Credits 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.
## TEC275AA Image Consultant Internship

## 1 Credits 1 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.

## TEC275AC Image Consultant Internship

## 3 Credits 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.

## TEC277AA Alteration Internship

## 1 Credits 1 Periods

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.

## TEC277AC Alteration Internship

## 3 Credits 3 Periods

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.

## TEC278AA Costume Design and Production Internship

1 Credits 1 Periods
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.

## TEC278AC Costume Design and Production Internship <br> 3 Credits 3 Periods <br> 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 (students present job may qualify or permission of Instructor.

## THE-Theatre - Performing Arts

## THE111 Introduction to Theatre

HU
3 Credits 3 Periods
A survey of theatre, including basic elements and principles of production, styles, and/or historical perspectives of theatre, dramatic literature, and criticism. Prerequisites: None.

## THE220 Modern Drama

HU, L
3 Credits 3 Periods
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.

## THE282AA Service-Learning Experience in Theatre

 1 Credits 1 PeriodsUnpaid Service-Learning (SL) experience, completed with approved community partner. THE282AA may be repeated for a total of six (6) credit hours. Standard grading is available according to procedures outlined in catalog. Prerequisites: Permission of Instructor.

## THF-Theatre and Film

## THF115 Makeup for Stage and Screen

## 3 Credits 4 Periods

Purposes, materials, and techniques of makeup for stage and screen. Prerequisites: None.

## THF120 Audition Techniques for Stage and Screen: Prepared Monologue

1 Credits 2 Periods
Practice in the techniques of auditioning for stage and screen. Identifies and illustrates techniques of the prepared monologue audition. Prerequisites: None.

## THF205 Introduction to Cinema

HU
3 Credits 3 Periods
Survey of the history and development of the art of motion pictures, including criticism of aesthetic and technical elements. Prerequisites: None.

## THF209 Acting for the Camera

3 Credits 4 Periods
Special technical aspects of acting before a camera. Prerequisites: THP112 or permission of Instructor.

## THF210 Contemporary Cinema

HU
3 Credits 3 Periods
A study of contemporary films, directors and critics with emphasis on evaluating film as an art form. Prerequisites: None.

## THF215 Advanced Makeup Techniques for Stage and Screen

3 Credits 4 Periods
Advanced character analysis and makeup design for stage and screen. Technical application of makeup for stage and screen. Prerequisites: THF115.

## THP-Theatre Performance/Production

## THP112 Acting I

3 Credits 4 Periods
Fundamental techniques and terminology of acting through physical and vocal expression, improvisation, and monologue and scene work. Emphasis on characterization. Prerequisites: None.

## THP131 Stage Movement

3 Credits 4 Periods
Movement skills for the actor to develop a flexible, expressive physical instrument. Includes pantomime, physical isolation, and awareness exercises. Prerequisites: None.

## THP201AA Theatre Production I

## 1 Credits 2 Periods

Designed to give college credit to the cast and technical production crews of college theatre productions. THP201AA may be repeated for a total of four (4) credit hours. Prerequisites: None.

## THP201AB Theatre Production II

## 2 Credits 4 Periods

Designed to give college credit to the cast and technical production crews of college theatre productions. THP201AB may be repeated for a total of four (4) credit hours. Prerequisites: None.

## THP203 Technical Theatre Production

3 Credits 6 Periods
Designed to give college credit to the technical production crews of college theatre productions. TPH203 may be repeated for up to a maximum of nine (9) credits. Prerequisites: None.

## THP212 Acting II

## 3 Credits 4 Periods

Fundamental techniques of acting through script analysis, rehearsal, and performance. Prerequisites: THP112 or permission of Department or Division.

## THP213 Introduction to Technical Theatre

## 3 Credits 5 Periods

Procedures of technical theatre production and demonstration. Topics include design and construction of scenery; lighting and properties. Prerequisites: None.

## THP214 Directing Techniques

3 Credits 4 Periods
Contemporary theory and practice in directing, the evolution of present-day directing procedures, and a sampling of scripts for directing practice. Principles of script analysis, blocking, casting, rehearsing, and performing. Prerequisites: THP112 or THE220, or permission of Instructor.

## THP217 Introduction to Design Scenography

3 Credits 4 Periods
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: None.

## THP226 Theatrical Design: Costuming

3 Credits 4 Periods
Basic techniques involved in researching, designing, and constructing costumes for the stage. Prerequisites: None.

## THP266 Production Careers in Technical Theatre

1 Credits 2 Periods
Provides the continuing design, stage management and technical student with opportunities to explore the versatility of the job opportunities within the Tech Theatre industry. Emphasis on presenting the work and talent both in person and on paper. Development of a professional resume and vita. Prerequisites: None.

## THP268 Opportunities in Production

## 3 Credits 6 Periods

Provides the continuing design student, dramaturge, stage management, technical director, and directing students with opportunities to expand the versatility of professional skills. Emphasis on relating their work to the total production process. Linking design ideas to production concept. Maintain dramaturge, stage manager, director documentation. Practical application of student work for portfolio development. Prerequisites: Permission of Department or Division.

## THP269 Technical Theatre Portfolio Development

 1 Credits 1 PeriodsThe analysis and preparation of all elements of a Technical Theatre/Design Portfolio including the use of digital portfolios and application to specific disciplines. Practice with portfolio presentation and maintaining and updating portfolio materials. Prerequisites: None.

## THP271 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.

## THP282 Production and Acting II

3 Credits 4 Periods
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.

## THP285 Creating/Performing Solo/Collaborative Works

3 Credits 3 Periods
Developing, rehearsing, and performing solo and collaborative works for fringe festivals and other storytelling and theatre venues. Prerequisites: None.

## THP292AE Summer Conservatory: Production (Tech)

4 Credits 5 Periods
Practicum in various aspects of technical theatre production for public performance. THP292AE may be repeated for a total of twelve (12) credit hours. Prerequisites: By interview only.

## THP298AC Special Projects

3 Credits 3 Periods
Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. Prerequisites: Permission of Program Director or Instructor.

## TQM-Total Quality Management

## TQM101 Quality Customer Service

3 Credits 3 Periods
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 Leadership and Empowerment Strategies

 2 Credits 2 PeriodsMethods for facilitating teams and empowering employees that effectively enable all employees to act upon a shared vision. Prerequisites: None. TQM201 is recommended.

## TQM230 Teamwork Dynamics

2 Credits 2 Periods
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 Motivation, Evaluation, and Recognition Systems <br> 2 Credits 2 Periods

Presents methods for benchmarking, assessing team performance, linking recognition to team performance, and valuing victories and mistakes with all personnel. Prerequisites: None. TQM201 is recommended.

## TQM240 Project Management in Quality Organizations <br> 3 Credits 3 Periods

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 TQM Internship

1 Credits 1 Periods
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.

## VET-Veterinary Technology

## VET101 Introduction to Veterinary Technology

3 Credits 2 Periods
This course introduces the role of the veterinary paraprofessional to the veterinary science industry and professional development including ethics, professionalism and legal applications. Students will gain an introduction into animal husbandry and nutrition, animal behavior, species and breed identification, the human-animal bond, biosecurity, and an introduction into equine medicine, livestock medicine, companion animal medicine, and lab animal medicine. Prerequisites: None.

## VET150 Veterinary Anatomy and Physiology I <br> 3 Credits 3 Periods

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: VET101, ENG102, CRE101, BIO181, CHM130, CHM130LL, and MAT120 and admission to the Veterinary Technology/Animal Health Program. Corequisites: VET150LL.

## VET150LL Veterinary Anatomy and Physiology Laboratory I <br> 1 Credits 3 Periods <br> Laboratory experience in support of VET150. Includes dissection of preserved animal specimens. Prerequisites: None. Corequisites: VET150.

## WED-Wellness Education

## WED110 Principles of Physical Fitness and Wellness

 SB3 Credits 3 Periods
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.

## WED152 Comparative Healing Techniques

3 Credits 3 Periods
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 Introduction to Chinese Medicine

3 Credits 3 Periods
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.

## WED162 Meditation and Wellness

1 Credits 1 Periods
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

## 2 Credits 2 Periods

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

1 Credits 1 Periods
History and evolution of herbs for healing applications. Prepara-
tion, usage, and effects of certain herbs used for healing purposes. Basic literature review skills in the area of herbal medicine.
Prerequisites: None

## WED218 Aromatherapy

## 1 Credits 1 Periods

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

3 Credits 6 Periods
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 <br> 3 Credits 6 Periods

Practical training for welders in artistic welding and metal sculpter with emphasis on oxy-ace welding, arc welding, and metal inert gas (MIG) welding. WLD102 may be repeated for a total of one hundred fifty (150) credit hours. Prerequisites: None.

## WLD103 Basic Blacksmithing and Metal Shaping 3 Credits 8 Periods

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. WLD103 may be repeated for a total of one hundred fifty (150) credit hours.

## WLD106AA Arc Welding

5 Credits 8 Periods
Electric welding with emphasis on metallic arc welding in out-ofposition practice and procedures. Prerequisites: None.

## WLD106AB Arc Welding 6010 3G-4G

5 Credits 8 Periods
Electric welding with emphasis on metallic arc welding in out-ofposition 3G, 4G practice and procedures using 6010 fast freeze electrodes in fillet and groove welds. Prerequisites: WLD106AA or permission of Instructor.

## WLD106AC Arc Welding 7018 3G-4G

## 5 Credits 8 Periods

Electric welding with emphasis on metallic arc welding in out-of-position 3G, 4G practice and procedures using 7018 fill freeze electrodes in fillet and groove welds. Prerequisites: WLD106AA or permission of Instructor.

## WLD106AD Arc Welding 6010, 7018 5G-6G

5 Credits 8 Periods
Electric welding with emphasis on metallic arc welding in 5G, 6G out-of-position practice and procedures using 6010 and 7018 electrodes in fillet and groove welds on steel pipe. Prerequisites: WLD106AA or permission of Instructor.

## WLD206 Advanced Welding - Heliarc and Wire Feed

 5 Credits 8 PeriodsInstruction 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.

## WLD206AA GMAW and GTAW Welding 5 Credits 8 Periods

Instruction in theory and practice of Gas Metal Arc Welding (GMAW) and Gas Tungsten Arc Welding (GTAW) on tungsten inert gas and wire feed welding. Basic 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 Instructor.

## WLD206AB Advanced GMAW and FCAW Welding

5 Credits 8 Periods
Instruction in theory and practice of the wire feed welding process with emphasis on advanced Gas Metal Arc Welding (GMAW) 3G and 4G, Flux-cored arc welding (FCAW) 3G and 4G positions. Welding procedures performed on ferrous (steel) metals. Set up and operation of all types of machines used in mig welding. Prerequisites: WLD106++ or permission of Instructor.

## WLD206AC Advanced GTAW Non-Ferrous Welding

 5 Credits 8 PeriodsInstruction in theory and practice on tungsten inert gas with emphasis on Gas Tungsten Arc Welding (GTAW) certification 1G and 3G positions. Welding procedures on nonferrous metals. Set up and operation of all types of machines used in Tig operations. Prerequisites: WLD206++ or permission of Instructor.

## WLD206AD Advanced GTAW Ferrous Welding

5 Credits 8 Periods
Instruction in theory and practice on tungsten inert gas welding with emphasis on Gas Tungsten Arc Welding (GTAW) certifications 1 G and 3G positions on ferrous metals. Set up and operation of all types of machines used in tig welding. Prerequisites: WLD106++ or permission of Instructor.

## WLD208 Advanced Arc Welding - Certification

 5 Credits 8 PeriodsAdvanced 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.

## WLD208AA Advanced Arc Welding - 3G Certification 5 Credits 8 Periods

Advanced metallic arc welding emphasizing 3G vertical position welding structural steel 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.

## WLD208AB Advanced Arc Welding - 4G Certification

 5 Credits 8 PeriodsAdvanced metallic arc welding emphasizing 4G position welding structural steel in preparation for certification Includes various test methods. Provides training on machine flame cutting and gouging and arc air cutting and gouging. Prerequisites: WLD208AA or permission of Instructor.

## WLD208AC Advanced Arc Welding 5G Pipe Certification

## 5 Credits 8 Periods

Advanced metallic arc welding emphasizing 5G position welding steel pipe in preparation for certification. Includes various test methods. Provides training on machine flame cutting and gouging and arc air cutting and gouging. Prerequisites: WLD208AB or permission of Instructor.

## WLD208AD Advanced Arc Welding Pipe 6G Certification

5 Credits 8 Periods
Advanced metallic arc welding emphasizing 6 G position welding steel pipe in preparation for certification Includes various test methods. Provides training on machine flame cutting and gouging and arc air cutting and gouging. Prerequisites: WLD208AC or permission of Instructor.

## WLD225 Welding Inspection and Quality Control

 3 Credits 3 PeriodsWelding inspection and quality control standards and practices in the construction and fabrication industries. Welding inspector certification requirements and functions performed in industry. Prerequisites: WLD106++ or permission of instructor.

## WLD296WA Cooperative Education

1 Credits 5 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: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to student's academic
or career goals (student's present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.

## WLD296WB Cooperative Education

## 2 Credits 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: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.

## WLD296WC Cooperative Education

3 Credits 15 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: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.

## WLD296WD Cooperative Education

4 Credits 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: 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 (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.

## WST-Women's Studies

## WST100 Introduction to Women's and Gender Studies

 C, SB3 Credits 3 Periods
Introduction to critical issues in women's studies. Prerequisites: None.

## WST161 American Women Since 1920

## C, H, SB

3 Credits 3 Periods
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 <br> C, HU <br> 3 Credits 3 Periods <br> Analysis of images of women in films from both historical and contemporary perspectives. Prerequisites: None.

WST282AA Volunteerism for Women's Studies: A Service Learning Experience
1 Credits 1 Periods
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

C, HU
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.

## WST285 Contemporary Women Writers C, HU

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.

## WST286 Women and Health: Body/Mind/Spirit/Connection

3 Credits 3 Periods
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 Women and World Religions

G, HU
3 Credits 3 Periods
Focus on the role of women in several organized religions and/ or religious sects. Study of myth and symbols as they are used to establish, maintain, and enforce sex-roles within specific cultural contexts around the world. Prerequisites: None.

## MCCCD POLICIES AND PROCEDURES

CATALOG COMMON PAGES 2017-2018
MARICOPA COUNTY COMMUNITY COLLEGE DISTRICT
AMENDED through the Administrative Regulation Approval Process, June 5, 2017
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 by number, which corresponds with the regulations on the MCCCD web site:
https://chancellor.maricopa.edu/public-stewardship/governance/administrative-regulations
Some regulations include reference to Arizona Revised Statutes from the State of Arizona and are noted as "ARS" followed by a reference number.

### 2.4.1 General Statement

The Maricopa Community Colleges are dedicated to providing a healthy, comfortable and educationally productive environment for students, employees and visitors.
2.4.2 Nondiscrimination (see 5.1.1 Maricopa EEO Policy)

It is the policy of the Maricopa District (consisting of Chandler-Gilbert Community College, the District Office, Estrella Mountain Community College, GateWay Community College, Glendale Community College, Maricopa Skill Center, Mesa Community College, Paradise Valley Community College, Phoenix College, Rio Salado Community College, Scottsdale Community College, and South Mountain Community College) to:

Recruit, hire, and promote in all job groups, and to ensure that all Human Resources (HR) employment selection and decision practices do not discriminate, nor tolerate discrimination in employment or education, against any applicant, employee, or student on the basis of race, color, religion, sex, sexual orientation, gender identity, national origin, citizenship status (including document abuse), age, disability, veteran status or genetic information.

All HR employment selection and decision practices pertaining to advertising, benefits, compensation, discipline (including probation, suspension, and/or involuntary termination for cause or layoff), employee facilities, performance evaluation, recruitment, social/recreational programs, and training will continue to be administered without regard to race, color, religion, sex, sexual orientation, gender identity, national origin status, citizenship status(including document abuse), age, disability, veteran status or genetic information.

Hold each level of management responsible for ensuring that all employment policies, procedures, and activities are in full compliance with all applicable federal, state, and local EEO statutes, rules, and regulations.

### 2.4.3 Equal Opportunity Statement (see 5.1.3 EEO Policy Statement)

It is the policy of Maricopa 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 Maricopa to provide an environment for each Maricopa job applicant and employee that is free from sexual harassment, as well as harassment and intimidation on account of an individual's race, color, religion, sex, sexual orientation, gender identity, national origin, citizenship status (including document abuse), age, disability, veteran status or genetic information.
In addition, lack of English language skills is not a barrier to admission into Career and Technical Education (CTE) programs or skill centers. Students who enroll will be supported in the development of these skills by classes in English as a second language and other resources. Translation services and bilingual instruction can also be provided: contact college designee for more 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 County Community College District will not discriminate, nor tolerate discrimination in employment or education, against any applicant, employee, or student 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

## MCCCD POLICIES AND PROCEDURES

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 conformance 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, nor tolerate discrimination in employment or education, against any applicant, employee, or student 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 disabled or veteran status 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 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 ADA/504/Title IX Coordinator | Address | Phone \# | Email address
Under the ADA and Section 504, Maricopa recognizes the obligation to provide overall program accessibility throughout its locations for disabled individuals. The designated ADA/504/Title IX Coordinator at each college/center will provide information as to the existence and location of services, activities, and facilities that are accessible to and usable by individuals with disabilities. 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.

## DECLARACIÓNES DE ACCIÓN AFIRMATIVA

## Mandato de No Descriminación

Es el mandato 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 y positivo. Esto significa que Maricopa no descriminará o tolerará descriminación en empleo o educación en contra de ningún aplicante, empleado, o estudiante debido a su raza, color, religión, sexo, orientación sexual, identidad sexual, origen nacional, ciudadania (incluyendo abuso de documentos), edad, incapacidad, estado de veterano/a o información genėsica. Asi mismo, es el mandato de los Colegios Comunitarios proveer para cada aplicante, empleado, y estudiante un ambiente libre de acoso sexual como también libre de acoso e intimidación referente a raza, color, religión, sexo, orientación sexual, identidad sexual, origen nacional, ciudadania (incluyendo abuso de documentos), edad, incapacidad, estado de veterano/a o información genėsica.
Este mandato 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. Este mandato también prohibe descriminación en base de orientación sexual en la admisión y tratamiento de estudiantes, en sus programas y actividades y en la contratación, tratamiento, promoción/ascensos, evaluación y despido de empleados.

Declaración de Igualdad de Oportunidad
Es el mandato de los Colegios Comunitarios del Condado de Maricopa promover igualdad en las oportunidades de empleo mediante un programa continuo y positivo. Esto significa que Maricopa no descriminará o tolerará descriminación en contra de ningún aplicante o empleado debido a su raza, color, religión, sexo, orientación sexual,

## MCCCD POLICIES AND PROCEDURES

identidad sexual, origen nacional, ciudadania (incluyendo abuso de documentos), edad, incapacidad, estado de veterano/a o información genėsica. Agregando, es el mandato de los Colegios Comunitarios promover para cada aplicante y empleado un ambiente libre de acoso sexual como también de acoso e intimidación referente a la raza, color, religión, sexo, orientación sexual, identidad sexual, origen nacional, ciudadania (incluyendo abuso de documentos), edad, incapacidad, estado de veterano/a o información genėsica.

## Declaración de Acción Afirmativa

Mandato y Declaración de Acción Afirmativa para Individuos con Incapacidades De acuerdo a las provisiones en 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 descriminarán o tolerarán descriminación en contra ningún aplicante o empleado debido a su desabilidad/incapacitación física o mental referente a cualquier posición para la cuál el aplicante o empleado ha calificado. Maricopa promete tomar acción afirmativa para emplear, dar ascenso en empleo y tratar a dichos individuos con incapacidades sin hacer incapie en sus incapacidades físicas o mentales en la selección de recursos humanos y prácticas decisivas como son las siguientes: anuncios, beneficios, compensación, disciplina (incluyendo período de prueba, suspensión, y/o terminación de empleo por causa de paro forzoso), facilidades para empleados, evaluación de trabajo, recrutamiento, programas sociales/recreacionales y entrenamiento. Maricopa continuará llevando a cabo éstas prácticas de no descriminar por razones de raza, color, religión, sexo, orientación sexual, identidad sexual, origen nacional, ciudadania (incluyendo abuso de documentos), edad, incapacidad, estado de veterano/a o información genėsica. Asi mismo, todo los aplicantes y empleados estan protegidos en contra de coacción, intimidación, interferencia o descriminación por quejas o por ayudar en una investigación cubierta bajo éste Acto.

## Declaración de Mandato de Acción Afirmativa para Otros Veteranos Elegibles, Veteranos con Incapacitación Especial y Veteranos de la Era Vietnamita

Conforme a la ley de Reajuste y Asistencia para los Veteranos de la Era Vietnamita de 1974, acta de Oportunidades de Empleo para Veteranos de 1998 y reglamentos de implementación, 41 CFR 60-250(k), el Distrito de Colegios Comunitarios del Condado de Maricopa no descriminará ni tolerará descriminación en empleo o educación en contra de ningún aplicante, empleado, o estudiante veterano o veterana de la Era Vietnamita con desabilidad/incapacitación especial referente a cualquier posición la cual dicho aplicante o empleado califique. Maricopa promete aplicar acción afirmativa para emplear, ascender en empleo y tratar a dichos veteranos incapacitados y de la Era Vietnamita que califiquen sin descriminar base a su desabilidad/incapacitación o condición de veterano en todas las áreas de recursos humanos y decisiones como son las siguientes: anuncios, beneficios, compensación, disciplina (incluyendo período de prueba, suspensión, y/o despido por causa o paro forzoso), facilidades para empleados, evaluación de trabajo, recrutamiento, programas sociales/recreacionales y entrenamiento. Maricopa continuará llevando a cabo estas prácticas sin descriminar por razones de raza, color, religión, sexo, orientación sexual, identidad sexual, origen nacional, ciudadania (incluyendo abuso de documentos), edad, incapacidad, estado de veterano/a o información genėsica. Maricopa promete anunciar todas las oportunidades de empleo disponibles en la oficina local del servicio de empleo del Estado donde el empleo esté disponible. Esto incluye empleo de tiempo completo, temporal de más de tres días de duración y empleo de tiempo medio. Finalmente, todos los aplicantes y empleados están protegidos en contra de coacción, intimidación, interferencia o descriminación por quejas o por ayudar en una investigación cubierta sobre este Acto.

Notificación del Acta de Americanos con Impedimentos (ADA)/Sección 504 del Acta de Rehabilitación/Coordinador del Título IX
(Nombre y Posición), ADA/504/Coordinador del Título IX (dirección y número telefónico)
De acuerdo a ADA y a la sección 504, el distrito y sus colegios reconocen la obligación de proveer acceso a programas en todas sus localidades a personas incapacitadas. El coordinador designado de ADA/504/Título IX proveerá información tocante a la existencia y localidad de servicios, actividades y facilidades que son accesibles y de utilidad a personas incapacitadas. Solicitudes para acomodación deben ser dirigidas al coordinador. Del mismo modo, bajo el Título IX, hay obligación de proveer acceso a servicios y programas de una manera imparcial segun el género.

Estudiantes incapacitados pueden solicitar información de catálogo en una forma diferente por medio del Coordinador designado por ADA/504 en cada colegio.

Governing Values (Board Policy 4.1)
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:

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University Transfer Education
General Education
Developmental Education
Workforce Development
Student Development Services
Continuing Education
Community Education
Civic Responsibility
Global Engagement
Our Institutional 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 team work 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.

### 2.1 General Regulation

1. General Statement

Compliance with Policies, Rules and Regulations
Every student is expected to know and comply with all current published policies, rules and regulations as 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

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adoption of the Governance Model. Changes are made annually either through the Administrative Regulations approval process, or by Board approval for those items that fall under its statutory duty, such as Tuition and Fees. In an effort to prevent duplication, topics in this section may be incorporated by reference, as they are featured in other areas of the manual and are noted accordingly.

The Maricopa County Community College District Vision, Mission and Values that are featured in the Common Pages are a part of approved Governing Board policy and are located in the policy section of the manual. As such, the following statement related to Outcomes Assessment that appears in the Common Pages is presented here as a general statement.

## 2. Outcomes Assessment

The mission of the Maricopa Community Colleges is "to create and continuously improve affordable, accessible, and effective learning environments for the lifelong educational needs of the diverse communities we serve." In order to evaluate how successfully the Maricopa County Community College District accomplishes this mission, student outcomes will be assessed as part of the continuous improvement process.

Students may be asked to participate in a variety of assessment activities at each college. Assessment results will be used to improve educational programs, services and student learning.

### 2.2.1 Admission Policy

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 (ARS $\S \S 15-1805.01$ and 15-1821) and regulations of the Maricopa Community Colleges Governing Board.

## Admission Classifications

## 1. Admission of Regular Students

Admission to the community college in Arizona may be granted to any person who meets at least one of the following criteria:
A. Is a graduate of a high school, which is accredited by a regional accrediting association as defined by the United States Office of Education or approved by a State Department of Education or other appropriate state educational agency.
B. Has a high school certificate of equivalency.
C. Is at least 18 years of age and demonstrates evidence of potential success in the community college.
D. Is a transfer student in good standing from another college or university.
2. Admission of Students Under 18 Years of Age
A. Admission to the community colleges in Arizona shall be granted to any student who is under age 18 and who completes course prerequisites and meets any one of the following requirements:
i. A composite score of 93 or more on the Preliminary Scholastic Aptitude Test (PSAT).
ii. A composite score of 930 or more on the Scholastic Aptitude Test (SAT).
iii. A composite score of twenty-two or more on the American College Test (ACT).
iv. A passing score on the Arizona Instrument to Measure Standards test (AIMS SCIENCE).
V. A passing score on the relevant portions of the Arizona's Measurement Of Education Readiness To Information Teaching (AZMERIT) test.
vi. 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.
vii. Is a graduate of a private or public high school or has a high school certificate of equivalency.
B. A community college may limit the number of semester hours in which the student may enroll to not more than six (6) credit hours.
C. Home schooled students are exempt from this sub-section.
D. A student shall not be denied admission because of age, lack of a high school diploma or high school certificate of equivalency, grade in school, lack of permission of school officials or lack of concurrent enrollment in a public or private school, if the student has achieved at least a specified score on a college entrance examination.
3. Specialized Vocational / Training Program

Students who enroll in vocational courses may be admitted on an individual basis with the approval of college officials if the student meets the established requirements of the courses for which the student enrolls and the college officials determine that the student's admission is in the best interest of the student.

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4. Western Undergraduate Exchange Program

The Western Undergraduate Exchange (WUE) program is a student exchange program coordinated by the Western Interstate Commission for Higher Education (WICHE) and administered by the Arizona Board of Regents. Through WUE, students who reside in western states (Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming), Guam and the Commonwealth of the Northern Marianas Islands (CNIMI) 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.
5. Admission of F-1 Nonimmigrant Students

Prospective students should contact the Admissions and Records Office/Office of Student Enrollment Services or designated office for the international student application form(s). When completed, the form(s) should be returned to the Admissions and Records Office/Office of Student Enrollment Services or the International Education office with all requested supporting documents. After the file has been reviewed, a notice will be sent to the applicant indicating either acceptance or denial of admission.

To be guaranteed consideration for admission, all application materials must be received by July 1 for the fall semester and November 1 for the spring semester.

Prospective students seeking admission based on F-1 nonimmigrant status must provide proof of secondary school completion with documentation comparable to a United States high school diploma or higher degree. It is recommended that F-1 nonimmigrant students have graduated in the upper $50 \%$ of their secondary school (high school or equivalent) in order to ensure success in academic classes at this college. Applicants for admission to the college must have high school and college (if applicable) transcripts sent directly from the high school or college to the Admissions and Records Office/Office of Student Enrollment Services or designated office. In addition, it is the applicant's responsibility to have all transcripts translated into English and evaluated by a foreign credential evaluation service if necessary.
A. Admission to Academic Programs

Applicants who wish to enroll in an academic program at the college must present evidence of English language proficiency. If the Test of English as a Foreign Language (TOEFL) is used to satisfy this requirement, the applicant must attain a score of at least 500 (on the paper-based TOEFL) or 61 (on the internet-based TOEFL, known as the iBT). If the International Language Testing System (IELTS) is used to satisfy this requirement, an IELTS overall Band Score of 5.5 or better is required, and a minimum IELTS individual Band Score of 5.0 on each module is recommended. The dean or director of Admissions and Records Office/Office of Student Enrollment Services of the college may accept other proof of English language proficiency for admission purposes, such as the ASSET, ACCUPLACER, COMPASS or CELSA tests.
B. Admission to an Intensive English Program

Applicants for admission to an Intensive English Program are advised to check with individual colleges for their respective admission requirements. Applicants must provide evidence of at least an intermediate command of English by way of one or more of the following criteria:
i. At least six years of English language instruction as shown by the applicant's school transcript(s);
ii. A minimum TOEFL score of 400 (on the paper-based TOEFL) or 23 (on the internet-based test);
iii. An original letter of recommendation from a teacher, school principal or headmaster/ headmistress, or the director of an English language institute attesting to the applicant's proficiency at the intermediate level;
iv. Other credentials, test scores, interview results, or evidence accepted by the coordinator of an intensive English program or the college's responsible designee. Students admitted to an Intensive English Program will not be allowed to enroll in courses outside those officially designated as part of the program unless and until they have met all of the prerequisites or other course requirements.
v. Foreign students under certain types of visas may need special permission to enroll and should contact the appropriate college official.
C. Financial Support

| Tuition and Fees | $\$ 8,010(1)$ |
| :--- | ---: |
| Living Expenses | $\$ 10,140(2)$ |
| Books | $\$ 1100(3)$ |
| Health Insurance | $\$ 1100(4)$ |
| Total | $\$ 20,350(5)$ |

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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:
D. 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.
E. 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 $\mathrm{F}-1$ 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 2016-2017 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 2014-2015 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.

AMENDED through the Administrative Regulation Approval Process, June 5, 2017

### 2.2.2 Admission Information

Students must file a Student Information Form with the Admissions and Records Office/Office of Student Enrollment Services at the college of attendance. There is no charge for this service.

## 1. Student Status

A. Freshman - A student who has completed fewer than 30 credit hours 100 -level courses and above.
B. Sophomore - A student who has completed 30 credit hours or more in 100 -level courses and above.
C. Unclassified - A student who has an associate degree or higher.
2. Student Identification Number

Disclosure of the social security number is voluntary (ARS §15-1823). However, students must use social security numbers for reporting information pertaining to potential educational tax credits and for processing federal financial aid applications and Veterans Administration benefits.
3. Residency for Tuition Purposes (see also Appendix S-1)

All students are classified for tuition purposes under one of the following residency classifications:
A. Maricopa County resident
B. Out-of-County resident
C. Out-of-State resident (including F-1 non-immigrant students)

Residency for tuition purposes is determined in accordance with state law (ARS §§15-1801et seq.) and regulations of the Maricopa Community Colleges Governing Board. All of the Maricopa Community Colleges are subject to the above statutes and regulations. Students who have questions about their residency should contact the Admissions and Records Office/Office of Student Enrollment Services for clarification.
A. Implementation
i. Domicile status must be established before the student registers and pays fees. It is the student's responsibility to register under the correct domicile status.
ii. Enforcement of domicile requirements shall be the responsibility of the Chancellor of the Maricopa Community Colleges. The Chancellor has charged the Director of Admissions and Records or other designee at each college to make the initial domicile classification. In determining a student's classification, the college may consider all evidence, written or oral, presented by the student and any other information received from any source which is relevant to determining classification. The college may request written sworn statements or sworn testimony of the student.
iii. A request for review of the initial classification may be made to a district review committee. The request must be in writing, signed by the student and accompanied by a sworn statement of all facts relevant to the matter. The request must be filed with the admissions officer of the college within ten days of receipt of notification of classification as a non-resident. Failure to properly file a request for review within the

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prescribed time limit constitutes a waiver of review for the current enrollment period. The decision of the review committee shall be final.
B. Definitions
i. "Armed Forces of the United States" means the Army, the Navy, the Air Force, the Marine Corps, the Coast Guard, the commissioned corps of the United States Public Health Services, the National Oceanographic and Atmospheric Administration, the National Guard, or any military reserve unit of any branch of the Armed Forces of the United States.
ii. "Continuous attendance" means enrollment at one of Maricopa Community Colleges as a full-time or part-time student for a normal academic year since the beginning of the period for which continuous attendance is claimed. Students need not attend summer sessions or other such intersession beyond the normal academic year in order to maintain continuous attendance.
iii. "Maricopa County resident" means an individual who has lived in Maricopa County for at least fifty (50) days before the first day of classes of the semester. In-state residency must be established prior to county residency for those moving from other states. Refer to Section C for guidelines.
iv. "Domicile" means a person's true, fixed, and permanent home and place of habitation. It is the place where he or she intends to remain and to which he or she expects to return when he or she leaves without intending to establish a new domicile elsewhere.
v. "Emancipated person" means a person who is neither under a legal duty of service to his parent nor entitled to the support of such parent under the laws of this state.
vi. "Full-time student" means one who registers for at least twelve (12) credit hours per semester.
vii. "Part-time student" means one who registers for fewer than twelve (12) credit hours per semester.
viii. "Parent" means a person's father, or mother, or if one parent has custody, that parent, or if there is no surviving parent or the whereabouts of the parents are unknown, then a guardian of an unemancipated person if there are not circumstances indicating that such guardianship was created primarily for the purpose of conferring the status of an in-state student on such unemancipated person.
C. Criteria for Determining Residency
i. In-State Student Status

1. Except as otherwise provided in this article, no person having a domicile elsewhere than in this state is eligible for classification as an in-state student for tuition purposes. 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."
2. A person is not entitled to classification as an in-state student until the person is domiciled in this state for one year preceding the official starting day of the semester, except that a person whose domicile is in this state is entitled to classification as an in-state student if the person meets one of the following requirements:
a. The person's parent's domicile is in this state and the parent is allowed to claim the person as an exemption for state and federal tax purposes.
b. The person is an employee of an employer which transferred the person to this state for employment purposes or the person is the spouse of such an employee.
c. The person is an employee of a school District in this state and is under contract to teach on a full-time basis, or is employed as a full-time non-certified classroom aide, at a school within that school District. For purposes of this paragraph, the person is eligible for classification as an in-state student only for courses necessary to complete the requirements for certification by the state board of education to teach in a school District in this state. No member of the person's family is eligible for classification as an in-state student if the person is eligible for classification as an in-state student pursuant to this paragraph, unless the family member is otherwise eligible for classification as an in-state student pursuant to this section. Eligibility for in-state tuition is subject to verification of intent to domicile in this state. Determination of residency is made by the admissions and records office/office of enrollment services.
d. The person's spouse has established domicile in this state for at least one year and has demonstrated intent and financial independence and is entitled to claim the student as an exemption for state and federal tax purposes or the person's spouse was temporarily out of state for educational purposes, but maintained a domicile in this state. If the person is a non-citizen, the person must be in an eligible visa status pursuant to federal law to classify as an in-state student for tuition purposes.

## AMENDMENT TO BE REPEATED IN CORRESPONDING APPENDIX ITEM S-1 - IN-STATE STUDENT

 STATUS SECTION C3. The domicile of an unemancipated person is that of such person's parent.

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4. An unemancipated person who remains in this state when such person's parent, who had been domiciled in this state, removes from this state is entitled to classification as an in-state student until attainment of the degree for which currently enrolled, as long as such person maintains continuous attendance.
5. A person who is a member of the Armed Forces of the United States and who is stationed in this state pursuant to military orders or who is the spouse or a dependent child of a person who is a member of the armed forces of the United States and who is stationed in this state pursuant to military orders is entitled to classification as an in-state student. The student does not lose in-state student classification while in continuous attendance toward the degree for which he or she is currently enrolled.
6. A person who is a member of the armed forces of the United States or the spouse or a dependent of a member of the armed forces of the United States is entitled to classification as an in-state student if the member of the armed forces has claimed this state as the person's state of home record for at least twelve consecutive months before the member of the armed forces, spouse or dependent enrolls in a university under the jurisdiction of the Arizona Board of Regents or a community college under jurisdiction of a community college district governing board. For purposes of this subsection, the requirement that a person be domiciled in this state for one year before enrollment to qualify for in-state student classification does not apply.
7. Immediate classification as an in-state student shall be granted to a veteran who meets the provisions of Arizona statute HB 2091, paragraph G, which reads: G. A person holding an honorable discharge from the uniformed services of the United States from either active duty or reserve or national guard status, or who has retired from active duty or reserve or national guard status, shall be granted immediate classification as an in-state student and, while continuously enrolled, does not lose in-state student classification if the person has demonstrated objective evidence of intent to be a resident of Arizona that, for the purposes of this section, includes at least one of the following:
8. Registration to vote in this state.
9. An Arizona driver license.
10. Arizona motor vehicle registration.
11. Employment history in Arizona.
12. Transfer of major banking services to Arizona.
13. Change of permanent address on all pertinent records.
14. Other materials of whatever kind or source relevant to domicile or residency status.
15. A veteran using Chapter 30 or 33 benefits who does not otherwise qualify under item above (paragraph G of PL 2091), or a veteran's dependent or spouse who is using transferred Post-9/11 GI Bill (Chapter 33) benefits or the Marine Gunnery Sergeant John David Fry Scholarship, may be eligible for immediate classification as an in-state student if he/she meets the provisions of Arizona statute HB 2091, paragraph H: h. A person who, while using educational assistance under 38 United States Code Chapter 30 or Chapter 33, enrolls in a university under the jurisdiction of the Arizona Board of Regents or a community college under the jurisdiction of a community college district governing board within three years after the veteran's discharge from active duty service of ninety or more days or within three years after the service member's death in the line of duty following a period of active duty service of ninety or more days or who remains continuously enrolled beyond the three-year period following the discharge of the veteran or the service member's death shall be granted immediate classification as an in-state student and does not lose in-state student classification if the person has demonstrated objective evidence of intent to be a resident of this state that, for the purposes of this section, includes at least one of the following: Students are required to submit the following:
16. Certificate of eligibility letter from the VA Awarding Chapter 30 or 33 benefits or the Fry scholarship, or the Dept. of Defense document approving the transfer of CH .33 benefits
17. DD-214 proving a minimum of 90 days service and no more than 3 years since discharge or since death of veteran
18. Students must also provide at least one of the following:
A. Registration to vote in this state.
B. An Arizona driver license.
C. Arizona motor vehicle registration.
D. Employment history in Arizona.
E. Transfer of major banking services in Arizona.
F. Change of permanent address on all pertinent records.

G Other materials of whatever kind or source relevant to domicile or residency status.
9. Per Arizona state law, a person who is honorably discharged from the armed forces of the United States on either Active Duty or Reserve or National Guard Status, or who has retired from Active Duty or Reserve or National Guard Status, shall be granted immediate classification as an in-state student on honorable discharge from the armed forces and, while in continuous attendance toward the degree for which currently enrolled, does not lose in-state student classification if the person has met the following requirements:
A. Registered to vote in this state.
B. Demonstrated objective evidence of intent to be a resident of Arizona which, for the purposes of this section, include at least one of the following:

1. An Arizona driver license
2. Arizona motor vehicle registration
3. Employment history in Arizona
4. Transfer of major banking services to Arizona
5. Change of permanent address on all pertinent records
6. Other materials of whatever kind or source relevant to domicile or residency status
7. A person who is a member of an Indian Tribe recognized by the United States Depart ment of the Interior whose reservation land lies in the state and extends into another state and who is a resident of the reservation is entitled to classification as an in-state student.
ii. Alien In-State Student Status
8. 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.
9. In accordance with the Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (P.L. 104208; 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 ARS §15-1802 or entitled to classification as a county resident pursuant to ARS $\S 15-1802.01$. 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 confirmed. Documentation must be provided prior to the end of the term in which residency classification is being requested. Documentation received after the end of term will be used for residency determination in subsequent terms.
10. 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
$\mathrm{E}=$ Treaty Traders
$\mathrm{G}=$ Principal Resident Representative of Recognized Foreign Member Government to International Staff $\mathrm{K}=$ Spouse or Child of Spouse of a US Citizen, Fiancé or Child of Fiancé of US Citizen
L=Intracompany Transferee or Spouse or Child
N6=NATO-6
$\mathrm{U}=$ Victim of Criminal Activity
$\mathrm{V}=$ Spouses and Dependent Children of Lawful Permanent Residents
11. 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 o federal tax purposes (3C.1.2.A) (E.G., The student is under 23 and not emancipated), the student's residence is deemed to the same as the parent's. If the parent holds a visa that is not listed in section 3 above,

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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.
III. 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 non-operating identification license or an Arizona Instruction Permit
- A birth certificate or delayed birth certificate issued in any state, territory, or possession of the United States (A hospital record/certificate and certified Abstract of Birth are not acceptable).
- 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 Permanent Resident Card
- 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 documents 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 that this may apply, please contact the Legal Services Department for assistance.


## IV. Presumptions Relating to Student Status

Unless there is evidence to the contrary, the registering authority of the community college or university at which a student is registering will presume that:

1. No emancipated person has established a domicile in this state while attending any educational institution in this state as a full-time student, as such status is defined by the community college district governing board or the Arizona Board of Regents, in the absence of a clear demonstration to the contrary.
2. Once established, a domicile is not lost by mere absence unaccompanied by intention to establish a new domicile.
3. A person who has been domiciled in this state immediately before becoming a member of the Armed Forces of the United States shall not lose in-state status by reason of such person's presence in any other state or country while a member of the Armed Forces of the United States.
V. Proof of Residency

When a student's residency is questioned, the following proof will be required.

1. In-State Residency
a. An affidavit signed by the student must be filed with the person responsible for verifying residency.
b. Any of the following may be used in determining a student's domicile in Arizona:
2. Arizona income tax return
3. Arizona Voter registration
4. Arizona Motor Vehicle registration
5. Arizona Driver's license
6. Employment history in Arizona
7. Place of graduation from high school
8. Source of financial support
9. Dependency as indicated on federal income tax return
10. Ownership of real property
11. Notarized statement of landlord and/or employer

## MCCCD POLICIES AND PROCEDURES

11. Transfer of major banking services to Arizona
12. Change of permanent address on all pertinent records
13. Other relevant information
14. County Residency
a. An affidavit signed by the student must be filed with the person responsible for verifying domicile to prove continuous residency in a county for fifty (50) days, and
b. Any of the following may be used to determine a student's county residency:
15. Notarized statements of landlord and/or employer
16. Source of financial support
17. Place of graduation from high school
18. Ownership of real property
19. Bank accounts
20. Arizona income tax return
21. Dependency as indicated on a Federal income tax return
22. Other relevant information
D. Concurrent Enrollment in Arizona Public Institutions of Higher Education (ARS §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 nonresident student is concurrently enrolled.

## AMENDED by Direct Chancellor Approval, August 30, 2015

AMENDED by Direct Chancellor Approval, May 20, 2015

### 2.2.3 Other Admission Information

## 1. Veterans

By Arizona statute, any failing grades from any Arizona university or community college that were received prior to military service will not be used to determine admission to the community college for the honorably discharged veterans with two years' service in the Armed Forces of the United States. Students admitted or readmitted to the community college under this statute are subject to progression, retention, graduation and other academic regulations and standards. (Also see Withdrawal - Appendix S-7)
2. Ability to Benefit
A. 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 qualify for federal financial assistance under Title IV of the Higher Education Act.
B. For student enrolled prior to July 1, 2012, an evaluation during the admission process resulted in the student being admitted to the college with the status of Regular, Regular with Provisional Requirements or Special.
i. "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, has a GED certificate, or has completed a secondary school education in a home school setting that is treated as a home school or private school under state law. 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 in an eligible program.
ii. "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, is beyond the age of compulsory high school attendance, or has completed a secondary school education in a home school setting that is treated as a home school or private school under state law, but has been assessed to benefit from college instruction requiring developmental/remedial coursework and is pursuing a degree/ certificate in an eligible program.
iii. "Special" status, for the purpose of 2.2.3.2, is granted to a student admitted to the college for concurrent enrollment or pursuing one or more courses of special interest and who meets all the requirements for
admission.

## 3. Transcripts

The Maricopa Community Colleges reserve the right to require an official transcript for admission to specific programs, for verification of course requisites and for determination of academic standing. The official transcript must be sent directly from the source institution to the college Admissions and Records Office/ Office of Student Enrollment Services. The official transcripts may be sent via a secured website. Please contact the Admissions office of the Maricopa College you plan to attend to verify which secure websites may be valid.

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. Please contact the Admissions Office of the Maricopa College you plan to attend for more information on preparing a home-schooled official transcript. Students entering as GED recipients may be required to present a copy of the high school equivalency certificate or official report of qualifying GED scores.
4. Educational Assessment

All students are encouraged to undergo an educational assessment to determine course placement. Prospective students who do not possess a high school diploma or GED equivalence certificate are required to complete an educational assessment to determine their ability to benefit from college instruction. See Student Course Placement Process (AR 2.2.7)

AMENDED through the Administrative Regulation Process, June 5, 2017

### 2.2.4 Prior Learning Assessment Credit

Credit may be awarded for prior learning recognized through a variety of forms of evaluation and examination, as outlined in this policy. 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):
Credit by Evaluation;

- Educational Experiences In The Armed Services
- Training Programs/College Credit Recommendation Service

Credit By Exam (College-Level Equivalency Examinations).

- Advanced Placement (AP)
- College-Level Examination Program (CLEP)
- International Baccalaureate (IB) Diploma/Certificate
- Cambridge International Exams (CIE), A and AS Level
- Defense Activity For Non-Traditional Education Support (DANTES) Examination Program (Also Known As DANTES Subject Standardized Tests (DSST))
- American College Testing Proficiency Examination Program (ACT-PEP)
- Departmental Exams (Also Known As "CHALLENGE" Exams)


## Articulated Transfer Credit

Credit awarded for prior learning does not count as hours in residence for graduation requirements. Exceptions may be granted at some of the Maricopa Community Colleges for unique programs of study. 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 Research the Credit For Prior Learning policies at any college or university outside of the Maricopa Community Colleges to which they plan to transfer. Please direct questions about credit for prior learning at the Maricopa Community Colleges to the offices of Admissions and Records/Student Enrollment Services.

## DESCRIPTIONS OF ASSESSMENT METHODS

## 1. Credit by Evaluation

The Maricopa Community Colleges offer credit by evaluation. The American Council on Education (ACE) evaluates military training and experiences as well as non-collegiate sponsored training programs and recommends credit awards based on this evaluation. The number of credits listed in the ACE guide are recommendations only.

A college is not required to grant a student the number of credits recommended. The credits are included on a student's transcript.
A. Educational Experiences in the Armed Services

The Maricopa Community Colleges may award credit for military experiences based on the ACE Guide to the Evaluation of Educational Experiences in the Armed Services. A student may receive college credit if:
i. training parallels a discipline area offered through the Maricopa Community Colleges, and
ii. 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.

## SERVICEMEMBERS OPPORTUNITY COLLEGES (SOC)

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 Servicemembers Opportunity College (SOC). This means that the colleges recognize the 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. The Maricopa Community Colleges are open-access institutions that 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 Servicemembers Opportunity College (SOC) District is discontinued, it will nonetheless maintainits 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 all other graduation requirements.
B. College Credit Recommendation Service (CREDIT)

ACE evaluates training programs offered by business, industry, and government and publishes its credit recommendations in The National Guide to College Credit for Workforce Training. If a student has received training that appears in the guide, he or she may receive college credit if:
i. training parallels a discipline area offered through the Maricopa Community Colleges, and
ii. credit meets a program requirement or is used as elective credit.
C. Departmental Credit by Evaluation

Students may apply for Departmental Credit by Evaluation in certain courses by obtaining the appropriate form in the Admissions and Records Office/Office of Student Enrollment Services, and completing applicable paperwork and other requirements of the college, including payment of required fee. See fee schedule for appropriate fee. Fees are not refundable if a student fails to obtain credit. Students may not request:
i. The evaluation of a course a second time;
ii. The evaluation of a course while currently enrolled in the course;
iii. To establish credit in a previously completed course; and
iv. To establish credit for a lower level of a course in which credit has been received. Exceptions may be granted at some of the Maricopa Community Colleges for unique programs of study

Academic departments may have additional requirements that must be met before credit may be granted through departmental credit by evaluation. When credit is granted as outlined above, a notation of "credit by evaluation," and the number of credits will appear on the student's transcript. These credits are not used in computing the grade point average. Credit by evaluation is transferable within the Maricopa Community Colleges, but is not necessarily transferable to other colleges and universities.
2. Credit By Exam (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 offices of Admissions and Records /Student Enrollment Services from the specific testing company(s) before credit is awarded. All equivalency is subject to future review and possible catalog change.

## MCCCD POLICIES AND PROCEDURES

A. Advanced Placement (AP) Credit

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. Changes to exams and scores are determined by the respective statewide Articulation Task Force (ATF). The credit awarded and equivalent courses are established by the MCCCD Instructional Councils (ICs). DISCLAIMER: Test scores are continually reviewed and may be updated at any time. Changes will be noted as they occur.

| Examination | Score | MCCCD | Sem. Hrs. |
| :---: | :---: | :---: | :---: |
| Art - History | $\begin{gathered} 5 \text { or } 4 \\ 3 \end{gathered}$ | $\begin{aligned} & \text { ARH101, } 102 \\ & \text { ARH101 or } 102 \end{aligned}$ | $\begin{aligned} & 6 \\ & 3 \end{aligned}$ |
| Art - Studio Art (2-D Design) <br> (Previously Art - Studio - General) | $\begin{aligned} & 5 \\ & 4 \end{aligned}$ | ART 112 | 3 |
| Art - Studio Art (3-D Design) | 5 or 4 | ART115 | 3 |
| Art - Studio Art (Drawing) (Previously Art - Studio - Drawing) | $\begin{aligned} & 5 \\ & 4 \end{aligned}$ | ART111 | 3 |
| Biology | $\begin{gathered} 5 \text { or } 4 \\ 3 \end{gathered}$ | BIO181, \& BIO 182 <br> BIO100 or Equivalent | $\begin{aligned} & 8 \\ & 4 \end{aligned}$ |
| Chemistry | $\begin{aligned} & 4 \\ & 5 \end{aligned}$ | CHM151 \& CHM 151LL CHM151 \& 151LL \& CHM152 \& 152LL | $\begin{aligned} & 4 \\ & 8 \end{aligned}$ |
| Calculus AB (Previously Mathematics Calculus AB) | 5, 4, or 3 | MAT221 | 4 |
| Calculus (With Ab subscore 3 or Higher) | 2 or 1 | MAT221 | 4 |
| Calculus BC (Previously Mathematics Calculus BC) | $\begin{gathered} 5 \text { or } 4 \\ 3 \end{gathered}$ | $\begin{aligned} & \text { MAT221 \& MAT231 } \\ & \text { MAT221 } \end{aligned}$ | $\begin{aligned} & 8 \\ & 4 \end{aligned}$ |
| Chinese Language and Culture (Previously Chinese - Language) | $\begin{aligned} & 5 \\ & 4 \\ & 3 \end{aligned}$ | CHI101 \& 102 \& 201 \& 202 <br> CHI101 \& 102 \& 201 <br> CHI101 \& CHI102 | $\begin{aligned} & 20 \\ & 15 \\ & 10 \end{aligned}$ |
| Comparative Government and Politics (Previously Political Science Comparative Government and Politics) | 5 or 4 | POS140 | 3 |
| Computer Science A | 5 or 4 | CSC100 or CSC110 | 3 |
| Economics - Macroeconomics | 5 or 4 | ECN211 | 3 |
| Economics - Microeconomics | 5 or 4 | ECN212 | 3 |
| English - Language and Composition | 5 or 4 | ENG101 or Elective Credit | (and placement into honors composition at universities) |
| English - Literature | 5 or 4 | ENG101 or Elective Credit | (and placement into honors composition at universities) |
| Environmental Science | 5 or 4 | Elective Credit | 3 |

## MCCCD POLICIES AND PROCEDURES

| French - Language | 5, 4, or 3 | FRE101 \& 102 \& 201 \& 202 | 16 |
| :---: | :---: | :---: | :---: |
| French - Literature | 5,4 , or 3 | FRE101 \& 102 \& 201 \& 202 | 16 |
| German - Language | 5,4 or 3 | GER101 \& 102 \& 201 \& 202 | 16 |
| German - Literature | 5, 4, or 3 | GER101 \& 102 \& 201 \& 202 | 16 |
| History - European | 5 or 4 | HIS101 \& HIS102 | 6 |
| History - World | $\begin{aligned} & 5 \\ & 4 \end{aligned}$ | HIS111 HIS110 | $\begin{aligned} & \hline 3 \\ & 3 \end{aligned}$ |
| Human Geography | 5 or 4 | GCU 102 | 3 |
| Italian Language and Culture | $\begin{aligned} & 5 \\ & 4 \\ & 3 \end{aligned}$ | ITA101 \& ITA102 \& ITA201 \& ITA202 \& ITA 101 \& ITA102 \& ITA201 ITA101 \& ITA102 | $\begin{aligned} & 16 \\ & 12 \\ & 8 \end{aligned}$ |
| Japanese Language and Culture (Previously Japanese - Language) | $\begin{aligned} & 5 \\ & 4 \\ & 3 \end{aligned}$ | JPN101, 102, 201 and 202 <br> JPN101, 102 and 201 <br> JPN101 and 102 | $\begin{aligned} & 20 \\ & 15 \\ & 10 \end{aligned}$ |
| Latin: Vergil (Previously Latin Language) | $\begin{aligned} & 5 \\ & 4 \\ & 3 \end{aligned}$ | LAT101 \& 102 \& 201 \& 202 LAT101 \& 102 \& 201 LAT101 \& 102 | $\begin{aligned} & 16 \\ & 12 \\ & 8 \end{aligned}$ |
| Music Theory (Previously Music) | 5 or 4 | MTC105 \& MTC 106 | 4 |
| Physics B: Physics 1 - Mechanics | 5 or 4 | PHY111 | 4 |
| Physics B: Physics 1 - Electricity \& Magnetism Only | 5 or 4 | PHY112 | 4 |
| Physics B (THROUGH 2013-14) | $\begin{aligned} & 5 \\ & 4 \end{aligned}$ | PHY111 \& PHY112 PHY111 | $\begin{aligned} & 8 \\ & 4 \end{aligned}$ |
| Physics C - Electricity and Magnetism | 5,4 or 3 | PHY112 | 4 |
| Physics C - Mechanics | 5,4 or 3 | PHY111 | 4 |
| Psychology | 5 or 4 | PSY101 | 3 |
| Spanish - Language | 5, 4, or 3 | SPA101 \& 102 \& 201 \& 202 | 16 |
| Spanish - Literature | 5,4 , or 3 | SPA101 \& 102 \& 201 \& 202 | 16 |
| Statistics | 5, 4, or 3 | MAT206 | 3 |
| U.S. Government and Politics (Previously Political Science American Government) | 5 or 4 | POS110 | 3 |
| U.S. History (Previously History American) | 5 or 4 | HIS103 \& HIS104 | 6 |

## B. College Level Examination Program (CLEP) CREDIT

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 is 50 (on the 20-80 scale) for all CLEP computer-based exams as of 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.
Changes to exams and scores are determined by the respective statewide Articulation Task Force (ATF). The credit awarded and equivalent courses are established by the MCCCD Instructional Councils (ICs). Disclaimer: Test scores are continually reviewed and may be updated at any time. Changes will be noted as they occur.

Credit by exam is awarded based on the date the exam was taken. Students who take the exam during the current catalog year will earn credit based on the credit equivalency found in the current catalog. If the test was taken in a prior academic year, please refer to the catalog for that year.
Foreign Languages Credit Prior To July 1, 2001:
Credit earned through CLEP examination for French, German, and Spanish meets the language proficiency requirements of the Maricopa Community Colleges. For CLEP examinations taken prior to July 1, 2001, the Maricopa Community Colleges will grant credit based on the scaled scores indicated below:

| Course | Spanish | French | German | Credit |
| :--- | :--- | :--- | :--- | :--- |
| 101 | $50-54$ | $50-54$ | $39-45$ | $4(101)$ |
| 102 | $55-65$ | $55-61$ | $46-50$ | $8(101 \& 102)$ |
| 201 | $66-67$ | $62-65$ | $51-59$ | $12(101 \& 102 \& 201)$ |
| 202 | $68-80$ | $66-80$ | $60-80$ | $16(101 \& 102 \& 201 \& 202)$ |

At the discretion of the individual college, an oral exam at the 202 level may be administered.

| CLEP Examination | MCCCD |  |  |
| :--- | :---: | :---: | :--- |
| General | Score | Sem. <br> Hrs. | Equivalency |
| College Composition <br> NOTE: The Maricopa Community <br> Colleges do not award credit for ENG <br> 102 through CLEP Examination | 50 or higher | 3 | ENG101(3) or Elective Credit (3) (and <br> placement into honors composition at <br> universities) |
| College Composition-Modular <br> NOTE: The Maricopa Community <br> Colleges do not award credit for ENG <br> 102 through CLEP Examination | 50 or higher | 0 | NT |
| Humanities | 50 or higher | 6 | Elective Credit* |
| Natural Sciences | 50 or higher | 3 | NT |
| Social Sciences and History | 56 | 3 | Elective Credit |
| Subject | 50 or higher | 3 | Elective Credit <br> (Students pursuing an AAS at a com-munity <br> college may be able to substitute this exam <br> course to meet an Accounting requirement, <br> but a substitution is not allowed in a transfer <br> degree. Con-tact the appropriate department <br> at your community college to see if this is an <br> option.) |
| Financial Accounting |  |  |  |

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| American Literature | 50 or higher | 6 | ENH241* \& ENH242 |
| :---: | :---: | :---: | :---: |
| Analyzing and Interpreting Literature | ACE Score | 3 | Elective Credit* |
| Biology | 50 or higher | 3 | BIO Elective Credit* |
| Calculus (Previously Calculus with Elem Functions) | ACE Score | 4 | MAT221 |
| Precalculus | 50 or higher | 5 | MAT187 |
| Chemistry | 50 or higher | 4 | CHM151(3) and CHM151LL(1)* |
| College Algebra | 50 or higher | 3 | MAT152 |
| College Composition (Replaces English Composition with Essay) | 50 or higher | 4 | ENG101 or Elective Credit (and placement into honors composition at universities) |
| English Literature | ACE Score | 3 | Elective Credit* |
| Financial Accounting | 50 or higher | 3 | Elective Credit (students pursuing an AAS at a community college may be able to substitute this exam course to meet an accounting requirement, but a substitution is not allowed in a transfer degree. contact the appropriate department at your community college to see if this is an option.) |
| French Language, Level 1 (Previously French Language) | $\begin{aligned} & 50-54 \\ & 55-61 \end{aligned}$ | 4 8 | FRE101 <br> FRE101 \& 102 |
| French Language, Level 2 (Previously French Language) | $\begin{aligned} & 62-65 \\ & 66-80 \end{aligned}$ | $\begin{aligned} & 12 \\ & 16 \end{aligned}$ | FRE101 \& 102 \& 201 <br> FRE101 \& 102 \& 201 \& 202 |
| German Language, Level 1 (Previously German Language) | $\begin{aligned} & \hline 39-45 \\ & 46-50 \end{aligned}$ | 4 | GER101 <br> GER101 \& 102 |
| German Language, Level 2 (Previously German Language) | $\begin{aligned} & \hline 51-59 \\ & 60-80 \end{aligned}$ | $\begin{aligned} & 12 \\ & 16 \end{aligned}$ | GER101 \& 102 \& 201 <br> GER101 \& 102 \& $201 \& 202$ |
| Human Growth and Development | 50 or higher | 3 | CFS205 |
| Information Systems and Computer Applications | 50 or higher | 0 | Not accepted |
| Intro to Educational Psychology | ACE Score | 3 | EDU Elective Credit |
| Introductory Business Law | 50 or higher | 3 | Elective Credit |
| Introductory Psychology | 50 or higher | 3 | PSY101 |
| Introductory Sociology | 50 or higher | 3 | SOC101 |
| Macroeconomics, Principles of (Replaces Introductory Macroeconomics) | ACE Score | 3 | ECN211 |
| Management, Principles of | 50 or higher | 0 | Not Accepted |
| Marketing, Principles of | 50 or higher | 0 | Not Accepted |
| Microeconomics, Principles of (Replaces Introductory Microeconomics) | ACE Score | 3 | ECN212 |
| Spanish Language, Level 1 (Previously Spanish Language) | $\begin{aligned} & \hline 50-54 \\ & 55-65 \end{aligned}$ | 4 8 | $\begin{aligned} & \text { SPA101 } \\ & \text { SPA101 \& } 102 \end{aligned}$ |

## MCCCD POLICIES AND PROCEDURES

| Spanish Language, Level 2 (Previously <br> Spanish Language) | $66-67$ <br> $68-80$ | 12 <br> 16 | SPA101 \& 102 \& 201 <br> SPA101 \& 102 \& 201 \& 202 |
| :--- | :---: | :---: | :--- |
| Trigonometry | ACE Score | 3 | MAT182 |
| U.S. History I - Early Colonization to <br> 1877 | 56 | 3 | HIS103 |
| U.S. History II - 1865 to the Present | 56 | 3 | HIS104 |
| Western Civilization I - Ancient Near <br> East to 1648 | 56 | 3 | HIS100 OR <br> HIS 101 |
| Western Civilization II - 1648 to the <br> Present | 56 | 3 | HIS102 |
| *The general studies requirement in natural sciences (SQ and SG) and Literacy and Critical Inquiry (L) are not <br> satisfied by CLEP |  |  |  |

C. International Baccalaureate (IB) Diploma/Certificate Credit

Students who present an International Baccalaureate Diploma/Certificate may qualify for college credit. MCCCD College grants credit for college-level courses only. Credit is awarded according to the "International Baccalaureate Diploma/Certificate Credit" table.

Changes to exams and scores are determined by the respective statewide Articulation Task Force (ATF). The credit awarded and equivalent courses are established by the MCCCD Instructional Councils (ICs). DISCLAIMER: Test scores are continually reviewed and may be updated at any time. Changes will be noted as they occur

| Examination | Score | Sem. Hrs. | MCCCD Equivalency |
| :---: | :---: | :---: | :---: |
| Biology | $\begin{aligned} & 7 \text { or } 6 \\ & 4 \text { or } 5 \end{aligned}$ | $\begin{aligned} & 8 \\ & 4 \end{aligned}$ | BIO181 \& 182 <br> BIO100 or equivalent |
| Business and Management - HL | 5 or higher | 3 | Elective credit |
| Chemistry - HL | $7,6, \text { or } 5$ | $\begin{aligned} & 8 \\ & 4 \end{aligned}$ | CHM151 \& 151LL \& CHM 152LL <br> CHM151 \& CHM151LL |
| Computer Science - HL | 5 or higher | 3 | CSC110 or CSC110AA or CSC110AB |
| Economics - HL | 7,6, or 5 | 6 | ECN211 \& 212 |
| English A - HL | 7,6, or 5 | 3 | ENG101 or Elective Credit |
| English B - HL | No Credit | 0 | NT |
| Foreign Language A or B - HL | $7,6, \text { or } 5$ | $\begin{aligned} & 8 \\ & 8 \\ & \hline \end{aligned}$ | Foreign Language 201 \& 202 Foreign Language 101 \& 102 |
| Geography - HL (Previously Human Geography) | 5 or higher | 3 | GCU102 |
| History (Previously History - American) | $7,6, \text { or } 5$ | $\begin{aligned} & 6 \\ & 3 \end{aligned}$ | $\begin{aligned} & \text { HIS103 \& } 104 \\ & \text { HIS103 } \end{aligned}$ |
| History (Previously History - European) | $\begin{gathered} 7,6 \text {, or } 5 \\ 4 \end{gathered}$ | $\begin{aligned} & 6 \\ & 3 \end{aligned}$ | $\begin{gathered} \text { HIS101 \& } 102 \\ \text { HIS101 } \end{gathered}$ |

## MCCCD POLICIES AND PROCEDURES

| Mathematics - HL | 7,6, or 5 | 4 | MAT221 |
| :--- | :---: | :--- | :--- |
| Mathematics - SL |  |  |  |
| Mathematical Studies - SL |  |  |  |
| Further Mathematics - SL |  |  |  |
| (Previously Mathematics) |  |  |  |$\quad$|  |  |  |
| :--- | :---: | :--- |
| Physics | 7,6, | 8 |

D. Cambridge International Examinations (CIE) A and AS Level

Changes to exams and scores are determined by the respective statewide Articulation Task Force (ATF. The credit awarded and equivalent courses are established by the MCCCD Instructional Councils (ICs). DISCLAIMER: Test scores are continually reviewed and may be updated at any time. Changes will be noted as they occur.

| CIE Examination | Score | Sem. Hrs. | MCCCD Equivalency |
| :--- | :---: | :---: | :--- |
| Accounting-A Level | D or E | 6 | Elective Credit |
| Accounting-AS Level | D or E | 3 | Elective Credit |
| Art \& Design-A Level | D or E | 6 | ART111 \& ART112 |
| Art \& Design-AS Level | D or E | 3 | ART111 |
| Biology-A Level | D <br> E | 8 | 0 |

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| Economics-A Level | D or <br> higher | 6 | ECN211 \& ECN212 |
| :--- | :---: | :---: | :--- |
| Geography-A Level | D or E | 6 | Elective Credit |
| Geography-AS Level | D or E | 3 | Elective Credit |
| Psychology-A Level | D or E | 6 | PSY101 \& PSY ELECTIVE |
| Psychology-AS Level | D or E | 3 | PSY101 |

E. DANTES SUBJECT STANDARDIZED TESTS (DSST)) CREDIT

The Maricopa Community Colleges may award credit for the DANTES SUBJECT STANDARDIZED TESTS (DSST) 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.

Changes to exams cut scores are determined by the respective statewide Articulation Task Force (ATF). The credit awarded and equivalent courses are established by the MCCCD Instructional Councils (ICs). DISCLAIMER: Test scores are continually reviewed and may be updated at any time. Changes will be noted as they occur.

| DSST EXAM TITLE | SCORE | SEM. <br> HRS. | MCCCD CREDIT |
| :--- | :--- | :--- | :--- |
| Principles of Public Speaking | 400 | 3 | COMELC |
| Fundamentals of College Algebra | NO CREDIT | 0 | NO CREDIT |
| Principles of Statistics | 400 | 3 | MAT206 |
| Ethics In America | 400 | 3 | PHI105 |
| Introduction to World Religions | 400 | 3 | REL100 |
| Art of the Western World | 400 | 3 | ARH101 OR 102 |
| Human Cultural Geography | 400 | 3 | GCU102 |
| History of the Soviet Union | 400 | 3 | HIS275 |
| A History of the Vietnam War | 400 | 3 | HIS273 |
| The Civil War and Reconstruction | 400 | 3 | HISELC |
| Foundations of Education | 400 | 3 | EDU221 |
| Lifespan Developmental Psychology | 400 | 3 | PSY240 |
| General Anthropology | 400 | 3 | ASB102 |
| Substance Abuse | 400 | 3 | HES201 |
| Introduction to Law Enforcement | 400 | 3 | AJS230 |
| Criminal Justice | 400 | 0 | NOS101 CREDIT |
| Fundamentals Of Counseling | NO CREDIT |  | NO |

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| Business Ethics and Society | NO CREDIT | 0 | NO CREDIT |
| :--- | :--- | :--- | :--- |
| Principles of Finance | NO CREDIT | 0 | NO CREDIT |
| Human Resource Management | NO CREDIT | 0 | NO CREDIT |
| Organizational Behavior | NO CREDIT | 0 | NO CREDIT |
| Principles Of Supervision | NO CREDIT | 0 | NO CREDIT |
| Introduction to Computing | NO CREDIT | 0 | NO CREDIT |
| Introduction to Business | NO CREDIT | 0 | NO CREDIT |
| Money and Banking | NO CREDIT | 0 | NO CREDIT |
| Personal Finance | NO CREDIT | 0 | NO CREDIT |
| Management Information Systems | NO CREDIT | 0 | NO CREDIT |
| Business Mathematics | NO CREDIT | 0 | NO CREDIT |
| Astronomy | NO CREDIT | 0 | NO CREDIT |
| Health and Human Development | 400 | 3 | HES100 |
| Environment and Humanity: Race To Save The Planet | 400 | 3 | SUS100 |
| Principles Of Physical Science I | NO CREDIT | 0 | NO CREDIT |
| Technical Writing | 400 | 3 | ENG111 |
| Fundamentals of Cybersecurity | NO CREDIT | 0 | NO CREDIT |
| THE GENERALSTUDIESREQUIREMENTINNATURAL SCIENCES(SQ AND SG) ANDLITERACY AND |  |  |  |
| CRITICAL INQUIRY (L) ARE NOT SATISFIED BY DSST. |  |  |  |

## F. 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.
G. Departmental Exams (Also known as "CHALLENGE" Exams)

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:
i. To challenge a course a second time;
ii. To challenge a course while currently enrolled in the course;
iii. To establish credit in a previously completed course; and
iv. To establish credit for a lower level of a course in which credit has been received.

- Exceptions may be granted at some of the Maricopa Community Colleges for their unique programs of study.
- Academic 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.


## H. Health Care Credit By Examination and Credit By Skills Demonstration Assessment

Health care students may apply for credit for prior learning in certain courses. Specific information and required forms can be found on http://healthcare.maricopa.edu/healthcarecourses.php Credit by Examination in the HCIES is determined through the use of HCIES Competency Assessment Tests (CATs) and/or Skills Demonstration Assessment under the direction of the HCIES Integrated Competency Assessment Network (I CAN). Students

## MCCCD POLICIES AND PROCEDURES

may apply for HCIES Health Care Pathway/Program Advanced Placement in certain courses by obtaining the appropriate form(s) in the Admissions and Records Office/Office of Student Enrollment Services, paying the required fee(s), and successfully completing the examination and/or skills demonstration and other requirements of the college. See fee schedule for appropriate fee. Fees are not refundable if a student fails to obtain credit. Students may not request:
A. To challenge a course a second time;
B. To challenge a course while currently enrolled in the course;
C. To establish credit in a previously completed course; or
D. To establish credit for a lower level of a course in which credit has been received.

Certain health care pathways/programs have additional requirements which must be met before credit may be granted through HCIES credit by examination and credit by skills demonstration assessment.
Grades of A, B, C, D, or P, earned as a result of examination or skills assessment will be recorded on the student's transcript. Fees are not refundable after the examination/skills demonstration has been administered, regardless of results. A grade of $\mathrm{P} / \mathrm{Z}$ 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.
3. Transferring To the Maricopa Community Colleges

A student enrolling at one of the Maricopa Community Colleges after having attended other post-secondary institutions can have coursework evaluated for transfer credit. To be eligible for evaluation, coursework must appear on official transcripts from the source institutions. The official transcripts 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 Offices at the receiving institutions will complete course-by-course evaluations for all submitted transcripts upon student request.

## Conditions of Transfer Credit:

- The coursework was completed at colleges and/or universities accredited by the following regional accrediting agencies: New England Association of Schools and Colleges, Middle States Association of Colleges and Schools, North Central Association of Colleges and Schools, Northwest Association of Schools and Colleges, Southern Association of Colleges and Schools, and/or Western Association of Schools and Colleges.
- Coursework from other institutions may be considered for evaluation on a case-by-case basis.
- 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).
- Acceptance and applicability of courses from another Maricopa Community College that fulfill requirements other than general education is determined by individual Maricopa Community Colleges.
- Applicability of NON-AGEC designated courses from another Maricopa Community College toward the requirements of a college-specific degree or certificate 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 courses 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 to one 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/CIE/DSST/ACT-PEP CREDIT see the section for Credit For Prior Learning.


## MCCCD POLICIES AND PROCEDURES

A. Transfer Credit from Maricopa Community Colleges 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.

Articulated transfer programs and pathways between the Maricopa Community Colleges and Baccalaureategranting institutions [such as the Maricopa-ASU Pathway Program (MAPP), the U of A Bridge program, CONNECT2NAU and 90/30 transfer agreements] are official, recognized programs of study that fulfill both Associate's degree and Bachelor's degree requirements. These articulated programs and pathways are designed to aid in a smooth transition for a student planning to transfer to a four-year college or university by identifying the required, transferable, and applicable coursework for that student's specific program of study.
B. Articulation and Transfer Agreements
i. Maricopa Skill Center and the 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.
ii. 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. https://www.aztransfer.com/ cgi-bin/WebObjects/Admin_CEG
iii. 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: http://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.
i. Remedial/developmental courses or courses numbered below 100
ii. Arizona government university courses
iii. Cooperative education
iv. Experimental courses
v. Post baccalaureate courses
vi. Contractual training for business, industry, and government
vii. Some forms of credit for prior learning
viii. 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 Numbering (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

## MCCCD POLICIES AND PROCEDURES

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.

## AMENDED through the Administrative Regulation Approval Process, June 5, 2017

## AMENDED Direct Approval by the Chancellor, January 4, 2017

### 2.2.6 Academic Advising and New Student Orientation

1. Academic Advising
A. Students who will be attending college for the first time, and intend to earn an Associate's degree or to transfer on to 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 MCCCD college.
i. 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.
2. New Student Orientation

Students who will be attending college for the first time, and intend to earn an Associate's degree or to 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.
i. 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.
3. 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, and who test into one or more developmental education courses will be required to successfully complete a College Success Course (CPD 150 or CPD/AAA115) within the first two semesters at a MCCCD College.
i. 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.

### 2.2.7 Student Assessment and 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:
i. 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.
ii. 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.
iii. 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 by math level at least a 24 -hour waiting period ONE additional re-test is permitted no sooner than 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:
i. The student has earned an associate or higher degree from a regionally accredited college.
ii. The student has earned college credits from a regionally accredited college in English, reading, and math with a grade of C or higher.
iii. 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 valid district approved scores.

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B. Students 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 Indicated "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.

### 2.2.8 Registration

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 Deadlines:

1. 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. SelfService 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.
2. 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.
3. Exceptions
a. Exceptions to class registration deadlines require permission of appropriate instructor(s) and approval
of the appropriate department/division chair or designee.
b. Exceptions are limited to
i. Courses requiring permission of instructor
ii. Courses requiring auditions or try-outs
iii. Courses for Special Populations or Cohorts
iv. Enrollment in an alternative section of a course taught by the same instructor
v. Enrollment in an alternative section of a course taught by a different instructor
vi. Course level changes
vii. Students dropped for non-payment during the $100 \%$ refund period may be reinstated if they attended since the first class meeting.
viii. Students dropped due to Human or system errors may be reinstated if they attended the first class meeting.
ix. Other exceptions may be granted after faculty consultation with the student.

### 2.2.9 Tuition and Fees Policy

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

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2. Out-of-County resident
3. Out-of-State resident (including F-1 non-immigrant students)

Residency for tuition purposes is determined in accordance with state law (ARS §§15-1801 et seq.) and regulations of the Maricopa Community Colleges Governing Board. All of the Maricopa Community Colleges are subject to the above statutes and regulations. Students who have questions about their residency should contact the Admissions and Records Office/Office of Student Enrollment Services for clarification.

Students attending more than one Maricopa Community College will be assessed fees for their enrollment at each of the Maricopa Community colleges/centers. (Students who are considered to be out-of-state residents for tuition and fees purposes should refer to the Concurrent Enrollment in Arizona Public Institutions of Higher Education policy under the Residency section of this publication.)

1. Time of Payment*

All tuition, fees, assessments and deposits must be paid at the time of registration or by the specified deadline date and in accordance with the fee schedule approved by the Maricopa Community Colleges Governing Board.
2. Tuition and Fees Schedule (Effective July 1, 2016 for fall, spring and summer Sessions)*

Current information can be found at https://chancellor.maricopa.edu/public-stewardship/governance/
administrative-regulations/appendices/students-appendices/s-4-tuition-and-fee-schedule
The following is a tuition and fees schedule for 2017-2018 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 S-4: Tuition \& Fee Schedule
Student Status

| 2017-2018 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | IN-STATE |  |  | OUT-OF-STATE |  |  |  |
| Credit Hours | A | B | C* | D** | E | F***/+ | G |
| 1 | 86.00 | 111.00 | 383.00 | 327.00 | 206.00 | 215.00 | 129.00 |
| 2 | 172.00 | 222.00 | 766.00 | 654.00 | 412.00 | 430.00 | 258.00 |
| 3 | 258.00 | 333.00 | 1149.00 | 981.00 | 618.00 | 645.00 | 387.00 |
| 4 | 344.00 | 444.00 | 1532.00 | 1,308.00 | 824.00 | 860.00 | 516.00 |
| 5 | 430.00 | 555.00 | 1915.00 | 1,635.00 | 1,030.00 | 1,075.00 | 645.00 |
| 6 | 516.00 | 666.00 | 2298.00 | 1,962.00 | 1,236.00 | 1,290.00 | 774.00 |
| 7 | 602.00 | 777.00 | 2681.00 | 2,289.00 | 1,442.00 | 1,505.00 | 903.00 |
| 8 | 688.00 | 888.00 | 3064.00 | 2,616.00 | 1,648.00 | 1,720.00 | 1,032.00 |
| 9 | 774.00 | 999.00 | 3447.00 | 2,943.00 | 1,854.00 | 1,935.00 | 1,161.00 |
| 10 | 860.00 | 1,110.00 | 3830.00 | 3,270.00 | 2,060.00 | 2,150.00 | 1,290.00 |
| 11 | 946.00 | 1,221.00 | 4213.00 | 3,597.00 | 2,266.00 | 2,365.00 | 1,419.00 |
| 12 | 1,032.00 | 1,332.00 | 4596.00 | 3,924.00 | 2,472.00 | 2,580.00 | 1,548.00 |

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| 13 | 1,118.00 | 1,443.00 | 4979.00 | 4,251.00 | 2,678.00 | 2,795.00 | 1,677.00 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 14 | 1,204.00 | 1,554.00 | 5362.00 | 4,578.00 | 2,884.00 | 3,010.00 | 1,806.00 |
| 15 | 1,290,.00 | 1,665.00 | 5745.00 | 4,905.00 | 3,090.00 | 3,225.00 | 1,935.00 |
| 16 | 1,379.00 | 1,776.00 | 6128.00 | 5,232.00 | 3,296.00 | 3,440.00 | 2,064.00 |
| 17 | 1,462.00 | 1,887.00 | 6511.00 | 5,559.00 | 3,502.00 | 3,655.00 | 2,193.00 |
| 18 | 1,548.00 | 2,109.00 | 6894.00 | 5,886.00 | 3,708.00 | 3,870.00 | 2,322.00 |

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 or 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.
$+\quad$ This rate applies to out-of-state resident 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.
A. Determine Student Residency Status

Refer to admissions information (AR 2.2.2) of the college catalog for residency information and to review the requirements for classification as a Maricopa county resident. Contact the Admissions and Records Office/ Office of Student Enrollment Services if you have questions about residency requirements.
B. Use the Chart to Locate Tuition Charges

Determine the correct column based on your residency status and then select the number of credit hours. The general tuition chart is provided for reference only.
C. Add Any Additional Fees

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.
D. There may also be additional course fees for classes, please refer to the college schedule for course fees.
E. If you choose to audit a class, add an additional fee of $\$ 25$ per credit hour.
F. 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.
G. 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 $\quad \$ 5.00$ per Clock hour
Nursing Assistant $\quad \$ 6.00$ per Clock hour
Practical Nursing . $\$ 6.00$ per Clock hour
Amended through the Administrative Regulation Approval Process, May 5, 2017

## Credit by Examination \& Credit by Evaluation (excludes Allied Health courses) <br> Regular Rate <br> $\$ 86.00$ per credit hour <br> $\$ 43.00$ per credit hour

## 3. Outstanding Debts

Any debt or returned check may revoke a student's current enrollment and the student's right to register in subsequent semesters at all Maricopa Community Colleges. Delinquent debts may require penalties, late charges,

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collection costs, and/or legal fees to be paid before good standing is restored to the student.
The following procedure will be used for the collection of returned checks and other outstanding debts:
A. The designated college official or fiscal officer is responsible for:
i. Verifying the student's district wide debt,
ii. Attempting to notify the student of the debt and
iii. Attempting to collect the debt.
B. 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.
C. If other collection attempts fail, the Maricopa Community Colleges District Office will either collect or use other means available, including:
i. Collection agency, requiring payment of collection fees by the student;
ii. The Tax Refund Setoff Programs as stated in ARS §42-1122;
iii. Litigation, requiring payment of court costs and legal fees by the student.
D. 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:
i. MCCCD staff verify that full payment has been made to another College;
ii. 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);
iii. A third party not related to the student, such as an employer or state agency, makes a verified payment directly to the College;
iv. 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 Community College District (MCCCD) is determined in accordance with state law (ARS §§15-1805.01 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 participants 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.

## 4. Discounted Fees and Waivers

A. Citizens 62 years of age and older shall be issued ID cards that allow them the privilege of attending events at no cost and that allow them to use the library facilities.
B. Employees, Dependents and Mandated Groups

The Maricopa Community College District waives tuition and student activity fees for credit-hour courses for employees and their dependents, and for legislatively mandated groups. Special fees and fees for Non-credit/ Special Interest Community Services courses are not waived.
C. Tuition and Registration Fee Waiver for Members of the Pima-Maricopa Indian Community Tuition and fee waivers shall be funded through Auxiliary Fund Monies for college credit courses for the enrolled members of the Pima-Maricopa community who live on the Pima-Maricopa Reservation.
All other guidelines and procedures established for the purpose of administering waivers, affidavits and exemptions are outlined in the Maricopa County Community College District tuition waiver manual.

### 2.2.10 Refund Policy

## 1. Refund Policy for Credit/Clock Classes

Students who officially withdraw from credit/clock 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 Deadines for $\mathbf{1 0 0 \%}$ Refund |
| :--- | :--- |
| $1-9$ calendar days | Prior to the class start date |


| $10-19$ calendar days | 1 calendar day including the class start date |
| :--- | :--- |
| $20-29$ calendar days | 2 calendar days including the class start date |
| $30-39$ calendar days | 3 calendar days including the class start date |
| $40-49$ calendar days | 4 calendar days including the class start date |
| $50-59$ calendar days | 5 calendar days including the class start date |
| $60-69$ calendar days | 6 calendar days including the class start date |
| $70+$ calendar days | 7 calendar days including the class start date |

*Course fees and registration processing fees will be refunded only if the student qualifies for a $100 \%$ refund. Debts owed to any MCCCD college must be satisfied before any refunds are paid to the student. Refunds for students receiving federal financial assistance are subject to federal guidelines. Requests for exceptions to the refund policy must be filed within one year from the semester in which the course was taken.

## 2. Refund Policy for Non-Credit Classes

Unless otherwise specified, students must drop non-credit classes prior to the course start date to be eligible for a $100 \%$ refund.
3. Canceled Classes

When a class is canceled by the college, a $100 \%$ refund will be made.
4. Refund Exceptions

Students withdrawing from a college or from courses for one of the following reasons must submit a written request for a refund exception to the Admissions and Records Office/Office of Student Enrollment Services or designated college official:
A. A student with a serious illness, verifiable by a doctor's written statement that the illness prevents the student from attending all classes for the semester. The doctor's statement must be on file with the college before a refund can be given.
B. Serious illness or death of an immediate family member that prevents the student from attending all classes for the semester. Immediate family members include spouse/partner, father, mother, grandfather, grandmother, child, foster child, grandchild, stepchild, sibling, stepsibling, stepfather, stepmother, or spouse's/partner's father, mother, grandfather, grandmother, or in-laws in any one incident. Appropriate documentation must be provided before a refund can be given.
C. Death of a student. Appropriate documentation must be provided before a refund can be given.
D. 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.

Requests for a total withdrawal from a college or courses for one of the above reasons may result in a partial prorated refund of tuition, provided courses have not been completed. All decisions made by the college are final.

Limitation: Never attending is not an allowable refund exception or an excuse of the debt incurred through registration
5. Refund Policy for Department of Defense Tuition Assistance Funds

Students who receive tuition assistance (TA) funds for a course or courses from the department of defense (DOD) may have a refund processed and returned to the student's DOD branch of service in the following situations. Refer to individual colleges for withdrawal and refund processes.
A. Per refund exception D, a student who is called to active duty and assigned to a duty station, verifiable by a copy of the orders, will be allowed to withdraw, provided courses have not been completed. Aa $100 \%$ refund of TA funds will be issued to the student's DOD branch of service.
B. A student who withdraws for reasons other than those outlined above within the first $60 \%$ of the period for which funds were received will have the proportional amount of unearned TA funds returned to the student's DOD branch of service. Refer to individual colleges and DOD branch of service for potential student financial responsibility as a result of withdrawal.

Requests for refund should be referred directly to the college of enrollment.
AMENDED through the Administrative Regulation Approval Process, May 5, 2017

### 2.2.11 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. 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 Student 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 http:// 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 https://mcccdf.org/ 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, 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 of Inspector General of the US Department of Education.

## Award Amount and Level of Enrollment

Award amount is determined, in part, on the level of enrollment. A reduction in course load after financial aid has been awarded may result in an adjusted financial aid award. 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.

## 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.

## 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.

## MCCCD POLICIES AND PROCEDURES

- Grade Point Measurement: Students must meet the following credit hour/cumulative grade point average (CGPA).

| Total Credits Attempted* | Min CGPA |
| :---: | :---: |
| $<15.75$ | 1.60 |
| $16-30.75$ | 1.75 |
| $31-45.75$ | 1.90 |
| $46+$ | 2.00 |
| $*$ for which grade points are computed |  |

- Pace of Progression Measurement: Students must successfully complete 2/3 (66.67\%) of all attempted course work.
- Maximum Time Frame Measurement: Students who have attempted more than $150 \%$ of the published credits required for their program of study are considered not meeting SAP.


## Coursework Treatment in SAP Calculation

- Course work taken during the semester also included in the evaluation:
- Courses funded through a consortium agreement
- All attempted remedial credits
- Repeated course work


## Coursework included in the Pace of Progression evaluation:

- All of those included in the semester evaluation
- All evaluated transfer credits
- 

Course work included in the Maximum Time Frame evaluation:

- All of those included in the Pace of Progression evaluation
- Any Bachelors degree or higher earned will be considered to have exhausted maximum timeframe eligibility
- All coursework forgiven through the academic renewal process


## 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 future 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, N, P, W, X, Y, or Z is received and courses not yet graded.
- CGPA [Cumulative Grade Point Average] - The MCCCD grading policy is published in the administrative regulations at 2.3.3. The CGPA does not include credits accepted in transfer.
- 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, contact the college Financial Aid Office.
If you are receiving federal financial aid it is important to read the information below prior to making a decision to withdraw.

## Treatment of Title IV Aid When a Student Withdraws

The law specifies how your school must determine the amount of Title IV program assistance that you earn if you withdraw from school. The Title IV programs that are covered by this law are: Federal Pell Grants, 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 postwithdrawal 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

## MCCCD POLICIES AND PROCEDURES

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 https://chancellor.maricopa.edu/public-stewardship/governance/administrative-regulations/2-students/2.2-admission-registration-enrollment

AMENDED through the Administrative Regulation Approval Process, June 5, 2017

### 2.2.12 Vaccinations (As Required By 20 USC §1092(a)(1)(V)):

The Maricopa County Community Colleges 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.

### 2.9 Veterans Services

The Maricopa Community Colleges' veterans' services offices act as liaisons with the Department of Veterans Affairs. Each program must be approved by the Department of Veterans Affairs. Students may be eligible to receive educational benefits if they are registered in courses that apply to the student's approved programs. Application forms, counseling, advisement and tutoring are available for students who are eligible for veteran's educational benefits. Students applying for veteran's educational benefits should allow eight to ten weeks before receiving benefits. The amount of benefits awarded is determined by the Department of Veterans Affairs, and is based on the number of credit hours or clock hours for which a student is enrolled and the length of the enrollment period for each course.

Veteran's benefits available:

- Chapter 30 - Montgomery GI Bill
- Chapter 31 - Vocational Rehabilitation (separately served through the local VA office)
- Chapter 32 - VEAP Program
- Chapter 33 - Post 9/11 GI Bill \& Transfer of Eligibility to Dependents (TOE)
- 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 their campus regarding any change in enrollment, address, program of study, enrollment at another institution, or any other change that may impact their veteran's educational benefits.

Those students receiving benefits must follow the VA academic progress policy to continue to receive benefits.
Department of Veterans Affairs regulations require that all persons using any type of veteran educational assistance program make satisfactory academic progress toward achievement of their educational objective (program of study). A student who does not meet the minimum standards of 2.0 upon completion of 12 or more credit hours will be placed on probation, at which point the student will have no more than two semesters in which to improve academic standing to acceptable. 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.

## Distance Learning:

The course content and competencies for distance learning classes are the same as courses offered in-person or in a hybrid format. The courses offered in this format lead to completion of MCCCD degrees and/or certificates of completion.
Colleges use Learning Management Systems (LMS) like Canvas and RioLearn for online offerings. These portals are used for both hybrid and online classes. Students must use their Maricopa Enterprise ID and password to access the portal. The link to the portal is provided on the college home page and on my.maricopa.edu, the district's website for student access to Maricopa tools. Maricopa-assigned student email addresses are used for communicating with students within the tools. Students are also able to communicate with the instructor through the LMS, via Maricopa e-mail or by phone.

## Externship Programs:

The Maricopa Community College's official District course descriptions for credited experiential learning opportunities (Internships, Externships, Practicums, and Clinicals) state the amount of hours required in order for a student to receive college credit. The descriptions also indicate if a maximum amount of credit is allowable for any given experiential learning opportunity. Each course that includes an experiential learning opportunity is assigned a Maricopa Instructor of Record who is responsible for ensuring that the student completes the required hours and assignments in order to receive credit. Additionally, the instructor works extensively with a site supervisor to ensure that the student is making satisfactory progress and meeting the time requirements. The experiential credit process for the student includes the specific course details and learning outcomes, how hours will be tracked, and what is required for grading and course completion. The instructor submits the final grade for the experience. Maricopa's experiential learning process is in compliance with CFR 3821.4265
A complete list of internship courses, along with course objectives, can be found on the Maricopa Community College's District - Center for Curriculum and Transfer Articulation website, located at: https://asa.maricopa.edu/ departments/center-for-curriculum-transfer-articulation
Prior Credit Evaluation:
Department of Veterans Affairs requires that all persons using any type of veteran's educational assistance must have all prior education and training evaluated. Students will be required to request transcripts from all prior institutions, including military training. Without all prior institutions and military training, veteran educational assistance may not be certified. Transcripts will be evaluated and credit will be granted, as appropriate.

AMENDED through the Administrative Regulation Approval Process, June 5, 2017 AMENDED through the Administrative Regulation Approval Process, May 16, 2016

### 2.3.1 Academic Load

## SCHOLASTIC STANDARDS

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, practica, 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 50 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.

## MCCCD POLICIES AND PROCEDURES

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).

### 2.3.2 Attendance

- Only persons who are registered for a class at any of the Maricopa Community Colleges may attend that class. Attendance requirements are determined by the course instructor. Students who do not meet the attendance requirement as determined by the course instructor may be withdrawn.
- Students who fail to attend the first scheduled class meeting, or to contact the instructor regarding absence before the first scheduled class meeting may, at the option of the instructor, be withdrawn.
- At the beginning of each course, each faculty member will provide students with written attendance requirements. It is the student's responsibility to consult with the instructor regarding official or unofficial absences. Absences begin to accumulate with the first scheduled class meeting.
- Students bear the responsibility of notifying the Admissions and Records Office/Office of Student Enrollment Services when they discontinue studies in a course or at the college. Please refer to Appendix S-7 for Withdrawal Procedures.


## 1. Official Absences

A. Official absences are those that occur when students are involved in an official activity of the college, i.e., field trips, tournaments, athletic events, and present an official absence excuse form. Absences for such events shall not count against the number of absences allowed by an instructor or department. Students who must miss a class for an official reason must obtain an official absence verification card from the appropriate vice president or designee and present it to the appropriate instructor(s) before the absence. Prior arrangements must be made with each instructor for make-up work. If prior arrangements have been made, the student will not be penalized.
B. Other official absences include jury duty and subpoenas. Appropriate documentation will be required. Prior arrangements must be made with each instructor for makeup work. If prior arrangements have been made, the student will not be penalized.
C. In the event of 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.
D. In the event of the death of an immediate family member, absences for periods of up to one week will not be counted against the number of absences allowed by an instructor or department. Students should contact instructor(s) as soon as possible to arrange for make-up work. Appropriate documentation will be required (for example, a copy of the obituary or funeral program). In specialized programs that require clinical rotations, this regulation may not apply.
2. Religious Holidays

Students shall have the right to observe major religious holidays without penalty or reprisal by any administrator, faculty member or employee of the Maricopa Community Colleges. Absences for such holidays shall not count against the number of absences allowed by an instructor or department. At least one week before the holiday, students shall submit to their instructor(s) a written statement that includes both the date of the holiday and the
reason why class attendance is impossible. Prior arrangements must be made with each instructor for make-up work. If prior arrangements have been made, the student will not be penalized.

### 2.3.3 Grading

1. Policy

It is the policy of the Maricopa Community Colleges that a grade will be assigned at the conclusion of the course. Official grades are available on designated college web sites.
Grade Key

| A | Excellent | 4 grade points per credit hour |
| :--- | :--- | :--- |
| B | Above Average | 3 grade points per credit hour |
| C | Average | 2 grade points per credit hour |
| D | Passing | 1 grade point per credit hour |
| F | Failure | 0 grade points per credit hour |
| I | Incomplete | Not computed in grade point average |
| IP | Course in Progress | Not computed in grade point average |
| N | Audit | Not computed in grade point average |
| P* | Credit | Not computed in grade point average |
| W | Withdrawn, passing | Not computed in grade point average |
| Y | Withdrawn, failing | 0 grade points per credit hour |
| Z | No Credit | Not computed in grade point average |

* A "P" is judged to be equivalent to a grade of C or higher.

2. Incomplete Grade
A. Students who are doing acceptable work may request an incomplete grade "I" if they are unable to complete the course requirements by the end of the term because of illness or other extenuating circumstances. If the request is approved by the instructor, he or she shall define, in a written/electronic contract, how the course will be completed.
B. Students must complete the requirements within the time period agreed to--maximum time allowed is seven (7) months from the last date of class in which the grade of incomplete was assigned. Students who do not complete the requirements within the approved time period will have their grade recorded in accordance with the written contract. Students should NOT reregister for the course to complete the contract.
C. A student's eligibility for financial aid may be jeopardized by an incomplete grade. Refer to the Standards of Satisfactory Academic Progress for details.
3. Repeating a Course/Improving a Grade

Students who wish to improve a previously earned grade, students may repeat a course within the Maricopa Community Colleges 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) and credit for repeated courses taken at the same college will automatically be excluded from the grade point calculation. However, if the course(s) were taken at a different Maricopa Community College, students must submit a repeated course petition and an electronic official transcript(s), from that college to the Admissions and Records Office/Office of Student Enrollment Services at the college where the repeated course is to be excluded. Students receiving federal financial assistance and/or benefits should follow up with the Office of Financial Aid and/or Veterans' Services regarding their policies for repeated courses. An official student transcript is a permanent academic record issued by the college registrar. It displays all courses taken for credit within the Maricopa Community Colleges District and includes all grades received. Unlike an unofficial transcript, it is signed and dated by the college registrar and displays the college seal of the Maricopa College issuing the official transcript.

Check individual courses and programs for exceptions.
4. Credit/No Credit Courses (P/Z)
A. Some courses may be taken under a credit/no credit grading system. These courses carry grades of P (credit, equivalent to a grade of C or higher) or Z (no credit) and are not computed in the student's grade point average. Credits earned with a grade of P may be counted toward graduation with the exception of AGEC (Arizona General Education Curriculum).

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B. The prescribed time limits are for full-semester classes. Time limits for classes which meet fewer than sixteen (16) weeks are adjusted accordingly. See "Important Deadlines for Students".
C. In courses with credit/no credit ( $\mathrm{P} / \mathrm{Z}$ ) grading, the student may request standard grading ( $\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}, \mathrm{F}$ ), within fourteen (14) days including the date of the first class meeting. The instructor must immediately notify the Admissions and Records Office/Office of Student Enrollment Services.
D. In courses with standard grading (A, B, C, D, F), the instructor determines if the credit/no credit option is available. If the option is available, the student must obtain the permission of the instructor. The instructor must notify the Admissions and Records Office/Office of Student Enrollment Services within fourteen (14) days including the day of the first class meeting.
E. It is the student's responsibility to verify the transferability of credit/no credit courses. Some universities place a limitation on the number of credit/no credit courses that can be transferred.
Advisory note: Some institutions outside the Maricopa Community Colleges may translate the Z grade as failing.

## 5. Audit Courses

A. Auditors are those who enroll in a course for the sole purpose of obtaining information; they receive no credit, grades, homework, or tests. If an auditor wishes to earn credit, he or she must change from audit status to credit status within the first week. If a student wishes to audit a course for which he or she is enrolled for credit, the change must be made within the first five (5) weeks of a semester. Auditors are subject to the same attendance policies as other students and must meet the same prerequisite requirements or obtain approval of the instructor. See the fee schedule for charges. Financial aid is not available for audited courses.
B. The prescribed time limits are for full-semester classes. Time limits for classes which meet fewer than sixteen (16) weeks are adjusted accordingly and appear in the "Important Deadlines for Students."
6. Important Deadlines for Students (See Appendix S-12)

| Class Length | Deadline for Students to Withdraw with Guaranteed Grade of W | Deadline for Students to Withdraw from a Course (Instructor Signature Required) | Deadline for Students to Request Complete Withdrawal | Deadline to <br> Change Type <br> of Grading <br> (A-F to P/Z, <br> or P/Z to <br> A-F) | Deadline to Change From Audit Grade to Credit Grade | Deadline to Change from Credit Grade to Audit Grade |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { One Week or } \\ \text { Less } \\ \text { (1 to } 7 \text { days) } \end{gathered}$ | $1^{\text {st }}$ Day of Class | $1^{\text {st }}$ Day of Class or Prior to the Last Day of Class | $1^{\text {st }}$ Day of Class or Prior to the Last Day of Class | $1^{\text {st }}$ Day of Class | $1^{\text {st }}$ Day of Class | $1^{\text {st }}$ Day of Class |
| Two Weeks (8 to 14 days) | $\begin{gathered} 3^{\text {rd }} \text { Calendar } \\ \text { Day } \end{gathered}$ | $\begin{gathered} 6^{\text {th }} \text { Calendar } \\ \text { Day } \end{gathered}$ | $\begin{gathered} 6^{\text {th }} \text { Calendar } \\ \text { Day } \end{gathered}$ | $\begin{aligned} & 1^{\text {st }} \text { Day of } \\ & \text { Class } \end{aligned}$ | $\begin{aligned} & 1^{\text {st }} \text { Day of } \\ & \text { Class } \end{aligned}$ | $\begin{gathered} 3^{\text {rd }} \text { Calendar } \\ \text { Day } \end{gathered}$ |
| Three Weeks ( 15 to 21 days) | $\begin{gathered} 6^{\text {th }} \text { Calendar } \\ \text { Day } \end{gathered}$ | $\begin{aligned} & 12^{\text {th }} \text { Calendar } \\ & \text { Day } \end{aligned}$ | $\begin{aligned} & 12^{\text {th }} \text { Calendar } \\ & \text { Day } \end{aligned}$ | $\begin{gathered} 2^{\text {nd }} \text { Calendar } \\ \text { Day } \end{gathered}$ | $1^{\text {st }}$ Day of Class | $\begin{aligned} & 5^{\text {th }} \text { Calendar } \\ & \text { Day } \end{aligned}$ |
| Four Weeks (22 to 28 days) | $\begin{gathered} 9^{\text {th }} \text { Calendar } \\ \text { Day } \end{gathered}$ | $\begin{aligned} & 17^{\text {th }} \text { Calendar } \\ & \text { Day } \end{aligned}$ | $\begin{gathered} 17^{\text {th }} \text { Calendar } \\ \text { Day } \end{gathered}$ | $\begin{gathered} 3^{\text {rd }} \text { Calendar } \\ \text { Day } \end{gathered}$ | $\begin{gathered} 2^{\text {nd }} \text { Calendar } \\ \text { Day } \end{gathered}$ | $\begin{gathered} 7^{\text {th }} \text { Calendar } \\ \text { Day } \end{gathered}$ |
| $\begin{aligned} & \text { Five Weeks } \\ & \text { (29 to } 35 \text { days) } \end{aligned}$ | $\begin{aligned} & 12^{\text {th }} \\ & \text { Calendar } \\ & \text { Day } \end{aligned}$ | 23 ${ }^{\text {rd }}$ Calendar Day | $23^{\text {rd }}$ Calendar Day | $4^{\text {th }}$ Calendar Day | $2^{\text {nd }}$ Calendar Day | $\begin{aligned} & 9^{\text {th }} \text { Calendar } \\ & \text { Day } \end{aligned}$ |
| Six Weeks (36 to 42 days) | $\begin{gathered} 14^{\text {th }} \\ \text { Calendar } \\ \text { Day } \end{gathered}$ | $29^{\text {th }}$ Calendar Day | $\begin{gathered} 29^{\text {th }} \text { Calendar } \\ \text { Day } \end{gathered}$ | $\begin{aligned} & 5^{\text {th }} \text { Calendar } \\ & \text { Day } \end{aligned}$ | $\begin{gathered} 3^{\text {rd }} \text { Calendar } \\ \text { Day } \end{gathered}$ | $11^{\text {th }}$ Calendar Day |
| Seven Weeks (43 to 49 days) | $\begin{gathered} 17^{\text {th }} \\ \text { Calendar } \\ \text { Day } \end{gathered}$ | $35^{\text {th }}$ Calendar Day | $\begin{gathered} 35^{\text {th }} \text { Calendar } \\ \text { Day } \end{gathered}$ | $\begin{gathered} 5^{\text {th }} \text { Calendar } \\ \text { Day } \end{gathered}$ | $\begin{aligned} & 3^{\text {rd }} \text { Calendar } \\ & \text { Day } \end{aligned}$ | $\begin{aligned} & 12^{\text {th }} \text { Calendar } \\ & \text { Day } \end{aligned}$ |
| Eight Weeks (50 to 56 days) | $\begin{gathered} 20^{\text {th }} \\ \text { Calendar } \\ \text { Day } \end{gathered}$ | $\begin{aligned} & 41^{\text {st }} \text { Calendar } \\ & \text { Day } \end{aligned}$ | $\begin{aligned} & 41^{\text {st }} \text { Calendar } \\ & \text { Day } \end{aligned}$ | $\begin{aligned} & 6^{\text {th }} \text { Calendar } \\ & \text { Day } \end{aligned}$ | $\begin{gathered} 3^{\text {rd }} \text { Calendar } \\ \text { Day } \end{gathered}$ | $\begin{aligned} & 15^{\text {th }} \text { Calendar } \\ & \text { Day } \end{aligned}$ |


| Nine Weeks (57 to 63 days) | $\begin{gathered} 23^{\text {rd }} \\ \text { Calendar } \\ \text { Day } \end{gathered}$ | 46 ${ }^{\text {th }}$ Calendar Day | $46^{\text {th }}$ Calendar Day | $\begin{gathered} 7^{\text {th }} \text { Calendar } \\ \text { Day } \end{gathered}$ | $\begin{gathered} 4^{\text {th }} \text { Calendar } \\ \text { Day } \end{gathered}$ | $17^{\text {th }}$ Calendar Day |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ten Weeks (64 to 70 days) | $\begin{gathered} 26^{\text {th }} \\ \text { Calendar } \\ \text { Day } \\ \hline \end{gathered}$ | $52^{\text {nd }}$ Calendar Day | $52^{\text {nd }}$ Calendar Day | $8^{\text {th }}$ Calendar Day | $4^{\text {th }}$ Calendar Day | $19^{\text {th }}$ Calendar Day |
| Eleven Weeks (71 to 77 days) | $29^{\text {th }}$ Calendar Day | $58^{\text {th }}$ Calendar Day | $\begin{gathered} 58^{\text {th }} \text { Calendar } \\ \text { Day } \end{gathered}$ | $9^{\text {th }}$ Calendar Day | $\begin{gathered} 5^{\text {th }} \text { Calendar } \\ \text { Day } \end{gathered}$ | $\begin{gathered} 21^{\text {st }} \text { Calendar } \\ \text { Day } \end{gathered}$ |
| Twelve Weeks (78 to 84 days) | $32^{\text {nd }}$ Calendar Day | 63 ${ }^{\text {rd }}$ Calendar Day | $\begin{gathered} 63^{\text {rd }} \text { Calendar } \\ \text { Day } \end{gathered}$ | $10^{\text {th }}$ <br> Calendar Day | $\begin{aligned} & 5^{\text {th }} \text { Calendar } \\ & \text { Day } \end{aligned}$ | 23 ${ }^{\text {rd }}$ Calendar Day |
| $\begin{gathered} \text { Thirteen } \\ \text { Weeks } \\ \text { (85 to } 91 \text { days) } \end{gathered}$ | $35^{\text {th }}$ <br> Calendar Day | $70^{\text {th }}$ Calendar Day | $\begin{gathered} 70^{\text {th }} \text { Calendar } \\ \text { Day } \end{gathered}$ | $10^{\text {th }}$ Calendar Day | $\begin{aligned} & 5^{\text {th }} \text { Calendar } \\ & \text { Day } \end{aligned}$ | $\begin{gathered} 25^{\text {th }} \text { Calendar } \\ \text { Day } \end{gathered}$ |
| Fourteen <br> Weeks <br> (92 to 98 days) | $38^{\text {th }}$ <br> Calendar Day | $76^{\text {th }}$ Calendar Day | $\begin{gathered} 76^{\text {th }} \text { Calendar } \\ \text { Day } \end{gathered}$ | $11^{\text {th }}$ Calendar Day | $\begin{aligned} & 6^{\text {th }} \text { Calendar } \\ & \text { Day } \end{aligned}$ | $27^{\text {th }}$ Calendar Day |
| Fifteen Weeks (99 to 105 days) | $\begin{gathered} 41^{\text {st }} \text { Calendar } \\ \text { Day } \end{gathered}$ | $\begin{gathered} 82^{\text {nd }} \text { Calendar } \\ \text { Day } \end{gathered}$ | $\begin{gathered} 82^{\text {nd }} \text { Calendar } \\ \text { Day } \end{gathered}$ | $12^{\text {th }}$ <br> Calendar Day | $\begin{gathered} 6^{\text {th }} \text { Calendar } \\ \text { Day } \end{gathered}$ | $\begin{gathered} 28^{\text {th }} \text { Calendar } \\ \text { Day } \end{gathered}$ |
| Sixteen Weeks or more (106 or more days) | End of the 7th week | Two weeks before the last class period | Two weeks before the last class period | Within <br> 14 days including the first class period | Within first week of class | Within first five weeks of class |
| Deadlines are based on calendar day and begin with the first day of class. |  |  |  |  |  |  |

## AMENDED through the Administrative Regulation Process, June 5, 2017

### 2.3.4 Academic Probation (Progress)

## 1. Probation

A student will be placed on academic probation if, after completion of twelve (12) or more credit hours, the student's cumulative grade point average is less than 2.0:
Students on academic probation may take no more than twelve (12) credit hours per semester unless approved by the Admissions and Standards Committee.2.9

## 2. Continued Probation

A student on academic probation who fails to raise the cumulative grade point average 2.0 will be placed on continued probation and may be limited to taking six (6) credit hours.
Academic probation and continued probation are calculated at the conclusion of every term including summer.

### 2.3.5 Instructional Grievance Process

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, shall discuss the issue first with the faculty member involved. This conference shall be requested by the student within fifteen (15) working days from the time the student knew or reasonably should have known about the unfair or unjust treatment.

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This instructional grievance process should not be utilized in a case in which a student feels he/she has experienced discrimination. If the student feels that he/she has experienced discrimination on the basis of race, color, religion, sex, gender identify, national origin, citizenship status (including document abuse), gender, age, disability, veteran status, genetic information, or sexual orientation, the student should refer to the Discrimination Complaint Procedures for Students as administered by the Vice President for Student Affairs.

## Steps for students to follow:

1. If, within ten (10) working days of the request for the conference with faculty member, the problem is not resolved or the faculty member has been unable to meet with the student, the student may continue the process by filing a written 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 grievance 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 to vice president of academic affairs or designee, a copy of the original written grievance with an explanation regarding action taken at each prior level. The dean of instruction or appropriate college/ center administrative officer will meet with the student, faculty member, the College Faculty Senate President if requested by the faculty member, and Department/ Division Chair and attempt to resolve the issues. This level will be the final step in any grievance process regarding grades.
4. If the grievance, other than those concerning grades, is not resolved by the vice president of academic affairs or designee, it may be forwarded in writing by the student to the college president for final resolution. The college president or designee will issue a final written determination in the grievance process.
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.

### 2.3.12 Non-Instructional Complaint Resolution Process

A student who feels that he or she has been treated unfairly or unjustly by any employee with regard to a noninstructional 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.

## Appendix S-8: Non-Instructional Complaint Resolution Process

A student who feels that he or she has been treated unfairly or unjustly by any employee with regard to a noninstructional 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.

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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.

### 2.3.6 Withdrawal

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.

## Appendix S-7: Student and Faculty Withdrawal Procedures

## Student Withdrawal Procedures

## 1. Withdrawal from Specific Courses

A student may officially withdraw from specific courses in the following ways:
A. Through the 7th week*, a student may initiate an official withdrawal from any course by completing the withdrawal process online using the student self service system or by submitting a course withdrawal form to the Admissions and Records Office/Office of Student Enrollment Services in accordance with the published deadlines. A grade of W (withdrawn, passing - not computed in the grade point average) will be assigned.
B. After the 7th week*, a student must initiate a withdrawal request with the faculty member. If, after consultation with the student, the faculty member approves the request, a grade of W (withdrawn, passing--not computed in the grade point average) or Y (withdrawn, failing--computed in the grade point average as a failing grade) will be assigned. If the request is not approved, the student will remain in the course.
C. A student has the right to appeal a withdrawal decision according to the approved procedures. Steps outlining the process are available in Appendix S-6.
*The prescribed time limits are for full semester classes. Time limits for classes which meet fewer than sixteen (16) weeks are adjusted accordingly. See Important Deadlines for Students. Failure to file an official withdrawal form may result in failing grades and responsibility for course tuition and fees. Refunds will only be processed within the refund period.
2. Complete Withdrawal from College

Students electing to withdraw from the college must contact the Admissions and Records Office/Office of Enrollment Services no later than two weeks* before the end of the last class meeting and may be required to file a written request.

A grade of W will be assigned in all courses for students who withdraw by the end of the 7th week* of classes. Withdrawals completed after this time will result in a grade of W (withdrawn, passing - not computed in the grade point average) or Y (withdrawn, failing - computed in the GPA as a failing grade).
*The prescribed time limits are for full semester classes. Time limits for classes which meet fewer than sixteen (16) weeks are adjusted accordingly. See Important Deadlines for Students. Failure to file an official withdrawal form may result in failing grades and responsibility for course tuition and fees. Refunds will only be processed within the refund period.
3. Withdrawal of Financial Aid Students

In accordance with federal regulations (34CFR 668.22), a student may be required to repay federal financial aid funds if they completely withdraw or are withdrawn, or fail to earn a passing grade from all classes during a semester. Further information is available at the college Office of Student Financial Aid. This could affect a student's ability to receive Financial Aid in the future at any school.

## Faculty Withdrawal Procedures

A faculty member has the option of withdrawing a student who has accumulated unofficial absences in excess of the number of times indicated in that faculty member's attendance policy in the course syllabus (see AR 2.3.2). Students withdrawn for excessive absences may be reinstated only with the approval of the faculty member. A grade of W will be assigned through the 7th week*. After the 7th week*, a grade of W or Y will be assigned. Faculty members electing to withdraw students must record the withdrawal through the online system, including last date of attendance and

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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.

### 2.3.7 Academic Renewal

Students who are returning to this college after a separation of five (5) years or more from the Maricopa Community College District, may petition for academic renewal. The request must be in writing and submitted to the Admissions and Records Office/Office of Student Enrollment Services at the college where the grades were earned.
Academic renewal at one of the Maricopa Community Colleges does not guarantee that colleges outside the Maricopa Colleges will accept this action. Acceptance of academic renewal is at the discretion of the receiving institution.

1. Prior to petitioning for academic renewal, the student must demonstrate a renewed academic performance by earning a minimum of twelve (12) credit hours and a cumulative grade point average of 2.5 or higher within Maricopa Colleges after reenrollment.
2. Upon approval, all courses taken prior to reenrollment with a grade of "A," "B," "C," "D," "F," and "Y" will be annotated as academic renewal on the student's permanent record. All course work affected by academic renewal will not be computed in the grade point average. Courses with grades "A," "B," or "C" will have the associated credit hours counted in the total credit hours earned. Such credit will not be computed in the grade point average.
3. All course work will remain on the student's permanent academic record, ensuring a true and accurate academic history.
4. The academic renewal policy may be used only once at each college and cannot be revoked once approved.
5. Students who have been granted Academic Renewal must also meet the Financial Aid Standards of Academic Progress if they wish to receive financial aid.

### 2.3.8 Honors Program

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.

### 2.3.9 General Graduation Requirements

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.

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A shared program requires a minimum of six credit hours from the total program requirements to be completed with a grade of "C" or better at the college awarding the certificate or degree.
The exception is the Nursing program. For those shared programs with less than six credit hours, the total hours for the program must be completed at the college awarding the certificate.

The same degree or certificate can only be awarded once within the Maricopa Community College District.
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.

## Graduation with Honors

All courses used to fulfill graduation requirements, including courses from other accredited institutions, will be entered in the grade point average calculation for honors designations.
Students who have the following grade point averages will graduate with the following distinctions:

- 3.50 to 3.69 "with distinction"
- 3.70 to 3.89 "with high distinction"
- 3.90 to 4.0 "with highest distinction"


## 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

## MCCCD POLICIES AND PROCEDURES

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:

1. Build self-awareness, self-respect, and self-confidence
2. Recognize and respect the beliefs, traditions, abilities, and customs of all people and all cultures
3. Consider the local, global, and environmental impacts of personal, professional, and social decisions and actions
4. Access, evaluate, analyze, synthesize, and use information wisely
5. Communicate effectively personally, socially, and professionally
6. Think critically, make informed decisions, solve problems, and implement decisions
7. Consider the ethical implications of their choices
8. Value the learning process throughout their lives
9. Integrate and connect ideas and events in a historical perspective, and see relationships among the past, the present, and the future
10. Develop a personal sense of aesthetics
11. Use technological resources appropriately and productively
12. 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.

AMENDED through the Administrative Regulation Process, June 5, 2017

### 2.2.5 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 Continued at a Public Community

College Transferred to a University

Fall '05 (Active)
Spring '06, Fall '06 (Active)
Spring ‘07 (2005
or Any Subsequent

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## EXAMPLE B

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

Readmitted \& Earned Course Credit at a Public Community College Transferred to a University

EXAMPLE B
Admitted \& Earned Course Credit at a Public Community College or University Nonattendance
Readmitted \& Earned Course Credit at a Public Community College
Nonattendance
Transferred to a University
Spring '03, Fall '03, Spring '04 (Inactive)

04 (Active)
Spring ‘05 (2004 or Any Subsequent Catalog)

Fall '02 (Active)
Spring ' 03 (Inactive)
Fall '03, Spring ‘04 (Inactive)
Summer '03 (Active)
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 Continued at a Public Community College

Nonattendance
Readmitted \& Earned Course Credit at a Public Community College Transferred to a University

Summer '04 (Active)
Fall '04, Spring '05 (Active)
Fall '05 (Inactive) Spring '06 (Active)
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.

### 2.3.10 Transcripts for Transfer

An official student transcript is a permanent academic record issued by the College Registrar. It displays all courses taken for credit within the Maricopa Community College District and includes all grades received. Unlike an unofficial transcript, it is signed and dated by the College Registrar and displays the college seal of the Maricopa College issuing the official transcript.

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

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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.

AMENDED through the Administrative Regulation Approval Process, June 5, 2017

## COLLEGE ENVIRONMENT

### 2.4.4 Sexual Harassment Policy for Students

## I. SEX DISCRIMINATION AND SEXUAL HARASSMENT

"No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance . . . ." 20 USC §1681 / 34 C.F.R. part 106

The policy of the Maricopa County Community College District (MCCCD) is to provide an educational, employment, and business environment free of sexual violence, unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct or communications constituting Sexual Harassment as prohibited by state and federal law. Discrimination under this Policy is an unequal treatment of a student based on the student's actual or perceived gender, sexual orientation, or pregnancy. This Policy prohibits Sexual Harassment and Discrimination in any college education program or activity, which means all academic, educational, extracurricular, athletic and other programs. 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.

## A. SEXUAL HARASSMENT

Any unwelcome verbal or physical conduct of a sexual nature that is sufficiently severe, persistent, or pervasive 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 allegations of Sexual Harassment under this Policy. Sexual Harassment can occur regardless of the relationship, position or respective sex of the parties. Sexual Harassment includes Hostile Environment Harassment, Sexual Assault, Inducing Incapacitation for Sexual Purposes, Sexual Exploitation, Dating Violence, and Stalking. Same sex Sexual Harassment violates this Policy. Sexual Harassment by and between students; employees and students; and campus visitors and students is prohibited by this Policy.

Depending on the particular circumstances, Sexual Harassment may include, but is not limited to, the following:

1. Physical assaults of a sexual nature, such as rape, sexual battery, molestation, or attempts to commit these assaults; and intentional physical conduct that is sexual in nature such as touching, pinching, patting, grabbing, poking, or brushing against another individual's body in a sexual manner.
2. Offering or implying an education-related reward (such as a better grade, a letter of recommendation, favorable treatment in the classroom, assistance in obtaining employment, grants or fellowships, or admission to any educational program or activity) in exchange for sexual favors or submission to sexual conduct.
3. Threatening or taking a negative educational action (such as giving an unfair grade, withholding a letter of recommendation, or withholding assistance with any educational activity) or intentionally making the individual's academic work more difficult because sexual conduct is rejected.
4. The use or display in the classroom, including electronic, of pornographic or sexually harassing materials such as posters, photos, cartoons or graffiti without pedagogical justification.
5. Explicit sexual comments by one or more students about another student, or circulating drawings or other images depicting a student in a sexual manner.
6. Unwelcome sexual advances, repeated propositions or requests for a sexual relationship to an individual who has previously indicated that such conduct is unwelcome, or sexual gestures, noises, remarks, jokes, questions, or comments by a student about another student's sexuality or sexual experience. Such conduct between peers must be sufficiently severe, persistent, or pervasive that it creates an educational environment that is hostile or abusive. A single incident involving severe misconduct may rise to the level of Sexual Harassment.

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## B. HOSTILE ENVIRONMENT HARASSMENT

Harassment based on sex, pregnancy, gender identity, gender expression, or sexual orientation that is sufficiently serious (i.e., severe, pervasive, or persistent) and objectively offensive so as to deny or limit a person's ability to participate in or benefit from the college's programs, services, opportunities, or activities.

A Hostile Environment can be created by anyone involved in a college program or activity (e.g., administrators, faculty members, students, and campus visitors or contractors). Mere offensiveness is not enough to create a Hostile Environment. Although repeated incidents increase the likelihood that harassment has created a Hostile Environment, a serious incident, such as a sexual assault, even if isolated, can be sufficient.
In determining whether harassment has created a Hostile Environment, consideration will be made not only as to whether the conduct was unwelcome to the person who feels harassed, but also whether a reasonable person in a similar situation would have perceived the conduct as objectively offensive. Also, the following factors will be considered:
a. the degree to which the conduct affected one or more students' education;
b. the nature, scope, frequency, duration, and location of incident or incidents;
c. the identity, number, and relationships of persons involved;
d. the nature of higher education.

## C. SEXUAL ASSAULT

An act involving forced or coerced sexual penetration or sexual contact.

## D. INDUCING INCAPACITATION FOR SEXUAL PURPOSES

Using drugs, alcohol, or other means with the intent to affect, or having an actual effect on, the ability of an individual to consent or refuse to consent to sexual contact.

## E. SEXUAL EXPLOITATION

Taking non-consensual or abusive sexual advantage of another for anyone's advantage or benefit other than the person being exploited, and such behavior does not otherwise constitute a form of Sexual Harassment under this Policy. Examples of behavior that could rise to the level of Sexual Exploitation include:
A. Prostituting another person;
B. Non-consensual visual (e.g., video, photograph) or audio-recording of sexual activity;
C. Non-consensual distribution of photos, other images, or information of an individual's sexual activity, intimate body parts, or nakedness, with the intent to or having the effect of embarrassing an individual who is the subject of such images or information;
D. Going beyond the bounds of consent (such as letting your friends hide in the closet to watch you having consensual sex);
E. Engaging in non-consensual voyeurism;
F. Knowingly transmitting an STI (sexually transmitted infection), such as HIV, to another without disclosing one's STI status;
G. Exposing one's genitals in non-consensual circumstances, or inducing another to expose his or her genitals;
H. Possessing, distributing, viewing or forcing others to view obscenity.

## F. DATING VIOLENCE

Violence committed by a person who is or has been in a social relationship of a romantic or intimate nature with the victim and where the existence of such a relationship shall be determined based on a consideration of the following factors:
A. the length of the relationship;
B. the type of relationship;
C. the frequency of interaction between the persons involved in the relationship.

## G. STALKING

Engaging in a course of conduct directed at a specific person that would cause a reasonable person to fear for his or her safety or the safety of others or suffer substantial emotional distress.

## H. CONSENTING TO SEXUAL ACTIVITY

Consent is clear, knowing, and voluntary; it is active, not passive. Silence, in and of itself, cannot be interpreted as consent. Consent can be given by words or actions, as long as those words or actions create mutually understandable clear permission regarding willingness to engage in sexual activity.

Consent to one form of sexual activity cannot imply consent to other forms of sexual activity. Previous relationships or

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consent cannot imply consent in future sexual acts. Consent cannot be procured by use of physical force, compelling threats, intimidating behavior, or coercion.
Coercion is unreasonable pressure for sexual activity. Coercive behavior differs from seductive behavior based on the type of pressure someone uses to get consent from another. When people make clear to you that they do not want sex, that they want to stop, or that they do not want to go past a certain point of sexual interaction, continued pressure beyond that point can be coercive. In order to give effective consent, one must be age 18 or older.

If you have sexual activity with someone you know to be - or should know to be - mentally or physically incapacitated, you are in violation of this Policy. Incapacitation is a state where one cannot make a rational, reasonable decision because one lacks the ability to understand the who, what, where, why or how of that person's sexual interaction.

## II. DEFINITIONS <br> ALLEGED VICTIM

The person who is the victim of any alleged Sexual Harassment or Discrimination in violation of this Policy.

## COMPLAINANT

A person who has experienced or witnessed, or otherwise knows of Sexual Harassment or Discrimination in violation of this Policy and files a Formal Complaint pursuant to this Policy.

## RESPONDENT

The person who is alleged to have engaged in Sexual Harassment or Discrimination prohibited under this Policy.

## TITLE IX COORDINATOR

The Vice President of Student Affairs serves as each respective college's Title IX Coordinator. The Title IX Coordinator is the individual responsible for providing education and training about Discrimination and Sexual Harassment to the college community and for receiving and investigating allegations of Discrimination and Sexual Harassment in accordance with this Policy. The Title IX Coordinator is authorized to designate other appropriately trained individuals to investigate Discrimination and Sexual Harassment Complaints and reports as deemed appropriate. The contact information for the Title IX Coordinator at each college may be found at
https://asa.maricopa.edu/departments/office-of-student-affairs/student-affairs-your-college

## III. REPORTING DISCRIMINATION

## A. BYSTANDER

No student or employee should assume that an official of the college knows about a particular situation. The college encourages any student who feels he or she has been discriminated against or harassed in violation of this Policy to promptly report the incident to the Title IX Coordinator. Any student who knows of Discrimination or Sexual Harassment prohibited under this Policy that is experienced by another student should report that information to the Title IX Coordinator. Before a student reveals information, college employees will try to ensure that the student understands the employee's obligations and, if the student wishes to maintain confidentiality, direct the student to confidential resources. A student may choose to make a full report or request confidentiality as he or she determines.

All members of the college community are expected to adhere to this Policy, to cooperate with the procedures for responding to complaints of Discrimination and Harassment, and to report conduct or behavior they believe to be in violation of this Policy to the Title IX Coordinator. A duty to report conduct or behavior that violates this Policy is imposed on all administrators, supervisors, faculty members, and persons in positions of authority. Such employees perform their duty to report by reporting the conduct or behavior to the Title IX Coordinator.

## B. COLLEGE COMPLAINTS AND REPORTING

Any person who has experienced, witnessed, or otherwise knows of Sexual Harassment or Discrimination prohibited under this Policy is to report such conduct to the college's Title IX Coordinator. The Title IX Coordinator is trained to help you find the resources you might need, to explain all reporting options, and to respond appropriately to conduct of concern. Such conduct is to be reported to the Title IX Coordinator as soon as possible after it occurs. The Title IX Coordinator tracks all reports of Sexual Harassment or Discrimination.

There are several avenues available for any person who experiences, witnesses, or otherwise knows of Sexual
Harassment or Discrimination to report such conduct:

- Leave a private voice message for the Title IX Coordinator;


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- Send a private email to the Title IX Coordinator;
- Mail a letter to the Title IX Coordinator's office;
- Visit the Title IX Coordinator (although it is best to make an appointment first to ensure availability);
- File a Formal Complaint pursuant to this Policy;
- Report to another trusted college official (e.g., faculty member, coach, advisor) who will provide information as required under the Policy to the Title IX Coordinator.
If there is an allegation of conduct in violation of this Policy about the Title IX Coordinator or any staff member who is part of the Vice President of Student Affairs' office, that allegation should be lodged with the President of the college. The President will appoint another trained individual to take the place of the Title IX Coordinator for purposes of the allegation.


## C. RETALIATION PROHIBITED

Retaliation occurs when adverse action is taken against a student or employee because he or she has engaged in protected activity such as filing a complaint of Discrimination or Harassment. Retaliation may be found even when the underlying charge does not constitute Discrimination or Harassment in violation of this Policy, and all persons who participate in a Discrimination or Harassment proceeding, not only the complaining party, are protected against retaliation. A retaliatory adverse action is an action taken to deter a reasonable person from opposing a discriminatory or harassing practice, or from participating in a Discrimination or Harassment proceeding, or more generally, from pursuing that person's rights.

## D. CRIMINAL REPORTING

Please remember that if someone is in immediate danger or needs immediate medical attention, the first place to report is 911. You may also report to College Safety or local law enforcement. Some forms of Discrimination and Harassment may also be crimes. For example, sexual assault, stalking and rape are crimes. Criminal reports should be made to law enforcement, even if it is uncertain whether the particular conduct is a crime. Calling local law enforcement can help you: obtain emergency and nonemergency medical care; get immediate law enforcement response for your protection; understand how to provide assistance in a situation that may escalate to more severe criminal behavior; arrange a meeting with victim advocate services; find counseling and support; initiate a criminal investigation; and answer questions about the criminal process.

## E. CONFIDENTIALITY OF COMPLAINTS AND REPORTS

Parties in these processes, including the Alleged Victim, Respondent, Complainant and witnesses, have privacy rights and reasonable expectations of confidentiality in the investigation of matters subject to this Policy. In addition, the integrity of the process depends on ensuring reasonable expectations of confidentiality. The Title IX Coordinator or investigator will keep confidential the Complaint, report, witness statements, and any other information provided by the Alleged Victim, Respondent, Complainant or witnesses, and will disclose this information only to the Alleged Victim, Complainant, Respondent, or witnesses as necessary to give fair notice of the allegations and to conduct the investigation; to law enforcement consistent with state and federal law; to other college officials as necessary for coordinating interim measures or for health, welfare, and safety reasons; and to government agencies who review the college's compliance with federal law. The written investigation report and any written decision will be disclosed only to the Alleged Victim, Complainant, Respondent, Title IX Coordinator, and discipline authority. In the case of employees, the discipline authority is the college administrator with the authority to impose sanctions in accordance with applicable employment policies. In the case of students, the discipline authority is the Vice President for Student Affairs and college officials as necessary to prepare for subsequent proceedings (e.g., college President and MCCCD legal counsel).

## F. ANONYMOUS REPORTING

The Title IX Coordinator accepts anonymous reports of conduct alleged to violate this Policy and will follow up on such reports. The individual making the report is encouraged to provide as much detailed information as possible to allow the Title IX Coordinator or investigator to inquire into or investigate the report, and respond as appropriate. The Title IX Coordinator or investigator may be limited in the ability to follow up on an anonymous report unless sufficient information is furnished to enable the Title IX Coordinator or investigator to conduct a meaningful and fair inquiry or investigation.

## IV. RIGHTS OF PARTIES

A. ALLEGED VICTIM: The Alleged Victim has the right to:

1. An inquiry and appropriate resolution of all credible allegations of Sexual Harassment, Discrimination, and sexual violence made in good faith to the Title IX Coordinator.

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2. Be treated with respect by college officials.
3. Have the same opportunity as the Respondent to have others present (in support or advisory roles) during an investigation.
4. Report Sexual Harassment, Discrimination, and violence to both on-campus and off-campus authorities.
5. Be informed of the investigation findings and imposed sanctions at the same time as the Respondent.
6. Be informed of and afforded access to available counseling, mental health, physical health or student services for victims of Sexual Harassment, Discrimination, and violence.
7. Have notification of and options for, and available assistance in, changing academic and living situations after an alleged act of Sexual Harassment or Discrimination prohibited under this Policy, if so requested by the Alleged Victim and if such changes are reasonably available. No Formal Complaint, or investigation--campus or criminal--need occur before this option is available. Accommodations may include:

- Change of on-campus student's housing to a different on-campus location;
- Assistance from college support staff in completing relocation;
- Arranging to dissolve a housing contract and pro-rating a refund;
- Exam, paper, or assignment rescheduling;
- Taking an incomplete in a class;
- Transferring class sections;
- Temporary withdraw from institution;
- Alternative course completion options.

8. Not have irrelevant prior sexual history admitted as evidence in an investigation.
9. Make a victim-impact statement available to the investigator and decision-maker.
10. Access to available protection against another student who has engaged in or threatens to engage in stalking, threatening, harassing or other improper behavior that presents a danger to the welfare of the complaining student or others.
11. Have allegations of sexual misconduct that might be criminal in nature responded to quickly and with sensitivity by campus law enforcement.
12. Seek Reconsideration of the finding of the investigation and any sanction imposed.
13. Review all documentary evidence collected, used, and disseminated during the investigation and sanctioning process.
14. Petition that any member of the investigative process be removed on the basis of demonstrated bias.
15. Have an advocate or advisor present at all phases of the investigation.
16. Present relevant witnesses to the investigator and decision-maker, including expert witnesses.
17. Be fully informed of campus conduct rules and procedures as well as the nature and extent of all alleged violations.
18. Have MCCCD compel the presence of student, faculty, and staff witnesses.
19. Written notice of the investigation, findings and sanctions.
20. Challenge documentary evidence obtained during the investigation.
21. Be informed in advance of any public release of information regarding the investigation.
22. Give consent for the release of any personally identifiable information contained in the investigation.

## B. IMMEDIATE ACTION AND INTERIM MEASURES

The college may take interim measures to assist or protect the parties during the inquiry or investigation process, as necessary and with the Alleged Victim's consent. Such measures for an Alleged Victim may include arranging for changes in class schedules or living arrangements, issuing a no-contact order, obtaining counseling, and modifying test schedules or other class requirements temporarily.

## C. RESPONDENT: The Respondent has the right to:

1. An inquiry and appropriate resolution of all credible allegations of Sexual Harassment, Discrimination, and sexual violence made in good faith to the Title IX Coordinator.
2. Be treated with respect by college officials.
3. Have the same opportunity as the Alleged Victim to have others present (in support or advisory roles) during an investigation.
4. Be informed of and have access to campus resources for medical, counseling, and advisory services.
5. Be fully informed of the nature, rules, and procedures of the investigation process, and to thorough and timely written notice of all alleged violations, including the full nature of the violation and possible sanctions.
6. Protections of due process required by local, state, or federal law.
7. Not have irrelevant prior sexual history admitted as evidence in an investigation.
8. Make an impact statement available to the investigator and decision-maker.

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9. Seek Reconsideration of the finding of the investigation and any sanction imposed.
10. Review all documentary evidence collected, used, and disseminated during the investigation and sanctioning process.
11. Present relevant witnesses to the investigator and decision-maker, including expert witnesses.
12. Petition that any member of the investigative process be removed on the basis of demonstrated bias.
13. Have MCCCD compel the presence of student, faculty, and staff witnesses.
14. Challenge documentary evidence obtained during the investigation.
15. Have an advocate or advisor present at all phases of the investigation.
16. An outcome based solely on evidence presented during the investigation. Such evidence should be credible, relevant, based in fact, and without prejudice.
17. Written notice of the investigation, findings, and sanctions.
18. Be informed in advance of any public release of information regarding the investigation.
19. Give consent for the release of any personally identifiable information contained in the investigation.

## V. DUE PROCESS

Due process is afforded any employee, student, or visitor accused of Sexual Harassment or Discrimination prohibited under this Policy. On receipt of a Formal Complaint, or upon receipt of credible evidence that Sexual Harassment or Discrimination prohibited under this Policy has occurred, an immediate preliminary inquiry will be conducted to determine if there is reasonable cause to believe this Policy has been violated. A preliminary inquiry shall be concluded within ten working days following the determination that such reasonable cause exists; however, it may be re-opened in the event additional evidence of a violation of this Policy is later discovered. If, following a preliminary inquiry, such reasonable cause is found, a prompt, thorough, impartial investigation will be conducted by a qualified, authorized investigator. An investigation will be conducted using a preponderance of evidence standard. A preponderance of evidence standard means that an investigator will conclude that Sexual Harassment or Discrimination occurred only if the results of the investigation demonstrate it is more likely than not that such conduct took place. If the investigator's final decision is that Sexual Harassment or Discrimination prohibited under this Policy occurred, the college will take immediate action to eliminate the Harassment or Discrimination, prevent its recurrence, and address its effects. Remedies for the victim of Sexual Harassment or Discrimination 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 applies to prohibited conduct that impacts the educational environment, whether it occurs on or off campus, and covers students, employees, and visitors.

## A. SEX DISCRIMINATION GRIEVANCE PROCEDURES FOR STUDENTS

The purpose of these procedures is to provide a prompt and equitable resolution for allegations of Discrimination as prohibited under this Policy. Persons believing that they have been subjected to or witnessed, or otherwise know of Discrimination or Harassment on any of these bases may file a Complaint with the college. These procedures address allegations of Discrimination or Sexual Harassment as prohibited under this Policy. The procedures also address allegations of retaliation against those who have opposed practices forbidden under the Policy, those who have made allegations of Discrimination or Harassment under the Policy, and those who have testified or otherwise participated in enforcement of the Policy.

## B. MEDIATION

Alleged victims who believe they have been discriminated against or harassed may choose in certain circumstances to resolve their allegations through mediation. Mediation is an informal and confidential process where parties can participate in a search for fair and workable solutions. An
Alleged Victim may choose to ask the Title IX Coordinator to assist in the mediation process.
Allegations that are addressed through mediation are not required to be made in writing. The parties may agree upon a variety of resolutions such as modification of work assignment, training for a department, or an apology. Parties may agree to a resolution that is oral or embodied in a written agreement. With a written agreement, the parties may elect to file it with the Title IX Coordinator in the event enforcement becomes necessary. Once both parties reach a mediated agreement, it is final and cannot be the basis of a Request for Reconsideration. The Title IX Coordinator or either party may at any time, prior to a final agreement, decide that attempts at mediation have failed. Upon such notice, the Title IX Coordinator may conduct a preliminary inquiry to determine whether this Policy has been violated. The mediation process may not be used if the alleged conduct constitutes criminal conduct.

## C. FORMAL COMPLAINT PROCESS

A person who has experienced, witnessed, or otherwise knows of Sexual Harassment or Discrimination in violation of this Policy may file a Formal Complaint by contacting the Title IX Coordinator at each respective college or center. A Complainant may file a Formal Complaint either orally or in writing. The Title IX Coordinator will accept Formal

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Complaint filings within 300 calendar days of the most recent occurrence of the alleged discriminatory act.
The Complainant's documentation in support of a Formal Complaint should clearly and concisely identify the action, decision, conduct, or other basis that constituted an alleged act or practice of Discrimination prohibited under this Policy. Upon receipt of a Formal Complaint, the Title IX Coordinator will notify the college President and the Office of General Counsel. The Office of General Counsel will assign a case number to the Formal Complaint.

A copy of the Formal Complaint will be shared with the Respondent within five (5) working days of receipt by the Title IX Coordinator. The Respondent will be put on notice that retaliation against the Complainant, Alleged Victim, or potential witnesses will not be tolerated and that an investigation will be conducted.

The Respondent must provide a written response to the Formal Complaint within fifteen (15) calendar days of his or her receipt of the Formal Complaint.

After either accepting a Formal Complaint or receiving credible evidence that Discrimination has occurred, and determining after a preliminary inquiry that there is reasonable cause to believe this Policy has been violated, the Title IX Coordinator will:

- Designate an investigator to conduct a fact-finding investigation, which will include, at a minimum, a review of written evidence (including the Complaint and response) and interviews with appropriate employees and students. The Title IX Coordinator may serve as investigator;
- Determine the identity and contact information of the Complainant;
- Identify the correct policies allegedly violated;
- Conduct a thorough, reliable, and impartial investigation;
- Complete the investigation promptly (within 60 calendar days, unless-owing to the complexity of the investigation or the severity and extent of the alleged conduct--more time is necessary to complete the investigation);
- Make findings based on the preponderance of evidence; and
- Present the findings to the Title IX Coordinator, who will deliver the findings, in writing, within ten (10) working days, to the President, with a recommendation as to the disposition of the matter.

The President shall accept, reject, or modify the recommendation, and provide a written notification of his or her action, along with the findings presented by the Title IX Coordinator, to the Complainant, Alleged Victim, and Respondent within fifteen (15) calendar days of receiving the findings and recommendation from the Title IX Coordinator.

Evidence which is collateral to the allegations of Discrimination or Sexual Harassment and which was obtained during an investigation may be used in subsequent grievance or disciplinary procedures.

## D. MAINTENANCE OF DOCUMENTATION

Documentation resulting from each level in the Formal Complaint Process (including witness statements, investigative notes, etc.) will be forwarded to and maintained by the Office of General Counsel. Investigative records are not to be maintained with or considered as a part of a student record. Documentation regarding corrective action is considered part of the student's record.

## E. RIGHT TO ASSISTANCE

A Complainant, Alleged Victim or Respondent may receive the assistance of an attorney or other person at any stage of a Complaint filed under the Formal Complaint Process. Such person may attend any investigative interview and advise the Complainant, Alleged Victim or Respondent but shall not otherwise participate in the interview. The investigator shall direct communications directly to the Complainant, Alleged Victim and Respondent, and not through such individual's attorney or other person providing assistance.

## F. TIME FRAME AND GROUNDS FOR FILING A REQUEST FOR RECONSIDERATION

A Complainant, Alleged Victim or Respondent who is not satisfied with the decision of the President has ten (10) working days to request, in writing, reconsideration of the decision by the Maricopa Community College District's Executive Vice Chancellor and Provost. There are four grounds upon which a Request for Reconsideration may be made: (1) the party has new information, unavailable at the time of the investigation; (2) the party has procedural concerns that may change or affect the outcome of the determination; (3) the party perceives that there was insufficient evidence to support the investigators findings; or (4) the party perceives any action taken by the President to be too severe. The Executive Vice Chancellor and Provost will review the findings of the investigation and recommendation of the Title IX Coordinator, and respond to the Request for Reconsideration within ten (10) working days from its

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receipt. The Title IX coordinator shall ensure that, prior to acting on any Request for Reconsideration, the Executive Vice Chancellor and Provost has been fully briefed regarding every component of this Policy. If the Executive Vice Chancellor and Provost determines that the investigation was not conducted in a fair manner, or that the determination is not consistent with the evidence, or that any disciplinary action is not commensurate with the allegations, the case file will be reopened and assigned for further investigation. If the Executive Vice Chancellor and Provost concludes that the investigation was conducted in a proper manner, that the determination is consistent with the evidence, and that any disciplinary action is commensurate with the allegations, he or she will-in writing-- certify that the Executive Vice Chancellor and Provost has read and thoroughly considered all of the information collected in the investigation, certify that the investigation was conducted in a proper manner and the decision is consistent with the evidence, and deny the Request for Reconsideration. The written certifications and decision by the Executive Vice Chancellor and Provost shall be delivered to the Complainant, Alleged Victim, and Respondent promptly after they are issued. At this point, or if no Request for Reconsideration is made, the investigation into alleged Discrimination under this Policy is concluded.

## G. EXTERNAL FILING OF DISCRIMINATION COMPLAINT

MCCCD encourages students to use the due process under this Policy to resolve Discrimination concerns. Students also have the right to file civil rights complaints with appropriate external agencies. No retaliation will be taken against a person for filing a complaint with an external agency. The following agency accepts discrimination charges filed by, or on behalf of, students:

Office for Civil Rights
U.S. Department of Education

Denver Office
Cesar E. Chavez Memorial Building
1244 Speer Boulevard, Suite 310
Denver, Colorado 80204-3582
Phone: 303-844-5695
Fax: 303-844-4303
TDD: 303-844-3417
E-mail: OCR.Denver@ed.gov

## ADOPTED by Direct Chancellor Approval: May 20, 2015

### 5.1.9 Examples of Policy Violations

It shall be a violation of MCCCD's Sexual Harassment Policy for any employee, student or campus visitor to:

1. Make unwelcome sexual advances to another employee, student or campus visitor;
2. Make unwelcome requests for sexual favors, whether or not accompanied by promises or threats with regard to the employment or academic relationship;
3. Engage in verbal or physical conduct of a sexual nature with another employee, student or campus visitor, that may threaten or insinuate, either explicitly or implicitly, that the individual's submission to, or rejection of, the sexual advances will in any way:
A. Influence any personnel decision regarding that person's employment, evaluation, wages, advancement, assigned duties, shifts or any other condition of employment or career development; or
B. Influence his or her grades, participation in or access to academic programs, class standing or other educational opportunities;
4. Engage in verbal or physical conduct of a sexual nature that:
A. Has the purpose or effect of substantially interfering with an employee's ability to do his or her job; or with a student's ability to learn or participate in a class; or
B. Creates an intimidating, hostile or offensive work or academic environment;
5. Commit any act of sexual assault or public sexual indecency against any employee or student whether on MCCCD property or in connection with any MCCCD-sponsored activity;
6. Continue to express sexual interest in another employee, student or campus visitor after being informed or on notice that the interest is unwelcome (reciprocal attraction is not considered sexual harassment);
7. Engage in other sexually harassing conduct in the workplace or academic environment, whether physical or verbal, including, but not limited to, commentary about an individual's body (or body parts), sexually degrading words to describe an individual, sexually offensive comments, sexually suggestive language or jokes, innuendoes, and sexually suggestive objects, books, magazines, computer software, photographs, cartoons or pictures. Other sexual misconduct may include sexual exploitation, stalking, and gender-based bullying.
8. Treat a complainant or witness of sexual harassment in a manner that could dissuade a reasonable person from pursuing or participating in the complaint and investigation.

### 5.1.10 Additional Policy Violations

Supervisors, managers, administrators and faculty who disregard or fail to report allegations of sexual harassment (whether reported by the person who is the subject of the sexual harassment or a witness) are in violation of this policy.

### 5.1.11 Responsibility for Policy Enforcement

Employees and students must avoid offensive or inappropriate sexual and/or sexually harassing behavior at work or in the academic environment.

Employees and students are encouraged (but not required) to inform perceived offenders of this policy that the commentary/conduct is offensive and unwelcome.

### 5.1.12 Complaints

1. Employees

Employees who experience sexual harassment at work (by a supervisor, co- employee, student or visitor) are urged to report such conduct to the direct attention of their supervisor, their college president or to the Maricopa Community Colleges Equal Employment Opportunity/Affirmative Action Office. If the complaint involves the employee's supervisor or someone in the direct line of supervision, or if the employee for any reason is uncomfortable in dealing with his or her immediate supervisor, the employee may go directly to the Maricopa Community Colleges EEO/AA Office.
2. Students

Students who experience sexual harassment or sexual assault in a school's education program and activities (by a faculty member, administrator, campus visitor or other student) are urged to report such conduct to the Title IX Coordinator, who is the vice president of student affairs at each college. A student may also contact the MCCCD EEO/AA Office to obtain the name and phone number of the college official designated to respond to sexual harassment complaints.

## 3. General - Applicable to Both Employees and Students

A. Complaints will be investigated according to procedures established by the MCCCD EEO/AA Office. Copies of these procedures may be obtained in the college president's office, Office of the Vice President of Student Affairs and the MCCCD EEO/AA Office.
B. The college/center/MCCCD will investigate all complaints in a prompt, thorough, and impartial manner.
C. Where investigation confirms the allegations, appropriate responsive action will be taken by the college/center/ MCCCD.

### 5.1.13 Confidentiality

Records will be maintained in a confidential manner to the extent permitted by law and insofar as they do not interfere with MCCCD's legal obligation to investigate and resolve issues of sexual harassment.

### 5.1.14 Violations of Law

An employee or student may be accountable for sexual harassment under applicable local, state, and/or federal law, as well as under MCCCD policy. Disciplinary action by MCCCD may proceed while criminal proceedings are pending and will not be subject to challenge on the grounds that criminal charges involving the same incident have been dismissed or reduced.

### 5.1.15 False Statements Prohibited

Any individual who knowingly provides false information pursuant to filing a discrimination charge or during the investigation of a discrimination charge, will be subject to appropriate disciplinary action, up to and including, employment termination or academic dismissal.

### 5.1.16 Retaliation Prohibited

Retaliation against an employee or student for filing a sexual harassment complaint, or participating in the investigation of a complaint, is strictly prohibited. MCCCD will take appropriate disciplinary action, up to and including employment termination or academic dismissal if retaliation occurs.

## AMENDED by Direct Chancellor Approval, April 1, 2015

## Discrimination Complaint Procedures for Students

This procedure provides a means for resolving complaints by students who believe they have been adversely affected by illegal or prohibited discrimination by the Maricopa County Community College District (MCCCD), a member college

## MCCCD POLICIES AND PROCEDURES

or center, or their students or employees.
Complaints may be brought under this procedure for discrimination based on race, color, religion, national origin, citizenship status (including document abuse), sex (including pregnancy and sexual harassment), sexual orientation, gender identity, age, veteran status, physical or mental disability, or genetic information. The entire college community should act promptly upon receipt of an allegation of conduct that might constitute discrimination. Any member of the college community should refer a person who might be a victim of such conduct to these procedures, as well as to the college officials responsible for conducting an investigation pursuant to these procedures.

Students who believe they are experiencing sexual harassment may submit a complaint under the Sexual Harassment Policy for Students 2.4.4. If a student has been a victim of sexual assault, a complaint may also be filed with College Public Safety (CPS).

All deadlines prescribed for Report, Informal Resolution and Formal Resolution processes may be extended by the Vice President of Student Affairs for good reason, such as (but not limited to) when classes are not in session or upon mutual agreement by the parties. Notwithstanding any deadline extension, college officials should take all necessary steps to ensure prompt and equitable resolution of any complaint of discrimination.

Information related to MCCCD's Discrimination Complaint Procedure for Students is also available from the Office of General Counsel's Office of Public Stewardship at 480-731-8880.

## Informal Resolution of Discrimination Complaints

Before filing a formal complaint under this procedure, a student may attempt to resolve the problem through informal discussions with the person claimed to have engaged in discriminatory conduct and that person's supervisor or department head. The supervisor or department head will notify the Vice President of Student Affairs may designate an employee to provide such assistance. If a student alleges discrimination based upon physical or mental disability the Vice President of Student Affairs, who is designated at each college as the ADA/504 Coordinator or the Associate Vice Chancellor of Student Affairs who is designated as the District ADA/504 Coordinator, will assist directly in the informal resolution process. Each Vice President and the Associate Vice Chancellor has knowledge of the ADA/504 regulations applicable to students with disabilities. The Vice President of Student Affairs may modify or reject an informal resolution of a complaint of discriminatory conduct under this process if, in the judgment of the Vice President, the resolution that is proposed is not in the best interests of both the student and the institution. The Vice President shall take such action no later than fifteen (15) calendar days after receiving notice of the informal resolution.

Attempts to informally resolve alleged discrimination should occur within ninety (90) calendar days of the most recent alleged discriminatory act. The college official responsible for this informal resolution process should ensure that the process is concluded promptly. For complaints dealing with alleged discrimination beyond the 90 -day timeframe, a student must submit a complaint under the formal resolution procedure of this policy.

If the complaint cannot be informally resolved to the satisfaction of the student, the student has the right to file a complaint and to proceed under formal resolution procedures.

## Formal Resolution of Discrimination Complaints

A student who contends that unlawful or MCCCD-prohibited discrimination has occurred may file a formal complaint by contacting the Vice President of Student Affairs at each respective college or center. If a student alleges discrimination based upon physical or mental disability he or she may submit a formal complaint with the Vice President of Student Affairs or the District Associate Vice Chancellor of Student Affairs or designee. The Vice President of Student Affairs or District Associate Vice Chancellor of Student Affairs or designee will accept.

A complaint may be submitted by the student verbally or in writing. A student may also contact the Office of General Counsel to obtain the name and phone number of the college or center official designated to respond to discrimination complaints.

The complaint must identify the action, decision, conduct, or other basis that the student believes is unlawful or MCCCD prohibited discrimination.

Upon receipt of a complaint, the Vice President of Student Affairs or the Associate Vice Chancellor will notify the college president or provost and the Office of General Counsel.

## MCCCD POLICIES AND PROCEDURES

A copy of the complaint will be shared with the respondent within five (5) working days of receipt by the Vice President of Student Affairs Respondent will be put on notice that retaliation against the complainant or potential witnesses will not be tolerated and that an investigation will be conducted. If the student submits a written complaint, the Vice President or the District Associate Vice Chancellor need not share with the respondent the actual form submitted by the student, but may paraphrase the allegations sufficiently to allow the respondent to draft a response.

Respondent must provide a written response to allegations within fifteen (15) calendar days of his or her receipt of the complaint.

After accepting a complaint, the Vice President of Student Affairs or the District Associate Vice Chancellor of Student Affairs will designate a complaint investigator to conduct a fact-finding investigation, which will include, at a minimum, a review of written evidence (including the complaint and response), and interviews with appropriate employees and students. The interviews will include all witnesses identified by all parties. If the complaint alleges discrimination based upon mental or physical disability the investigator designated by the Vice President of Student Affairs or the District Associate Vice Chancellor of Student Affairs must have knowledge of ADA/504 regulations applicable to students with disabilities. 34 C.F.R. $\S 104.4$ et.seq.; 28 C.F.R. $\S 35.130$ et. seq. The Vice President of Student Affairs or the District Associate Vice Chancellor of Student Affairs may serve as complaint investigator. The complaint investigator shall promptly complete the investigation and deliver to the Vice President of Student Affairs or the District Associate Vice Chancellor of Student Affairs the investigator's written findings and the results of the investigation, including summaries of all interviews and all documents received as part of the investigation. In no event shall this occur later than ninety (90) calendar days following receipt of the complaint. Within ten (10) working days following receipt of the results of the investigation from the complaint investigator, the Vice President of Student Affairs or the District Vice Chancellor of Student Affairs will submit to the President or Provost the investigator's written findings and the Vice President's recommendations as to the disposition of the complaint.

The president or provost will accept, reject, or modify the recommendations and will provide a written notification of his or her action to the student and respondent along with a copy of the investigator's written findings and the vice president's or District Associate Vice Chancellor's recommendations within fifteen (15) calendar days of receiving the written findings and recommendations from the Vice President of Student Affairs or the District Associate Vice Chancellor of Student Affairs.

When the investigation confirms the allegations, appropriate corrective action will be taken. Evidence which is collateral to the allegations of discrimination and/or sexual harassment and which was obtained during an investigation may be used in subsequent grievance or disciplinary procedures. Both complainant and respondent receive notice of the outcome. The institution will take appropriate steps to prevent further occurrences.

## Interim Measures

If a student alleges discrimination based upon physical or mental disability, the District may take interim measures to assist or protect the student during an investigation. Such measures may include academic adjustments, arranging for changes in class schedules, or other appropriate temporary measures.

## MCCCD Administrative Review Process

## Request for Reconsideration

A student or respondent who is not satisfied with the decision of the president or provost has ten (10) working days to request, verbally or in writing, administrative review of the decision by his or her college president or provost. The request for administrative review must state reasons why the complainant or respondent believes the finding was improper. The president or provost will review the results of the investigation and written findings and respond to the request within ten (10) working days from receipt of the request. If the president or provost determines that the decision is not supported by the evidence, the case file will be reopened and assigned for further investigation. If the president or provost determines that the investigation was thorough and complete and that the decision is supported by the evidence, he or she will deny the request for administrative review. At this point, the student has exhausted the Internal Discrimination Complaint Procedure.

## Complaint Process

Faculty, staff and all other college officials should refer any student seeking to make a complaint of discrimination to the Vice President of Student Affairs or the District Associate Vice Chancellor of Student Affairs. Every student complaint of discrimination shall be investigated under the authority of the Vice President of Student Affairs or the District Associate Vice Chancellor of Student Affairs in accordance with these Procedures. The Vice President of

## MCCCD POLICIES AND PROCEDURES

Student Affairs and any complaint investigator who participates in a complaint resolution pursuant to these Procedures shall administer every resolution process in an impartial manner, and shall fully consider all facts discovered in the course of any investigation before a resolution is reached. Each party in any complaint resolution shall have full opportunity to present all information and documentation the party feels is germane to the complaint. At no time shall a student who has made an allegation of discrimination under these Procedures be asked or required in any way by a college official to engage in any direct confrontation with any person alleged to have committed an act of discrimination. The Vice President shall ensure that every effort is made to obtain information from each witness to every act of alleged discrimination or from any other person possessed of information that is relevant and material to the complaint resolution. The Vice President of Student Affairs shall ensure that all appropriate corrective action that is warranted as a result of any complaint resolution will be taken, and shall employ best efforts to ensure that the college prevents recurrence of discrimination in the future.

## Maintenance of Documentation

Documentation resulting from each level in the Formal Resolution Process (including witness statements, investigative notes, etc.) will be forwarded to and maintained by the Office of General Counsel. Investigative records are not to be maintained with or considered as a part of a student record. Documentation regarding corrective action is considered part of the student's record.

## Right to Assistance

A student or respondent may receive the assistance of an attorney or other person at any stage of a complaint filed under this Internal Discrimination Complaint Procedure. Such person may attend any investigative interview and advise the complainant or respondent but shall not otherwise participate in the interview. The complaint investigator shall direct communications directly to the complainant and respondent, and not through such individual's attorney or other person providing assistance.

## Confidentiality of Proceedings

Every effort will be made by the college and MCCCD to protect the confidentiality of the parties during the processing of complaints under this procedure. 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 discrimination.

## Retaliation Prohibited

Retaliation against a person who has filed a complaint or against any witness questioned during an investigation is strictly prohibited. Any retaliatory action by instructors, supervisors, managers, academic professionals, administrators, or other employees who have the authority to take adverse action against a complainant or witness is prohibited and may be grounds for disciplinary action.

## False Statements Prohibited

Any individual who knowingly provides false information pursuant to filing a discrimination charge or during the investigation of a discrimination charge will be subject to appropriate discipline.

## External Filing of Discrimination Complaint

MCCCD encourages students to use the MCCCD Discrimination Complaint Procedure for students to resolve discrimination concerns. Students also have the right to file civil rights complaints with appropriate external agencies. No retaliation will be taken against a person for filing a complaint with an external agency. The following agency accepts discrimination charges filed by, or on behalf of, students:

Office for Civil Rights, Region VIII (OCR)
Denver Office
U.S. Department of Education

Federal Building
1244 Speer Boulevard, Suite 310
Denver, Colorado 80204-3582
Phone: 303-844-5695
Fax: 303-844-4303
TDD: 303-844-3417
E-mail: OCR_Denver@ed.gov
AMENDED by Direct Chancellor Approval, April 1, 2015
2.4.6 Emissions Control Compliance

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Pursuant to ARS §15-1444 C. no vehicle shall be allowed to park in any college parking lot unless it complies with ARS §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 ARS $\S 49-542$. Vehicles that are not in compliance are subject to being towed at the owner's expense.

### 2.4.8 Petition Signature Solicitation

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.

Specific procedures on how to implement the Petition Signature regulation can be found in Appendix S-14.

### 2.4.9 Use of College Grounds by Non-MCCCD-Affiliated Users

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 college grounds, defined as the open areas and walkways of the campus by non-MCCCD-affiliated users. Use of college facilities 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 college 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 College 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

## MCCCD POLICIES AND PROCEDURES

for an event or activity must submit a request form to the Responsible College 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 College 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 College 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 College 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 college grounds, non-MCCCDaffiliated 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 the 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, noncommercial users. A user may request designation as a low-impact, non-commercial user from the applicable College's Responsible College 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 permit, 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)

1. The use of facilities and grounds for the operations of the College. For example, there are times when the college 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.
2. Activities and events sponsored by the College administration.
3. Activities and events sponsored by MCCCD student organizations or employee groups.
4. Activities of non-MCCCD-affiliated individuals and organizations.
5. Commercial advertising or activities.

Criteria

1. Capacity of college grounds to accommodate the number of participants at the scheduled time and proposed location.
2. Capacity of College Safety staff to provide security for all events and activities scheduled at the time.

## MCCCD POLICIES AND PROCEDURES

3. Possible interference or conflict with College operations or other scheduled activities and events on the grounds. 4. 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 College Grounds regulation can be found in Appendix S-15.

### 2.4.10 Children on Campus

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.

### 2.4.11 Crime Awareness and Campus Security Act

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.

### 2.4.12 Workplace Violence Prevention

## Purpose

It is the policy of the Maricopa County Community College District to promote a safe environment for its employees, students, contractors, and visitors. MCCCD is committed to working with its employees to maintain an environment free from violence, threats of violence, harassment, intimidation, and other disruptive behavior.

## Policy

Violence, threats, harassment, intimidation, and other disruptive behavior in our facilities is prohibited and will not be tolerated. It is the responsibility of all employees, students, contractors, and visitors of MCCCD to report any occurrence of such conduct to MCCCD Public Safety. Every employee, student, contractor, and visitor on MCCCD property should report threats or acts of physical violence and acts of harassment, intimidation, and other disruptive behavior of which he/she is aware. All reports will be taken seriously and will be investigated by public safety immediately in order to protect everyone from danger. Such behavior can include oral or written statements, gestures, or expressions that communicate a direct or indirect threat of physical harm.

## Prohibited Behavior

For example, and without limiting the generality of the foregoing statement, this policy prohibits:

- direct threats or physical intimidation
- implications or suggestions of violence
- stalking
- assault of any form
- physical restraint, confinement
- dangerous or threatening horseplay
- loud, disruptive, or angry behavior or language that is clearly not part of the typical work environment
- blatant or intentional disregard for the safety or well-being of others
- commission of a violent felony or misdemeanor on MCCCD property
- abuse
- violation of a protective order or restraining order
- any other act that a reasonable person would perceive as constituting a threat of violence

This list is illustrative only and not exhaustive.

## Future Violence

Employees, students, and visitors who have reason to believe they, or others, may be victimized by a violent act or sometime in the future, at the workplace or as a direct result of their relationship with MCCCD, shall inform a supervisor or manager as soon as possible. The supervisor or manager shall inform the Public Safety Department. Students, contractors, and visitors shall contact the Public Safety Department as soon as possible.

Employees who have signed and filed a restraining order, temporary or permanent, against an individual due to a potential act of violence, who would be in violation of the order by coming near them at work, shall immediately supply a copy to the Department Director, Human Resources, and Public Safety. Students shall supply a copy of the signed order to the Public Safety Department.

## MCCCD POLICIES AND PROCEDURES

This policy applies to employees and students, as well as independent contractors and other non-employees doing business with the MCCCD. 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.

### 2.4.13 Student Right to Know

Under the terms of the Student Right To Know Act, the college must maintain and report statistics on the number of students receiving athletically related student aid reported by race and sex, the graduation rate for athletes participating in specific sports reported by race and sex, the graduation rate for students in general, reported by race and sex and other similar statistics. To obtain copies of these reports, contact the Office of Admissions and Records.

## STUDENT RIGHTS AND RESPONSIBILITIES

### 2.4.5 Copyright Act Compliance

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.

### 3.2 Copyright Regulation

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 damagespotentially in excess of $\$ 100,000$ for each work infringed as well as criminal penalties, which may include fines and even incarceration.

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## 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

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distance instruction; any other use would likely constitute a violation of copyright law.
3.4 Taping of Faculty Lectures

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.
4.4 Technology Resource Standards

Introduction
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 regulations established 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 the 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

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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 the 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 MCCCD'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 transmittted through those resources. Any other 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.

## Incidental Computer and Technology Usage

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, 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 (Appendix 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 an unauthorized website that violates the .EDU domain request.
6. Use of technology resources for non-MCCCD 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 MCCCD's Governing Board, including, but not limited to, MCCCD'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,

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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 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 MCCCD's technology and non-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 e-mail 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 records 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 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 an MCCCD web site 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, MCCCD may unilaterally delete any violative content and terminate the user's access to MCCCD's technology resources. It is the user's responsibility to demonstrate and/or

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establish the relevance of content in the event that a content complaint is made official. Users retain the right to appeal actions through MCCCD's grievance procedures or resolution of controversy.

### 2.6 Hazing Prevention Regulation

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 MCCCD 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 MCCCD 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 MCCCD; 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 MCCCD 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 metal 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 other 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 MCCCD policies, and local and state laws. Alleged violations of the MCCCD 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 MCCCD 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 MCCCD policies, and local and state laws. Any MCCCD faculty or staff member who knowingly permitted, authorized or condoned

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the alleged hazing activity is subject to disciplinary action in accordance with college and MCCCD 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.
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 MCCCD hazing prevention regulation is not intended to prohibit or sanction the following conduct:
A. Customary athletic events, contests or competitions that are sponsored by the college or MCCCD.
B. Any activity or conduct that furthers the goals of a legitimate educational curriculum, a legitimate cocurricular experience or a legitimate military training program.
13. For the purposes of the MCCCD hazing prevention regulation:
"Organization" is defined as an athletic team, association, order, society, corps, cooperative, club or other similar group that is affiliated with MCCCD, whose membership consists primarily of students enrolled at MCCCD and that may also be classroom-related or co-curricular in nature.

### 2.4.7 Abuse-Free Environment

See also the Auxiliary Services section for Tobacco-Free Environment and the Appendices/Student Section Medical Marijuana Act of the Administrative Regulations.

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 Acknowledgements 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 selfdevelopment, 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, possession 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

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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:
i. Drinking or possession of alcoholic beverages on the college campus.
ii. Misuse of narcotics or drugs.
C. Sanctions for Violation of Standards of Conduct

Disciplinary actions include, but are not limited to:
i. Warning,
ii. Loss of privileges,
iii. Suspension, or
iv. 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 MCCCD premises, while conducting MCCCD business, or at any time which would interfere with the effective conduct of the employee's work for the MCCCD; and use of illegal drugs.

## 3. MCCCD Program Standards

The Maricopa Community College District is committed to establishing a preventative substance abuse program at each college designed to affect positively the problems of irresponsible use of alcohol and the use and abuse of illegal substances. A main focus of the program will be on education of the campus community and assistance to individuals.
A. 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 rehabilitation programs that may be available to students and employees.
B. 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.
C. 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.
4. 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 H.
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

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purposes, except as provided in Paragraphs C and G.
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 E. 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 Form . 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.
E. Service restrictions required by law. An event approved under Paragraph D must, by law, comply with the all of the following restrictions:
i. 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 ;
ii. The gathering must be by invitation only, and not open to the public;
iii. The gathering may not exceed 300 ;
iv. Invitees may not be charged any fee for either the event or the beer or wine; and
v. 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 F. 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 E. 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: i. The entity obtains a liquor license, if required by law, 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;
ii. The entity completes the form available at AS-7 Request to Serve Beer and Wine - Third Party Form . And provides it to the Chancellor for approval along with a copy of the liquor license no later than 30 days before the event, unless the Chancellor approves a shorter period of time in a particular case;
iii. The entity provides or currently has on file with the District a certificate of insurance demonstrating that it has liquor liability coverage and that adds the District as an additional insured;
iv. The entity agrees in writing to indemnify the District from any claims of any kind arising out of the event;
v. 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;
vi. The contractor provides all of the beverages served and well as the servers or bartenders;
vii. 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
viii. 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:

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i. 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
ii. Once the wine and beer arrives on MCCCD property, the Director the culinary program shall assign an MCCCD employee to ensure that it is not stolen or that it is not opened until ready to be served.
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.
5. Other Health Concerns

General Guidelines Concerning AIDS
Neither a diagnosis of AIDS nor a positive HIV antibody test will be part of the initial admission decision for those applying to attend any of the Maricopa Community Colleges. The Maricopa Community Colleges will not require screening of students for antibody to HIV.

Students with AIDS or a positive HIV antibody test will not be restricted from access to student unions, theaters, cafeterias, snack bars, gymnasiums, swimming pools, recreational facilities, restrooms, or other common areas, as there is not current medical justification for doing so.

Where academically and logistically feasible, students who have medical conditions, including AIDS, may seek accommodation in order to remain enrolled. Medical documentation will be needed to support requests for accommodation through the Office of Disabled Resources and Services or the Office of Vice President of Student Affairs.

The Maricopa Community Colleges acknowledge the importance of privacy considerations with regard to persons with AIDS. The number of people who are aware of the existence and/or identity of students who have AIDS or a positive HIV antibody test should be kept to a minimum. When a student confides in an faculty member, knowledge of the condition should be transmitted to the appropriate vice president or designee who will make the determination if the information should be further disseminated. It should be remembered that mere exposure to the person in a classroom does not constitute a need to know the diagnosis. It is, therefore, unnecessary to document in a student's file the fact that he or she has AIDS unless the information is to be used for accommodation reasons. Sharing confidential information without consent may create legal liability. Students are encouraged to contact the Office of Disabled Resources and Services and/or the vice president of student affairs or designee for the types of services available in the district or community on matters regarding AIDS or the HIV virus.

### 4.12 Smoke-Free/Tobacco-Free Environment

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.

## MCCCD POLICIES AND PROCEDURES

Continued violations by an employee or student shall be handled through the respective conduct procedures established for employees and students.

Appendix S-16: Statement on the Arizona Medical Marijuana Act (Proposition 203)
In 2010, Arizona voters approved the Arizona Medical Marijuana Act (Propositions 203), a state law permitting individuals to possess and use limited quantities of marijuana for medical purposes. Because of its obligations under federal law, however, the Maricopa Community Colleges will continue to prohibit marijuana possession and use on campus for any purpose.

Under the Drug Free Workplace Act of 1988, and the Drug Free Schools and Communities Act of 1989, "...no institution of higher education shall be eligible to receive funds or any other form of financial assistance under any federal program, including participation in any federally funded or guaranteed student loan program, unless it has adopted and has implemented a program to prevent the use of illicit drugs and abuse of alcohol by students and employees." Another federal law, the Controlled Substances Act, prohibits the possession, use, production, and distribution of marijuana for any and all uses, including medicinal use. This law is not affected by the passage of the Arizona Medical Marijuana Act. Because Maricopa Community Colleges could lose its eligibility for federal funds if it fails to prohibit marijuana, it is exempt from the requirements of the Arizona Medical Marijuana Act. Therefore, Maricopa Community Colleges will continue to enforce its current policies prohibiting the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance on its property or as part of any of its activities.

Employees and students who violate Maricopa Community Colleges policy prohibiting the use or possession of illegal drugs on campus will continue to be subject to disciplinary action, up to and including expulsion from school and termination of employment.

### 2.8 Students with Disabilities

### 2.8.1 Eligibility for Accommodations \& Required Disability Documentation

## 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 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 courses required for the completion of degree requirements, and adaptation of the manner in which specific courses are conducted.
**Documentation can be transferred within MCCCD for current consideration for eligibility.
**Determination made by another institution or organization does not guarantee eligibility.


## 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 requirements that is essential to the instruction being pursued by the student, or to a directly related 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 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 Disabilities

A. Required Documentation

The student must submit a written, current diagnostic report of any physical disabilities that are based on appropriate diagnostic evaluations administered by trained and qualified (i.e., certified and/or licensed) professionals (e.g., medical doctors, ophthalmologists, neuropsychologists, audiologists). Disability diagnosis categories include:
i. Orthopedic Disability

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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 diagnostic report must include the following information:
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.
iv. A clear statement specifying functional limitations.
v. A recommendation for accommodation(s).

## 2. Specific Learning Disabilities

## A. Required Documentation

Submit a written diagnostic report of specific learning disabilities that is based on age appropriate, comprehensive, psycho educational evaluations using adult normed instruments.

The assessment or evaluation which leads to the diagnosis must be administered by a trained and qualified (i.e., certified and/or licensed) professional (e.g., psychologist, school psychologist, neuropsychologist, or educational diagnostician) who has had direct experience with adolescents and adults with learning disabilities.

An appropriate Psycho Educational Evaluation must include comprehensive measures in each of the following areas:
i. Aptitude: evaluation must contain a complete intellectual assessment, with all sub-tests and standard scores reported.

Examples Of Measures (including but not limited to):

1. Wechsler Adult Intelligence Scale (WAIS-R)
2. Stanford Binet Intelligence Scale
3. Woodcock-Johnson Psycho-Educational Battery
4. Kaufman Adolescent And Adult Intelligence Test
ii. Academic Achievement: evaluation must contain a comprehensive achievement battery with all sub-tests and standard scores reported. The test battery should include current levels of functioning in the relevant area(s).

Examples of Achievement (including but not limited to):

1. Wechsler Individual Achievement Tests (WIAT)
2. Woodcock-Johnson Psycho-Educational Battery
3. Stanford Test of Academic Skills (TASK)
4. Scholastic Abilities Test for Adults (SATA)
iii. Information Processing: evaluation should assess specific information processing areas such as short- and long-term memory, sequential memory, auditory and visual perception/processing, processing speed,
executive function, and motor ability.
Examples of Achievement (including but not limited to):
5. Wechsler Individual Achievement Tests (WIAT)
6. Woodcock-Johnson Psycho-Educational Battery
7. Stanford Test of Academic Skills (TASK)
8. Scholastic Abilities Test for Adults (SATA)
B. Diagnostic Report

The diagnostic report must include the following information:
i. A diagnostic interview that addresses relevant historical information, past and current academic
achievement, instructional foundation, past performance in areas of difficulty, age at initial diagnosis, and history of accommodations used in past educational settings and their effectiveness.
ii. A list of all instruments used in the test battery.
iii. Discussion of test behavior and specific test results.
iv. A diagnostic summary or statement with the following information:

1. DSM V Classification
2. A clear and direct statement that a learning disability does or does not exist, including a rule-out of alternative explanations for the learning problems. Terms such as "appears," "suggests," or "probable"

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used in the diagnostic summary statement do not support a conclusive diagnosis.
3. A clear statement specifying the substantial limitations to one or more major life activities.
4. A psychometric summary of scores.
5. A recommendation for accommodations, including rationale.

Diagnosis of specific learning disabilities that do not contain psycho-educational measures may not be sufficient for determining eligibility for academic accommodations. For example, school plans such as individualized education plans (IEP) or 504 plans may not be sufficient documentation. DRS reserves the right to request reassessment when questions regarding previous assessment or previous service provision arise.
3. Attention Deficit Hyperactivity Disorder (ADHD) / Attention Deficit Disorder (ADD)
A. Required Documentation

Submit a current diagnosis of attention deficit hyperactivity disorder (ADHD)/attention deficit disorder (ADD) that is based on appropriate diagnostic evaluations.
B. Diagnostic Report

Acceptable documentation must include:
i. DSM V Classification
ii. A summary or statement which includes the following information:
iii. A clear summary or statement specifying evidence of behavior that significantly impairs functioning, including degree of severity.
iv. A recommendation for accommodations, including rationale.
4. Psychological/Psychiatric Disabilities
A. Required Documentation
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

The diagnostic report must include the following:
i. DSM V Classification
ii. A diagnostic summary or statement that includes the following:

1. A clear summary or statement that a disability does or does not exist.
2. A clear summary or statement specifying evidence of behavior that significantly impairs functioning including degree of severity.
3. 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
iv. Restrictions on activities imposed by the condition
v. Where learning has been affected, a recent neuro-psychological evaluation is requested
6. Temporary Disabling Conditions
A. Required Documentation
i. 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

## AMENDED by Direct Chancellor Approval, January 4, 2017

### 2.8.2 Eligibility of Students Taking Reduced Course Loads

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 their funding.
7. The National Junior College Athletic Association (NJCAA) has published standards in regard to the designation of Certified Disabled Student-Athlete in Article V Section J of the NJCAA bylaws. This procedure addresses the NJCAA criteria for reduced course loads.

## Application Process

1. Applications for reduced course loads must be submitted to the Disability \& Services professional with supporting documentation. Requests must be made prior to the beginning of each semester.
2. Supporting documentation must include a diagnostic evaluation from an appropriate professional. The documentation must meet the guidelines set forth by the Maricopa Community College District's Documentation Policy in order to evaluate the current impact of the disability in regards to the request. Students are required to complete an application form for this status every semester, but do not need to resubmit 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.

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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.

### 2.3.11 Academic Misconduct

## 1. Definitions

A. Academic Misconduct - includes any conduct associated with the classroom, laboratory, or clinical learning process that is inconsistent with the published course competencies/objectives and/or academic standards for the course, program, department, or institution. Examples of academic misconduct include, but are not limited to: (a) cheating and plagiarism (including any assistance or collusion in such activities, or requests or offers to do so); (b) excessive absences; (c) use of abusive or profane language; and (d) disruptive behavior.
B. Cheating is any form of dishonesty in an academic exercise. It includes, but is not limited to, (a) use of any unauthorized assistance in taking quizzes, tests, examinations, or any other form of assessment whether or not the items are graded; (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; (c) the acquisition, without permission, of tests or other academic material belonging to or administered by the college or a member of the college faculty or staff; and (d) fabrication of data, facts, or information.
C. Plagiarism is a form of cheating in which a student falsely represents another person's work as his or her own - it includes, but is not limited to: (a) the use of paraphrase or direct quotation of the published or unpublished work of another person without full and clear acknowledgment; (b) unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials; and (c) information gathered from the internet and not properly identified.

## 2. Academic Consequences

Any student found by a faculty member to have committed academic misconduct may be subject to the following academic consequences, based on the faculty member's judgment of the student's academic performance

Warning - A notice in writing to the student that the student has violated the academic standards as defined in 1.A.

Grade Adjustment - Lowering of a grade on a test, assignment, or course.
Discretionary assignments - Additional academic assignments determined by the faculty member.
Course Failure - Failure of a student from a course where academic misconduct occurs.

## 3. Disciplinary Sanctions

If the misconduct is sufficiently serious to warrant course failure, and if either (a) the failure results in a student being removed from an instructional program or (b) the student refuses to accept responsibility for the misconduct and its academic consequences, the faculty member will, in addition to awarding the course grade, consult the department chair and the vice president of academic affairs as to whether institutional sanctions set forth below should be sought under AR 2.5. Regardless whether the student has accepted responsibility for academic consequences, in all cases of academic misconduct the faculty member may make recommendations for sanctions and may file a written complaint of misconduct. The vice president of academic affairs will serve as the student conduct administrator in all academic misconduct cases, and will follow the procedure established in AR 2.5.2 to evaluate whether disciplinary sanctions are warranted. College probation, suspension, or expulsion will be imposed only by the vice president of academic affairs or designee, and only after the student has received the procedural rights provided in AR 2.5.2.

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.

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.)

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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.)

## 4. Appeal of Sanctions for Academic Misconduct

Students can appeal academic consequences by following the instructional grievance procedure (AR 2.3.5; Appendix S-6). Students can appeal Students may appeal disciplinary sanctions as provided in AR 2.5.2. If the student appeals through both processes, the instructional grievance process will be suspended until a final decision is reached in the student discipline procedure. In all cases in which financial aid has been adversely affected by academic consequences or disciplinary sanctions that are the subject of ongoing hearing or appeal proceedings, the student may appeal the financial aid determination on the grounds that a final decision has not been made. In such an event, a final decision on financial aid will not be made until after the final decision on consequences and/or sanctions.

Amended through direct approval by the Chancellor and Executive Vice Chancellor \& Provost on August 7, 2013

## DISCIPLINARY STANDARDS

### 2.5.1 Disciplinary Standards

## 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.

### 2.5.2 Student Conduct Code

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

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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 $\mathrm{s} /$ he has been a victim of another student's misconduct, the student who believes $\mathrm{s} / \mathrm{he}$ has been a victim will have the same rights under this Student Conduct Code as are provided to the complainant, even if another member of the college community submitted the charge itself.
7. "Day" means calendar day at a time when college is in session, and shall exclude weekends and holidays.
8. "Disruptive behavior" means conduct that materially and substantially interferes with or obstructs the teaching or learning process in the context of a classroom or educational setting.
9. "District" means the Maricopa County Community College District.
10. "Faculty member" means any person hired by the college or District to conduct classroom or teaching activities or who is otherwise considered by the college to be a member of faculty.
11. "May" is used in the permissive sense.
12. "Member of the college community" means any person who is a student, faculty member, college official or any other person employed by the college or center. A person's status in a particular situation shall be determined by the college president.
13. "Organization" means any number of persons who have complied with the formal requirements for college recognition.
14. "Policy" is defined as the written regulations of the college and/or District as found in, but not limited to, this Student Conduct Code and Governing Board policy.
15. "Shall" is used in the imperative sense.
16. "Student" means any person taking courses at the college whether full-time or part-time. Persons who are not officially enrolled for a particular term but who have a continuing relationship with the college are considered "students".
17. "Student Conduct Administrator" means a college official authorized on a case by case basis by the college official responsible for administration of the Student Conduct Code to impose sanctions upon students found to have violated this Student Conduct Code. A Student Conduct Administrator may serve simultaneously as a Student Conduct Administrator and the sole member or one of the members of a Student Conduct Board. The college official responsible for administration of the Student Conduct Code may authorize the same Student Conduct Administrator to impose sanctions in all cases.
18. "Student Conduct Board" means any person or persons authorized by the college president to determine whether a student has violated this Student Conduct Code and to recommend sanctions that may be imposed when a violation has been committed.
19. "Threatening behavior" means any written or oral statement, communication, conduct or gesture directed toward any member of the college community, which causes a reasonable apprehension of physical harm to self, others or property. It does not matter whether the person communicating the threat has the ability to carry it out, or whether the threat is made on a present, conditional or future basis.

## Article II: Judicial Authority

1. The college official responsible for administration of the Student Conduct Code shall determine the composition of Student Conduct Board and determine which Student Conduct Administrator, Student Conduct Board, and appellate board shall be authorized to hear each case.
2. The college official responsible for administration of the Student Conduct Code shall develop procedures for the administration of the judicial program and rules for the conduct of hearings that are consistent with provisions of this Student Conduct Code.
3. Decisions made by a Student Conduct Board and/or Student Conduct Administrator shall be final, pending the normal appeal process.

## Article III: Prohibited Conduct

## 1. Jurisdiction of the College

The Student Conduct Code shall apply to conduct that occurs on college or District premises, or at college- or District-sponsored activities that adversely affects the college community and/or the pursuit of its objectives. Each student shall be responsible for his/her conduct from the time of admission through the actual awarding of a degree, certificate, or similar indicator of completion of a course of study, even though conduct may occur before classes begin or after classes end, as well as during the academic year and during periods between terms of actual enrollment (and even if their conduct is not discovered until after a degree is awarded). The Student Conduct Code shall apply to a student's conduct even if the student withdraws from school while a disciplinary matter is pending.
2. Temporary Removal of Student

Disruptive behavior includes conduct that distracts or intimidates others in a manner that interferes with instructional activities, fails to adhere to a faculty member's appropriate classroom rules or instructions, or

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interferes with the normal operations of the college. Students who engage in disruptive behavior or threatening behavior may be directed by the faculty member to leave the classroom or by the college official responsible for administration of the Student Conduct Code to leave the college premises. If the student refuses to leave after being requested to do so, college safety may be summoned. For involuntary removal from more than one class period, the faculty member should invoke the procedures prescribed in the Student Conduct Code.

## 3. Conduct - Rules and Regulations

Any student found to have committed the following misconduct is subject to the disciplinary sanctions outlined in Article IV:
A. Acts of dishonesty, including but not limited to the following:
i. Furnishing false information to any college official or office.
ii. Forgery, alteration or misuse of any college document, record or instrument of identification.
iii. Tampering with the election of any college- recognized student organization.
B. Obstruction of teaching, research, administration, disciplinary proceedings or other college activities, including its public service functions on campus, in clinical settings or other authorized non-college activities, when the conduct occurs on college premises a faculty member may remove a student from a class meeting for disciplinary reasons. If a faculty member removes a student for more than one class period, the faculty member shall notify the college official responsible for administration of the Student Conduct Code in writing of the problem, action taken by the faculty member, and the faculty member's recommendation. If a resolution of the problem is not reached, the student may be removed permanently pursuant to appropriate due process procedures.
C. Physical abuse, verbal abuse, threats, intimidation, harassment, coercion, conduct which threatens or endangers the health or safety of any person, and/or disruptive behavior as defined in Article II.2. above.
D. Attempted or actual theft of and/or damage to property of the college or property of a member of the college community or other personal or public property.
E. Failure to comply with direction of college officials or law enforcement officers in the performance of their duties and/or failure to identify oneself to these persons when requested to do so.
F. Unauthorized possession, duplication or use of keys to any college premises, or unauthorized entry to or use of college premises.
G. Violation of any college or District policy, rule or regulation published in hard copy such as a college catalog, handbook, etc. or available electronically on the college's or District's website.
H. Violation of federal, state or local law.
I. Use, possession, manufacturing or distribution of illegal or other controlled substances except as expressly permitted by law.
J. Illegal use, possession, manufacturing or distribution of alcoholic beverages or public intoxication.
K. Illegal or unauthorized possession of firearms, explosives, other weapons, or dangerous chemicals on college premises, or use of any such item, even if legally possessed, in a manner that harms, threatens, or causes fear to others, or property damage.
L. Participation in a demonstration, riot or activity that disrupts the normal operations of the college and infringes on the rights of other members of the college community; leading or inciting others to disrupt scheduled and/or normal activities within any college building or area.
M. Obstruction of the free flow of pedestrian or vehicular traffic on college premises or at college-sponsored or supervised functions.
N. Conduct that is disorderly, lewd or indecent; breach of the peace; or aiding, abetting or procuring another person to breach the peace on college premises or at functions sponsored by or participated in by the college or members of the academic community. Disorderly conduct includes but is not limited to: any unauthorized use of electronic or other devices or to make an audio or video record of any person while on college or District premises without his/her prior knowledge, or without his/her effective consent or when such a recording is likely to cause injury or distress. This includes, but is not limited to, secretly taking pictures of another person in a gym, locker room, or restroom.
O. Attempted or actual theft or other abuse of technology facilities or resources, including but not limited to:
i. Unauthorized entry into a file, to use, read or change the contents or for any other purpose
ii. Unauthorized transfer of a file
iii. Unauthorized use of another individual's identification and/or password
iv. Use of technology facilities or resources to interfere with the work of another student, faculty member or college official
v. Use of technology facilities or resources to send obscene or abusive messages
vi. Use of technology facilities or resources to interfere with normal operation of the college technology system or network
vii. Use of technology facilities or resources in violation of copyright laws

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viii. Any violation of the District's technology resource standards
ix. Use of technology facilities or resources to illegally download files
P. Abuse of the Student Conduct system, including but not limited to:
i. Falsification, distortion or misrepresentation of information before a Student Conduct Board.
ii. Disruption or interference with the orderly conduct of a Student Conduct Board proceeding.
iii. Invoking a Student Conduct Code proceeding with malicious intent or under false pretenses
iv. Attempting to discourage an individual's proper participation in, or use of, the Student Conduct system
v. 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
vi. 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
vii. Failure to comply with the sanctions imposed under this Student Conduct Code
viii. Influence or attempting to influence another person to commit an abuse of the Student Conduct Code system
ix. 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. Misconduct charges of a sexual nature, including sexual harassment and sexual assault, should be sent to the vice president of student affairs who is the designated Title IX Coordinator at each MCCCD college. Title IX protects students from sexual misconduct and other forms of discrimination in connection with all academic, extracurricular, athletic, and other programs sponsored by the college at any college facility or other location. The Title IX Coordinator (or designee) will conduct an investigation that is prompt, thorough, and impartial according to the MCCCD sexual harassment complaint process.
B. The Student Conduct Administrator may conduct a prompt, thorough, and impartial 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 will convene the student conduct board. If the student admits violating institutional rules, but sanctions are not agreed to, the hearing shall be limited to determining the appropriate sanction(s).
C. All charges shall be presented to the accused student in written form. The Student Conduct Administrator will provide written notice of the time, date, and location of the student conduct hearing. The notice will describe the evidence of alleged misconduct, the code provisions violated, and the possible sanctions. The student

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conduct hearing notice, plus a copy of this code, shall be provided to the student accused of misconduct no less than five (5) workdays before the hearing date. The hearing will be held no more than fifteen (15) workdays after the student has been notified unless the Student Conduct Administrator extends the deadline for good cause in his or her sole discretion.
D. Hearings shall be conducted by a Student Conduct Board according to the following guidelines, except as provided by Article IV 1.G below:
i. Student Conduct Board hearings normally shall be conducted in private.
ii. 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.
iii. 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.
iv. The complainant and the accused shall have the right to be assisted by any advisor they choose, at their own expense. A party who elects to be assisted by an advisor must notify the student conduct administrator of the name and contact information of the advisor not less than two (2) days before the scheduled hearing. 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.
v. The complainant, the accused student, and the Student Conduct Board may arrange for witnesses to present pertinent information to the Student Conduct Board. The Student Conduct Administrator will try to arrange the attendance of possible witnesses who are members of the college community, if reasonably possible, and who are identified by the complainant and/or accused student at least two days prior to the Student Conduct Board hearing. Witnesses will provide information to and answer questions from the Student Conduct Board. Questions may be suggested by the accused student and/or complainant to be answered by each other or by other witnesses. This will be conducted by the Student Conduct Board with such questions directed to the chairperson, rather than to the witness directly. This method is used to preserve the educational tone of the hearing and to avoid creation of an adversarial environment. Questions of whether potential information will be received shall be resolved in the discretion of the chairperson of the Student Conduct Board.
vi. The Student Conduct Administrator will present the information he or she received.
vii. Pertinent records, exhibits, and written statements may be accepted as information for consideration by a Student Conduct Board at the discretion of the chairperson.
viii. All procedural questions are subject to the final decision of the chairperson of the Student Conduct Board.
ix. 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.
x. 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:
i. Warning - a written notice to the student that the student is violating or has violated institutional rules or regulations.
ii. 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

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violate any institutional rules or regulation(s) during the probationary period.
iii. Loss of Privileges - denial of specified privileges for a designated period of time.
iv. Restitution - compensation for loss, damage or injury. This may take the form of appropriate service and/ or monetary or material replacement.
v. Discretionary Sanctions - work assignments, essays, service to the college, or other related discretionary assignments. (Such assignments must have the prior approval of the Student Conduct Administrator.)
vi. 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.
vii. 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:
i. Those sanctions listed above in Article IV 2. A. 1 through 4.
ii. Loss of selected rights and privileges for a specified period of time.
iii. 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 $s / h e$ 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. When an emergency suspension is imposed, the student conduct administrator will seek to resolve the complaint at the earliest possible date. This suspension is not a sanction but an effort to protect people and property and prevent disruption of college operations.

In imposing an emergency suspension, the college official responsible for administration of the Student Conduct Code may direct that the student immediately leave the college premises and may further direct the student not to return until contacted by that official. An accused student shall be in violation of this policy regardless of whether the person who is the object of the threat observes or receives it, as long as a reasonable person would interpret the communication, conduct or gesture as a serious expression of intent to harm.

## 4. Administrative Hold

The Student Conduct Administrator may place a temporary administrative hold preventing an accused student's registration, financial aid award, transcript release, or graduation if it is necessary to secure the student's cooperation in the investigation or compliance with a direction. This hold is not a sanction but a necessary step to resolve the complaint promptly.
5. Academic Consequences

Violations of the student conduct code can have academic consequences if the violation also constitutes failure to meet standards of performance or professionalism set by the instructor or the program, or if it constitutes cheating,

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plagiarism, falsification of data, or other forms of academic dishonesty. The instructor may award a failing grade for the assignment or the course in such cases, and the program faculty may decide that the student is ineligible to continue in the program. Academic consequences are determined by the faculty and academic administration, and are not dependent on the decisions of the student conduct board, the appeals board, or the student conduct administrator.
6. Appeals Regarding Student Code of Conduct
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:
i. 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.
ii. 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.
iii. 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.
iv. 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.
2.5.3 Student Records

## 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:
i. 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
ii. 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
iii. Records maintained by the colleges security unit, if the record is maintained solely for law enforcement purposes, is revealed only to law enforcement agencies of the same jurisdiction and the security unit does not have access to education records maintained by the community college.
iv. 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

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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:

Individuals requesting admission or enrollment at any of the Maricopa Community Colleges are asked to provide certain contact information that is collected and used for the purpose of responding to the request. The information collected may include your name, address, telephone number or email address. Maricopa county community colleges and/or its agents, including attorneys and/or collection agencies, may use this information to contact you through various means, including phone calls, text messages, e-mail and postal mail. Communication may include, but is not limited to, information regarding account balances, programs and services that we offer.

## 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 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 S-17 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 $\S 99.31$ 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, $\S 99.32$ 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 instructions, 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 $\S 99.31(\mathrm{~A})(1)(\mathrm{I})(\mathrm{B})(1)-(\mathrm{A})(1)(\mathrm{I})(\mathrm{B})(2)$ 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, and the US Secretary of Education, or State and Local Educational Authorities, such as 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 $\S 99.35$, 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

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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 ( $\S \S 99.31(\mathrm{~A})(3)$ 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 $\S 99.39$, 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 polices 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 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 Avenue SW
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.

Appendix S-17: FERPA Appeal Process

## 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


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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.


## STUDENT HANDBOOK

### 2.5.4 Student Employment

## 1. District Student Employees

## A. Introduction

Students may be employed by the college as student help. District regulations require that students be hired in essential jobs and that they be properly trained and supervised.
B. Philosophy and Workload for Student Employees
i. It shall be the philosophy of Maricopa Community College District that a student may work to augment college and living expenses, however, the scholastic endeavor should be foremost. Sufficient time should be allotted for classroom attendance, homework, out-of-class study and participation in activities.
ii. A workload of twenty (20) hours per week should be established as the maximum number of hours a student employee may work on campus. All student employees shall be enrolled in a minimum of three (3) semester credit hours. Any combination of day and evening hours would meet this requirement. Any student employee having special reasons to work over 20 hours per week or having dropped below three (3) credit hours should request his/her immediate supervisor to obtain approval from the College president or his/her designee.
iii. During the summer sessions, students may be eligible for employment if they were enrolled for a minimum of three (3) semester credit hours at the end of the spring semester, or if they have been accepted for admission for the fall semester. Exceptions to the three (3) semester credit hours may be made by the president or his/her designee. Summer shall be designated as the time from the official end of the spring semester to the beginning of classes for the fall semester.
C. Student Employee Benefits

As student employees, there are no entitlements to employee benefits; i.e., vacation, retirement, sick leave, health and life, or disability insurance. Students will, however, be covered under Worker's Compensation Insurance.
D. Student Employment Records

Student employee records will be maintained at the Financial Aid office, the office of the fiscal agent or the Career/Placement Office and will be reviewed periodically by the Vice President of Students Affairs.
E. Student Compensation

The hourly rate of pay for student employees shall coincide with the policies of the District Salary Schedule.
F. Employee Contracts and Forms (See Appendix FM-3)

Student Employee Grievance Procedure
G. Part-time student employees working for one of the Maricopa Community Colleges may wish to file a grievance relating to certain working conditions or violation of student employment regulation. Please refer to the Non-Instructional Complaint Resolution Process (AR 2.3.12)
2. Student Security Guards
A. Introduction and Philosophy

Students may be employed by the college as student help. If student guards do not come from the ranks of Administration of Justice classes, they must undergo appropriate training to qualify them as student guards. This training program is outlined in the regulation.
B. Workload of Student Security Guards
i. Student security guards shall be enrolled for a minimum of three (3) semester hours.
ii. Student security guards shall be limited to 20 hours per week when the workweek starts at 7:00 a.m. on Monday and concludes at 11:00 p.m. on Friday. Additional hours may be worked if guards are assigned special duty at games or activities held on campus during the weekend, or if guards are assigned a shift on Saturday and Sunday, between 7:00 a.m. and 11:00 p.m.
C. Students not in Administration of Justice Program
i. Use of student other than those in Administration of Justice Program:

1. Selection of the student must be personally approved by the vice president of students affairs and chief of security.
2. Selection of a student should not extend beyond one semester without the approval of the vice president of students affairs.
3. Selected student must undergo a special training program directed by the chief of security and approved by the vice president of student affairs.
ii. Recommended program for students other than those in Administration of Justice programs: Students employed by campus security who are not majors in the Administration of Justice program should be given at least twenty (20) hours of training with pay before being allowed to function independently as a campus security guard. This training should include, but not be limited to instruction in:
4. Wearing of the uniform, general appearance, and demeanor
5. The use of the various security report forms and how to properly complete them to provide requested information; General report writing methods
6. Public relations methods used on the campus
7. Crime prevention methods used on the campus; Patrol methods used in buildings and grounds.
8. Basic techniques for interviewing students, faculty and visitors relative to the incidents
9. Laws and regulations governing the actions of campus security personnel concerning rendering of assistance to students, faculty and visitors on the campus
10. Basic first aid
D. Student Security Guards Employee Benefits

As student employees there are not entitlements to employee benefits; i.e., vacation retirement, sick leave, health and life, or disability insurance. Students will, however, be covered under Worker's Compensation Insurance.
E. Student Employment Records

The student security guard's employment records will be maintained at the office of the chief of security and reviewed periodically by the vice president of student affairs.

### 2.5.5 Student Governance

Student governing bodies derive their authority from the Maricopa County Community College District Governing Board that exists in accordance with Arizona Revised Statutes. The administration of the District is vested in the Chancellor who delegates responsibility for each college to the college president who serves in a management and policy implementation capacity having the ultimate responsibility for all activities of the college. The president shall designate the administrator(s) (i.e., directors of student leadership) at each college who will be charged with the responsibility for working with the college student governing body(ies) in the development of college student activities and programs.

A representative form of student governance may exist at each college/center as well as district wide to provide an effective means of communication among students, faculty, staff and administration and to provide student input in college and District matters. Eligibility requirements are to be met and spelled out in detail in each student governance constitution. These constitutions shall establish the minimum requirements for the elective/appointive officers. All student government constitutions shall be submitted to the Governing Board General Counsel to ensure compliance with federal and state laws, and the Maricopa Community Colleges Governing Board Administrative Regulations. Since Rio Salado Community College is a countywide non-campus college, the president shall ensure that opportunities exist for student involvement.

College student constitutions should be reviewed annually by student governance. The appropriate vice president or

## MCCCD POLICIES AND PROCEDURES

designee of each college shall be responsible for submitting any changes to the president of the college for transmittal to the Governing Board General Counsel.

## 1. Officers/Members

All reference in this document to positions will designate whether the position is an officer position or a member position.

Each student governance constitution shall define which of its elected positions (maximum of 5) within its structure shall be designated as officers. The persons filling those positions shall be referred to, in this document, as officers. Persons filling all other positions, elected or appointed, shall be referred to as members (excluding nonvoting committee members).

All positions filled by election shall be considered as elected positions, even though the person filling the position may have been appointed to fill an unexpired term of another individual.
2. Designation

Colleges with two (2) student governments shall designate the governments as "day" or "evening." Colleges with one (1) government shall be considered day students, for the purposes of this document.
3. Eligibility for Office

All student governance constitutions shall prescribe that all persons elected or appointed as officers shall be enrolled in and maintain a minimum of six (6) credit hours for day student governments, three (3) credit hours for evening student governments. Officers shall have and maintain a minimum cumulative grade point average of 2.50 and be in good standing (not on probation) according to the written district policy. Convicted felons shall be ineligible for office (ARS § 13-904). The constitution may, however, set more rigid requirements, if so desired by college student governance.
4. Tenure of Position

Tenure in any student governance position shall be determined by the respective student governance constitutions. In no case shall any student be allowed to serve in any combination of officer/member positions beyond a total of ten (10) semesters. Tenure in any combination of officer positions shall be limited to four (4) semesters.
5. Removal from Office

Provisions shall be made in all student governance constitutions for removal for cause of individuals from elected or appointed student governance positions.
6. Remuneration Limitations
A. Student body officers may receive financial support and/or a letter grade in a leadership class during their terms of office as authorized in their respective student governance constitutions. Student body officers (maximum 5) may receive up to twenty (20) hours per week in financial support and/or up to six (6) credit hours in leadership classes per semester. Remuneration shall be for services rendered and not for merely holding the office.
B. For qualifying students, Federal Work Study (FWS) funds may be used in accordance with Federal guidelines.
C. The allowance for awarding honorariums or scholarships for executive student officers is a maximum of $\$ 200.00$.
D. Compensation may be received for both honorariums/scholarships and college employment in the same semester.
7. Amending Student Constitutions

College student constitutions should be reviewed annually by student governance. The appropriate vice president or designee of each college shall be responsible for submitting any constitutional changes to the President of the college for transmittal to the Governing Board General Counsel.
8. Student Governance Advisors

College organization advisors will be provided for in each student governance constitutions. Such advisors shall be full-time or part-time employees of the Maricopa Community Colleges.

Recommendations for appointment of an advisor may be submitted to the appropriate vice president or college president. Recommendations for dismissal of an advisor with just cause may be submitted to the appropriate vice president or college president.
9. Legal/Fiscal/Financial Matters

Authority and responsibility beyond the scope specifically covered in student policies, or interpretation of such matters within laws, board policies, etc. shall rest with the offices of General Counsel and Chancellor, respectively.
10. Final Authority

In the event of a complete breakdown of the governance body, the college president will serve as the final authority.

## MCCCD POLICIES AND PROCEDURES

## Student Clubs and Organizations

In addition to student governing bodies, student clubs and organizations may be formed that fall under the operational direction of the Office of Student Life and Leadership and the administrative direction of the Vice President of Student Affairs at each college. Student clubs and organizations are generally interest-based in nature (such as for a particular program, discipline, or college activity) and are considered to be an important part of the total college experience. Each college shall outline the requirements necessary to establish the formation of an interest-based student club and organization (i.e., mission/purpose, size, structure, advisors). Club advisors shall be employees of the Maricopa County Community College District.

In most instances, student clubs and organizations shall be open to all students who are enrolled in credit courses at a Maricopa Community College. Pursuant to ARS §15-1863, religious or political student organizations may determine that the organization's internal affairs, selecting the organization's leaders and members, defining the organization's doctrines, and resolving the organization's disputes are part of the organization's religious or political mission and that only persons committed to that mission should conduct such activities. For religious and political organizations, state statute recognizes the role that viewpoint serves in the mission and purpose of the organization's operations. Thus, such groups may elect to select members based upon organizational doctrine. The MCCCD may not deny recognition or any privilege or benefit to a religious or political student organization or group that exercises its rights pursuant to the statute.

Whereas ARS §15-1863 allows religious and political organizations to determine their internal affairs and the selection of their leaders and members, the MCCCD non-discrimination policy is applicable to all other aspects of these student clubs and organizations.

## Appendix S-13: The Maricopa Community Colleges Allied Health or Nursing Program Allied Health or Nursing Assumption of Risk/Release of Liability

Most of the allied health or nursing program pathways include a program of study in a clinical training environment that may contain exposures to risks inherent in patient-oriented educational experiences (such as but not limited to bodily injury or communicable and infectious diseases). Students enrolling in clinical educational courses will be asked to sign a statement assuming all risks inherent in their coursework.

## Use of Confidential Information

Students enrolled in allied health or nursing program pathways will have learning experiences in a health care setting where they will have access to confidential information. Prior to beginning any clinical studies, the students will be asked to sign an agreement to adhere to the requirements of those clinical sites and applicable law, including the Health Insurance Portability and Accountability Act of 1996 (HIPAA).

## MCCCD Required Background Checks

Students enrolled in an MCCCD allied health or nursing program are required to complete and pass clinical learning experiences, working with children, elderly persons, and other vulnerable populations. MCCCD's major clinical agency partners now mandate that any college students assigned to them for clinical experiences submit to a comprehensive background clearance prior to entering such learning experiences. Because the clinical experience portion of the programs is critical to completing a program of study, MCCCD has instituted two specific background check requirements in order for a student to enroll in a program. First, the student must obtain, at his or her own cost, a Level I Fingerprint Clearance Card from the Arizona Department of Public Safety. Precluding offenses for a Level I card can be found in Arizona Revised Statute § 41-1758.07 (http://www.azleg.gov/FormatDocument.asp?inDoc=/ ars/41/01758-07.htm\&Title=41\&DocType=ARS). Additionally, students must also obtain a "pass" status on a MCCCD supplemental background check from MCCCD's authorized background check contractor. The student must also pay for this background check. The supplemental check will be based on the most stringent standards of MCCCD's clinical experience partners.

The sole program for which the background check requirements are different is the Emergency Medical Technician program. For that program, students must have obtained a Level 1 Fingerprint Clearance Card from the Arizona Department of Public Safety. They are also required, at the time of their clinical assignments, to submit to, pay for and pass any additional background check requirements of the clinical agencies to which their EMT program places students.

Certain licensing boards may require a separate background check or clearance card upon application for licensure or certification.

The MCCCD supplemental background check review may include searches of the following databases and information
but MCCCD reserves the right to change the search criteria and the program background check requirements at any time without notice:

1. National Federal Health Care and Abuse Databases
2. Social Security Verification
3. Residency History
4. Arizona Statewide Criminal Records
5. Nationwide Criminal Databases
6. Nationwide Sexual Offender Registry
7. Homeland Security Search

Examples of background information that will result in a "fail" status on the supplemental background check include:

1. Social Security number does not belong to the applicant
2. Any inclusion on any registered sex offender database
3. Any inclusion on any of the Federal exclusion lists or Homeland Security watch lists
4. Any conviction of a felony no matter what age of the convictions
5. Any warrant any state
6. Any misdemeanor conviction for the following no matter how long ago:
A. Violent crimes
B. Sex crime of any kind including non consensual sexual crimes and sexual assault
C. Murder, attempted murder
D. Abduction
E. Assault
F. Robbery
G. Arson
H. Extortion
I. Burglary
J. Pandering
K. Any crime against minors, children, vulnerable adults including abuse, neglect, exploitation
L. Any abuse or neglect
M. Any fraud
N. Illegal drugs
O. Aggravated DUI
7. Any misdemeanor controlled substance conviction in last 7 years
8. Any other misdemeanor conviction within last 3 years

EXCEPTIONS: Any misdemeanor traffic (DUI is not considered traffic).
The information that MCCCD uses for the "pass/fail" background check is subject to change at any time without notice.
MCCCD recommends that students carry proof of the background clearance at all times during any clinical agency learning experience.

## Duty to Report Changes; Removal

Students have an obligation to immediately report to the director of their program any change in the information that they supplied on forms submitted to initiate background checks relating to the allied health or nursing program. That includes information provided to the Arizona Department of Public Safety and MCCCD's supplemental background check vendor, as well as that related to the background check required by a clinical agency. Failure to do so will result in removal from the program. Additionally, any change in background check status that would affect the student's clearance under either MCCCD's or a clinical agency's standards will result in removal from a program.

## Additional Clinical Agency Background Check

Some clinical agencies require that students assigned to their sites submit to a criminal background check covering other offenses, as well as to a drug screening. Students are required to pay for the additional agency clinical background check. A clinical agency that requires this additional background check may refuse to place a student due to information the clinical agency obtains in its background check even though that student possess a valid Level I Fingerprint Clearance Card and has obtained a "pass" status on the MCCCD supplemental background check.

Some conditions that have resulted in students being denied placement at clinical agencies include pending criminal charges, outstanding warrants, unfinished terms of a sentence (such as unpaid fines), pattern of repeated types of arrests/convictions, and failure to disclose all past arrests/convictions when asked to do so on any background check application.

## MCCCD POLICIES AND PROCEDURES

## Inability to Place

MCCCD has no obligation to make repeated attempts to place a student when the reason for MCCCD's inability to place the student is due to background check issues. Since clinical agency assignments are mandatory requirements for completion of a program, a student's inability to complete required clinical experience due to his or her background check issues will result in removal from the program.

## Changes to Admission or Background Check Requirements

MCCCD may change its program admission requirements or background check requirements without notice at any time.

## No Guarantee of Receipt of Licensure/Certificate

Many of the nursing and allied health programs prepare graduates for application for State or National certificates or licenses. In some professions, such licensure and certification is required prior to employment or practice in the profession. Graduation from a nursing and allied health program does not guarantee the receipt of a license or certificate to practice in the field of study.
AMENDED by Direct Chancellor Approval, June 1, 2017

### 4.18 Consensual Relationships

## 1. General

The existing Governing Board Policy on Hiring of Relatives prohibits employees from being involved in any employment or key decision that involves a relative. This would include work performance, job assignments, or pay related matters. In that such relationships can create a conflict with the interests of the Maricopa Community Colleges, and the increased potential for nepotism and favoritism, the same principles also apply in the case of consensual amorous, romantic and/or sexual relationships that occur between employees or between employees and students.

In the work and academic environment, such a relationship that might be appropriate in other circumstances is inappropriate if one of the individuals in the relationship has a professional responsibility toward, or is in a position of authority with respect to, the other, such as in the context of supervision, instruction, coaching, counseling or advisement. An element of power is present in such a context and it is incumbent upon those with authority not to abuse that power. In addition, consensual relationships may yield to third parties the appearance that unfair bias or favoritism towards the student or supervisee is taking place.
A. Definitions
i. Consensual relationships are defined as romantic, amorous and/or sexual relationships between consenting employees or between employees and adult (18 years or older) college students currently enrolled at one of the community colleges.
ii. An employee is any individual who is employed by the Maricopa County Community College District (MCCCD). An employee includes an individual who is subject to an established employee job group policy manual, whether regular, full-time board approved, at-will, part-time, and/or temporary. An employee also includes a contract worker (special services employment, request for personnel services) working or serving as an agent or designee on behalf of the MCCCD.
iii. A student is considered to be any person currently enrolled in a credit or non-credit class at one of the colleges or centers within the Maricopa County Community College District.
iv. A vendor is someone who sells or can sell products or services to the Maricopa County Community College District.
v. A recent consensual relationship is considered to be one that has taken place within the past 24 months.
B. Prohibited Conduct
i. An employee shall not maintain, engage in or be involved in a consensual relationship with another employee who is subject to that individual's supervision or with a student that is currently enrolled in the individual's class, or a student whom the individual otherwise instructs, coaches, counsels or advises, or with a vendor if the employee manages that contract or otherwise exerts influence over the contract.
ii. The Governing Board recognizes that the personal life of its employees is not a concern of the institution, and therefore, this regulation does not seek to prohibit romantic relationships that exist between parties where the context of power-authority between employees or between employees and students is not present; and provided that the relationship does not affect the employee's effectiveness in fulfilling his or her professional obligation. For these instances, appropriate measures should still be taken in order to avoid conflicts of interest from occurring. For relationships that may exist prior to the time that either a student or employee is placed in a situation of instruction or supervision that is considered to be a conflict of interest, the employee(s) involved shall disclose and take immediate measures to avoid the conflict or
appearance of conflict.

## 2. Procedures for Disclosure

Employees should first avoid allowing an inappropriate consensual, amorous or sexual relationship to develop with a supervisee or student.
A. Where the employee is already in or has had a recent consensual relationship with a supervisee, the following procedures shall be followed:
i. Immediate disclosure by the employee of the relationship to their supervisor and to the appropriate Vice President or Vice Chancellor in order to ensure that any conflicts of interest have been adequately addressed.
ii. The respective administrator responsible for the department or division shall place the subordinate under alternate supervision when a supervisor under his/her direction has or has had a recent consensual relationship with the employee.
iii. The supervisor shall recuse himself or herself from any discussions or involvement with decisions related to evaluations, promotion, hiring, determination of salary, or continuation of contract or employment.
iv. The respective Vice President or Vice Chancellor shall prepare and retain a report that specifies the appropriate alternate arrangements that have been made to eliminate the conflict of interest. The EEO/AA Office shall be provided a copy of the report along with the employees involved in the relationship.
B. Where the employee is already in or has had a recent consensual relationship with a student prior to enrollment in his or her class, the following procedures shall be followed:
i. The faculty member shall counsel and advise the student not to enroll in his or her course.
ii. The Consensual Relationships Policy will be made available to students via the student handbook and other appropriate communications vehicles.
iii. If it is not possible for a student to enroll in another course, section, or course and section at another college due to a requirement for completion of a degree or certificate and no other academic option is available, disclosure of the relationship will be made to the appropriate Department Chair, Dean and Vice President of Academic Affairs or Vice President for Student Affairs as appropriate for review. The Vice President will refer the matter to the Vice Chancellor for Academic and Student Affairs for consideration. The Chancellor or his/her designee may allow a student to enroll in the class only upon a showing by the student that the enrollment is necessary to avoid an extreme hardship, and upon a showing by the college President or designee that the academic integrity of the student's enrollment in the class will nevertheless be maintained.
3. Persons who are married, or were married, are included within the definition of persons that have or who have had a consensual amorous relationship. Disclosure in this instance may be made via the Maricopa Disclosure process at https://administration.maricopa.edu/acknowledgement-and-disclosure.
4. An employee who fails to follow the requirements established in this policy and who does not withdraw from participation in activities or decisions that may reward or penalize a supervisee or student with whom the employee has or has had a recent consensual amorous relationship, will be considered in violation of policy and will be addressed in accordance with established processes in job group policy manuals.

## NEW LANGUAGE ADOPTED BY DIRECT CHANCELLOR APPROVAL

### 2.8.3 Technology Accessibility

The Maricopa Community College District is committed to ensuring equal access to information, programs, services and activities through its technologies, Web pages, and resources both in the academic and work environments. This regulation establishes that Electronic and Information Technology (EIT) that are used to conduct the business of the Maricopa Community Colleges shall adhere to established accessibility standards and guidelines.

ADOPTED by Direct Chancellor Approval, April 1, 2015

## FACULTY AND ADMINISTRATION

## Governing Board Members

Mr.Laurin Hendrix<br>Dr. Linda Thor<br>Ms. Alfredo Gutierrez<br>Mr. Johanna Haver<br>Ms. Tracy Livingston<br>Ms. Jean Mcgrath<br>Mr. Dana G. Saar<br>\section*{Mesa Community College Administrators}

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Holmes, Rodney P., B.A., M.C., Ed.D. Interim Vice President of Academic Affairs

Pearson, Sonya D., B.A., M.S., Ph.D. Vice President of Student Affairs

Darbut, Jeffrey N., B.A., M.B.A. Vice President of Administrative Services

Giddings, Andrew G., A.T.P., B.S., M.Ed. Interim Vice President of Information Technology

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Reyes, Nora Amavisca, B.A., M.Ed., Ed.D.
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Lerman, Amy, BA., M.A., Ph.D.
English
Lerner, Shereen A., B.A., M.A., Ph.D.

Leta, Marjorie E., B.A., M.L.I.S.
Levine, Charles W., A.A., B.A., M.A., Ed.D. History
Levine, Theresa D., A.A., B.A., M.Ed., Ed.D.
Mathematics
Lewis, Charles E., B.S., M.B.A
Accounting
Lewis, Denise, A.D.N., B.S.N., M.S.N.
Leyendecker, Gingher Leah, B.F.A., M.F.A, Ph.D. Art Chairperson, Art Department

Liang, Lori C., B.S., M.Ed.
Fashion Merchandising And Design

Lipinski, Edmund R., A.A., B.A., M.A., Ph.D.
Psychology
Chairperson, Psychological Science Department
Lloyd, Lillis M., B.A., M.A., Ed.S., Ph.D.
Lovelady, Hugh H., B.M., M.M.
Lucius, Sue Anne, B.M., M.M.
Lurenz, Steven L., B.A., M.A.
Luter, Zoë C., B.S., M.A.
Luther, Todd, B.S., M.Ed., M.S.
Lyscas, Margie L., B.S., M.S.
Makelele, Ben-And B., B.A., M.A., Ph.D.
Marino, Alice B., B.A., M.Ed.
Martell, Maria Y., B.A., M.A., Ph.D.
Martinez, Joseph
Martinez, Sam B., B.A., M.A., Ph.D.
Mason, Anne C., B.S., M.S.

Counselor
Music
Music
History
Librarian
Geology
Mathematics
English
Sign Language
Spanish
Manufacturing
English
Biology

Mazzucco, Michelle, B.Ed., M.Ed.
Mathematics
Mazzucco, Palmerino, B.S.E.E., M.S.E., M.A.Ed. Electronics

Mcguire, Megan C., A.A., B.A., M.I.L.S. Librarian
McIntosh, Dwayne E., B.A., M.Ed., M.Ed., M.Ed.
Counselor
Mclaughlin, Sharon A., B.S., M.S. P.E. Recreation
McMahon T., Annah, B.S., M.Ed. Reading
McWhirter, Anna, B.A.E., M.Ed. Reading
Messer, Jeffrey I., B.A., M.B.A., M.S., Ph.D.
Physical Education
Chairperson, Exercise Science Department
Minger, Timothy L., B.S., B.A., Ph.D.
Chemistry
Misterek, LeeAnna M., B.A.Ed., M.N.S. Mathematics
Mohler, Kathryn J., B.A., M.F.A. English
Montemayor, Jose J., A.A., B.A., M.Ed., Ph.D.
Counselor
Morales-Jones, Sonia M., A.A.S., B.S., M.Ed. Fire Science

Morgan, Janet V., B.A., M.A.Ed.
Mathematics
Morriss, Charles T., B.A., M.A.
English
Muehlenbeck, Kerry L. , B.S., Li.M., J.D.
Administration of Justice
Nachman, David F., A.S., B.A., Ph.D. Chemistry
Chairperson, Physical Science Department
Nango, Patrice D., B.A., M.A.
Philosophy
Chairperson, Philosophy and Religious Studies Department

Nedelkova, Valentina, B.S., M.S. Chemistry
Neeley, Mark F., B.S., M.A. Mathematics
Neglia, Joseph D., B.S.E.E., M.B.A. Electronics
Newcomer, Kelly H., A.A.S., B.S.N., M.S.N.
Nursing
Newton, Sean P., B.A.
Fire Science
Nielsen, Brenda L., A.A., B.S., M.Ed. Computer Information Systems

## FACULTY AND ADMINISTRATION

Nolan, Craig, B.S., M.A.
Norris, Kimberly R., B.S., M.Ed.
Nunez, Paul A., B.S., M.S.
Oakes, Duane, A.A., B.A., M.A. Educational Support Obermiller, Lewis E., B.S., M.S., Ph.D.

Biology
Olson, Susan K., B.A., M.A., Ph.D. Communication Chairperson, Communication and Theater Department

Osgood, Christine M., B.S., M.Ed., Ph.D. Child Family Studies

Osteen, Andrea M., B.A., M.A.
English
Ouderkirk, Bert, B.S. Administration Of Justice Chairperson, Administration of Justice

Owens, Layne M., B.A., M.A. Communication
Parris, William E., A.A., M.S.N.
Partin, Bethann, B.S., B.M., M.A.Ed.,
Nursing
Computer
Information Systems
Pedersen, Lindsey S., B.A., M.A., Ph.D.
Perdue, Alexandra, B.A., M.F.A.
Art History

Perkins, Vanessa, B.S., M.S.W., Ph.D.
Peters, Linda M., A.A.S.N., B.S.N., M.S.N.
Clinical Nursing

Peterson, Bruce A., B.A., M.A., M.A. Communication

Peterson, Craig C., B.M., M.M., D.M.A Music Chairperson, Music Department

Peterson, Jacqueline, B.S., M.N.S.
Mathematics
Pierson, Janice S., B.S., M.S.D.
Pike, Scott W., B.S., M.Ed.
Plowes, Nicola J.R., B.S., Ph.D.
Preisser, Gayla M., B.S., M.A., Ph.D.
Priewe, Melina M., B.A.Ed., M.A.Ed., Ph.D.
Mathematics
Pullenza, Patricia J., B.A., M.A.
Quintrall, Denise, A.A., B.S., M.Ed.
Exercise Science
Mathematics
Mathematics

Rawson, Erin K., B.A., M.A.

Raymond, Jill M., B.S., Ph.D. Biology
Richardson, Danene K., A.A., B.A., M.M. Music
Richardson-Delgado, Jodi M., B.M., M.Ed., Ph.D. Psychology

Robb, Cherise J. Mahaffey, B.A., M.S.D., Interior Design

Roberts, Patricia T., B.A., M.B.A. Computer Information Systems

Rodriguez, Amelia, B.A., M.S. Reading Chairperson, Reading Department

Rogers, Diane M., B.S., M.E.P.D. Reading
Rossiter, Daphne A., B.A., M.A. Mathematics Chairperson, Mathematics And Computer Science

Rozsa, Katalin, M.S., M.N.S. Mathematics
Rushing, Derek N., B.S., M.A. Business
Rutland, Yvonne E., A.A., B.A., M.A. English
Saffell, Erinanne M., B.S., M.A., Ph.D. Geography
Samson, Robert D., A.A., B.S. Computer Information Systems

Sands, Teryl D., B.F.A., M.A.T.E.S.L., Ph.D.
English
Schineller, Fred, B.S., M.S.
Mathematics
Mathematics
Chemistry
Sociology
Music
Mathematics
Mathematics
Religion

## FACULTY AND ADMINISTRATION

Silberschlag, Hans W., A.A., B.S., M.A., D.Ed. Fire Science

Simms, Robert D., B.S., M.S.
Simpson, Elizabeth A., B.A., M.Ed.
Skroch, Stephen D.
Smith, Courtney E., B.A., M.A., M.A.Ed.
Smith, Trevor T., B.S., M.A.
Somers, Mark D., B.A., M.S., Ph.D.
Soza, Robert A., B.S., M.A., Ph.D.
Sparks, Deborah L., A.S., B.S., M.Ed.

Spasovski, Lupco D., B.A., M.A., Ph.D.
Spence, Ann-Marie D., B.A., M.A.
Speranza, Linda M., B.F.A., M.F.A.,
St. Amand, Litsa P., B.S., M.A.T.
St. Peter, Carolyn J., B.A., M.A., Ph.D.
Stich, Ashley N., B.A., M.A.T.
Strickland, Jennifer S., A.A., B.A., M.Ed., Ph.D.
Educational Support
Sullivan, Christopher J., A.S., B.S., Ph.D. Biology
Surber, Angeline M., A.A.S., B.S., M.A., D.B.A. Computer Information Systems/Business Personal Computers

Tabar-Gaul, Lo-An N., A.A.S., B.A.M, Ph.D. Business Personal Computers

Thomson, Kara E., A.A., B.F.A., M.F.A. Theater

Todd, Christopher G., B.F.A., M.F.A.

Toler, Jr., Richard L., B.S., M.B.A.
Tolzman, Ann T., B.A., M.L.I.S.
Chairperson, Library Department
Townsley, Jennifer M., B.A., M.A., Ed.D. Communication

Tran-Nguyen, Ly T.L., B.S., M.A., Ph.D.
Computer Graphics General Business Librarian Psychology

Ursic, Elizabeth M., B.S., M.A., M.B.A., M.Div., Ph.D.
Van Tassell, Heidi A., B.A., B.S., M.S. Physics
Vassett, Christine L., B.A., B.S., M.A., Ph.D. English

Vaughan, Barry F., B.A., M.A., Ph.D. Philosophy
Venema, Jeremy T., B.A., M.A., Ph.D. English Composition

Verch, Todd A., B.S.D., M.S.D. Drafting
Waclawski, Phillip P., B.S., M.S. Computer Information Systems

Wakefield, Kelli M., B.S., M.S. Geology
Webb, Eddie D., B.A., M.F.A. English
Weiss, Belinda Mae, A.A.S., B.S., M.S.N. Nursing
Whitcomb, Sean A., B.A., M.S. Biology
Willman, Justine Jeri, B.N.Sc., M.Ed., M.S.N.,
Nursing
Wilson, Dennis , B.S., Ph.D. Biology
Wintz, Michael D., B.A., M.Div. Religious Studies
Wood, Dalaine J. (2011) B.A., M.S. Biology
Wood, Jennifer L., B.S., M.Ed.
Wood, Shawn E., B.S., M.Ed.

Mathematics Mathematics

## FACULTY AND ADMINISTRATION

Yandell, Ruth B., B.A., B.M., M.M.
Music
Yoshimura, Mark T., A.A., B.A., M.A.
Administration of Justice

| Young, Marjorie A., A.S., B.A., M.A. Reading |  |
| :--- | ---: |
| Yount, David J., B.A., M.A., Ph.D. | Philosophy |
| Zerangue, Karl B., B.A., M.S., Ph.D. | Computer |
|  | Science |

Zienkewicz, Lori Hamilton, B.S., M.S., Ed.D.

Zikopoulos, John N., B.S., Ph.D.
Zimmerman, Maureen, B.S., M.P.H., Ed.D.

Nutrition
Chemistry
Home Economics

## Mesa Community College <br> Emeritus Faculty and Administrators

Achs, Carol
Math
Chairperson, Math
Alf, Stanley Nels (1966-1992)
Allison, Margaret L. (1963-1988)
Al-Saleh, Mary (2004-2013)
Arnold, Ronald P. (1982-2001)
Avila, Alex L. (1990-2013)
Social Science
Benedict, Allen R. (1972-2003)
Bennett, Silvia L. (1983-2007)
Bennett, Thomas G. (1971-1992)
Technology
English
Nursing
Technology

Exercise Science
English
English, Physical
Education, Athletic Director
Bowman, Margaret (1973-1994)
Nursing
Brown, Donald R. (1971-1992)

Bruns, Ramon O.* (1965-1989)
Burke, Doyle (1969-2002)
Chairperson, English, Humanities, Journalism

Bydalek, David (1990-2000)
Calbeck, Kenneth B.* (1969-1989)
Campbell, Marilyn* (1972-1994)
Chairperson, Nursing

Campbell, Overton C. (1965-1987) Technology
Carreon, Jesus V. (1976-2011) Mathematics
Chairperson, Mathematics/Computer Science
Carrillo, Phillip *(1986-2008) Reading
Casey, Bernard L. (1966-1994) Social Science
Castro, Donald F. (1983-2010) English
Cataldo, Margie* (2004-2016) English
Chamberlain, Joanna D. (1985-2009) Cultural
Science
Chavez, Antonio E.* (1972-2001) Counselor
Choice, Donald (1971-1997) English
Christensen, Lot B. (1963-1986) Physical Education
Claridge, James D. (1967-1996) Agriculture
Clement, Richard P. (1970-2001) German
Cohen, Roy (1988-2007)
Psychology
Conway, Douglas (1990-2010)
Social Science
Cronquist, Linda M. (1983-2003) Business

Della Penta, Catherine R. (1988-2009) English
Deneui, Sandy (1971-1996) Physical Education
Dinchak, Ronald K. (1975-2014) Life Science
Drachler, Carole (1983-2009)
Art
Duce, Durrell R. (1975-2005) Physical Science
Durrant, Martin H. (1983-1998) Spanish
Chairperson, Foreign Language
Dutson, Lyn (1969-2009) Communication/ Theater Arts
Eagar, Jorge (1998-2004) Spanish
Eberle, Donella (1976-2007) English
Chairperson, English, Humanities, Journalism

Effland, Richard (1989-2015)
Elias, Sanford (1990-2005)
Ellsworth, Barbara Grace (1966-2012)

Eshelman, Myrna (1980-2006)
Chairperson, Nursing
Esquer, Elias, Y. (1969-1994)
Chairperson, Foreign Language
Etter, Ronald A. (1996-2005)

Evans, Charles K. (1964-1992)

## Chairperson, Speech Communication /Theater Arts/

Telecommunication
Falk, Edwin (1967-1987)
Fanning, Ron (1973-2000)
Fay, Carolyn (1992-2012)
Fazio, Gene S. (1981-2007)
Felnagle, Richard (1990-2015)
Ferguson, Jerrell J. (1967-1994)
Chairperson, Psychology
Ferreira, Mary Grace (1976-1996)
Fridell, Margaret (1984-2009)
Frye, James (1969-1994)
Galliart, Allen G. (1972-2001)
Garcia, Robert J. (1979-2002)
Garrison, James S. (1971-2004)
Gahn, Deana C. (1994-2015)
Gilpin, Barbara R.D. (1971-1991)
Gordon, Deborah (1967-1999)
Grant, Raymond W. (1975-2000)
Chairperson, Physical Science
Grow, Arunee C. (1984-2011)
Haggard, Bill (1967-1993)
Halterman, Jayne (1982-2004)

English
English
Communication
English
English
Psychology

Physical Science
Nursing
Physical Education
Physical Science
English
Art
Nursing
Home Economics
Physical Education
Geology
Social Science
Business
Business

Hammil, Rodney* (1981-2015) Welding
Hannon, John J. (1975-1997) Cultural Science
Hardin, Karen (1990-2015) Counselor
Chairperson, Counseling
Harlow, Roger (1991-2005) Technology
Harris, Roger W. (1967-1994) Music
Chairperson, Music
Hartshorn, Robert (1968-1989)
Hendricks, James* (1965-1990)
Chairperson, Music
Hernandez-Rodarte, Rebecca (1978-2001) Counselor
Herrick, Ron (1975-2003)
Business
Hertzler, Betsy (1984-2013)
Hewett, Michael T. (1988-2013)
Chairperson, Reading
Hill, Ronald D. (1971-2001)
Life Science
Hinze, Jack (1982-2003)
Technology
Hodges, Walter G.* (1966-1989)
English
Chairperson, English, Humanities, Journalism and
Philosophy
Holt, William A.* (1967-1996) Dean of Instruction
Horn, Charles J. (1971-1997) Physical Science
Hostetler, Donald K. (1968-1991)
Mathematics
Huffaker, Jerry (1968-1992)
Ikeda, Susan (1976-2000)
Ingram, Nels W. (1966-1991)
Jackson, Joan E.* (1970-1992)
Johnson, Margaret A. (1984-2004)
Johnson, Zeno M. (1967-1989)
Joransen, Janet E. (2003-2015)
Kalia, Rajinder K. (1967-2008)
Keyworth, Claire W. (1973-1998)
Chairperson, Nursing

## FACULTY AND ADMINISTRATION

Keyworth, Fred J. (1964-1989)
Chairperson, Social Science
Kikkert, Stanley
Kilpatrick, Barbara L. (1969-1996)
Kirk, Jinnett B. (1965-1979)
Kirkpatrick, Richard (1968-1992)
Knoll, Lester J. (1966-1992)
Kroelinger, Sally C. (1981-2013)
Kyle, Marjorie (1982-2007)
Labell, Gerald M. (1981-2008)
Larson, Linda S. (1975-2007

Political Science

Biology
Business
Dean Of Students
English
Counselor
Interior Design
English
Technology
Speech Communication/Theatre Arts

Leyva, Raquel A. (1984-2004)
Chairperson, Reading
Luhtala, Shirley (1965-1992)
Lyon, Gary F. (1967-1996)
Chairperson, Agriculture/Technology
Mahoney, Ann M.* (1979-2004)
Chairperson, Philosophy/Religious Studies
Mahoney, Kurt (1969-1994)
Mainieri, John V. (1982-2007)
Malena, Richard F. (1999-2009)
Chairperson, Education
Mancuso, James B. (1974-2008)
Chairperson, Speech Communication /Theater Arts
Marquez, Juan J. (1999-2014)
Business \&
Information Systems
Martin, Martha C. (1975-1979) (1984-2000) Design, Family and Consumer Sciences

Martin, Maunelle W. (1969-1999)
Mast, Nancy (1975-1996)
Chairperson, Home Economics
May, Kathie S. (1987-2008)
McAleavey, Susan (1994-2011)

Cultural Science Home Economics

Communication
Sociology/Social Work

Mcdonald, Kaye (1966-1992)

McEowen, Bill (1968-1992)
Chairperson, Life Science
McMullin, Gene A. (1966-1992)
Chairperson, Social Science
Melton, Marcia (1975-2004)
Merrell, Neil G. (1978-1996)
Merritt, Sheila (1993-2014)
Messali, Andree J. (1964-1987)
Meyer, Eva (1967-1990)
Meyer, Rick (1987-2007)
Miller, Marlan J. (1963-1983)
Miller, Rex (1980-1996)
Milner, Jeannette Lynn (1979-2000)
Minckley, Saundra K. (1976-2012)
Chairperson, Life Science
Minitti, Robert* (1972-1998)
Morris, Carl L. (1969-1992)
Morris, Carlene K. (1971-1996)
Morrison, Walter R. (1968-1989)
Neal, David N. (1966-1989)
Nielsen, Leroy (1969-1985)
Ohl, John (1976-2007)
Okezie, Richard C. (1988-2007)
Olson, Selmer (1972-2007)
Olsson, Fred J. (1965-1987)
Ormiston, Aileen (1989-2014)

Owens, Joan M.* (1969-1992)
Parrish, Gene L. (1971-2012)
Chairperson, Counseling
Patterson, Fred (1967-1996) Reading

## FACULTY AND ADMINISTRATION

Pearson, Joseph A. (1997-2007)
Perline, Irvin H. (1971-1996)o
Peterson, Jack H. (1969-2014) Chairperson, Cultural Science

Phillips, Hugh J. (1963-1983)
Poulson, Donald G. (1967-1992)
Price, Joan (1969-1991)
Reid, Robert F. (1963-1983)
Reilly, Janice (1990-2013)
Rice, Lorraine (1968-1992)
Riggs, John D. (1963-1974)
Roeckelein, Jon E. (1968-1997)
Russell, Scott (2003-2015)
Ruth, Scott* (1968-1992)
Schlosser, Paulette* (1972-2001)
Scoresby, James, E.* (1966-1992)
Seacat, Dale N. (1964-1989)
Setlow, Mark C.* (1969-1996)
Chairperson, Speech Communication/ Theater Arts Telecommunication

Sheffield, Kathryn (2001-2014)
Sims, John Michael (1989-2015)
Chairperson, Physical Science
Skousen, Donald L. (1969-1991)
Sledge, Margaret J. (1971-1992)
Smith, Robert W. (1965-1993)
Snider, Ed H.* (1981-2006)
Stites, Ken* (1987-2000)
Story, Naomi O. (1999-2013)
Swaim, Darlene L. (1979-2006)
Swan, Leslie C. (1967-1989)
Talamante, Jerry (1979-1996)

Dean of Instruction
Psychology
Sociology

Life Science
Mathematics
Philosophy
Mathematics
Counselor
Music
Executive Dean
Psychology
Anthropology
Physical Science
English
Psychology
Business
Speech

English/ESL
Engineering

Social Science
Nursing
Philosophy
Business
Exercise Science
Educational Support Art Business Mathematics

Taussig, Judith F.* (1982-2007) Dean of Student Affairs Cultural Science

Librarian Mathematics Social Science

Art
Dean of Administrative Services

Physical Education
Van Winkle, Edwin G. (1967-1987)
Chairperson, Physical Education
Vesely, Harry (1989-2000) Technology
Vinson, George (1969-1992) Cultural Science
Voss, Bill* (1964-1986)
Widmer, Paul (1967-2000)
Exercise Science
Nursing
Music
Wozniak, Matthew J. (1984-1996) Physics
Yates, Ronald D. (1964-1991) English
Chairperson, English/Humanities/Journalism/Philosophy
Young, William* (1966-1991)
Zacher, Olene C. (1969-1979) Mathematics


## 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 Online 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
480-654-7200

## DOWNTOWN CENTER

The Downtown Center is home to Fire Science/EMT program, Virtual Incident Command Center (VICC), and MCC/NAU Connection.

## Primary Location

145 North Centennial Way
Mesa, AZ 85201

## Phone:

Main: 480-461-6300
Public Safety: 480-461-6116

## MCC Online

The MCC Online represents the college's dedication to serving students through distance learning programs and online learning.

## Location

mesacc.edu/online
1833 W. Southern Avenue
Mesa, AZ 85202
480-461-7217



## Enrollment Information

Southern and Dobson Campus 480-461-7600
Enrollment Center - Bldg 39

Red Mountain Campus
480-654-7600
Enrollment Services Mesquite Bldg

## MCC Locations



Southern and Dobson Campus 1833 W. Southern Ave.
Mesa, AZ 85202
480-461-7000


Red Mountain Campus
7110 E. McKellips Rd.
Mesa, AZ 85207
480-654-7200

Online mesacc.edu/enroll

Downtown Center Fire Science/EMT 145 N. Centennial Way Mesa, AZ 85201
480-461-6300


[^0]:    + CIS233DC Internet Web Development: Dreamweaver 3
    + CIS291 Business Video Projects 3
    + CIS220DK Advanced Digital Video Production: Premiere 3

[^1]:    +MUP202AD Private Instruction: Piano 2
    +MUP241 Piano Artistry 2
    +MUP252AD Private Instruction: Piano 2

[^2]:    ACC282AA Volunteerism Accounting: Service Learning Experience
    1 Credits 1 Periods
    Service learning field experience within private/public agencies, educational institution, and citizen volunteer groups. ACC282AA may be repeated for a total of six (6) ACC282 credit hours. Standard grading available according to procedures in college catalog. Prerequisites: ACC111 or (ACC230 and ACC250) and permission of Instructor.

