



## **Welcome to Estrella Mountain**

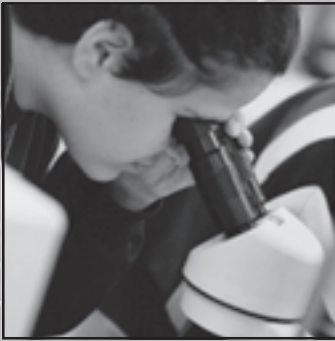
*As our service strategy states: 'Your Success is our Success!'*

*At Estrella Mountain, we are committed to teaching and learning and everything we do is designed to meet the needs of you, our students*

*Whatever you come here to achieve, the most important measure of our success is to guide you towards completion of your desired goal.*

*Best Wishes on your educational journey.*

*- Ernie Lara, Ph.D.  
Estrella Mountain President*



## ESTRELLA MOUNTAIN COMMUNITY COLLEGE HELPS YOU FIND YOUR OWN WAY TO SUCCESS

If you are just returning to school after a long absence or would just feel better if you had a little extra support – start this catalog with the Services and Resources section - page 11. You'll get a clear picture of how many people and programs are available to help you define and achieve your goals.

If you know you're headed for a four year degree – take a look at the Transfer Program offerings beginning on page 24. Then visit the Services and Resources section to access the student services specialist you'll need to help you design a successful program of study.

If you need to improve your English, math or reading skills...check out all the offerings on pages 177, 211, 228 and 244. These classes build a firm foundation of skills whether you choose to continue in college or enter the job market.

If you or your company are interested in Customer Quality Management or customer service, or you know that more advanced computing or networking technology skills could give you that quality edge in your work environment...see the Training and Career Programs section on page 93, the computing offerings on page 194 and the Networking Technology offerings on page 191.

If you've recently retired and finally have the leisure time to pursue some lifelong interests - take a look at the computing offerings on page 194 or learn a new language, pages 246 or "get going" on keeping in shape, page 236.

If you're about to graduate from high school and are unsure of what lies ahead...see page 12. Getting more education can make the difference in your earning power for the rest of your life!

Bienvenidos a su colegio de la comunidad de Estrella Mountain. Estrella Mountain Community College es una institucion educativa que le ofrece varios y distintos programas de instruccion al nivel colegial. Para obtener asistencia en español, llame (623) 935-8002.



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## MARICOPA COMMUNITY COLLEGES

### MISSION

The Maricopa Community Colleges provide access to higher education for diverse students and communities.

We focus on learning through:

- University Transfer Education
- General Education
- Developmental Education
- Workforce Development
- Student Development Services
- Continuing Education
- Community Education
- Civic Responsibility
- Global Engagement

### STRATEGIC GOALS

In order to carry out our Mission and achieve our Vision, the following are the Goals of the Maricopa Community Colleges Governing Board.

- I. Enhance the creation of a student-centered learning environment which:
  - fosters personal development
  - provides essential skills and relevant knowledge students need to achieve success
  - serves as an innovative model for cultural diversity in a changing global environment
  - ensures access to technology
- II. Collaborate with our many communities to understand and satisfy their needs and expectations to provide quality educational services within available resources. Particular emphasis must be given to the growing at-risk and senior communities.
- III. Proactively identify and resolve issues associated with the roles, responsibilities and authorities of federal, state and local governmental entities, as well as accrediting agencies.
- IV. Increase our financial stability by seeking and obtaining new sources of revenue in order to remain a competitive provider of quality educational services.
- V. Promote a work environment which fosters cooperation and collaboration among our faculty and staff and enables them to better serve our communities.



Chandler-Gilbert Community College  
2626 E Pecos Rd  
Chandler, AZ 85225

Estrella Mountain Community College  
3000 North Dysart Road  
Avondale, Arizona 85392-1010

GateWay Community College  
108 N 40th St  
Phoenix, Az 85034

Glendale Community College  
6000 W Olive Ave  
Glendale, AZ 85302

Mesa Community College  
1833 W Southern Ave  
Mesa, AZ 85202

Paradise Valley Community College  
18401 N 32nd St  
Phoenix, Az 85032

Phoenix College  
1202 W Thomas Rd  
Phoenix, AZ 85013

Rio Salado College  
2323 W. 14th Street  
Tempe, AZ 85281

Scottsdale Community College  
9000 E Chaparral  
Scottsdale, AZ 85250

South Mountain Community College  
7050 South 24th St  
Phoenix, AZ 85040

### 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.

As the 10th and newest member of the Maricopa Community College District, Estrella Mountain is grounded in a tradition of educational excellence. Estrella Mountain accesses a wealth of experience and resources through its association with the larger District which currently is the largest community college district in the nation. Contributing to the District mission, Estrella Mountain Community College is committed to upholding the District's quality tradition while continually developing new and relevant paths of success for all in the Estrella Mountain family.

## ESTRELLA MOUNTAIN COMMUNITY COLLEGE

### MISSION

Estrella Mountain Community College provides opportunities for our students to achieve success in educational and personal goals.

We are an institution of higher education serving the West Valley communities through:

- General Education
- Transfer Education
- Developmental Education
- Workforce Development
- Student Support Services
- Community Education

### MISSION GOALS

#### General Education

Provide the knowledge and abilities that enable students to achieve academic and personal goals.

#### Transfer Education

Provide quality transfer courses and programs that enable students to achieve success at four-year institutions.

#### Developmental Education

Provide quality developmental courses and programs that prepare students for educational and personal success.

#### Workforce Development

Provide specialized quality training, courses and services that meet the needs of businesses and individuals.

#### Student Support Services

Provide quality services and resources that meet the needs of students and support learning.

#### Community Education

Provide a wide variety of opportunities that meet the needs of life-long learners.

## CORE VALUES

Our Core Values represent important elements of life at Estrella Mountain. They serve as enduring guides for all employees in meeting the needs of many communities.

### **Collaboration and Teamwork**

Work together toward common goals  
Promote an ongoing exchange of ideas

### **Diversity**

Recognize that perspectives are shaped by backgrounds and experiences  
Promote positive attitudes toward each other

### **Integrity**

Commit to the highest principles of academic and professional standards

### **Creative and Continuous Learning**

Commit to the success of students and employees  
Encourage innovation  
Promote a caring and supportive environment

### **Respect and Fairness**

Treat each other with respect  
Act fairly and honestly with all

## VISION

We will meet your needs and expand your aspirations through creative learning experiences.

Our environment emphasizes caring, teamwork, and flexibility.

In partnership with us, you will gain knowledge, abilities, and values essential to success in a highly complex and technological world.



We are committed to building better communities... one life at a time.



I am Estrella Mountain.



outside Estrella Hall



Spring Fling pie eating 😊

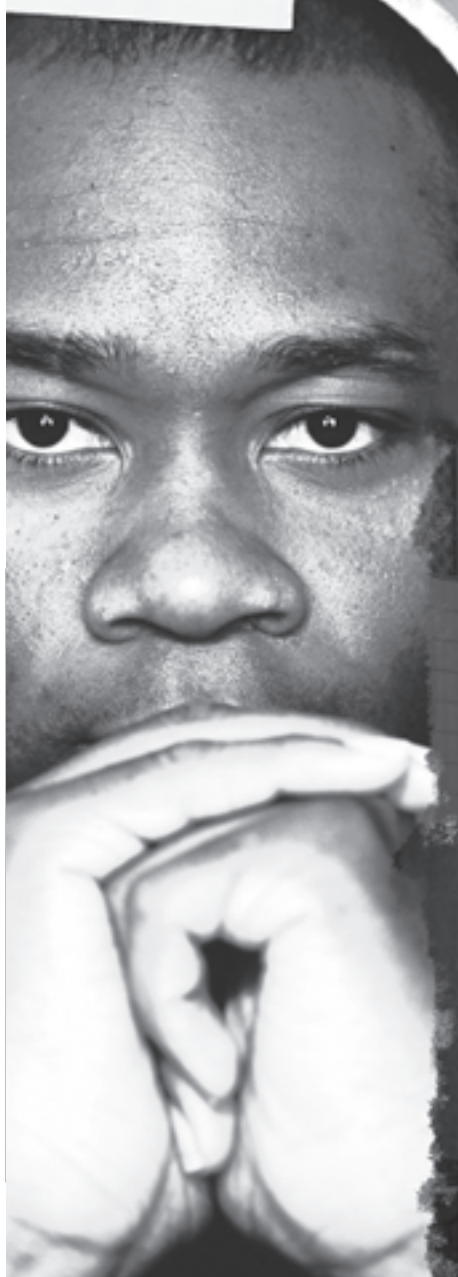


I'm thinking about 'getting involved' check out new list of clubs at: [estrellamountain.edu/hub](http://estrellamountain.edu/hub)

VEM



I am Estrella Mountain.  
As I grow, my college grows.



Estrella Mountain Community College opened in Avondale in 1992. I've never seen another campus like it. Young, new, no peeling linoleum, nothing that looks like my parents would have gone here—this is my school.

The college has so much to offer – a great education, affordability, a location close to home, exceptional professors who actually care, and a variety of services to make me successful. I would be crazy to pass this up.

*I want an experience.*

At Estrella Mountain I can sit in the grass and tap into wireless internet, enjoy classes taught by dynamic professors in the cutting edge learning studios, or just hang out with my friends. College is an experience and Estrella Mountain gives me the options I want.

*I don't want to start life with a ton of debt.*

Right now, I am saving loads of money since tuition here is a fraction of the cost of a public institution, not to mention those private schools.

*I want to be ready for anything at the university.*

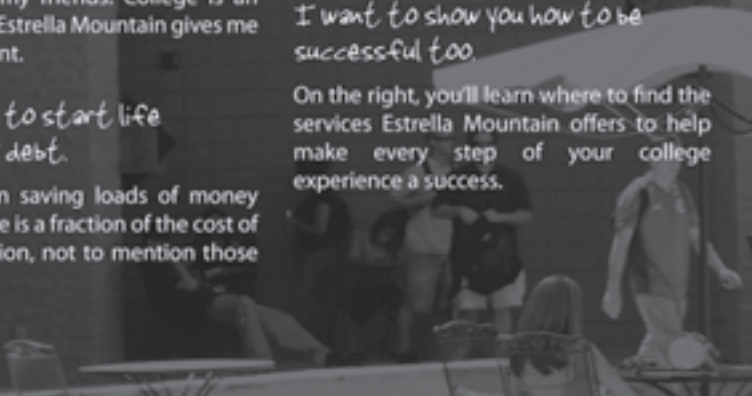
Classes taught by nationally recognized professors are helping to prepare me for the university. Liberal arts classes motivate me to look at the world in a totally different way. The advisors help me choose the right classes so that when the time is right, I will be able to transfer to the university of my choice.

*I don't want to sit in a huge lecture hall and be forgotten.*

Small classes at Estrella Mountain mean my professors know more than my name – they know me.

*I want to show you how to be successful too.*

On the right, you'll learn where to find the services Estrella Mountain offers to help make every step of your college experience a success.







## Finding the Things I Need to Succeed

### Kowatke Hall

**Register for Classes** since you must learn before you can earn your degree(s).

**Advising** lets you know about all the degrees and certificates the college offers. They can also help you stay on track.

**Testing and Assessment Services** help determine the classes you should take first.

**Counseling** shows you how to be successful in college, careers, and life.

**Financial Aid, Veterans' and Scholarship Services** help you figure out the money part.

**Cashier Services** is where you pay the bills, like tuition and fees.

**Admissions and Records** is the place to go for transcripts and most official student paperwork.

**Career Exploration** is not only fun, but lets you know what jobs fit the talents you have and the skills you want to develop.

**Bookstore**, enough said.

**Courtyard Grill and ATM** has everyone's favorites—food and money.

**Disability Resources** provides services for students with special needs.

**Student Insurance/Accident and Health** keeps you safe and healthy.

**Transfer Information** because you start here so you can go everywhere.

**Student Life** is where campus life begins. Find out about clubs, support services, activities or just meet people. They even have Free Popcorn Thursdays.

### Estrella Hall

**Information Commons / Library** helps you do your research online, access the latest articles and documents, or pick up a book.

**Learning Enhancement and Writing Support Center** helps when you have writers block or need some general tutoring. They can help with all that college formatting too.

**Enclosed Study Rooms** allow you and your friends to concentrate in peace.

### Montezuma Hall

**NASA Center for Success in Math and Science** is a lifesaver when it comes to tutoring services for math and science classes. Whether you are taking algebra for the first time or you plan to become a Nobel Prize winning mathematician, the NASA Center is the place to start.



THE  
 For current degree and certificate options:  
[www.strellamountan.edu/hub](http://www.strellamountan.edu/hub)



### Academic Degrees

- Associate in Arts (AA)
- Associate in Arts in Elementary Education (AAEE)
- Associate in Arts (AA), Fine Arts-Art
- Associate in Arts (AA), Fine Arts-Dance
- Associate in Arts (AA), Fine Arts-Theatre
- Associate in Business (ABUS) (General)
- Associate in Business (ABUS) (Special)
- Associate in General Studies (AGS)
- Associate in Science (AS)
- Associate in Transfer Partnership (ATP)
  - Accountancy
  - Elementary Education
  - Exercise and Wellness
  - Global Business
  - Kinesiology

### Academic certificates

- Arizona General Education Curriculum (AGEC)
- Advanced Interdisciplinary Storytelling
- Interdisciplinary Storytelling

### Occupational Programs

- Associate in Applied Science (AAS) Degrees
- Administration of Justice
  - Banking and Finance
  - Computer Applications Technology
  - Culinary Studies
  - Fire Science Technology
  - Hospitality/Hotel Management
  - Industrial Operations Technology
  - Information Security
  - Linux Networking Administration
  - Microsoft Networking Technology
  - Networking Technology: CISCO
  - Nursing
  - Organizational Management
  - Power Plant Technology
  - Programming and System Analysis
  - Retail Management
  - Speech Language Pathology Assistant
  - Strength, Nutrition and Personal Training
  - Teacher Assisting

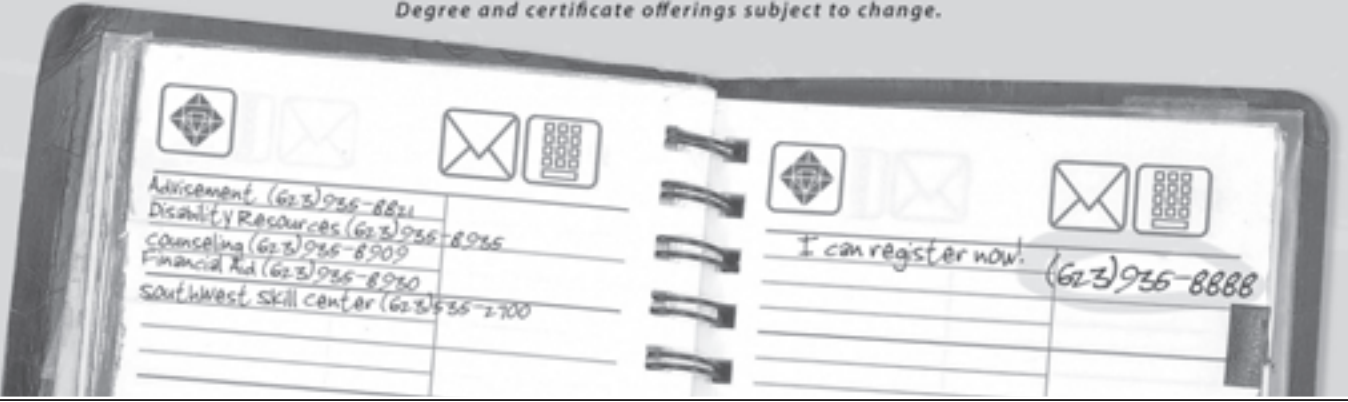
### Occupational certificates

- Administration of Justice
- Basic Culinary Studies
- Basic Firefighter
- Building Inspection
- Computer Applications Technology
- Computer Hardware and Desktop Support
- Culinary Studies
- Customer Service Management
- Data Entry Clerk
- Desktop Publishing
- General Office Secretary
- Hospitality/Hotel Management
- Industrial Operations Technology
- Information Security Forensics
- Information Security Technology
- Information Security Administration
- Information Security Wireless Networks
- Linux Associate
- Linux Networking Administration
- Linux Professional
- Microsoft Desktop Support Technology
- Microsoft Networking Technology
- Microsoft Product Specialist
- Microsoft System Administration
- Microsoft Systems Engineer
- Networking Administration: CISCO
- Networking Technology: CISCO
- Organizational Leadership
- Programming and System Analysis
- Receptionist
- Retail Management
- Small Business Management
- Speech Language Pathology Assistant
- Strength and Conditioning Personal Trainer
- Web Developer

### Southwest skill center certificate Programs

- Distribution Logistics Technician
- Emergency Medical Technician
- Medical Assistant
- Medical Billing and Coding
- Nurse Assistant
- Phlebotomy
- Practical Nurse

Degree and certificate offerings subject to change.





## Services and Resources

*At Estrella Mountain, you immediately access a wide range of services and resources designed with your success in mind. Taking advantage of these services and resources will help you define and reach your highest goals, will contribute to your academic success, and will enhance your life for many years to come.*





## STUDENT SERVICES

### ENROLLMENT SERVICES

#### Komatke Hall B

[www.estrellamountain.edu/student-services/](http://www.estrellamountain.edu/student-services/)

Student Services at Estrella Mountain has always focused on a commitment to offer quality and convenience to the students and community. To further this commitment, an innovative way of providing service has been created called One-Stop Enrollment. As the name implies, the One-Stop Model gives students “one-stop” service by providing all services such as placement testing, advisement, financial aid, registration, quick stop services, and payment all in one area for student convenience.

#### Admissions and Records Services 623-935-8888

[www.estrellamountain.edu/enrollment-services/](http://www.estrellamountain.edu/enrollment-services/)

- Process Student Information Forms as well as special admission
- Determines residency for tuition purposes and processes changes in residency for tuition purposes
- Process class registrations and drop/adds in person, phone or web
- Monitor academic probations and suspensions
- Process refund appeals
- Maintain official college transcripts for all students and responds to requests for transcripts and letters of enrollment verification
- Evaluate transcripts
- Evaluate graduation applications for degree and certificate completion
- Online available at [www.My.maricopa.edu](http://www.My.maricopa.edu)
- Issue picture Student ID's
- **Detailed guidelines covering registration are included in this catalog beginning on page 255 in the MCCD Policies and Procedures section.**

#### Cashier Services 623-935-8888

[www.estrellamountain.edu/enrollment-services/](http://www.estrellamountain.edu/enrollment-services/)

- Process tuition and fee payments
- Process refunds (when appropriate)
- Process and mail scholarship and financial aid checks
- Distribute payroll checks
- Provide check cashing services
- Provide student tuition payment plans

#### Financial Aid, Veterans' & Scholarship Services 623-935-8930

[www.estrellamountain.edu/financialaid/](http://www.estrellamountain.edu/financialaid/)

- Assist students with obtaining funding for their education including grants, loans, federal work-study and scholarships
- Assistance with completion of financial aid forms
- Provide information and application assistance for those eligible for Veteran's benefits
- Certify and monitor Veterans' enrollment
- For more information on Financial Aid and Veterans benefits please see page 274 and 276.

**UNDECIDED? NEED HELP?**  
**CALL: (623) 935-8821**  
**for free advisement**



### Advisement Services - 623-935-8597

[www.estrellamountain.edu/advisement/](http://www.estrellamountain.edu/advisement/)

- Assist students with selecting classes appropriate to program of study
- Interpret placement testing scores
- Verification of graduation eligibility
- Unofficial evaluation of college transcripts
- Provide information on college and university transfer process
- Provide assistance with on-line resources such as Course Applicability System (CAS) - <http://az.transfer.org/cas/>
- Transfer Student Ombudsman (TSO)

### Testing Services - 623-935-8860

[www.estrellamountain.edu/testing/](http://www.estrellamountain.edu/testing/)

- Administer placement testing - English, Reading, Mathematics, and English as a Second Language
- Administer GED Exam

### Online Services

[www.My.maricopa.edu](http://www.My.maricopa.edu)

- Register for classes
- View class schedule
- Drop/Withdraw from classes
- View charges on student account
- View financial aid
- Make payments
- View grades
- Request transcripts
- Update contact information
- Establish student tuition payment plan

## SUPPORT SERVICES

**Bookstore**  
**Komatke Hall**  
**623- 935-8875**  
**[www.efollet.com](http://www.efollet.com)**

The Estrella Mountain Bookstore is managed by Follett College Stores and provides textbook and academic supplies required by students and staff at Estrella Mountain. Additional gift and Estrella Mountain specialty items are available. Students may purchase computer software through the Bookstore at a special discount. Textbooks and software are also available through: [www.efollett.com](http://www.efollett.com). Call the Bookstore directly for current hours of operation.





## **Career Exploration**

**Komatke Hall  
623- 935-8909**

Career services are available to assist both current and prospective students in exploring and evaluating career opportunities that are consistent with their interests and educational goals.

Available assistance includes:

- Career and educational life planning sessions
- Occupational Information System software and internet web searches
- Career assessments to explore job opportunities in the world of work
- Resume writing, interviewing, and job-seeking seminars
- Post secondary employment/training directory information

Students are encouraged to visit Estrella Mountain Online Career Center at <http://www.maricopa.edu/counseling/> to access information related to career development. Appointments with qualified counselors are free of charge. Attendance at free workshops and seminars is encouraged.

## **Center for Teaching and Learning**

**Montezuma Hall  
623-935-8070**

The Estrella Mountain Center for Teaching and Learning was established to provide faculty a comprehensive set of support services focusing on good practices in teaching and learning. Programmatic support includes faculty orientations, forums on teaching and learning, faculty luncheon series, curriculum development projects and the teaching and learning resource center. The Center also offers faculty a new experimental learning space which is equipped with the latest in multimedia technology, along with space for developmental work. The Center for Teaching and Learning is located on the northwest corner of Montezuma Hall.

## **Counseling**

**Komatke Hall  
623-935-8909**

Counseling services are provided to promote student development by helping you to define and achieve your personal, educational and occupational goals. At Estrella Mountain there is always access to a helping hand in times of difficulty. The counseling staff encourages you to visit, to share successes and to talk out problems whenever you need some encouragement in your college experience.

## **College Public Safety & Security**

**Komatke Hall**

Located on the north side of the building adjacent to the Ceremonial Plaza. Many dedicated staff members work behind the scenes to insure that your physical surroundings are safe so that you can be comfortable to pursue your education. You may contact Public Safety via Estrella Mountain's web page:

<http://www.estrellamountain.edu/security/> or by calling:

**Emergencies: 623- 935-8911**

**Non-emergency: 623-935-8915**

In the unlikely occurrence of an extreme safety emergency: **Go to one of the emergency (blue lighted) telephones on campus ...press the call button and it will automatically connect you with the Safety & Security Office ...state the nature of your emergency.**

## **Disability Resources Center (DRC)**

[www.estrellamountain.edu/disability](http://www.estrellamountain.edu/disability)

**Komatke Hall**

**623.935.8935 or 623.935.8928 VP**

[www.ramona.santiesteban@emcmail.maricopa.edu](mailto:www.ramona.santiesteban@emcmail.maricopa.edu)

Students with disabilities are encouraged to contact the DRC office at the beginning of the admissions process to discuss accommodation needs and to request for an alternative format of printed materials. Some accommodations may require 3-4 weeks notification (i.e., sign language interpreters). For concerns or grievances regarding ADA or Section 504, please contact the Vice President of Student Affairs at 623.935.8812 or 623.935.8928 VP.

## **Food Services**

**Komatke Hall**

**623-935-8948**

The Courtyard Grill on-site restaurant offers students an inexpensive place to grab a bite to eat. Located at Komatke Hall, the food services management encourages students to use both the indoor and outdoor eating areas whether they are customers of the restaurant or are carrying a lunch from home. For added convenience, vending machines are located on both floors of Montezuma Hall and in front of Komatke Hall.

## **Job Placment**

**Komatke Hall**

**623- 935-8909**

<http://ntweb.dist.maricopa.edu/careers/>

Listings of both part-time and full-time jobs are located in Komatke Hall in the Student Services area. On-campus interviews are held throughout the school year by employers around the valley who recruit and hire students. Students can also access the *Maricopa Center Network* at <http://ntweb.dist.maricopa.edu/careers/> a job search engine that matches job candidates with employers based on measurable competencies. This is a free system, Internet accessible 24 hours a day.

## **Student Life**

**Komatke Hall**

**623-935-8807**

[www.emc.maricopa.edu/studentlife/](http://www.emc.maricopa.edu/studentlife/)

Deciding to attend college can be the opportunity of a lifetime. It opens doors to new friendships, offers a different social life and can help build leadership and team skills that will impact students for the rest of their lives. In addition to the academic growth that students experience at Estrella Mountain, there is a myriad of student activities available to help build students' confidence and abilities as they contribute to both the campus community and the community at large.

## **Student Insurance/Accident and Health**

**Komatke Hall**

**623-935-8910**

Enrolled students are automatically provided insurance coverage for college-related accidents. The plan provides secondary coverage when a student has individual insurance and will pay the remaining reasonable charges within the limits of the policy. Forms can be obtained through Student Life.



## **Transfer Information**

**Komatke Hall**

**623-935-8821**

**[www.estrellamountain.edu/advisement/](http://www.estrellamountain.edu/advisement/)**

Transfer information and resources are available to assist in making the transition to another college or university. Meeting with an advisor will help chart progress toward completion of an Associate Degree and transfer requirements. In addition, the Course Applicability System (CAS) is available to help determine how courses transfer to the state universities, and can assist in matching course work with university degree requirements. At the point of transfer, Estrella Mountain's Transfer Student Ombudsman (TSO) is available to assist students who encounter problems in transferring to Arizona's public universities.

## **Re-Entry Services**

**623-935-8909**

Offering:                Skills building seminars  
                              Registration assistance  
                              Personal development seminars  
                              College Transition

## **EARLY OUTREACH PROGRAMS**

### **Achieving College Education (ACE) Math Science Scholars Program**

**623-935-8779**

The Maricopa ACE Scholars Program is a nationally recognized scholarship program that targets High School Sophomores and assists them in making the smooth transition from high school, through the community college and on the university system. The ACE Scholars Program at Estrella Mountain Community College specifically targets high school students who are interested in Math, Science, Technology and Engineering. Student take classes in the Summer, Fall and Spring semesters.

### **Jr. ACE Program**

**623-935-8779**

The program mainly consists of three summer academies, Mars, Building Structures and Lego Robotics academies. During the Mars and Building Structures, students are exposed to many hands on activities that enhance their knowledge in science, math and engineering related topics. The Mars academy is designed for students entering 6th grade, the Building Structures academy is designed for students entering 7th and 8th grade. The Lego Robotics academy is a 5-week long academy designed for 9th and 10th graders, where students are introduced to applied physics, mathematics and programming topics, while also taking a mathematic class.

## **High School Dual Enrollment**

**623-935-8443**

**<http://www.estrellamountain.edu/k12/Dualenroll.asp>**

The high school dual enrollment program is for students under 18 years of age who would like to get a head start on their college education. Admission to the program requires written permission of parents, the high school counselor/administrator, and Estrella Mountain. Students taking advantage of dual enrollment should be advised that, as college students, they will be subject to all of the requirements, policies, and regulations described in this catalog. The courses they take will become a part of their official college transcripts, which must be reported when attending future colleges and universities.



## HOOP OF LEARNING

**623-935-8487**

The Hoop of Learning program was implemented in the summer of 1995 in response to concerns voiced by Native American parents in an urban high school district in Phoenix, Arizona. These voices influenced the high school and a local community college to form a partnership committee to provide an educational program for Native American students, now referred to as the Hoops of Learning. The Hoop of Learning is a high school to college bridge program. It is designed to foster cultural resilience and career development among Native American students.

## CLUBS AND ACTIVITIES

### Clubs

#### Asian Pacific Islander Club

**Advisor: Carole Yoshida-Bacula 623- 935-8833**

The purpose of the APIAC is to reach out to those who want to learn and/or be a part of an organization which promotes racial, political, cultural, and self awareness of the Asian Pacific Islander minorities.

#### Black Student Union

**Advisor: To Be Determined 623- 935-8934**

The purpose of the Black Student Union is to stimulate education by providing an awareness, recognition of and appreciation toward contributions by the Black American culture to the United States of America and to the world.

#### Christian Student Association

**Advisor: Iris Love 623-935-8828**

The Christian Student Association (CSA) is an organization that promotes and supports Christian values, leadership and awareness among Christian community college students. The CSA is not based on any particular religion or church affiliation, and is open to all community college students.

#### Future Teachers of America

**Advisor: Dr. Deborah Raffin 623-935-8441**

The purpose of the organization is to create a student network that will allow the students to bond, share knowledge and experiences. While participating in club activities we will develop excellent communications skills, voluntaryism, and leadership skills. This club will be designed to enhance and work along side preexisting organizations on campus such as America Reads and Inspire.Teach.

#### Gay Straight Alliance

**Advisor: Dr. Kathleen Iudicello 623- 935-8460**

GSA works to create a safe space within the Estrella Mountain Community College community for GLRTQ students. It does so throught an alliance of GLBTQ and straight students.

#### Linux Users Group

**Advisor: Randol Larson 623-935-8077**

The Linux Users Group includes all students who are interested in Linux education; higher level students will support lower level students, share learning experiences and knowledge, create and complete projects that support Linux education.



### **M.E.Ch.A.**

**Advisor: Christina Izaguirre 623-935-8910**

M.E.Ch.A. (Movimiento Estudiantil Chicano de Aztlan) is an organization that promotes and supports higher education for Chicano/Hispano students. M.E.Ch.A. also encourages student involvement in cultural and social issues, on and off campus, especially those affecting the Chicano/Hispano community.

### **Philosophy Club**

**Advisor: To Be Determined 623- 935-8380**

The purpose of this organization is to stimulate a strong interest in Philosophy, provide a campus community for philosophical reflection among Estrella Mountain Community College students, and promote a general climate of critical thinking and thoughtful questioning on campus.

### **Social Awareness Club**

**Advisor: Herschel Jackson 623-935-8910**

The purpose of the Social Awareness Club focuses on bringing awareness of social issues to the campus community. The club focuses on activism, awareness, and tolerance. Some of the social issues include gun control, the environment, healthcare and cultural diversity.

### **Society of Physics Students**

**Advisor: Dr. Dwain Desbien 623- 935-8474**

The purpose of this chapter shall be the advancement and diffusion of knowledge of Physics, the encouragement of interest in physics throughout the academic and local communities, and the introduction of students to the professional community.

### **Writing Club**

**Advisor: Malik Toms 623- 935-8303**

The purpose of the organization is to stimulate a strong interest in writing to provide fellowship among the writing enthusiasts and to promote original fiction or non-fiction production among the members.

## **HONORARY GROUPS**

### **Phi Theta Kappa**

**Advisor: Marylyn Bradley**

Phi Theta Kappa, the International Honorary Society for Community Colleges, is committed to promoting scholarship, leadership, service, and fellowship among talented community college students. Beta Alpha Xi, the Estrella Mountain Chapter of Phi Theta Kappa, achieved an outstanding Five Star Ranking in its five years of existence. Each semester, students who have completed twelve (12) credit hours with a 3.25 grade point average receive an invitation to join the organization.

### **Honors Program**

**Coordinator: Christopher Coleman 623-935-8952**

See page 181 of the catalog for a detailed description of the Honors Program.

## SERVICE LEARNING

**Komatke Hall**  
**623- 935-8802**

We encourage all students to consider the community through Estrella Mountain's Service Learning Program. Check with your instructor to see if there is a Service Learning component in which you can participate to complete your class requirements.

Spend your energies where:

- ◆ You feel rewarded
- ◆ You gain satisfaction
- ◆ You feel responsible
- ◆ You feel growth





## LEARNING SUPPORT

The focal point of the campus is Estrella Hall, a building which houses the Information Commons, that integrates computing, library and learning enhancement services. The Information Commons offers an information-rich environment, which supports the entire campus community – students, faculty, staff, and community users. Students at Estrella Mountain have full access to this remarkable facility and the support services it provides to facilitate and enrich their college experience.



The Information Commons offers personal computing support for the entire campus. The Commons presently houses over 150-networked workstations, with each workstation offering access to local instructional and information resources the Internet.

[www.estrellamountain.edu/ctl/learningsupport](http://www.estrellamountain.edu/ctl/learningsupport)

### Services offered:

- ◆ Assistance to students with logging into computers anywhere on campus
- ◆ One-on-one assistance in the use of academic and application software
- ◆ One-on-one assistance with assignment completion and submission
- ◆ Access to computing resources including the Internet and multimedia equipment
- ◆ LearnShops sessions on basic of most used application software in a variety of format: individual, small groups, and as scheduled by instructors

For more information regarding our services, please contact the Information Commons Desk at 623- 935-8150 or send an email to: [help@emcmail.maricopa.edu](mailto:help@emcmail.maricopa.edu)



## LIBRARY RESOURCES

623-935.8191

<http://www.estrellamountain.edu/library>

The Estrella Mountain's Library creates a connection between people and information that extends anywhere, anytime. The library seeks to meet the information needs of the digital information world as well as the traditional research needs of every student. Our Web site provides 24 hour access to thousands of electronic books and millions of magazine and journal articles. In addition to the materials available at Estrella Mountain's Library, students may access and request materials from any of the other nine Maricopa Community College Libraries.

<b>Library Hours</b>	Monday - Thursday	7AM - 10PM
	Friday	7AM - 5PM
	Saturday	8AM - 5PM
	Sunday	Closed

**Library Cards** Student ID cards serve as library cards and are required to make use of these services.

**Library Instruction** Instruction is provided through classes, small groups, and one-to-one interaction

For more information regarding services or to schedule services for students please contact the Consultation Desk at 623-935-8191.



## LEARNING ENHANCEMENT

### Learning Enhancement & Writing Support Center

623-935-8189

<http://www.estrellamountain.edu/ctl/learningsupport>

The Learning Enhancement & Writing Support Center (LEWSC) at Estrella Mountain provides supportive, collaborative, and knowledgeable academic assistance to students, faculty and staff. The following services are provided by the Learning Enhancement & Writing Support (LEWSC) located in Estrella Hall, 1st floor, to the right of the Information Commons:

**When is it open?**

Monday - Thursday	7:00am - 8:00pm
Friday	7:00am - 5:00pm
Closed Saturdays, Sundays and Holidays	

**What do we support?** Reading, English, ESL (English as a Second Language), all Liberal Arts, Social and Behavioral Sciences (i.e. Psychology) and Occupational (i.e. Accounting, General Business and Economics).

**Do I need an appointment?** Drop-in and appointment based tutoring available for all writing assistance on most contents.

**What are the services?** Writing assistance for all subjects, make-up testing, online paper critiquing strategies for college success, study rooms (some with computer access) study groups, individualized tutoring (via Disability Resources), textbooks and resources within center, online tutoring services based on request.



## NASA Center for Success in Math & Science

623-935-8221

[estrellamountain.edu/academics/nasacenter](http://estrellamountain.edu/academics/nasacenter)

Montezuma Hall, 1st Floor, Room 119

The NASA Center for Success in Math & Science serves as the cornerstone for student success in Math and Science. The mission is to create a continuous support structure for students to insure their persistence from middle school through high school and on to college and/or advanced degrees. The Center's strategies are grounded in the best practices and are focused in three areas:

<b>Outreach</b>	Middle/high school students K-12 partnering teachers Parents/families
<b>Retention</b>	Instructional support programs Student Service support programs Faculty coordinated programs
<b>Transfer</b>	University Programs Industry Internship and employment programs Alumni Programs

At the NASA Center the focus is on the retention. The following services are offered:

- ◆ Individualized tutoring in Mathematics, Biology, Chemistry, Geology and Physics.
- ◆ Drop in tutoring
- ◆ Graphing calculators - Lease Program
- ◆ Wireless laptop computers for use in the NASA Center
- ◆ Access to science equipment such as: anatomical models and microscopes
- ◆ Access to Chemistry molecular model sets and charts
- ◆ Math and Science textbooks available for use in the NASA Center
- ◆ Quiet study rooms
- ◆ Workshops and seminars for Student Success
- ◆ Phone tutoring for mathematics
- ◆ Connection to Internship opportunities and Scholarships

### Hours of operation (Fall and Spring):

Monday-Thursday	7:00AM-9:00PM
Friday	8:00AM-5:00PM
Saturday	8:00AM-3:00PM

### Summer Hours:

Monday - Thursday	7:00AM-7:00PM
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For more information regarding services please call the NASA Center at 623-935-8221.





## ASSESSMENT OF STUDENT LEARNING OUTCOMES

At Estrella Mountain, we are very concerned with learning. We use the assessment as a way to promote continued excellence in teaching and learning by improving and enhancing determining achievement, and measuring the effectiveness of student learning outcomes and abilities.

Communication and Critical Thinking at Estrella Mountain are defined as follows:

### **Communication**

A student who effectively communicates:

- responds to an audience
- demonstrates a clear sense of purpose
- organizes information
- presents information using appropriate language and delivery

### **Critical Thinking**

A student who thinks critically processes, synthesizes and applies information to solve problems by:

- identifying the problem
- developing and implementing strategies
- evaluating information
- reaching conclusions
- responding to the problem

To benefit students, Communication and Critical Thinking are being integrated into a wide variety of Estrella Mountain courses. Students learn course content and develop these important abilities to enhance success in academic and professional pursuits.

Web address: <http://www.estrellamountain.edu/academics/saac/>



## General Education

*At Estrella Mountain, students experience a collaborative and stimulating environment which stresses a solid foundation of general education. Each facet of the Estrella Mountain experience is designed to provide students with the necessary information, knowledge, abilities, intellectual concepts, and the perspectives they need to achieve their academic and personal goals.*

*Our curricular patterns enhance critical thinking and communication skills. They reflect an emphasis on the study of composition, literacy and critical inquiry, numeracy, humanities, fine arts, the social and behavioral sciences, the natural sciences, as well as cultural diversity, global and/or historical awareness.*

*Recognizing the importance of breadth of knowledge, the ability to apply that knowledge, and a view of learning as a lifetime activity, faculty and staff are committed to providing all students with a teaching and learning environment in which everyone experiences growth.*





## UNIVERSITY TRANSFER AND PATHWAYS

### AZ Transfer Pathways

Each public university major is matched with one of the following Maricopa Community Colleges Associate Degree Pathways. Some majors at the Arizona public universities are not matched with any of the Transfer Pathway Degrees below, due to sequencing or upper division requirements, and are designed as Transfer Guide-Exceptional Requirements (TG-XR). Students should consult with an advisor to determine the specific degree requirements for the selected major.

<b>Associate in Arts (AA) 60-64 Credits</b>	<i>AGEC - A</i>	1. Core Areas 2. Awareness Areas	35 Credits
	<i>MCCD Requirements General Electives</i>	(Communication, Reading) (Select courses to complete a minimum of 60 credits but no more than a total of 64 semester credits.)	0-6 Credits
<b>Associate in Arts Elementary Education (AAEE) 60-63 Credits</b>	<i>AGEC-A</i>	1. Core Areas 2. Awareness Areas	35-38 Credits
	<i>Elementary Education Requirements</i>	-Education Foundations -Elective for AZ Professional Teacher Standards	25 Credits (15 Credits) (10 Credits)
<b>Associate in Arts Fine Arts (AAFA) 60-64 Credits</b>	<i>AGEC - A</i>	1. Core Areas 2. Awareness Areas	35-38 Credits
	<i>Fine Arts Requirement- Art</i>		(28 Credits)
	<i>Fine Arts Requirement- Dance</i>		(29 Credits)
	<i>Fine Arts Requirement - Theatre</i>		(25-29 Credits)
<b>Associate in Business (ABus)</b>	<b>Associate in Business General Requirements ABus-GR Pathway</b> 62-63 credits All Business Majors except ACC & CIS	AGEC B  Common Lower Division Requirements General Electives	35 Credits  27-28 Credits (Select courses to complete a minimum of 62 credits but no more than a total of 63 semester credits)
	<b>Associate in Business Special Requirements ABus-SR Pathway</b> 62-63 credits CIS Majors (ACC TG-XR)	AGEC B  Common Lower Division Requirements General Electives	35 Credits  27-28 Credits (Select courses to complete a minimum of 62 credits but no more than a total of 63 semester credits)
<b>Associate in Science (AS)</b>	<b>Associate in Science 60-64 Credits</b>	AGEC S  MCCD Requirements General Electives	35 Credits  2. Awareness Areas (Communication, Reading) 0-6 Credits (Select courses to complete a minimum of 60 credits but no more than a total of 64 semester credits)

### Additional Programs for University Transfer

<b>Associate in Transfer Partnership (ATP)</b>	<b>60 Credits</b>	MCCCD General Education Core Approved Lower Division Transfer Courses --Major Dependent	(19 Credits)  (Credits Vary)
<b>Associate in General Science (AGS)</b>	<b>60 Credits</b>	General Education Core Areas General Education Distribution Areas Elective Courses	(16 Credits) (28-29 Credits) (15-16 Credits)
<b>Associate in Applied Science (AAS)</b>	<b>60-64 Credits</b>	General Education Core Areas General Education Distribution Areas Required Courses Restricted Electives	(15 Credits) (9-10 Credits) (Credits Vary) (Credits Vary)



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

### Description

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

All credits used to satisfy the MCCCD AGECE will apply to graduation requirements of the university major for which the AGECE was designed, regardless of whether the credit was awarded for completion of course work or for prior learning. For additional information on credit awarded for prior learning assessment, see the policy on Credit for Prior Learning in the general catalog.

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

### Purpose of the AGECEs

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

<http://az.transfer.org/cas/atass/>

Click on Student Information  
Select Degrees and Pathways  
Scroll down to the bottom of the page  
Select the letter of the major you're interested in.

1. The **AGECE A** is designed to satisfy requirements in many liberal arts majors as well as other majors that articulate with the Associate in Arts (e.g., social sciences, fine arts, humanities). AGECE A requires a minimum of college mathematics or college algebra to satisfy the Mathematics [MA] requirement. AGECE A Mathematics requirement is less stringent than the AGECE B and AGECE S. AGECE A and AGECE B Natural Sciences requirements are less stringent than AGECE S.
2. The **AGECE B** is designed to satisfy requirements in business majors that articulate with the Associate in Business. AGECE B requires a minimum of brief calculus to satisfy the Mathematics [MA] requirement.
3. The **AGECE S** is designed to satisfy requirements in majors with more prescriptive mathematics and mathematics-based science requirements. AGECE S articulates with the Associate in Science. AGECE 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 to satisfy the Natural Sciences [SQ/SG] requirement. In addition, students must select six to eight additional credits of math and/or science appropriate to the major.

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

- Require 35-38 semester credits in courses numbered 100 and above to be completed with a grade of “C” or better; Credit units transferred from outside of the district need to be at a grade of “C” or better. A grade of “C” equals 2.0 on a 4.0 grading scale or equivalent;
- Uses the following policies to help students complete the required Core and Awareness Areas without exceeding the 35-38 semester credits;
  1. Courses can satisfy a Core area and one or two Awareness areas simultaneously.
  2. A course cannot be used to satisfy more than one Core area requirement.
  3. A course can be used to satisfy the L and SB or L and HU requirements simultaneously in the Core area for the AGECE S.
- follows the general education policy below;

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

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

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

### AGECE Requirements

The 35 -38 semester credits required for each of the three AGECEs follow. See the list entitled MCCCDC Courses That Can Be Used to Satisfy MCCCDC AGECE A, AGECE B and/or AGECE S for specific course information via the following website:

<http://www.dist.maricopa.edu/academic/curric/>

Click on the Resources tab

Scroll down to: Matrix of MCCCDC Courses That Can Be Used to Satisfy AGECE A, AGECE B, and/or AGECE S

Click on the link



The list identifies the courses in alpha-order by prefix as well as the different Core Areas and Awareness Areas where the course will apply. When selecting Mathematical Studies and Natural Sciences options, select from the appropriate AGEC A, B, or S list.

	Credits
<b>A. Core Areas:</b>	35
1. First-Year Composition (FYC)	6
2. Literacy and Critical Inquiry [L]	0-3
AGEC A & AGEC B: Select that satisfies the [L] requirement(3)	
AGEC S: Select a course that satisfies L and SB (Social and Behavioral Sciences) OR L and HU (Humanities and Fine Arts) requirements simultaneously (0-3)	
3. Mathematical Studies [MA/CS]	4-6
The Mathematics [MA] requirement differs for AGEC A, AGEC B, and AGECS.	
To complete the Mathematical Studies requirement for AGEC A and AGEC B select one course to satisfy Mathematics [MA], and a second course from Computer/Statistics/Quantitative Applications [CS].	
AGEC S does not require the [CS]area.	
<b>AGEC A requires;</b>	
a. Mathematics [MA] (3 credits) AND	
(Requires a course in college mathematics (MAT142) or college algebra (MAT150, MAT151, MAT152) or pre-calculus (MAT187) or any other mathematics course designated with the MA general education value and for which college algebra is a pre-requisite.)	
b. Computer/Statistics/Quantitative Applications [CS] (3 credits)	
<b>AGEC B requires;</b>	
a. Mathematics [MA] B (3 credits) AND	
(Requires a course in brief calculus (MAT212) or a higher level mathematics course (MAT216, MAT220, or MAT221 or any course for which these courses are prerequisites).	
b. Computer/Statistics/Quantitative Applications [CS] (3 credits)	
CIS105 Survey of Computer Information Systems	
<b>AGEC S requires;</b>	
a. Mathematics [MA] S (4 credits) AND	
(Requires a calculus course (MAT220 or MAT221) OR any mathematics course for which MAT220 or MAT221 are prerequisites. OR if pursuing a degree at ASU in Life Sciences select MAT251 Calculus for Life Science.	
4. Humanities and Fine Arts [HU]	6
AGEC A and AGEC B: Students are encouraged to choose courses from more than one discipline for a total of six semester credits.	
AGEC S: Select a course that satisfies both L and SB or L and HU requirements simultaneously.	
5. Social and Behavioral Sciences [SB]	6
AGEC A and AGEC B: Students are encouraged to choose courses from more than one discipline for a total of six semester credits.	
AGEC S: Select a course that satisfies both L and SB (Social and Behavioral Sciences) or L and HU (Humanities and Fine Arts) requirements simultaneously	
6. Natural Sciences [SQ/SG]	8
To complete the Natural Sciences requirement:	
AGEC A and AGEC B require four (4) semester credits of [SQ] and four (4) semester credits of [SG] for a total of eight (8) semester credits, OR eight (8) semester credits of [SQ]. Students <b>cannot</b> take eight (8) semester credits of [SG] to meet the Natural Sciences requirement.	



The Natural Sciences requirement differs for AGEC S. AGEC S requires eight (8) semester credits of either university chemistry or eight (8) semester credits of university physics or eight (8) semester credits of general biology appropriate to the major.

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

7. Subject Options (Subject based on major) (AGEC S) 6-8  
Students completing AGEC S, through careful selection of courses that meet the other major or pre-requisite requirements for Science degrees, will meet this requirement. Using a transfer guide, select Mathematics courses above Calculus, and/or Science courses from: Astronomy, Biology, Botany, Chemistry, Environmental Science, Geology, Physical Geography, Physics, Zoology.

#### **B. Awareness Areas:**

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

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

## **AGEC Area Requirements Descriptions/Definitions**

### **CORE AREAS**

#### **First-Year Composition (FYC)**

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

#### **Literacy and Critical Inquiry [L]**

Courses must be completed with a grade of “C” or better in the Literacy and Critical Inquiry Core area. In the [L] course, typically at the sophomore level, students gather, interpret, and evaluate evidence and express their findings in writing or speech. This course includes a series of graded written or spoken formal assignments. For AGEC S, students will select a course that satisfies both Literacy and Social & Behavioral Sciences or Literacy and Humanities and Fine Arts requirements simultaneously.

Literacy is defined broadly as communicative competence in written and oral discourse; critical inquiry is defined as the gathering, interpreting, and evaluating of evidence. Building on the proficiency attained in traditional First-Year Composition courses, the Literacy and Critical Inquiry requirement helps students sustain and extend their ability to reason critically and communicate clearly through language.



**Mathematical Studies**

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

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

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

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

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

**Mathematics [MA]AGEC A**

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

**Mathematics [MA]AGEC B**

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

**Mathematics [MA]AGEC S**

The AGEC S Mathematics Core area requires the first course in the calculus sequence or any mathematics course for which that course is a prerequisite. MAT251 is required if transferring to a Life Sciences degree at Arizona State University (ASU).

**Computer/Statistics/Quantitative Applications [CS]**

AGEC A, B, [CS] requires: courses that emphasize the use of statistics or other mathematical methods in the interpretation of data and in describing and understanding quantitative relationships, courses that involve the use of computer programming languages or software in the development of skills in analytical thinking. AGEC B specifies CIS105 as the course that meets the [CS] requirement.

**Humanities and Fine Arts [HU]**

Courses must be completed with a grade of “C” or better in the Humanities and Fine Arts Core area. Students are encouraged to choose coursework from more than one discipline. The Humanities and Fine Arts Core area enables students to broaden and deepen their consideration of basic human values and their interpretation of the experiences of human beings.

The humanities are concerned with questions of human existence and the universality of human life, questions of meaning and the nature of thinking and knowing, and questions of moral, aesthetic, and other human values. The humanities investigate these questions in both the present and the past and make use of philosophy, foreign languages, linguistics and communications studies, religious studies, literature, and fine arts.

The fine arts constitute the artist’s creative deliberation about reality, meaning, knowledge, and values.



**Social and Behavioral Sciences [SB]**

Courses must be completed with a grade of “C” or better in the Social and Behavioral Sciences Core area. Students are encouraged to choose course work from more than one discipline.

The Social and Behavioral Sciences Core area provides scientific methods of inquiry and empirical knowledge about human behavior, both within society and within individuals. The forms of study may be cultural, economic, geographic, historical, linguistic, political, psychological, or social. The courses in this area address the challenge of understanding the diverse natures of individuals and cultural groups who live together in a world of diminishing economic, linguistic, military, political, and social distance.

**Natural Sciences [SQ/SG]**

Courses must be completed with a grade of “C” or better in the Natural Sciences Core area. Courses in the Natural Sciences Core area help the student to develop an appreciation of the scope and limitations of scientific capability to contribute to the quality of society. This Core area emphasizes knowledge of methods of scientific inquiry and mastery of basic scientific principles and concepts, in particular those that relate to matter and energy in living and non-living systems. Firsthand exposure to scientific phenomena in the laboratory is important in developing and understanding the concepts, principles, and vocabulary of science. At least one of the two laboratory courses required in the Natural Sciences Core area must include an introduction to the fundamental behavior of matter and energy in physical or biological systems.

**Natural Sciences [SQ] A & B**

The AGEC A and B Natural Sciences Core area requires one laboratory course in natural sciences that includes a substantial introduction to the fundamental behavior of matter and energy in physical or biological systems.

**Natural Sciences [SG] A & B**

The AGEC A and B Natural Sciences Core area requires a second laboratory course in the natural sciences, for example, from anthropology, astronomy, biology, chemistry, experimental psychology, geology, microbiology, physical anthropology, physical geography, physics, plant biology

**Natural Sciences S**

The AGEC S Natural Sciences Core area requires eight semester credits of either university chemistry or eight semester credits of university physics or eight semester credits of general biology appropriate to the major.

SQ = Natural Science-Quantitative

SG = Natural Science-General

**Subject Options (for AGEC S)**

Courses in the Subject Options area help the student to be prepared for specific majors in science. Students completing AGEC S, through careful selection of courses that meet the other major or pre-requisite requirements for Science degree, will meet this requirement. Using a transfer guide, courses would be selected from Mathematics courses above Calculus, and/or Science courses from: Astronomy, Biology, Botany, Chemistry, Environmental Science, Geology, Physical Geography, Physics, Zoology.

**Awareness Areas**

Students must satisfy two Awareness areas: Cultural Diversity in 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) DEGREE

### 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) MCCCDC 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. The degree will transfer as a block without loss of credit to Arizona's public universities and other institutions with district-wide articulation agreements.

The semester credits used to satisfy the MCCCDC Associate in Arts will apply to university graduation requirements of the university major for which the Associate in Arts is designed. Information regarding the articulation of the Associate in Arts with majors at the Arizona public universities can be accessed via the following website: <http://az.transfer.org/cas/atass/student/modpath.html>

### Academic Policies that Govern the Associate in Arts Degree

- Completion of the Associate in Arts or the AGECA provides for exemption from Arizona public university admission requirements for Arizona residents who have a minimum Grade Point Average of 2.0 on a 4.0=A scale and a minimum 2.5 on a 4.0=A scale for non-residents.
- The graduation policies within the general catalog must be satisfied for completion of the Associate in Arts degree.
- A minimum of 60 semester credits in courses numbered 100 and above to be completed with a grade of "C" or better;
- The General Education Requirements for AGECA may be completed in 35 semester credits with the following stipulations
  - Courses can satisfy a Core Area and one or two Awareness Areas simultaneously
  - A courses cannot be used to satisfy more than one Core Area
- General Education Courses can satisfy multiple areas within the degree simultaneously (AGECA Core Area, AGECA Awareness Area, MCCCDC Additional Requirements, or lower-division courses applicable to the major).
- Effective Fall 2000, the course evaluation and/or general education designation as listed in the Arizona Course Equivalency Guide (CEG) within the Arizona Course Applicability System (AZCAS), is valid for the term in which the student is awarded credit on the transcript. A course evaluation and/or general education designation may be subject to change. Students do have the option to petition for general education evaluations and/or general education designations upon transfer.



- Courses completed at one of the Maricopa Community Colleges to meet AGEC-A requirements must be listed in the Course Equivalency Guide within the Arizona Course Applicability System as an equivalent course, departmental elective credit (XXXXDEC), or general elective credit (Elective) at all Arizona public universities. The course's evaluation and/or general education designation is valid for the term in which the student is awarded credit on the transcript. See the list titled MCCCDCourses That Can Be used to Satisfy MCCCDCourses AGEC-A, AGEC-B, and/or AGEC-S for specific course information via the following website: <http://www.dist.maricopa.edu/academic/curric/>
- Courses completed at one of the Maricopa Community Colleges to meet the General Electives requirement must be listed in the Course Equivalency Guide (CEG) within the Arizona Course Applicability System (AZCAS) as an equivalent course, departmental elective credit (XXXDEC), or general elective credit (Elective) at all Arizona public universities. For appropriate course selection, students should consult with an advisor.
- Courses transferred from another regionally accredited institution to one of the Maricopa Community Colleges will be evaluated by the college for inclusion in the AGEC-A or Associate in Arts Degree.
- Courses and their modular equivalents will satisfy AGEC-A and Associate in Arts requirements.
- If a course is cross-referenced with one or more other courses, then only one of the cross-referenced courses will be accepted to meet requirements.

### **Degree Requirements**

The 60-64 semester credits required for the Associate in Arts follow. See the list titled MCCCDCourses That Can Be used to Satisfy MCCCDCourses AGEC-A, AGEC-B, and/or AGEC-S for specific course information via the following website: <http://www.dist.maricopa.edu/academic/curric/> This list identifies the courses in alpha-order by prefix as well as the Core Areas and Awareness Areas where the course will apply. For purposes of clarifying requirements in the Mathematics and Natural Sciences areas on the list and the AGEC requirements, an A, B, and/or S character may follow the [MA], [SQ], [SG] general education designations and refers to the specific AGEC.

### **I MCCCDCourses General Education**

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

#### **MCCCDCourses AGEC-A**

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

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

- 1) Mathematics [MA] A (3 credits)

Note: requires a course in college mathematics (MAT142) or college algebra (MAT 150, MAT 151, MAT152) or pre-calculus (MAT 187) or any other mathematics course designated with the MA general education value and for which college algebra is a pre-requisite.

#### **AND**

- 2) Computer/Statistics/Quantitative Applications [CS] (3 credits)





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

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

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

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

## 2. Awareness Areas:

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

Cultural Diversity in the United States [C]

**AND**

Global Awareness [G] **OR**

Historical Awareness [H]

## 3. MCCC Additional Requirements 0-6

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

### a. Oral Communication

A total of three (3) semester credits is required for Oral Communication. However, if students select a communication course that satisfies both the Oral Communication area and an area within the Core, then the Oral Communication requirement has been satisfied and additional electives may be taken.

Select from the following options:

COM100 [SB] (3 credits) **OR**

COM100AA & COM100AB & COM100AC [SB] (3 credits) **OR**

COM110 [SB] (3 credits) **OR**

COM110AA & COM110AB & COM110AC [SB] (3 credits) **OR**

COM225 [L] (3 credits) **OR**

COM230 [L] [SB] (3 credits)





b. Critical Reading

A total of three (3) semester credits is required for the Critical Reading area. However, if students complete CRE 101 and apply it to AGEC-A Core Requirements or if the students demonstrate proficiency through assessment, then the Critical Reading requirement has been satisfied and additional electives may be taken.

**CRE101 [L] OR**

equivalent as indicated by assessment

## II. General Electives

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

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

The list of Common Courses for each major is included in the Arizona Transfer Pathway Guides. University Transfer Guides are also available for the Arizona public universities. These guides, both statewide and institutional, are accessible on the following web site: [http://az.transfer.org/cas/students/transfer\\_guides.htm](http://az.transfer.org/cas/students/transfer_guides.htm)

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

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

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

**Associate in Arts Total Credits:**

**60-64**





## ASSOCIATE IN ARTS, ELEMENTARY EDUCATION DEGREE (AAEE)

### Description

The MCCC CD 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. MCCC CD General Education  
Arizona General Education Curriculum for Arts (AGEC-A)  
Additional MCCC CD Requirements
- II. Elementary Education Requirements  
Education Foundations  
Electives for Arizona Professional Teacher Standards

### Purpose of the Degree

The AAEE is designed for the student who plans to transfer to an Elementary Education, Early Childhood, Multicultural/Multilingual, or Special Education program at an Arizona public higher education institution and/or who plans to become a classroom instructional aide.

The degree transfers as a block without loss of credit to Arizona's public universities. All semester credits applied to the MCCC CD Associate in Arts in Elementary Education also apply to graduation requirements of the university major for which the AAEE was designed, regardless of whether the credit was awarded for completion of course work or for prior learning. (For additional information on credit awarded for prior learning assessment, see the policy on Credit for Prior Learning in the college catalog.)

### Academic Policies that Govern the Associate in Arts Elementary Education Degree:

- Completion of the Associate in Arts or the AGEC-A provides for exemption from Arizona public university admission requirements for Arizona residents who have a minimum Grade Point Average of 2.0 on a 4.0=A scale and a minimum 2.5 on a 4.0=A scale for non-residents.
- The graduation policies within the general catalog must be satisfied for completion of the Associate in Arts degree.
- A minimum of 60-63 semester credits in courses numbered 100 and above to be completed with a grade of "C" or better;
- The General Education Requirements for AGEC-A may be completed in 35 semester credits with the following stipulations:
  - Courses can satisfy a Core Area and one or two Awareness Areas simultaneously.
  - A course cannot be used to satisfy more than one Core Area.
  - Courses can satisfy an Elementary Education Requirement and one or more Awareness Areas simultaneously.
  - A course cannot satisfy both the Elementary Education Requirement and a Core Area Requirement simultaneously.



- Effective Fall 2000, the course evaluation and/or general education designation as listed in the Arizona Course Equivalency Guide (CEG) within the Arizona Course Applicability System (AZCAS), is valid for the term in which the student is awarded credit on the transcript. A course evaluation and/or general education designation may be subject to change. Students do have the option to petition for general education evaluations and/or general education designations upon transfer.
- Courses completed at one of the Maricopa Community Colleges to meet AGEC-A requirements must be listed in the Course Equivalency Guide within the Arizona Course Applicability System as an equivalent course, departmental elective credit (XXXXDEC), or general elective credit (Elective) at all Arizona public universities. The course's evaluation and/or general education designation is valid for the term in which the student is awarded credit on the transcript. See the list titled MCCCDCourses That Can Be used to Satisfy MCCCDCourses AGEC-A, AGEC-B, and/or AGEC-S for specific course information via the following website:  
<http://www.maricopa.edu/academic/ccta/>
- Courses completed at one of the Maricopa Community Colleges to meet the General Electives requirement must be listed in the Course Equivalency Guide (CEG) within the Arizona Course Applicability System (AZCAS) as an equivalent course, departmental elective credit (XXXDEC), or general elective credit (Elective) at all Arizona public universities. For appropriate course selection, student should consult with an advisor.
- Courses transferred from another regionally accredited institution to one of the Maricopa Community Colleges will be evaluated by the college for inclusion in the AGEC A or the Associate in Arts Elementary Education degree.
- Courses and their modular equivalents will satisfy AGEC-A and Associate in Arts in Elementary Education requirements.
- If a course is cross-referenced with one or more other courses, then only one of the cross-referenced courses will be accepted to meet requirements.

### Degree Requirements

I.	MCCCDCourses General Educational Requirements	Credits
A.	MCCCDCourses AGEC - A	
	<b>1. Core Areas</b>	<b>35-38</b>
	a. First-Year Composition [FYC] ENG101/102 OR ENG107/108	6
	b. Mathematics Studies [MA] and Computer/Statistics/Quantitative Applications [CS]	6
	1) MAT142 [MA] College Mathematics, or higher (NOTE: MAT150, MAT151, MAT152, MAT156 and MAT157 are excluded) AND	
	2) CIS105 [CS] Survey of Computer Information Systems, OR BPC110 [CS] Computer Usage and Applications	



**AAEE Degree Requirements (continued)**

- c. Literacy and Critical Inquiry [L] 3  
 Select 3 semester credits from the following courses:  
 COM225 Public Speaking, or COM230 Small Group Communication
- d. Humanities and Fine Arts [HU] 6  
 1. Select (3) semester credits from the following courses:  
 ARH100 Introduction to Art  
 ARH101 Prehistoric through Gothic Art  
 ARH102 Renaissance through Contemporary Art  
 AND  
 2. Select (3) semester credits from the following courses:  
 ENH110 Introduction to Literature  
 ENH241 American Literature Before 1860  
 ENH242 American Literature After 1860  
 EDU/ENH291 Children's Literature  
 HUM250 or HUM251 Ideas and Values in the Humanities  
 THE111 Introduction to Theatre, DAH100 Introduction to Dance,  
 DAH201 World Dance Perspectives  
 MHL140 Survey of Music History  
 MHL143 Music in World Cultures
- e. Social and Behavioral Sciences [SB] 6  
 1. Select 3 semester credits from the following courses:  
 HIS103 United States History to 1870  
 HIS104 United States History 1870 to Present  
 AND  
 2. Select 3 semester credits from the following courses:  
 PSY101 Introduction to Psychology  
 GCU121 World Geography I: Eastern Hemisphere  
 GCU122 World Geography II: Western Hemisphere  
 ECN211 Macroeconomic Principles  
 ECN212 Microeconomic Principles  
 POS110 American National Government  
 ECH/CFS176 Child Development
- f. Natural Sciences—Science-Quantitative [SQ] and Science-General [SG] 8  
 To complete the Natural Sciences requirement, select a total of 8 semester credits from the following categories. At least 4 credits must be SQ courses. You can select 4 semester credits of SG and 4 semester credits of SQ for a total of 8 semester credits. Natural Sciences courses must include or be accompanied by the corresponding laboratory course. When the lecture and corresponding laboratory are awarded separate credit, both will be counted as equivalent to one course in that discipline.  
 1) Life Sciences - Select 4 semester credits of SQ or SG from BIO  
 AND  
 2) Physical Sciences or Earth/Space Sciences - Select 4 semester credits or SQ or SG credits from the following prefixes:  
 AGS, ASM, AST, CHM, GPH, GLG, PHS, PHY
- g. Awareness Areas 0  
 The MCCC CD AAEE requires coursework in two Awareness Areas:  
 Cultural Diversity in the U.S. [C]  
 AND



Historical Awareness [H]  
OR  
Global Awareness [G]

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

3. MCCCCD Additional Requirements 0-3
- a. Oral Communication  
Satisfied by COM225 or COM 230 taken for Literacy and Critical Inquiry Requirement
  - b. Critical Reading  
CRE101 or exemption by testing

## II. Elementary Education Requirements 25

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

- A. Education Foundations 15  
Complete the following courses to satisfy the Education Foundations requirements:

EDU221 Introduction to Education  
EDU222 Introduction to the Exceptional Learner  
EDU230 Cultural Diversity in Education  
MAT156 Mathematics for Elementary Teachers I  
MAT157 Mathematics for Elementary Teachers II

- B. Electives for Arizona Professional Teacher Standards 10

A total of 10 semester credits are required to satisfy the Electives for Arizona Professional Teacher Standards: 3 credits in an additional Education course and 7 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.

- 1) Additional Education Course Requirement  
Select any EDU course (except EDU221, EDU222, EDU230 and EDU250) to satisfy this requirement.
- 2) Content Area Electives  
Select 7 credits from the following:  
Any ARH, ART, CIS, ECN, BPC, ENG, ENH, GCU, GPH, HIS, MHL, MTC, POS, THE, THP prefixed course(s)  
Any EDU prefixed course(s) (EXCEPT EDU250)  
Any MAT (courses numbered higher than 142 EXCEPT MAT156 and MAT157)  
Any Foreign Language course(s)  
Any Natural Science course(s)  
CFS/ECH176 Child Development  
CFS205 Human Development  
EED215 Early Learning: Health, Safety, Nutrition and Fitness  
FON100 Introductory Nutrition

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

### Description

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

The degree includes the following components:

I. General Education:

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

II. Fine Arts Requirements – Dance

### Purpose of the Degree

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

The semester credits used to satisfy the MCCCD Associate in Arts, Fine Arts - Dance degree will apply to university graduation requirements of the university major for which the degree is designed. Information regarding the articulation of the degree with majors at the Arizona public universities can be accessed via the following website: <http://az.transfer.org/cas/atass/student/modpath.html>

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

- Completion of the Associate in Arts, Fine Arts -Dance degree or the AGECA provides for exemption from Arizona public university admission requirements for Arizona residents who have a minimum Grade Point Average of 2.0 on a 4.0=A scale and a minimum 2.5 on a 4.0=A scale for non-residents.
- The graduation policies within the general catalog must be satisfied for completion of the Associate in Arts, Fine Arts - Dance degree.
- A minimum of 64 semester credits in courses numbered 100 and above to be completed with a grade of “C” or better;
- The General Education Requirements for AGECA may be completed in 35 semester credits with the following stipulations
  - o Courses can satisfy a Core Area and one or two Awareness Areas simultaneously
  - o A course cannot be used to satisfy more than one Core Area
- General Education Courses can satisfy multiple areas within the degree simultaneously (AGECA Core Area, AGECA Awareness Area, MCCCD Additional Requirements, or lower-division courses applicable to the major).
- Effective Fall 2000, the course evaluation and/or general education designation as listed in the Arizona Course Equivalency Guide (CEG) within the Arizona Course Applicability System (AZCAS), is valid for the term in which the student is awarded credit on the transcript. A course evaluation and/or general education designation may be subject to change. Students do have the option to petition for general education evaluations and/or general education designations upon transfer.



- Courses completed at one of the Maricopa Community Colleges to meet AGEC-A requirements must be listed in the Course Equivalency Guide within the Arizona Course Applicability System as an equivalent course, departmental elective credit (XXXXDEC), or general elective credit (Elective) at all Arizona public universities. The course's evaluation and/or general education designation is valid for the term in which the student is awarded credit on the transcript. See the list titled MCCCCD Courses That Can Be used to Satisfy MCCCCD AGEC-A, AGEC-B, and/or AGEC-S for specific course information via the following website: <http://www.maricopa.edu/academic/ccta/>
- Courses completed at one of the Maricopa Community Colleges to meet the General Electives requirement must be listed in the Course Equivalency Guide (CEG) within the Arizona Course Applicability System (AZCAS) as an equivalent course, departmental elective credit (XXXDEC), or general elective credit (Elective) at all Arizona public universities. For appropriate course selection, students should consult with an advisor.
- Courses transferred from another regionally accredited institution to one of the Maricopa Community Colleges will be evaluated by the college for inclusion in the AGEC-A or Associate in Arts, Fine Arts-Dance Degree.
- Courses and their modular equivalents will satisfy AGEC-A and Associate in Arts, Fine Arts - Dance requirements.
- If a course is cross-referenced with one or more other courses, then only one of the cross-referenced courses will be accepted to meet requirements.

### **Degree Requirements**

The 64 semester credits required for the Associate in Arts, Fine Arts - Dance degree follow. See the list titled MCCCCD Courses That Can Be used to Satisfy MCCCCD AGEC-A, AGEC-B, and/or AGEC-S for specific course information via the following website: <http://www.maricopa.edu/academic/ccta/> This list identifies the courses in alpha-order by prefix as well as the Core Areas and Awareness Areas where the course will apply. For purposes of clarifying requirements in the Mathematics and Natural Sciences areas on the list and the AGEC requirements, an A, B, and/or S character may follow the [MA], [SQ], [SG] general education designations and refers to the specific AGEC.

#### **I. MCCCCD General Education**

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

##### **MCCCCDAGEC-A**

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

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

    - 1) Mathematics [MA] A (3 credits)

Select a course in college mathematics or college algebra or pre-calculus or any other mathematics course for which college algebra is a prerequisite.



**Associate of Arts, Fine Arts - Dance continued:**

AND

2) Computer/Statistics/Quantitative Applications [CS] (3 credits)

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

Select from the following options to complete three credits:

	Credits
DAH100 Introduction to Dance	3
DAH201 World Dance Perspectives	3

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

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

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

Select from the following options to complete four credits:

	Credits
BIO160 Introduction to Human Anatomy and Physiology	4
BIO201 Human Anatomy and Physiology I	4

2. Awareness Areas: Credits: 0  
Students must satisfy two Awareness Areas: Cultural Diversity in the United States [C] and either Global Awareness [G] or Historical Awareness [H]. However, it is not necessary for students to exceed thirty-five semester credits to complete the Awareness Areas because courses can satisfy a Core Area and one or two Awareness Areas simultaneously. Therefore no additional semester credits are required to satisfy the two Awareness Areas.

Cultural Diversity in the United States [C]

AND

Global Awareness [G] OR

Historical Awareness [H]

**MCCCD Additional Requirements: Credits: 0-6**

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





- a. Oral Communication: Credits: 3  
A total of three (3) semester credits is required for Oral Communication. However, if students select a communication course that satisfies both the Oral Communication area and an area within the Core, then the Oral Communication requirement has been satisfied and additional electives may be taken.

Select from the following options:

COM100 [SB] (3 credits) OR  
COM100AA & COM100AB & COM100AC [SB] (3 credits) OR  
COM110 [SB] (3 credits) OR  
COM110AA & COM110AB & COM110AC [SB] (3 credits) OR  
COM225 [L] (3 credits) OR  
COM230 [L] [SB] (3 credits)

- b. Critical Reading: Credits: 3  
A total of three (3) semester credits is required for the Critical Reading area. However, if students complete CRE 101 and apply it to AGEC-A Core Requirements or if the students demonstrate proficiency through assessment, then the Critical Reading requirement has been satisfied and additional electives may be taken.

Select from the following options to complete 3 credits:

CRE101 [L] (3 credits) OR equivalent as indicated by assessment

## II. Fine Arts Requirements – Dance: Credits: 29

A minimum of 29 credits are required to satisfy the Fine Arts Requirements – Dance.

### Part I: Credits 11

Select the following:

	Credits
DAN150 Dance Performance I	1
DAN210 Dance Production I	3
DAN221 Rhythmic Theory for Dance I	2
DAN264 Choreography I	3
DAN280 Dance Practicum	2

### Part II: Credits: 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
DAN120++	World Dance (any module)	1
DAN129	Musical Theatre Dance I	1
DAN130	Musical Theatre Dance II	1
DAN131	Ballet I	1
DAN132	Modern Dance I	1
DAN133	Modern Jazz Dance I	1
DAN134	Ballet II	1
DAN135	Modern Dance II	1
DAN136	Modern Jazz Dance II	1
DAN229	Musical Theatre Dance III	1
DAN230	Musical Theatre Dance IV	1
DAN231	Ballet III	1
DAN231AA	Ballet III: Intensive	2
DAN232	Modern Dance III	1
DAN233	Modern Jazz Dance III	1
DAN234	Ballet IV	1

**Associate of Arts, Fine Arts - Dance continued:**

DAN234	Ballet IV: Intensive	2
DAN235	Modern Dance IV	1
DAN236	Modern Jazz Dance IV	1
DAN237	Ballet Pointe I	1
DAN290	Dance Conservatory I (any module)	1-3
DAN291	Dance Conservatory II (any module)	1-3
DAN292	Dance Conservatory III (any module)	1-3

**Part III: Restricted Electives: Credits: 9**

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

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

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

**Associate in Arts, Fine Arts – Dance Total Credits: 64**



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

### Description

The Maricopa County Community College District Associate in Arts, Fine Arts - Art degree requires a minimum of 63 semester credits for the program of study. The degree includes the following components:

I. General Education:

Arizona General Education Curriculum for Arts (AGEC-A)

MCCCD Additional Requirements

II. Fine Arts Requirements – Art

### Purpose of the Degree

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

The semester credits used to satisfy the MCCCD Associate in Arts, Fine Arts - Art degree will apply to university graduation requirements of the university major for which the degree is designed. Information regarding the articulation of the degree with majors at the Arizona public universities can be accessed via the following website: <http://az.transfer.org/cas/atass/student/modpath.html>

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

- Completion of the Associate in Arts, Fine Arts -Dance degree or the AGECE-A provides for exemption from Arizona public university admission requirements for Arizona residents who have a minimum Grade Point Average of 2.0 on a 4.0=A scale and a minimum 2.5 on a 4.0=A scale for non-residents.
- The graduation policies within the general catalog must be satisfied for completion of the Associate in Arts, Fine Arts - Art degree.
- A minimum of 63 semester credits in courses numbered 100 and above to be completed with a grade of “C” or better;
- The General Education Requirements for AGECE-A may be completed in 35 semester credits with the following stipulations
  - o Courses can satisfy a Core Area and one or two Awareness Areas simultaneously
  - o A courses cannot be used to satisfy more than one Core Area
- General Education Courses can satisfy multiple areas within the degree simultaneously (AGECE-A Core Area, AGECE Awareness Area, MCCCD Additional Requirements, or lower-division courses applicable to the major).
- Effective Fall 2000, the course evaluation and/or general education designation as listed in the Arizona Course Equivalency Guide (CEG) within the Arizona Course Applicability System (AZCAS), is valid for the term in which the student is awarded credit on the transcript. A course evaluation and/or general education designation may be subject to change. Students do have the option to petition for general education evaluations and/or general education designations upon transfer.

- Courses completed at one of the Maricopa Community Colleges to meet AGEC-A requirements must be listed in the Course Equivalency Guide within the Arizona Course Applicability System as an equivalent course, departmental elective credit (XXXXDEC), or general elective credit (Elective) at all Arizona public universities. The course's evaluation and/or general education designation is valid for the term in which the student is awarded credit on the transcript. See the list titled MCCCCD Courses That Can Be used to Satisfy MCCCCD AGEC-A, AGEC-B, and/or AGEC-S for specific course information via the following website: <http://www.maricopa.edu/academic/ccta/>
- Courses completed at one of the Maricopa Community Colleges to meet the General Electives requirement must be listed in the Course Equivalency Guide (CEG) within the Arizona Course Applicability System (AZCAS) as an equivalent course, departmental elective credit (XXXDEC), or general elective credit (Elective) at all Arizona public universities. For appropriate course selection, students should consult with an advisor.
- Courses transferred from another regionally accredited institution to one of the Maricopa Community Colleges will be evaluated by the college for inclusion in the AGEC-A or Associate in Arts, Fine Arts-Art Degree.
- Courses and their modular equivalents will satisfy AGEC-A and Associate in Arts, Fine Arts - Art requirements.
- If a course is cross-referenced with one or more other courses, then only one of the cross-referenced courses will be accepted to meet requirements.

### **Degree Requirements**

The 63 semester credits required for the Associate in Arts, Fine Arts - Art degree follow. See the list titled MCCCCD Courses That Can Be used to Satisfy MCCCCD AGEC-A, AGEC-B, and/or AGEC-S for specific course information via the following website: <http://www.maricopa.edu/academic/ccta/> This list identifies the courses in alpha-order by prefix as well as the Core Areas and Awareness Areas where the course will apply. For purposes of clarifying requirements in the Mathematics and Natural Sciences areas on the list and the AGEC requirements, an A, B, and/or S character may follow the [MA], [SQ], [SG] general education designations and refers to the specific AGEC.

#### **I MCCCCD General Education**

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

##### **MCCCCDAGEC-A**

1. Core Areas: Credits: 35

a. First-Year Composition (FYC): Credits: 6

b. Literacy and Critical Inquiry [L]: Credits: 3

c. Mathematical Studies [MA/CS]: Credits: 6

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

1) Mathematics [MA] A (3 credits)

Select a course in college mathematics or college algebra or pre-calculus or any other mathematics course for which college algebra is a prerequisite.



AND

2) Computer/Statistics/Quantitative Applications [CS] (3 credits)

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

Select the following :

	Credits
ARH101 Prehistoric Through Gothic Art	3

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

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

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

2. Awareness Areas: Credits: 0  
Students must satisfy two Awareness Areas: Cultural Diversity in the United States [C] and either Global Awareness [G] or Historical Awareness [H]. However, it is not necessary for students to exceed thirty-five semester credits to complete the Awareness Areas because courses can satisfy a Core Area and one or two Awareness Areas simultaneously. Therefore no additional semester credits are required to satisfy the two Awareness Areas.

Cultural Diversity in the United States [C]

AND

Global Awareness [G] OR

Historical Awareness [H]

**MCCCD Additional Requirements: Credits:**

**0-6**

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

- a. Oral Communication: Credits: 3  
A total of three (3) semester credits is required for Oral Communication. However, if students select a communication course that satisfies both the Oral Communication area and an area within the Core, then the Oral Communication requirement has been satisfied and additional electives may be taken.



**Associate of Arts, Fine Arts - Art continued:**

Select from the following options:

COM100 [SB] (3 credits) OR  
 COM100AA & COM100AB & COM100AC [SB] (3 credits) OR  
 COM110 [SB] (3 credits) OR  
 COM110AA & COM110AB & COM110AC [SB] (3 credits) OR  
 COM225 [L] (3 credits) OR  
 COM230 [L] [SB] (3 credits)

b. Critical Reading: Credits: 3

A total of three (3) semester credits is required for the Critical Reading area. However, if students complete CRE 101 and apply it to AGEC-A Core Requirements or if the students demonstrate proficiency through assessment, then the Critical Reading requirement has been satisfied.

Select from the following options to complete 3 credits:

CRE101 (3 credits) OR equivalent as indicated by assessment

**II. Fine Arts Requirements – Art Credits: 28**

A minimum of 28 credits are required to satisfy the Fine Arts Requirements – Art.

**Foundations: Credits: 16**

Select the following:

	Credits
ADA/ART112 Two-Dimensional Design	3
ADA/ART115 Three-Dimensional Design	3
ARH102 Renaissance Through Contemporary Art	3
ART111 Drawing I	3
ART113 Color	3
ART255AB The Portfolio	1

**Restricted Electives: Credits: 12**

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

	Credits
ART116 Life Drawing I	3
ART122 Drawing and Composition II	3
ART131 Photography I	3
ART132 Photography II	3
ART151 Sculpture I	3
ART161 Ceramics I	3
ART165 Watercolor Painting I	3
ART167 Painting I	3

**Associate in Arts, Fine Arts – Art Total Credits: 63**



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

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

The semester credits used to satisfy the MCCCD Associate in Arts, Fine Arts - Theatre will apply to university graduation requirements of the university major for which the degree is designed. Information regarding the articulation of the degree with majors at the Arizona public universities can be accessed via the following website:  
<http://az.transfer.org/cas/atass/student/modpath.html>

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

- Completion of the Associate in Arts, Fine Arts - Theatre or the AGECA provides for exemption from Arizona public university admission requirements for Arizona residents who have a minimum Grade Point Average of 2.0 on a 4.0=A scale and a minimum 2.5 on a 4.0=A scale for non-residents.
- The graduation policies within the general catalog must be satisfied for completion of the Associate in Arts, Fine Arts - Theatre degree.
- A minimum of 60 semester credits in courses numbered 100 and above to be completed with a grade of “C” or better;
- The General Education Requirements for AGECA may be completed in 35 semester credits with the following stipulations
  - o Courses can satisfy a Core Area and one or two Awareness Areas simultaneously
  - o A course cannot be used to satisfy more than one Core Area
- General Education Courses can satisfy multiple areas within the degree simultaneously (AGECA Core Area, AGECA Awareness Area, MCCCD Additional Requirements, or lower-division courses applicable to the major).
- Effective Fall 2000, the course evaluation and/or general education designation as listed in the Arizona Courses Equivalency Guide (CEG) within the Arizona Course Applicability System (AZCAS), is valid for the term in which the student is awarded credit on the transcript. A course evaluation and/or general education designation may be subject to change. Students do have the option to petition for general education evaluations and/or general education designations upon transfer.

- Courses completed at one of the Maricopa Community Colleges to meet AGEC-A requirements must be listed in the Course Equivalency Guide within the Arizona Course Applicability System as an equivalent course, departmental elective credit (XXXXDEC), or general elective credit (Elective) at all Arizona public universities. The course's evaluation and/or general education designation is valid for the term in which the student is awarded credit on the transcript. See the list titled MCCCCD Courses That Can Be used to Satisfy MCCCCD AGEC-A, AGEC-B, and/or AGEC-S for specific course information via the following website: <http://www.maricopa.edu/academic/ccta/>
- Courses completed at one of the Maricopa Community Colleges to meet the General Electives requirement must be listed in the Course Equivalency Guide (CEG) within the Arizona Course Applicability System (AZCAS) as an equivalent course, departmental elective credit (XXXDEC), or general elective credit (Elective) at all Arizona public universities. For appropriate course selection, students should consult with an advisor.
- Courses transferred from another regionally accredited institution to one of the Maricopa Community Colleges will be evaluated by the college for inclusion in the AGEC-A or Associate in Arts, Fine Arts-Theatre Degree.
- Courses and their modular equivalents will satisfy AGEC-A and Associate in Arts, Fine Arts - Theatre requirements.
- If a course is cross-referenced with one or more other courses, then only one of the cross-referenced courses will be accepted to meet requirements.

### **Degree Requirements**

The 60-64 semester credits required for the Associate in Arts, Fine Arts - Theatre follow. See the list titled MCCCCD Courses That Can Be used to Satisfy MCCCCD AGEC-A, AGEC-B, and/or AGEC-S for specific course information via the following website: <http://www.maricopa.edu/academic/ccta/> this list identifies the courses in alpha-order by prefix as well as the Core Areas and Awareness Areas where the course will apply. For purposes of clarifying requirements in the Mathematics and Natural Sciences areas on the list and the AGEC requirements, an A, B, and/or S character may follow the [MA], [SQ], [SG] general education designations and refers to the specific AGEC.

#### **I. MCCCCD General Education**

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

##### **MCCCCDAGEC-A**

1. Core Areas: Credits: 35

a. First-Year Composition (FYC): Credits: 6

b. Literacy and Critical Inquiry [L]: Credits: 3

Select the following:

	Credits
THE220 Modern Drama	3

c. Mathematical Studies [MA/CS]: Credits: 6

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



1) Mathematics [MA] A (3 credits)

Select a course in college mathematics or college algebra or pre-calculus or any other mathematics course for which college algebra is a prerequisite.

AND

2) Computer/Statistics/Quantitative Applications [CS] (3 credits)

- d. Humanities and Fine Arts [HU]: Credits: 6  
Students are encouraged to choose course work from more than one discipline for a total of six semester credits.  
Select the following :

	Credits
THE205 Introduction to Cinema	3

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

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

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

2. Awareness Areas: Credits: 0  
Students must satisfy two Awareness Areas: Cultural Diversity in the United States [C] and either Global Awareness [G] or Historical Awareness [H]. However, it is not necessary for students to exceed thirty-five semester credits to complete the Awareness Areas because courses can satisfy a Core Area and one or two Awareness Areas simultaneously. Therefore no additional semester credits are required to satisfy the two Awareness Areas.

Cultural Diversity in the United States [C]

AND

Global Awareness [G] OR

Historical Awareness [H]

**MCCCD Additional Requirements: Credits:**

**0-6**

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

**Associate of Arts, Fine Arts - Theatre continued:**

- a. Oral Communication: Credits: 3  
A total of three (3) semester credits is required for Oral Communication. However, if students select a communication course that satisfies both the Oral Communication area and an area within the Core, then the Oral Communication requirement has been satisfied and additional electives may be taken.  
Select from the following options:  
COM100 [SB] (3 credits) OR  
COM100AA & COM100AB & COM100AC [SB] (3 credits) OR  
COM110 [SB] (3 credits) OR  
COM110AA & COM110AB & COM110AC [SB] (3 credits) OR  
COM225 [L] (3 credits) OR COM230 [L] [SB] (3 credits)
- b. Critical Reading: Credits: 3  
A total of three (3) semester credits is required for the Critical Reading area. However, if students complete CRE 101 and apply it to AGEC-A Core Requirements or if the students demonstrate proficiency through assessment, then the Critical Reading requirement has been satisfied.  
Select from the following options to complete 3 credits:  
CRE101 [L] (3 credits) OR equivalent as indicated by assessment

**II. Fine Arts Requirements – Theatre Credits: 25-29**

A minimum of 25 credits are required to satisfy the Fine Arts Requirements – Theatre.

**Foundations: Credits: 13** (Select the following:)

		Credits
THE111	Introduction to Theatre	3
THP112	Acting I	3
THP115	Theatre Makeup	3
THP201AA	Theatre Production I OR	
THP201AB	Theatre Production II	1
THP213	Introduction to Technical Theatre	3

**Restricted Electives: Credits: 12-16**

Students may choose from the following courses to specialize in Acting, Technical Theatre, Teacher Education, or Cinema. Students should consult with the theatre advisor for the restricted electives recommended for each specialization track.

Select from the following options to complete a minimum of 12 semester credits:

		Credits
HUM/THE206	Introduction to Television Arts	3
HUM/THE210	Contemporary Cinema	3
THP120AA	Audition Techniques: Monologue	1
THP120AB	Audition Techniques: Cold Readings	1
THP130	Stage Combat OR	
THP131	Stage Movement	3
THP210	Acting: TV/Film	3
THP211	Creative Drama	3
THP212	Acting II	3
THP214	Directing Techniques	3
THP216	Beginning Stage Lighting	3
THP217	Introduction to Design Scenography	3
THP219	Introduction to Puppetry	3
THP267	Painting Techniques for Film, TV and Theatre	3
THP271	Voice and Diction	3

**Associate in Arts, Fine Arts - Theatre Total Credits: 60-64**





## ASSOCIATE IN SCIENCE DEGREE (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. The degree will transfer as a block without loss of credit to Arizona's public universities and other institutions with district-wide articulation agreements.

The semester credits used to satisfy the MCCCD Associate in Science will apply to university graduation requirements of the university major for which the Associate in Science is designed. Information regarding the articulation of the Associate in Science with majors at the Arizona public universities can be accessed via the following website: <http://az.transfer.org/cas/atass/student/modpath.html>

### Academic Policies that Govern the Associate in Science Degree

- Completion of the Associate in Science or the AGECS provides for exemption from Arizona public university admission requirements for Arizona residents who have a minimum Grade Point Average of 2.0 on a 4.0=A scale and a minimum 2.5 on a 4.0=A scale for non-residents.
- The graduation policies within the general catalog must be satisfied for completion of the Associate in Science degree.
- A minimum of 60 semester credits in courses numbered 100 and above to be completed with a grade of "C" or better;
- The General Education Requirements for AGECS may be completed in 36-38 semester credits with the following stipulations
  - Courses can satisfy a Core Area and one or two Awareness Areas simultaneously
  - A course cannot be used to satisfy more than one Core Area requirement in the AGECS A and B.
  - A course can be used to satisfy the L and SB or L and HU requirements simultaneously in the Core Area for the AGECS.
- General Education Courses can satisfy multiple areas within the degree simultaneously (AGECS Core Area, AGECS Awareness Area, MCCCD Additional Requirements, or lower-division courses applicable to the major).
- Effective Fall 2000, the course evaluation and/or general education designation as listed in the Arizona Course Equivalency Guide (CEG) within the Arizona Course Applicability System (AZCAS), is valid for the term in which the student is awarded credit on the transcript. A course evaluation and/or general education designation may be subject to change. Students do have the option to petition for general education evaluations and/or general education designations upon transfer.







- d. Humanities and Fine Arts [HU] 6  
Students are encouraged to choose course work from more than one discipline for a total of six semester credits. Select a course that satisfies both L and HU requirements simultaneously.
- e. Social and Behavioral Sciences [SB] 6  
Students are encouraged to choose course work from more than one discipline for a total of six semester credits. Select a course that satisfies both L and HU requirements simultaneously.
- f. Natural Sciences 8  
To complete the Natural Sciences requirement:  
Select eight (8) semester credits of either general chemistry (CHM151 & CHM151LL, and CHM152 & CHM152LL)  
OR  
Eight (8) semester credits of university physics (PHY115 & PHY116, or PHY121 & PHY131 )  
OR  
Eight (8) semester credits of general biology, ( BIO181 & BIO182) appropriate to the major.
- g. Subject options (subject based on major) 6-8  
Students completing AGEC S, through careful selection of courses that meet the other major pre-requisite requirements for Science degree, will meet this requirement. Using a transfer guide, select courses from Mathematics courses above Calculus, and/or Science courses from: Astronomy, Biology, Botany, Chemistry, Environmental Science, Geology, Physical Geography, Physics, Zoology.

## 2. Awareness Areas:

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

Cultural Diversity in the United States [C]

AND

Global Awareness [G] OR

Historical Awareness [H]

## 3. MCCC Additional Requirements 0-6

Students must satisfy Oral Communication and Critical Reading areas. However, it is not necessary for students to exceed the thirty-six to thirty-eight semester credits required in order to complete the MCCC Additional Requirements.

### a. Oral Communication

A total of three (3) semester credits is required for Oral Communication. However, if students select a communication course that satisfies both the Oral Communication area and an area within the Core, then the Oral Communication requirement has been satisfied and additional electives may be taken.

Select from the following options:

COM100 [SB] (3 credits) OR

COM100AA & COM100AB & COM100AC [SB] (3 credits) OR

COM110 [SB] (3 credits) OR

COM110AA & COM110AB & COM110AC [SB] (3 credits) OR

COM225 [L] (3 credits) OR

COM230 [L] [SB] (3 credits)



**MCCCD Additional Requirements continued:**

## b. Critical Reading

A total of three (3) semester credits is required for the Critical Reading area. If students demonstrate proficiency through assessment, then the Critical Reading requirement has been satisfied and additional electives may be taken.

CRE101 [L] **OR**

equivalent as indicated by assessment

**II. General Electives**

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

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

The list of Common Courses for each major is included in the Arizona Transfer Pathway Guides. University Transfer Guides are also available for the Arizona public universities. These guides, both statewide and institutional, are accessible on the following web site: [http://az.transfer.org/cas/students/transfer\\_guides.htm](http://az.transfer.org/cas/students/transfer_guides.htm)

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

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

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

**Associate in Science Total Credits:**

**60-64**



## ASSOCIATE IN BUSINESS (ABUS) DEGREE, GENERAL REQUIREMENTS (GR)

### Description

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

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

### Purpose of Degree

The ABus GR degree is designed for students who plan to transfer to Arizona's public universities into majors that articulate with the Associate in Business General Requirements pathway and for students who plan to complete lower division course work toward a baccalaureate program at other degree granting institutions. All business majors except Accountancy and Computer Information Systems should follow the ABus GR pathway. Accountancy majors should follow the Transfer Guide (TG-XR) pathway. Computer Information Systems majors should follow the Associate in Business Special Requirements pathway.

The degree transfers as a block without loss of credit to Arizona's public universities and other institutions with district-wide articulation agreements. All semester credits used to satisfy the MCCCCD Associate in Business General Requirements will apply to university graduation requirements of the university major for which the ABus GR was designed, regardless of whether the credit was awarded for completion of course work or for prior learning. For additional information on credit awarded for prior learning assessment, see the policy on Credit for Prior Learning in the general catalog.

### Academic Policies that Govern the Associate in Business General Requirements Degree:

- Requires 62-63 semester credits in courses numbered 100 and above to be completed with a grade of "C" or better;
- Uses the following policies to help students complete the required Core and Awareness Areas in AGECE B without exceeding the 35 semester credits;
  - Courses can satisfy a Core Area and one or two Awareness Areas simultaneously.
  - A course cannot be used to satisfy more than one Core Area requirement.
- Uses the following policies to help students complete the program requirements at a minimum of 62 semester credits but not more than 63 semester credits
- Courses can satisfy multiple areas within the degree simultaneously (AGECE B Core Area, AGECE B Awareness Area, and/or Common Lower Division Program Requirements)





**Associate in Business Degree, General Requirements continued:**

- Follows the general education policy below;  
**General Education Designations (example: (FYC), [SB], [HU], etc.)**  
Effective Fall 2000 the course evaluation and/or general education designation as listed in the Arizona CEG (Course Equivalency Guide) within the Arizona Course Applicability System (AZCAS) is valid for the term in which the student is awarded credit on the transcript. A course evaluation and/or general education designation may be subject to change. Given that curriculum is dynamic at both MCCCDC and the institutions to which MCCCDC students transfer, students have the option to petition for general education evaluations and/or general education designations.
- Requires courses that transfer as an equivalent course, departmental elective credit (XXXXDEC), or general elective credit (Elective) at all Arizona public universities according to the Arizona Course Equivalency Guide (CEG) within the Arizona Course Applicability System (AZCAS). The course evaluation and/or general education designation as listed in AZCAS is valid for the term in which the student is awarded credit on the transcript;
- Follows the graduation policies within the general catalog;
- Includes both courses and their modular equivalents, either the course or the modular equivalents will satisfy the Associate in Business General Requirements;
- Accepts one of the courses that is cross-referenced with other courses
- Provides for exemption from Arizona university admission requirements for students who complete the ABus GR degree from a regionally accredited post-secondary institution with a minimum 2.0 on a 4.0=A scale for Arizona residents and a minimum 2.5 on a 4.0=A scale for non-residents.

**Degree Requirements**

The 62-63 semester credits required for the Associate in Business General Requirements follow. See the list entitled MCCCDC Courses That Can Be Used to Satisfy MCCCDC AGECA, AGECA and/or AGECS for specific course information via the following website: <http://www.maricopa.edu/academic/ccta/>

- Select Tab labeled, Curriculum Procedures Handbook-Programs
- Select Academic Programs
- Select AGECA Course Matrix

The list identifies the courses in alpha-order by prefix as well as the different Core Areas and Awareness Areas where the course will apply. When selecting Mathematical Studies and Natural Sciences options, select from the appropriate AGECA, B, or S list.

**I. MCCCDC General Education****Credits****A. MCCCDCAGECB**

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

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

1) Mathematics [MA] B (3 credits) MAT212, Brief Calculus, or a higher level mathematics course

AND

2) Computers/Statistics/Quantitative Applications [CS] (3 credits). CIS105 [CS] Survey of Computer Information Systems



- d. Humanities and Fine Arts [HU] 6  
Students are encouraged to choose course work from more than one discipline for a total of six semester credits.
- e. Social and Behavioral Sciences [SB] 6  
Students are encouraged to choose course work from more than one discipline for a total of six semester credits.
- f. Natural Sciences [SQ/SG] 8  
To complete the Natural Sciences requirement:  
Select four (4) semester credits of [SQ] and four (4) semester credits of [SG] for a total of (8) semester credits, OR eight (8) semester credits of [SQ].  
Students **cannot** take eight (8) semester credits of [SG] to meet the Natural Sciences requirement.

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

2. Awareness Areas

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

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

**II. Common Lower Division Program Requirements: 27-28**

A total of 27-28 credits are required to satisfy the Common Lower Division Program Requirements. However, if students select courses that simultaneously satisfy multiple areas of the degree, then the number of semester credits required for Common Lower Division Program Requirements is reduced. Additional semester credits may be required in General Electives to complete the minimum 62-63 total program semester credits.

Complete the following:

Accounting:

- \*ACC111 Accounting Principles I AND  
ACC230 Uses of Accounting Information I AND  
ACC240 Uses of Accounting Information II  
OR  
\*\*ACC211 Financial Accounting AND  
ACC212 Managerial Accounting 6-7

\*MCCCD ACC250 or ACC211 may be taken in lieu of ACC111.

\*\*MCCCD ACC111 and ACC112 together are equivalent to ACC211.



**Associate in Business Degree, General Requirements continued:**

ECN211 [SB]	Macroeconomic Principles	3
EC2112 [SB]	Microeconomic Principles	3
GBS205	Legal, Ethical, Regulatory Issues in Business	3
GBS221 [CS]	Business Statistics	3

Quantitative Methods 3

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 required to take MAT217 or MAT218

Business Elective: 6

Select from the following options:

CIS114DE	Excel Spreadsheet
CIS133DA	Internet/Web Development Level I
CIS159 [CS]	Visual Basic Programming I
CIS162AD	C#: Level I
CIS163AA	Java Programming: Level I
**GBS 220	Quantitative Methods in Business
**MAT217	Mathematical Analysis for Business
**MAT218	Mathematical Analysis for Business
GBS151	Introduction to Business
GBS233 [L]	Business Communication
GBS110OR	Human Relations in Business and Industry
MGT251	Human Relations in Business
MGT253	Owning and Operating a Small Business
REA179	Real Estate Principles I
REA180	Real Estate Principles II

\*\*If course used to satisfy Common Lower Division Program Requirements, it can not be used to satisfy Business Electives.

**III. General Electives**

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

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

**ABus GR Degree Total Credits: 62-63**



## ASSOCIATE IN BUSINESS (ABUS) DEGREE, SPECIAL REQUIREMENTS (SR)

### Description

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

- I. MCCCDC General Education which includes the Arizona General Education Curriculum for Business (AGEC B)
- II. Common Lower Division Program Requirements,
- III. General Electives.

### Purpose of the Degree

The ABus SR degree is designed for Computer Information Systems majors who plan to transfer to Arizona's public universities and for students who plan to complete lower division course work toward a baccalaureate program at other degree granting institutions. Currently the pathway for accountancy majors is a Transfer Guide Pathway (TG-XR). The Associate in Business General Requirements is designed for all other business majors. Additional information on academic majors at the Arizona public universities can be accessed via the following web site:

[http://www.abor.asu.edu/4\\_special\\_programs/atass/index.html](http://www.abor.asu.edu/4_special_programs/atass/index.html)

- Click on Student Information
- Degrees and Pathways
- Scroll down to the bottom of the page
- Select the letter of the major you're interested in.

The Associate in Business Special Requirements transfers as a block without loss of credit to Arizona's public universities and other institutions with district-wide articulation agreements. All semester credits used to satisfy the MCCCDC Associate in Business Special Requirements will apply to university graduation requirements of the university major for which the ABus SR was designed, regardless of whether the credit was awarded for completion of course work or for prior learning. For additional information on credit awarded for prior learning assessment, see the policy on Credit for Prior Learning in the general catalog.

### Academic Policies that Govern the Associate in Business Special Requirements Degree:

- requires 62-63 semester credits in courses numbered 100 and above to be completed with a grade of "C" or better;
- uses the following policies to help students complete the required Core and Awareness Areas in AGECE B without exceeding the 35 semester credits;
  - Courses can satisfy a Core Area and one or two Awareness Areas simultaneously.
  - A course cannot be used to satisfy more than one Core Area requirement.
- uses the following policy to help students complete the program requirements at a minimum of 62 semester credits but not more than 63 semester credits
- Courses can satisfy multiple areas within the degree simultaneously (AGECE B Core Area, AGECE B Awareness Area, and/or Common Lower Division Program Requirements)

## Academic Policies that Govern the Associate in Business Special Requirement Degree Continued:

- follows the general education policy below;
 

**General Education Designations (example: (FYC), [SB], [HU], etc.)**  
Effective Fall 2000 the course evaluation and/or general education designation, as listed in the Arizona CEG (Course Equivalency Guide) within the Arizona Course Applicability System (AZCAS) is valid for the term in which the student is awarded credit on the transcript. A course evaluation and/or general education designation may be subject to change. Given that curriculum is dynamic at both MCCC and the institutions to which MCCC students transfer, students have the option to petition for course evaluations and/or general education designations.
- requires courses that transfer as an equivalent course, departmental elective credit (XXXXDEC), or general elective credit (Elective) at all Arizona public universities according to the Arizona Course Equivalency Guide (CEG). The course evaluation and/or general education designation as listed in AZCAS is valid for the term in which the student is awarded credit on the transcript;
- follows the graduation policies within the general catalog;
- includes both courses and their modular equivalents, either the course or the modular equivalents will satisfy the Associate in Business Special Requirements;
- accepts one of the courses that is cross-referenced with other courses;
- provides for exemption from Arizona university admission requirements for students who complete the ABus SR degree from a regionally accredited post-secondary institution with a minimum 2.0 on a 4.0=A scale for Arizona residents and a minimum 2.5 on a 4.0=A scale for non-residents.

### Degree Requirements

The 62-63 semester credits required for the Associate in Business Special Requirements follow. See the list entitled MCCC Courses That Can Be Used to Satisfy MCCC AGEC A, AGEC B and/or AGEC S for specific course information via the following website: <http://www.maricopa.edu/academic/ccta/>

Select Tab labeled, Curriculum Procedures Handbook-Programs  
Select Academic Programs  
Select AGEC Course Matrix

The list identifies the courses in alpha-order by prefix as well as the different Core Areas and Awareness Areas where the course will apply. When selecting Mathematical Studies and Natural Sciences options, select from the appropriate AGEC A, B, or S list.

I. MCCC General Education	Credits
A. MCCC DAGEC B	
1. Core Areas:	35
a. First-Year Composition (FYC)	6
b. Literacy and Critical Inquiry [L]	3
c. Mathematical Studies [MA/CS]	6
To complete the Mathematical Studies requirement select one course to satisfy Mathematics [MA] B and a second course from Computer/Statistics/Quantitative Applications [CS].	





- 1) Mathematics [MA] B (3 credits)  
 MAT212, Brief Calculus, or a higher level mathematics course  
 AND  
 2) Computers/Statistics/Quantitative Applications) [CS]  
 CIS105 [CS] Survey of Computer Information Systems

- d. Humanities and Fine Arts [HU] 6  
 Students are encouraged to choose course work from more than one discipline for a total of six semester credits.
- e. Social and Behavioral Sciences [SB] 6  
 Students are encouraged to choose course work from more than one discipline for a total of six semester credits.
- f. Natural Sciences [SQ/SG] 8  
 To complete the Natural Sciences requirement:  
 Select four (4) semester credits of [SQ] and four (4) semester credits of [SG] for a total of (8) semester credits, OR eight (8) semester credits of [SQ]. Students **cannot** take eight (8) semester credits of [SG] to meet the Natural Sciences requirement.

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

2. Awareness Areas

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

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

II. Common Lower Division Program Requirements: 27-28

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

Complete the following:

Accounting:

\*ACC111 Accounting Principles I AND  
 ACC230 Uses of Accounting Information I AND  
 ACC240 Uses of Accounting Information II

OR

\*\*ACC211 Financial Accounting

AND

ACC212 Managerial Accounting 6-7

\* MCCC CD ACC250 or ACC211 may be taken in lieu of ACC111.

\*\*MCCC CD ACC111 and ACC112 together are equivalent to ACC211.



**Associate in Business Special Requirement Degree Continued:**

Programming I: 3  
 CIS162AD C#: Level I

Programming II: 3  
 CIS250 Management Information Systems  
 GBS205 Legal, Ethical, and Regulatory Issues in Business 3  
 GBS221 [CS] Business Statistics 3  
 ECN211 [SB] Macroeconomic Principles 3  
 ECN212 [SB] Microeconomic Principles 3

Quantitative Methods 3  
 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

III. General Electives 0-6

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

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

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



## ASSOCIATE IN TRANSFER PARTNERSHIP (ATP) DEGREE

### Purpose of the Degree

The Maricopa County Community College District Associate in Transfer Partnership (ATP) degree is designed to meet the needs of the Maricopa Community College students transferring to public and private colleges and universities. This degree is developed specifically for students who have an identified major and have selected the baccalaureate degree-granting institution to which they intend to transfer.

The Associate in Transfer Partnership degree is an articulated academic program of study established among the student, the accredited baccalaureate degree-granting institution selected by the student, and the primary Maricopa Community College the student attends. The program of study will “parallel” the student’s four-year degree as designated by the baccalaureate degree-granting institution. That is, the courses and number of credit hours in the degree will consist of the Freshman and Sophomore lower division course degree requirements of the major as jointly planned and agreed on with the community college and the accredited institution to which the student plans to transfer.

The ATP degree requires a core of general education credits in the following general education categories: First-Year Composition (6 credits); Mathematics (3 credits); Natural Sciences (4 credits); and Humanities and Fine Arts/Social and Behavioral Sciences or related area general education requirements (6 credits). Also included in the ATP degree are the general education and major requirements to meet the lower division requirements of the major at the baccalaureate degree-granting institution. The ATP degree must consist of at least a minimum of 60 credit hours. The ATP degrees are accessible on the following web site:

<http://www.maricopa.edu/academic/ccta/>

Click on Program Information to access ATPs.

### Exemption From Arizona University Admission Requirements

The Associate in Transfer Partnership degree provides for exemption from Arizona university admission requirements for students who complete the degree from a regionally accredited post-secondary institution with a minimum 2.0 on a 4.0=A scale for Arizona residents and a minimum 2.5 on a 4.0=A scale for non-residents.

The ATP degree does not assure admission to the specific program at the baccalaureate degree-granting institution. Students participating in the ATP degree will be treated as “native” students by the upper division institution in terms of course evaluation and course changes.

Advising is a critical element of the transfer partnership degree, and students must work closely with a community college academic advisor prior to entering into a transfer partnership agreement. Once a transfer partnership agreement has been initiated by the student, approved and signed off by a community college academic advisor and university authorized official, the student is responsible for periodic meetings with the community college advisor and, if/when determined necessary, with the appropriate baccalaureate degree-granting institution academic advisor. Upon completion of 36 hours, the student must receive formal advising at a Maricopa Community College before the remainder of their classes can be scheduled.

## ELEMENTS OF THE ASSOCIATE IN TRANSFER PARTNERSHIP (ATP) DEGREE

ELEMENT	CREDITS
MCCCD General Education Core	19
Approved Lower Division Transfer Courses (Major dependent with maximum to be determined by receiving baccalaureate degree granting institution)	Variable
Associate in Transfer Partnership Degree Total Hours	60 minimum

The Associate in Transfer Partnership (ATP) degrees may not be available at all MCCCD Colleges. Associate in Transfer Partnership degrees are available in the following areas. Other ATP degrees may be added later depending on curricular needs: ATP information may be accessed via the following website: <http://www.maricopa.edu/academic/curric/atp/php>

General Business	Psychology
Social Work	Kinesiology
Accountancy	Computer Information Systems
Exercise and Wellness	Human Nutrition
K-12 Classroom Instructional Support	Recreation (various emphasis)
Global Business	Elementary Education
Early Childhood Teacher Education	Justice Studies
Molecular Biosciences/Biotechnology	





## ASSOCIATE IN GENERAL STUDIES (AGS) DEGREE

### Description

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

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

### Academic Policies that Govern the Associate in General Studies Degree:

- requires a minimum of 60 semester credits in courses numbered 100 and above.
- AGS degree requirements follow with the use of a diagonal character (/) between course numbers to signify options. An asterisk (\*) following the course number defines requirements with an effective begin term of spring;
- requires grades as listed for specific areas such as the General Education Core where a minimum grade of “C” is required. Courses applied to other areas may be completed with a minimum grade of “D”;
- uses the following policies for course (s ) satisfying multiple program areas;
  1. A course can simultaneously satisfy one Core area and one Distribution area. Courses that meet this criterion are **bold** print and underscored in the Core areas and Distribution areas.
  2. A course cannot satisfy more than one Core area, even if it is approved for more than one Core area.
  3. A course cannot satisfy more than one Distribution area, even if it is approved for more than one Distribution area.
- follows the graduation policies within the general catalog;
- includes both courses and their modular equivalents; either the course or the modular equivalents will satisfy the Associate in General Studies;
- accepts one of the courses that is cross-referenced with other courses;
- provides for exemption from Arizona university admission requirements for students who complete the Associate in General Studies degree from a regionally accredited post-secondary institution with a minimum 2.0 on a 4.0=A scale for Arizona residents and a minimum 2.5 on a 4.0=A scale for non-residents.





**Associate in General Studies Degree continued:****Degree Requirements:****GENERAL EDUCATION CORE**

(16 credits - grade of "C" or better)

**First-Year Composition (6 credits)**

ENG English [101/107] &amp; [102/108]

**Oral Communication (3 credits)**COM Communication **100/100AA & 100AB & 100AC/110/110AA & 110AB & 110AC/225/230****Critical Reading (3 credits)**CRE Critical Reading **101**/Equivalent as indicated by assessment**Mathematics (3 credits)**MAT Mathematics 102/105/120/121/122/122AA/122AB/122AC/126/140/141/142/150/151/151AA/151AB/151AC/151AD/152/156/172/182/187/206/212/213/220/221/225/227/230/231/240/241/251/261/262/ 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 115/115AA/115AB/115BA/115BB  
 ADA Advertising Arts 169/170/170AA/170AB/173/173AA/173AB/173AC/175/175AA/175AB/177/177AA/177AB/any 180 modules/183/183AA/183AB/183AC/283/283AA/283AB/283AC/289/289AA/289AB/289AC  
 AGB Agribusiness 139  
 AJS Administration of Justice Studies 117/**119**/205  
 ARC Architecture 243/244/245  
 ART Art 100/169/170/170AA/170AB/173/173AA/173AB/173AC/175/175AA/175AB/177/177AA/177AB/179/179AA/179AB/any 180 module/183/183AA/183AB/183AC/283/283AA/283AB/283AC/289/289AA/289AB/289AC  
 BIO Biology 119/219  
 BPC Business-Personal Computers Any BPC Course(s)  
 CFS Child/Family Studies 180  
 CIS Computer Information Systems Any CIS Course(s) (EXCEPT 163AA, 169, 259)  
 CSC Computer Science Any CSC Course(s) (EXCEPT 183)  
 CTR Court Reporting 101/102  
 DFT Drafting Technology 103/105/any 105 module/150/251/any 251 module/253/any 253 module/any 254 module/any 256 module  
 ECE Engineering Science 102/102AA/103/103AB/139  
 ECH Early Childhood Education 238  
 EEE Electrical Engineering 120  
 ELE Electronic 115/131/150/181/241/243/245/281  
 ELT Electronic Technology 131/131AA/131AB/241/243/249/273/281/282  
 ENG English 100AE  
 FON Food & Nutrition 100/100AA/100AC/100AD/140BC  
 GPH Physical Geography 219/220  
 HRM Hotel Restaurant Management 126  
 JAS Justice & Government Agencies Admin 225



JRN	Journalism 133
LAS	Paralegal Studies 229
LBT	Library Technology 106
MAT	Mathematics 206
MET	Manufacturing Technology 105AA/140/264
MTC	Music Theory/Composition 191
NET	Networking Technology 181/181AA/181AB/247
OAS	Office Automation Systems 111AA/111AB/113/113AA&113AB/119/130/any 130 module/any 135 module/any 235 module
PSY	Psychology 230
QCT	Quality Control Technology 274
SBS	Small Business 211
SMT	Semiconductor Manufacturing Technology 131/131AA/131AB/150
SWC	Social Work 225
TCM	Telecommunications 106
TVL	Travel Agent Technology 203/205
VPT	Video Production Technology 106

### **GENERAL EDUCATION DISTRIBUTION AREAS (28-29 credits)**

#### **Humanities and Fine Arts (9 credits)**

Students are encouraged to choose courses from more than one discipline. Select nine (9) credits from the following:

AIS	American Indian Studies 213
AJS	Administration of Justice Studies 123
ARH	Art Humanities Any ARH Course(s)
ASB	Anthropology 211/220/222/223
COM	Communication 241
DAH	Dance Humanities 201
EDU	Education 291/292/294
ENG	English 200
ENH	English Humanities Any ENH Course(s)
FRE	French 265
HCR	Health Care Related 210
HIS	History 101/102/103/109/111/243/253
HUM	Humanities Any HUM course(s) (EXCEPT 203, 207)
INT	Interior Design 115/120/225
LAT	Latin 201/202
MHL	Music: History/Literature 140/143/145/146/153/155
PHI	Philosophy Any PHI Course(s) (EXCEPT 113)
REL	Religious Studies Any REL Course(s)
SPA	Spanish 241/242/265/266
SPH	Spanish Humanities 245
STO	Storytelling 292/294
THE	Theater 111/205/206/210/260
THP	Theater/Performance/Production 241
WST	Women's Studies 209/284/285/290

#### **Social and Behavioral Sciences (9 credits)**

Students are encouraged to choose courses from more than one discipline

AIS	American Indian Studies 101/105*/140/141/160/170
AFR	African American Studies 110*/202/203/204
AJS	Administration of Justice Studies <b>101/119</b> /200/225/258/259/270
ASB	Anthropology 100/102/202/211/214//222/223/230/235/238/245
ASM	Anthropology 104
CFS	Child/Family Studies 157/159/176/205/259

\* deletion of AIS105 and AFR110 effective Summer I 2009

**Associate in General Studies Degree continued:**

COM	Communication <b>100/100AA&amp;100AB&amp;100AC/110/110AA&amp;110AB&amp;110AC/230/250/263</b>
ECH	Early Childhood Education 176
ECN	Economics Any ECN Course(s)
EDU	Education 221/222
EMT	Emergency Medical Technology 258
FSC	Fire Science Technology 258
FUS	Future Studies 101
GBS	General Business 280
GCU	Cultural Geography 102/121/122/141/221/223/253
HES	Health Science 100
HIS	History any HIS Course(s) (EXCEPT 111)
IBS	International Business 109
MCO	Mass Communications 120
PHI	Philosophy 243
POS	Political Science Any POS course(s)
PSY	Psychology 101/123/132/156/157*/215/218/225/235/240/ <b>241/243</b> /245/250/258/259/260/266/270/277/280/281/292
REC	Recreation 120/160
SBU	Society and Business 200
SOC	Sociology Any SOC course(s) (EXCEPT 242)
SWU	Social Work 102/171/258/292
TEC	Textiles and Clothing 106
WED	Wellness Education 100/110
WST	Women's Studies 100/105/110/120/160/161
YAQ	Yaqui Indian History & Culture 100

**Natural Sciences (7-8 credits)**

Two lecture courses and one corresponding laboratory courses 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 164/183
ASB	Anthropology 231
ASM	Anthropology 104/265*
AST	Astronomy 101/102/111/112/113/114
BIO	Biology 100/101/102/105/107/108/109/145/149AF/149AH/149AI/149AJ/149AK/149AL/149AM/149AN/150/156/160/181/182/201/205/241/247
CHM	Chemistry 107/107LL/130/130LL/151/151LL/152/152LL/154/154LL/230/230LL
FON	Food and Nutrition 241 & 241LL
FOR	Forensic Science 105/106
GLG	Geology Any GLG course(s)
GPH	Physical Geography 111/112/113/210/211/212 & 214/213/215
ISS	Interdisciplinary Science Studies 111/112
PHS	Physical Science 110/120
PHY	Physics 101/ <b>101AA/111AA</b> /111/112/115/116/121/131/252
PSY	Psychology 290AB/290AC

**Literacy & Critical Inquiry (3 credits)**

AIS	American Indian Studies 213
COM	Communication 207*/222/ <b>225/230*</b> /241
CRE	Critical Reading <b>101</b>
DAH	Dance Humanities 201
ENG	English 111/200/213/215/216/217/218
ENH	English Humanities 254/255

\* deletion of PSY127, ASM265, COM207 and COM230 effective Summer I 2009



FON	Food & Nutrition 206
GBS	General Business 233
GPH	Physical Geography 211
HCR	Health Care Related 220
HUM	Humanities 250/251
IFS	Information Studies 101
IGS	Integrated Studies 290AA&290AB/291/293
JRN	Journalism 201/212/234
MCO	Mass Communications 220
MHL	Music: History/Literature 140
PHI	Philosophy 103/106/225
POS	Political Science 115
PSY	Psychology 290AB/290AC
REL	Religious Studies 101/203/205/225
THE	Theater 220
THP	Theater Performance/Production 241

**Elective Courses (15-16 credits)**

May select courses from prefixes already chosen for General Education Distribution requirements in order to develop depth in one or more subject areas.





## ASSOCIATE IN APPLIED SCIENCE GENERAL EDUCATION REQUIREMENTS

### Purpose of Degree

The Maricopa County Community College District Associate in Applied Science (AAS) degree is recommended for students who wish to gain a depth of technical expertise by completing an occupational program presented in the college catalog. Students should consult this catalog to determine specific program requirements.

### Academic Policies that Govern the AAS Degree

- requires 60 or more credits numbered 100 or above and includes credits or the equivalent in the General Education Core areas and credits in the Distribution areas. AAS degree requirements follow with the use of a diagonal character (/) between course numbers to signify options. An asterisk (\*) following the course number defines requirements with an effective begin term of spring;
- requires grades as listed for specific areas such as the General Education Core where a minimum grade of “C” is required. See specific AAS occupational degree for specific program grade requirements;
- follows the graduation policies within the general catalog;
- includes both courses and their modular equivalents, either the course or the modular equivalents will satisfy the Associate in Applied Science requirements.
- requires at least 12 semester credit hours earned at the college awarding the AAS degree. The 12 hours in the AAS degree curricula may be in the Required Courses area and/or Restricted Electives courses. Courses from the General Education Core and Distribution area are excluded.
- Shared Programs are programs offered at multiple colleges but not available at all college. The requirements are identical at all the colleges offering the program.
- A Shared Program requires a minimum of six credit hours from the total program requirements to be completed with a grade of “C” or better at the college awarding the certificate or degree. The exception is the Nursing program. For those shared programs with less than six credit hours, the total hours for the program must be completed at the college awarding the certificate. The minimum of six credit hours in the certificate or degree curricula may be in the Required Courses area and/or the Restricted Electives. Courses from the General Education Core and Distribution area are excluded;
- Students must apply for graduation from the college where they have successfully completed Block 4 of the Associate in Applied Science in Nursing.
- Requires completion of General Education courses as indicated in the General Education Requirements for the Associate in Applied Science degree from the Maricopa County Community College District, or completion of a curriculum as stated in the catalog;
- Accepts one of the courses that is cross-referenced with other courses;
- Provides for exemption from Arizona university admission requirements for students who complete the Associate in Applied Science (AAS) degree from a regionally accredited post-secondary institution with a minimum 2.0 on a 4.0=A scale for Arizona residents and a minimum 2.5 on a 4.0=A scale for non-residents.





### GENERAL EDUCATION CORE

(15 credits - grade of "C" or better.)

Demonstrate college-level skills in the following areas:

#### First-Year Composition (6 credits)

ENG English [101/107] & [102/108/111]

#### Oral Communication (3 credits)

COM Communication 100/100AA & 100AB & 100AC/110/110AA & 110AB & 110AC/225/230

#### Critical Reading (3 credits)

CRE Critical Reading 101/111/Equivalent as indicated by assessment

#### Mathematics (3 credits)

MAT Mathematics 102/105/120/121/122/122AA/122AB/122AC/126/142/150/151/151AA/151AB/151AC/151AD/152/156/162/172/182/187/206/212/213/220/221/225/227/230/231/240/241/251/261/262/Equivalent course/Satisfactory completion of a higher level mathematics course.

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

#### Humanities and Fine Arts (2-3 credits)

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

AIS	American Indian Studies 213
AJS	Administration of Justice Studies 123
ARH	Art Humanities Any ARH Course(s)
ASB	Anthropology 211/220/222/223
COM	Communication 241
DAH	Dance Humanities 201
EDU	Education 291/292/294
ENG	English 200
ENH	English Humanities Any ENH Course(s)
FRE	French 265
HCR	Health Care Related 210
HIS	History 101/102/103/111/243/253
HUM	Humanities Any HUM course(s)(EXCEPT 203, 207)
INT	Interior Design 115/120/225
LAT	Latin 201/202
MHL	Music: History/Literature 140/143/145/146/153/155
PHI	Philosophy Any PHI Course(s) (EXCEPT 113)
REL	Religious Studies Any REL Course(s)
SPA	Spanish 241/242/265/266
SPH	Spanish Humanities 245
STO	Storytelling 292/294
THE	Theater 111/205/206/210/260
THP	Theater/Performance/Production 241
WST	Women's Studies 209/284/285/290

### Associate in Applied Studies Degree continued: Social and Behavioral Sciences (3 credits)

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

AIS	American Indian Studies 101/105*/140/141/160/170
AFR	African American Studies 110*/202/203/204
AJS	Administration of Justice Studies <b>101</b> /200/258/259/270
ASB	Anthropology 100/102/202/211/214/222/223/230/235/238/245
ASM	Anthropology 104
CFS	Child/Family Studies 157/159/176/205/259
COM	Communications 100/100AA & 100AB & 100AC/110/110AA & 110AB & 100AC/ 230/263
ECH	Early Childhood Education 176
ECN	Economics Any ECN course(s)
EDU	Education 221/222
EMT	Emergency Medical Technology 258
FSC	Fire Science Technology 258
FUS	Future Studies 101
GBS	General Business 280
GCU	Cultural Geography 102/121/122/141/221/223/253
HES	Health Science 100
HIS	History Any HIS course(s) (EXCEPT 111)
IBS	International Business 109
MCO	Mass Communications 120
PHI	Philosophy 243
POS	Political Science Any POS course(s)
PSY	Psychology 101/123/125/132/156/157*/215/218/225/235/240/ <b>241/243</b> /245/250/ 258/259/260/266/270/277/280/281/292
REC	Recreation 120/160
SBU	Society and Business 200
SOC	Sociology Any SOC course(s) (EXCEPT 242)
SWU	Social Work 102/171/258/292
TEC	Textiles and Clothing 106
WED	Wellness Education 100/110
WST	Women's Studies 100/105/110/120/160/161
YAQ	Yaqui Indian History and Culture 100

### Natural Sciences (4 credits)

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

AGS	Agricultural Science 164
ASB	Anthropology 231
ASM	Anthropology 104/265*
AST	Astronomy 101/102/111/112/113/114
BIO	Biology 100/101/102/105/107/108/109/145/149AN/150/156/160/181/182/ 201/205/241//247
CHM	Chemistry 107/107LL/130/130LL/151/151LL/152/152LL/154/154LL/230/230LL
FON	Food and Nutrition 241 & 241LL
FOR	Forensic Science 105/106
GLG	Geology Any GLG course(s) (EXCEPT 140/251MC/275)
GPH	Physical Geography 111/112/113/212/213/214/215
ISS	Interdisciplinary Science Studies 111/112
PHS	Physical Science 110/120
PHY	Physics 101/ <b>101AA</b> /111/ <b>111AA</b> /112/115/116/121/131/252
PSY	Psychology 290AB/290

\* deletion of AIS105, AFR110, PSY157 and ASM265 effective Summer I 2009



## ACADEMIC CERTIFICATE (AC)

### **Purpose of the Academic Certificate**

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

### **Academic Policies that Govern the Academic Certificate(area of emphasis):**

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





## INTERDISCIPLINARY STORYTELLING ACADEMIC CERTIFICATES

**Division Chair -Liberal Arts- Dr. Kathleen Iudicello (623) 935-8460**

**Certificate:** Interdisciplinary Storytelling  
Advance Interdisciplinary Storytelling

### Interdisciplinary Storytelling Certificate Requirements

**Program Description:** This academic certificate emphasizes the presentation of interdisciplinary and multi-cultural stories through live performance or through multimedia. Opportunities are provided to explore a variety of art forms and cultural perspectives to enhance creative content development.

#### Program Prerequisites: (3 Credits)

+ENG101	First-Year Composition (3) OR	
+ENG107	First-Year Composition for ESL (3) OR	
	Equivalent as indicated by assessment	3

#### Required Courses: (7 Credits)

		Credits
+STO282AA	Voluntaryism for Education: A Service Learning Experience	1
EDU/HUM/STO292	The Art of Storytelling	3
EDU/ENH/STO294	Multicultural Folktales	3

**AND**

#### Select on of the following tracks:

##### Track 1: Performance Emphasis: 9 Credits

+STO297	Creating and Telling Personal Stories	3
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Note: Student should select 2 courses from the following courses for total of 6 credits in consultation with a department/division advisor:

+COM/THP241	Performance of Literature	3
COM263	Elements of Intercultural Communication	3
+DAH201	World Dance Perspectives	3
+HUM250	Ideas & Values in the Humanities	3
HUM120	Cultural Viewpoints in the Arts	3
STO286	Using Storytelling in a Variety of Settings	3
STO288	Telling Sacred Stories from Around the World	3

**OR**

##### Track 2: Digital Emphasis: Credit 9

+ART/ADA173	Computer Art	3
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Note: Students should select 2 courses from the following courses for a total of 6 credits in consultation with the department/division advisor:

ART131	Photography I	3
+ADA/ART177	Computer-Photographic Imaging	3
+ART298AC	Special Projects	3
HUM120	Cultural Viewpoints in the Arts	3
+HUM250	Ideas & Values in the Humanities	3
STO286	Using Storytelling in a Variety of Settings	3
STO288	Telling Sacred Stories from Around the World	3
+STO297	Creating and Telling Personal Stories	3

(Note: + indicates course has prerequisites and/or corequisites)



### Advanced Interdisciplinary Storytelling Certificate Requirements

**Program Description:** The academic certificate program emphasizes the presentation of interdisciplinary and multi-cultural stories through live performance or through multimedia. This Advanced Interdisciplinary Storytelling Certificate provides students the opportunity to develop deeper understanding of points of view and to advance their artistic skills to achieve their fine arts goals. Opportunities are provided to explore a variety of art forms and cultural perspectives to enhance creative content development. Students can choose to concentrate study within a specific culture and/or to refine artistic ability to create compelling original stories.

#### Program Prerequisites: (19 Credits)

Certificate of Completion in Interdisciplinary Storytelling and		
+ENG102	First Year Composition (3) OR	
	Equivalent as indicated by assessment	3

<b>Required Courses: (3 Credits)</b>		<b>Credits</b>
+STO293	The Art of Storytelling II	3

Note: Student should select a total of 12 credits in consultation with a department/division advisor:

#### Track 1: Performance Emphasis: 12 Credits

ARH145	History of American Indian Art	3
ARH201	Art of Asia	3
ARH217	Mexican Art History	3
ART111	Drawing I	3
+CCS/ENH212	The Mexican American Novel	3
COM/THP243	Interpreters Theatre	3
+ENG210	Creative Writing	3
+ENG217	Personal and Exploratory Writing	3
ENH117	Rap Literature: The Oral Tradition	3
+ENH205	Asian American Literature	3
ENH259	American Indian Literature	3
HUM/WST209	Women and Films	3
MHL143	Music in World Cultures	3
MHL147	Music of African American Cultures	3
MUP225	Class Guitar I	2
STO289AA	Using Storytelling in Educational Settings	1
STO289AB	Using Storytelling in Business Settings	1
STO289AC	Using Storytelling in Healing Settings	1
THP112	Acting I	3

#### Track 2: Digital Emphasis: 12 Credits

+ENG217	Personal and Exploratory Writing (3) or	
HUM107	Humanities Through the Arts (3)	3

#### Choose 6 credits of the following:

Note: Student should select a total of 6 credits in consultation with a department/division advisor:

ADA/ART112	Two-dimensional Design	3
ARH120AA	Understanding Art: Black Art	2
ARH145	History of American Indian Art	3
ARH201	Art of Asia	3
ARH217	Mexican Art History	3
HUM/WST209	Women and Films	3
MHL143	Music in World Culture	3
MHL147	Music of African American Culture	3
STO289AA	Using Storytelling in Business Settings	1
STO289AB	Using Storytelling in Educational Settings	1
STO289AC	Using Storytelling in Healing Settings	1

#### Choose 3 credits of the following:

Note: Student should select a total of 3 credits in consultation with a department/division advisor

ART111	Drawing I	3
+ENG210	Creative Writing	3
MHL156	Music in Latin America and the Caribbean	3
MHL140	Survey of Music History	3
MHL145	American Jazz & Popular Music	3
MHL155	Survey of American Music	3
MUP225	Class Guitar I	3





## CHICANA AND CHICANO STUDIES CERTIFICATE

### Description

The Southwest Studies Program applies a broad, interdisciplinary approach to the study of the peoples and places of the American Southwest. Three certificates in American Indian Studies, Chicana and Chicano Studies, and Southwest Studies are available. Certificates may be attained independently of any degree program, but students may also apply course credits toward a degree.

The Chicana and Chicano Studies Academic Certificate explores the unique experiences of the Chicana and Chicano people living in the Southwest. The Certificate provides a study of Mexican-American life in the society of the United States, including Mexican background, social and cultural differences, and experiences of assimilation.

**Admission Criteria: None.**

### Program Prerequisites: Credits: 6

+ENG101	First-Year Composition (3) OR	
+ENG107	First-Year Composition for ESL (3)	3
+CRE101	Critical and Evaluative Reading I (3) OR	
	Equivalent as indicated by assessment	3

### Required courses: Credits: 15

+CCS101	Chicano and Chicana Studies	3
HIS103	United States History to 1870 (3) OR	
HIS104	United States History to 1870 to Present (3)	3
HIS109	Mexican American History and Culture	3
HIS209	The Chicano in 20th Century America	3
SPH245	Hispanic Heritage in the Southwest	3

### Restricted Electives: Credits: 9

BIO109	Natural History of the Southwest	4
+CCS+++++	Any CCS course except CCS101	1-3
HIS105	Arizona History	3

(Note: + indicates course has prerequisites and/or corequisites)

**Degree Total Credits: 24**





## GRADUATION/GENERAL EDUCATION POLICIES

All students are required to complete the degree and/or certificate requirements as approved by the MCCCCD 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 Office of Admissions and Records with not fewer than: 60 semester credit units in courses numbered 100 or above for the Associate in Arts degree, Associate in Science degree, Associate in Transfer Partnership degree, and Associate in General Studies degree; 60 semester credit units for the Associate in Applied Science degree; 62 semester credits for the Associate in Business degrees. For specific certificate programs, be credited with not fewer than the minimum total of credit units required for the certificate program.

Students not continuously enrolled as outlined in the Catalog Under Which a Student Graduates policy, must satisfy current graduation requirements.

2. have earned a minimum of 12 semester credit units toward the degree or certificate at the district college granting the degree or certificate. The 12 hours in the AAS degree curricula may be in the Required Courses area and/or Restricted Electives courses. Courses from the General Education Core and Distribution area are excluded. In cases where the certificate requires fewer than 12 credit units, a minimum of six credit units, must be completed at the college awarding the certificate. The minimum of six credit hours in the certificate or degree curricula may be in the Required Courses area and/or the Restricted Electives. Courses from the General Education Core and Distribution areas are excluded; Shared Programs are programs offered at multiple colleges but not available at all colleges. The requirements are identical at all the colleges offering the program.

A shared program requires a minimum of six credit hours from the total program requirements to be completed with a grade "C" or better at the college awarding the certificate or degree. The exception is the Nursing program. For those shared programs with less than six credit hours, the total hours for the program must be completed at the college awarding the certificate.

3. have filed an application for the degree or certificate with the Office of Admissions and Records 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 MCCCCD college /center.



8. have paid required degree or certificate application fee.

See fee schedule for charges.

See Graduation with Honors for information on honors designation.

## **CERTIFICATES/DEGREES**

The Maricopa Community Colleges offer Certificates of Completion as well as Associate Degrees, one of which is conferred on each student who has completed a program of study. These certificates and degrees are as follows: (1) Certificate of Completion (Career Program Specified); (2) Academic Certificate; (3) General Education Certificate; (4) Associate in Arts; (5) Associate in Science; (6) Associate in Business; (7) Associate in General Studies; (8) Associate in Transfer Partnership; (9) Associate in Applied Science (Career Program Specified).

All candidates for a degree and/or certificate must complete the General Graduation Requirements as approved by the MCCCDC Governing Board.

All students are urged to meet with a faculty advisor, program advisor or counselor as soon as possible to determine which program meets their needs and to plan their course of study.

## **GRADUATE GUARANTEE POLICY**

The Governing Board believes so strongly in the quality of its colleges' occupational training programs that it guarantees graduate competence.

1. Graduation from an Associate of Applied Science (AAS) is designed to prepare a person for entry-level employment in a specific career field. A graduate's ability to perform approved program competencies will be judged by employers. Should the employer of a graduate who has earned an AAS Degree find the employee lacking in the technical skills normally expected of an entry-level employee in the specific career field for which that graduate prepared, the District will provide the graduate with up to the equivalent of twelve (12) credit hours of retraining for no additional tuition.
2. Because technical occupations change rapidly, initial employment in an AAS Degree-related field must occur within one year of graduation from the AAS Degree program in question.

Retraining needs to occur as cost effectively as possible. The graduate's employer must present a list of the graduate's skill deficiencies to the appropriate dean at the graduate's alma mater. All retraining will be completed in a reasonable time as agreed to by the employer, the student, and the college.

## **LICENSURE DISCLAIMER**

Maricopa Community Colleges courses and programs prepare students for entry into a variety of professions. Many of these professions require that a person hold an occupational license or certificate in order to work in a particular field. Typically, a person must meet certain legal requirements before obtaining such a license or certificate. These requirements are established by county, state or federal agencies, and often are based on a person's character, or whether the person has been convicted of a criminal offense. It is possible for a student who has obtained a degree or certificate from a community college to be denied the right to work in a particular profession after completing the degree or certificate because of concerns over the student's character or criminal background. Any student preparing to enter a field for which a professional license or certificate is required is strongly advised to consult



with the appropriate government agency that issues such credentials. That agency can provide the student complete information about any requirements the law imposes for working in a particular occupation.

### **MCCCD General Education Statement**

The general education core of the program of study for an associate degree or a certificate helps students develop a greater understanding of themselves, of their relationship with others, and of the richly diverse world in which they live. The general education experience provides students with opportunities to explore broad areas of commonly held knowledge and prepares them to contribute to society through personal, social, and professional interactions with others. General education fosters students' personal development by opening them to new directions, perspectives, and processes.

Through its general education requirements, the Maricopa County Community College District is committed to helping students develop qualities and skills that will serve them throughout their lives. General education opportunities encourage students to:

- Build self-awareness, self-respect, and self-confidence
- Recognize and respect the beliefs, traditions, abilities, and customs of all people and all cultures
- Consider the local, global, and environmental impacts of personal, professional, and social decisions and actions
- Access, evaluate, analyze, synthesize, and use information wisely
- Communicate effectively personally, socially, and professionally
- Think critically, make informed decisions, solve problems, and implement decisions
- Consider the ethical implications of their choices
- Value the learning process throughout their lives
- Integrate and connect ideas and events in a historical perspective, and see relationships among the past, the present, and the future
- Develop a personal sense of aesthetics
- Use technological resources appropriately and productively
- Work cooperatively and respectfully with others to serve their communities

The general education experience at MCCCD is composed of specific elements across the curriculum designed to provide the learner with essential knowledge and skills:

- Communication
- Arts and Humanities
- Numeracy
- Scientific Inquiry in the Natural and Social Sciences
- Information Literacy
- Problem-Solving and Critical Thinking
- Cultural Diversity

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

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

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

## CATALOG UNDER WHICH A STUDENT GRADUATES

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 '93	(Active)
Continued at a Public Community College	Spring '94, Fall '94	(Active)
Transferred to a University	Spring '95	(1993 or Any Subsequent Catalog)

### EXAMPLE B:

Admitted & Earned Course Credit at a Public Community

College or University	Fall '92	(Active)
Enrolled But Earned All Ws, Zs, or Fs	Spring '93	(Inactive)
Enrolled in Audit Courses Only	Fall '93	(Inactive)
Nonattendance	Spring '94	(Inactive)
Transferred to a University	Fall '94	(1994 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 '92	(Active)
Nonattendance	Spring '93, Fall '93, Spring '94	(Inactive)

Readmitted & Earned Course Credit at a Public Community

College	Fall 94	(Active)
Transferred to a University	Spring '95	(1994 or Any Subsequent Catalog)

### EXAMPLE B:

Admitted & Earned Course Credit at a Public Community

College or University	Fall 92	(Active)
Nonattendance	Spring '93	(Inactive)

Readmitted & Earned Course Credit at a Public Community

College	Summer '93	(Active)
Nonattendance	Fall '93, Spring '94	(Inactive)
Transferred to a University	Fall '94	(1992 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 '94	(Active)
Continued at a Public Community College	Fall '94, Spring '95	(Active)
Nonattendance	Fall '95	(Inactive)

Readmitted & Earned Course Credit at a Public

Community College	Spring '96	(Active)
Transferred to a University	Summer '96	(1994 or Any Subsequent Catalog)

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

**University Department Time Limit for Coursework**

In areas of study in which the subject matter changes rapidly, material in courses taken long before graduation may become obsolete or irrelevant. Coursework that is more than eight years old is applicable to completion of degree requirements at the discretion of the student's major department. Departments may accept such coursework, reject it, or request that the student revalidate its substance. The eight-year limit on coursework applies except when program accreditation agencies limit the life of coursework to less than eight years. Departments may also require students to satisfy current major requirements rather than major requirements in earlier catalogs, when completing earlier requirements is no longer possible or educationally sound.

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



## TEACHER EDUCATION: MARICOPA COMMUNITY COLLEGE DISTRICT- WIDE OFFERINGS

In direct response to the ever growing need for highly qualified P-12 teachers and in support of the many communities it serves, the Maricopa Community College District has made a strong commitment to contributing to the recruitment and training of early childhood, elementary, secondary, and special education school teachers. With quality curriculum and excellent instruction as the primary focus of its faculty, the Maricopa colleges are well positioned to provide state and national leadership in the quality and nature of instruction thus helping students to become excellent teachers through the offering of current and responsive teacher education course work.

The District also supports professional development for certified teachers through the offering of course work, seminars, workshops and specialized training. This includes Bilingual Education, Computer Science, English as a Second Language (ESL), Math Specialist, Middle School, Reading Specialist, and Structured English Immersion (SEI).

In support of this commitment, the Maricopa Community College District offers teacher education course work, degrees, and /or programs at all 10 Maricopa Colleges.\*

### Teacher Education Options Available To Students

#### Instructional Aide/Associate/Paraprofessional Preparation

- **Associate in Arts in Elementary Education (AAEE):** designed for the student who plans to transfer to an Elementary Education, Special Education, Early Childhood Education or Multicultural/Multilingual program at any partner institution and/or who plans to become a classroom instructional aide. The degree transfers as a block without loss of credit to Arizona's public universities. (Offered at all 10 Maricopa Community Colleges)
- **Associate in Applied Science (AAS) in Teacher Assisting:** prepares students for employment as an assistant to the classroom teacher in grades K-12. It provides foundation work, which will allow the aide to pursue a higher degree in the field of education. (Offered at EMCC & GWCC)
- **Associate of Applied Science (AAS) in Instructional Assistance:** prepares students to work as instructional assistants. The program emphasizes the philosophical, cultural, and linguistic processes involved in teaching children. Students develop knowledge and skills required of the instructional assistant through a combination of courses in methodology and practicum experience (Offered at MCC & PC)
- **Associate in Transfer Partnership (ATP) in K-12 Classroom Instructional Support:** designed for students planning on becoming an Instructional Associate/Paraprofessional in K-12. Transfers as a block without loss of credit to Charter Oak State College. (Offered at EMCC, MCC, and RSC)
- **Certificate of Completion (CCL) in Instructional Assistance:** provides coursework which focuses on meeting the educational needs of learners. All Certificate Program requirements can be used toward completion of the Instructional assistance AAS Program. (Offered at MCC & PC)



### **Elementary Education Teacher Preparation**

- **Associate in Arts in Elementary Education (AAEE):** designed for the student who plans to transfer to an Elementary Education, Special Education, Early Childhood Education or Multicultural/Multilingual program at any partner institution and/or who plans to become a classroom instructional aide. The degree transfers as a block without loss of credit to Arizona's public universities. (Offered at all 10 Maricopa Community Colleges)
- **Associate in Transfer Partnership (ATP) in Elementary Education:** designed for students planning to transfer into Elementary Education at Arizona State University West Campus. Transfers as a block without loss of credit. (Offered at all 10 Maricopa Community Colleges)
- **Baccalaureate Partnership Program with Charter Oak State College:** designed for students in elementary education who will transfer to Charter Oak State College after completing 90 credits at the community college. (Offered at RSC)

### **Elementary and Special Education Teacher Preparation**

- **Associate in Arts in Elementary Education (AAEE):** designed for the student who plans to transfer to an Elementary Education program and Special Education at any partner institution and/or who plans to become a classroom instructional aide. The degree transfers as a block without loss of credit to Arizona's public universities. (Offered at all 10 Maricopa Community Colleges)
- **Urban Teacher Corps:** a teacher development program that supports urban classified school District employees in Phoenix to successfully complete a bachelor's degree in Education and return to their school Districts as teachers. After completion of lower division courses, UTC participants transfer to the initial Teacher Certification program at Arizona State University, Tempe. (Offered at PC)

### **Elementary, Secondary & Special Education Teacher Preparation**

- **Aztec/Education:** housed in the Office of Program Articulation, this program assists and supports students throughout the first two years of their bachelor's degree in elementary, secondary, or special education. (Offered at GCC)
- **Dynamic Learning Teacher Education Program:** a four-semester cohort model designed to prepare future teachers to transform inner city schools. It is based on current research on teaching and learning and utilizes a team-taught interdisciplinary curriculum with strong partnerships with community schools and Arizona State University. (Offered at SMCC)
- **inspire.teach:** a program that supports and encourages the choice of teaching as a profession. It reflects a commitment among secondary, community college, and university partners to inspire students from under-represented groups to explore, pursue and excel in teaching careers. (Offered at EMCC)
- **The Teacher Connection:** designed to identify, connect, and support individuals as they work toward careers in teaching. It reflects a commitment among Cave Creek Unified School District, Paradise Valley Unified School District, Paradise Valley Community College, and ASU West's College of Education to inspire a diverse population of students to explore, pursue, and excel in teaching careers. (Offered at PVCC)

- **Teaching and Learning Communities (TLC) Education Program:** a student support program structured in a 4-semester plan with courses selected to enhance students' knowledge of teaching as a career and to prepare for certification. (Offered at MCC)
- **Teachers Today and Tomorrow (T3):** this two-semester interdisciplinary learning community combines English, Education, and Technology. After two semesters, education courses along with technology courses designed for teacher education majors compliment the general education courses required for university transfer. (Offered at CGCC, Williams Campus)
- **General Studies and Subject Matter Courses:** designed to fulfill lower division general education requirements for students planning to transfer to public or private community colleges or universities. (Offered at all Maricopa Community Colleges)
- **Post Baccalaureate Teacher Prep Programs:** prepares students with a baccalaureate degree to become a certified Elementary (K-8), Secondary (7-12), or Special Education (K-12) teacher. The programs are approved by the Arizona Department of Education. (All programs offered online at RSC; elementary (K-8) offered on campus at SCC).
- **Urban Teacher Corps:** a teacher development program that supports urban classified school district employees in Phoenix to successfully complete a bachelor's degree in Education and return to their school districts as teachers. After completion of lower division courses, UTC participants transfer to the initial Teacher Certification program at Arizona State University, Tempe. (Offered at PC)

#### **Master's Degree Partnerships for Students who complete the Rio Salado College and Scottsdale Community College Teacher Prep Programs:**

- **Master's Degree Partnership with North Central University:** 18 credits of the post baccalaureate teacher prep program can be applied toward the 36 credits required for an online MS in Education Degree. (Offered at RSC)
- **Master's Degree Partnership with Plymouth State University:** 18 credits of the post baccalaureate teacher prep program can apply toward the 33 credits required for an online MS in Education Degree. (Offered at RSC, SCC)
- **Master's Degree Partnership with Walden University:** up to 12 credits of the post baccalaureate teacher prep program can apply toward the 30 credits required for an online MS in Education Degree. (Offered at RSC, SCC)

#### **Professional Development for Certified Teachers**

- **Certificate of Completion (CCL) in Bilingual Endorsement:** designed for certified teachers pursuing bilingual endorsement. Includes all coursework required for state issued Bilingual Endorsement as specified by the Arizona Department of Education. Valid Arizona teaching certificate is required for state endorsement. (Offered at MCC, PC)
- **Certificate of Completion (CCL) in English as a Second Language (ESL) Endorsement:** designed for certified teachers pursuing ESL endorsement. Includes all coursework required for state issued English as a Second Language Endorsement as specified by the Arizona Department of Education. Valid teaching certificate is required for state endorsement (Offered at MCC, PC)



- **Certificate of Completion (CCL) in Reading Specialist Endorsement:** qualifies certified teachers for the Reading Specialist Endorsement as specified by the Arizona Department of Education. Includes all coursework required for those with valid Arizona teaching certificates to qualify for the Reading Specialist Endorsement in Arizona. (Offered at MCC)
- **Professional Development Endorsement Courses for K-12 Teachers:** courses have been designed and are accepted by the Arizona Department of Education and lead to endorsements in Computer Science, Structured English Immersion (SEI), English as a Second Language (ESL), Math Specialist, Reading Specialist, and Middle School. (All courses offered online at RSC; MCC offers Reading and ESL on campus.)

\* **Note:** (1) Refer to specific college catalog for degree, program and course information.  
(2) Students are strongly encouraged to seek academic advisement prior to enrolling.

## Early Childhood Education & Family Studies Options

### Available To Students

It is important to note that there is a wide range of difference in educational requirements for early childhood professionals both locally and nationally. Check with the contact person at the college you are planning to attend prior to enrolling in course work.

### Associate Degrees

- **Associate of Applied Science (AAS) in Early Childhood Education:** prepares individuals to work with children in early childhood programs, with a specialization in either center-based, family childcare, or administration of early childhood programs. Courses are scheduled to accommodate those who are already working in the field. (Offered at GCC)
- **Associate in Applied Science (AAS) in Early Childhood Education:** designed to prepare students for employment as early childhood teachers in a variety of educational programs. Students learn effective teaching skills as they apply developmentally appropriate early childhood educational theory in the classroom setting. Courses have been selected with a focus on developing an educational career ladder. (Offered at PVCC)
- **Associate in Applied Science (AAS) in Early Childhood Development:** designed to meet the needs of individuals who are interested in working in early childhood. The program emphasizes working with multi-linguistic and multi-cultural children. Upon completion students will be equipped to work effectively with children and families in both school and home environments and also initiate upward career movement or improve existing skills. (Offered at SMCC)
- **Associate in Applied Science (AAS) in Early Childhood Development:** prepares individuals to assume entry-level positions within nursery schools, pre-schools, and day care centers. (Offered at SCC)
- **Associate in Applied Science (AAS) in Child Development:** includes a sequence of interactive classes and a variety of field experiences. Unique student teaching opportunities are offered in the Evelyn H. Warren Child Development Lab, a multi-age preschool that is accredited by the National Association for the Education of Youth Children. (Offered at MCC)
- **Associate in Applied Science (AAS) in Family Life Education:** prepares individuals to enter the family life education, human development, or child and family organizations field at the paraprofessional level. (Offered at GCC, MCC, SCC)



- **Associate in Applied Science (AAS) in Family Resources:** prepares students to work with families, identify needs, and acquire resources that strengthen family functioning. Includes skills in assessing and controlling needed resources, decision making, problem solving, communication, parenting, and child development education. (Offered at PC)
- **Associate in Transfer Partnership (ATP) in Early Childhood Education:** designed for students planning on becoming certified teachers in Early Childhood Education (Birth through 3<sup>rd</sup> grade). Transfers as a block without loss of credit to Northern Arizona University. (Offered at GCC, MCC, PC, PVCC, RSC, and SCC)

### Certificates of Completion

- **Certificate of Completion (CCL) in Early Childhood Education:** designed for those who are interested in studying and working with young children. It prepares individuals to work with children in early child programs, with a specialization in either center-based or family child care. Courses are scheduled to accommodate those who are already working in the field. (Offered at GCC)
- **Certificate of Completion (CCL) in Early Childhood Education:** designed to prepare students for employment as early childhood teachers in a variety of educational programs. Students learn effective teaching skills as they apply developmentally appropriate early childhood educational theory in the classroom setting. Courses have been selected with a focus on developing an educational career ladder. (Offered at PVCC)
- **Certificate of Completion (CCL) in Early Childhood Development:** prepares individuals to assume entry-level positions within preschool, child care and family support program. (Offered at SCC)
- **Certificate of Completion (CCL) in Early Childhood Development:** designed to meet the needs of individuals who are interested in working in early childhood. Emphasis on working with multi-linguistic and multi-cultural children. Upon completion students will be equipped to work effectively with children and families in both school and home environments and also initiate upward career movement or improve existing skills. (Offered at SMCC)
- **Certificate of Completion (CCL) in Child Care:** designed to increase understanding of the education and care of young children. (Offered at MCC)
- **Certificate of Completion (CCL) in Early Childhood Classroom Management for Infants, Toddlers, and Preschool Children:** designed for understanding infants, toddlers & preschool children and managing their early childhood classroom settings. Focuses on key areas related to early childhood. (Offered at PC)
- **Certificate of Completion (CCL) in Family Support:** designed to enhance the education and career of individuals interested in working with families or in agencies that provide services to families, or in agencies that provide services to families, or those who are presently involved with families or their supporting agencies. (Offered at PC)
- **Certificate of Completion (CCL) in Infant Toddler Development:** prepares individuals to serve children from birth through age three years and their families within preschool, child care and family support programs. (Offered at SCC)



- **Certificate of Completion (CCL) in Parent Education:** prepares individuals to enter the family life education with a focus on parent education. (Offered at GCC, MCC, SCC)
  - **Certificate of Completion (CCL) in Adolescent Studies:** designed to prepare individuals preparing to work or those who are employed in professions that require interaction with adolescents and/or adolescent-related issues such as school personnel, parents, health educators, etc. (Offered at PC)
- \* **Note:** (1) Refer to specific college catalog for degree, program and course information.  
(2) Students are strongly encouraged to seek academic advisement prior to enrolling.



## College Contact Information

### Chandler Gilbert Community College (CGCC)

—Teacher Education: 480-732-7124  
 Sharon Fagan (Pecos Campus) sharon.fagan@cgcmail.maricopa.edu  
 —Early Childhood Education: 480-988-8804  
 Jennifer Petrerson (CGCC) jennifer.peterson@cgcmail.maricopa.edu

### Estrella Mountain Community College (EMCC)

—Teacher Education & —Early Childhood Education:  
 Marsha Carlen marsha.carlen@emcmail.maricopa.edu  
 623-935-8479

### Glendale Community College (GCC)

—Teacher Education: 623-845-3265  
 Nancy Oreshack nancy.oreshack@gcmail.maricopa.edu

—Early Childhood Education: Dr. Carlos Nunez 623-845-3178

### Mesa Community College (MCC)

—Teacher Education: Transfer Services 480-461-7452, or 480-654-7600  
 Dr. Richard Malena (Red Mountain Campus) richard.malena@mccmail.maricopa.edu  
 480-461-7890 And Nora Reyes (MCC Campus) nora.reyes@mccmail.maricopa.edu  
 480-461-7781  
 —Early Childhood Education: Dr. Christine Osgood osgood@mail.mc.maricopa.edu  
 480-461-7938  
 Dr. Annapurna Ganesh aganesh@mail.mc.maricopa.edu 480-461-7305

### Paradise Valley Community College (PVCC)

—Teacher Education: 602-787-6659  
 Debbie Voll debbie.voll@pvmail.maricopa.edu

—Early Childhood Education: Christie Colunga christie.colunga@pvmail.maricopa.edu  
 602-787-7731

### Phoenix College (PC)

—Teacher Education: Ofelia Canez 602-285-7657  
 —Early Childhood Education: Alverta McKenzie alverta.mckenzie@pccmail.maricopa.edu  
 602-285-7292

### Rio Salado College (RSC)

—Teacher Education: academic.advisement@email.rio.maricopa.edu 480-517-8580  
 —Early Childhood Education: Dr. Diana Abel diana.abel@riomail.maricopa.edu  
 480-517-8122

### Scottsdale Community College (SCC)

—Teacher Education: Dr. Bobbie Sferra 480-423-6217  
 —Early Childhood Education: Dr. Rosanne Dlugosz 480-423-6204

### South Mountain Community College (SMCC)

—Teacher Education: Dr. Eufemia Amabisca eufemia.amabisca@smccmail.maricopa.edu  
 602-243-8019  
 Dr. Yvonne Montiel yvonne.montiel@smccmail.maricopa.edu  
 602-243-8023  
 —Early Childhood Education: Joy Mills joy.mills@smccmail.maricopa.edu  
 480-305-5783  
 —Montessori Director: Billie Larime, billie.larime@smccmail.maricopa.edu  
 602-305-5601

## College of Attendance

Completion of teacher education course work for the various degrees, certificates, and programs available can be met through the completion of teacher education course work taken at any Maricopa Community College. Refer to specific college catalogs and course schedules for available offerings.



## Common College Requirements for Students Enrolled in Teacher Education Course Work

Students taking Teacher Education Courses are expected to:

- Receive a grade of “C” or better in all course work.
- Participate in site-based practicums, field experiences or service learning. This may include observation, tutoring, and some basic teaching. Work with the person identified by the college to coordinate the site-based school placements.
- Be fingerprinted, if required. Some school districts require this before students are allowed to participate in a site based school experience. The cost of fingerprinting is the sole responsibility of the student. Contact each individual college for specific information.
- Meet additional health requirements.
- Pay course fees. Refer to specific college course schedules and catalogs.

## University Transfer Students

Students planning to transfer to a college/university **other than** Arizona State University (ASU), University of Arizona (UOA), or Northern Arizona University (NAU) to obtain a teacher education degree may also take their prerequisite course work at any Maricopa College. For information on transferability of course work that meets the universities’ requirements for admission into their teacher preparation baccalaureate programs, students **must** contact an adviser at that college/university.

## Teacher Education Scholarship Availability

*The National Center for Teacher Education (NCTE)* has created scholarships for teacher education students attending the Maricopa Community Colleges. Currently there are four (4) \$500 scholarship awards available for each of the 10 Maricopa colleges. Visit <http://www.dist.maricopa.edu/academic/teachered/scholarship.html> for additional information.

*The National Association of Community College Teacher Education Programs (NACCTEP)* has a national scholarship program. The purpose of the NACCTEP National Scholarship Program is to provide financial assistance to community college students who are studying to become teachers. This scholarship is promoted through the National Association of Community College Teacher Education Programs and is facilitated by the National Center for Teacher Education. Awards are \$1000 over the course of two semesters and will be made available through college financial aid institutions. Visit <http://www.nacctep.org/Scholarship/05-06scholarship.php> for additional information.

*The Professional Career Pathway Project (PCPP)* is sponsored by the Arizona Department of Economic Security Child Care Administration. This program offers Family Child Care and Center-based caregivers the opportunity to apply for funding to cover the cost of the tuition/fees for college coursework. The PCPP offers students a seamless pathway to meet the requirements for the Child Development Associate (CDA) Credential, the National Association for Family Child Care (NAFCC) Accreditation, and the Certificate of Completion. (EMCC, GCC, MCC, PVCC, SCC, SMCC)

*Early Childhood Education Scholarship Opportunities* information is available at each college. Make contact with the designated college Early Childhood contact person directly. Scholarship opportunities vary with each program.

## Training and Career Programs

*At Estrella Mountain, you find training and career programs in technical and vocational fields to help you find a job or improve your current skills. Programs exist to help you earn a degree or certificate in Administration of Justice, Banking Finance, Building Inspection, Customer Service Management, Computer Applications Technology, Computer Hardware and Desktop Support, Culinary Studies, Desktop Publishing, Emergency Response and Operations, Fire Science, Hospitality/Hotel Management, Information Security, Information Security Forensics, Information Security Wireless Networks, Linux Networking Administration, Industrial Operations Technology, Microsoft Networking Technology, Microsoft Product Specialist, Microsoft Desktop Support, Microsoft Product Specialist, Microsoft Systems Engineer, Networking Technology: Cisco, Nursing, Oracle, Organizational Management, Power Plant Technology, Programming and System Analysis, Retail Management, Small Business Management, Strength, Nutrition and Personal Training, Teacher Assisting, and Speech Language Pathology Assistant Web Developer.*







# TRAINING AND CAREER PROGRAMS

## CERTIFICATE AND DEGREE PROGRAMS

### ADMINISTRATION OF JUSTICE STUDIES

**Division Chair – Occupational Programs: Fredrick Maihofer (623) 935-8468**

**Degree:** Associate in Applied Science (AAS), Administration of Justice  
(NOTE: See page 73 for AAS degree requirements)

**Certificate:** Administration of Justice

#### Administration of Justice AAS Degree Requirements

**Program Description:** The Administration of Justice curriculum is designed to prepare men and women for careers within the criminal justice system, including, but not limited to: law enforcement, the courts, probation and parole, corrections, and the various social service agencies that support the criminal justice system. It is interdisciplinary in nature and provides the student with a broad knowledge of the conceptual occupational issues and concerns existent within the criminal justice system. The program also provides criminal justice practitioners with the opportunity for continued education and academic growth and development.

**Note:** Students who have completed an Arizona POST certified Academy may be waived from the following courses: AJS101, AJS109, AJS260, AJS270 and AJS275, AJS107 and AJS205 through the “credit by evaluation” process. Students without prior experiences in the field of law enforcement should consult with the program director. Students should consult with an advisor in planning their academic schedule in order to complete degree or certificate requirements in an expedient manner.

(Note: +indicates course has prerequisites and/or corequisites.)

(Note: Students must earn a grade of “C” or better for all courses within the Required Courses Area.)

#### Required Courses: (33 Credits)

		<b>Credits</b>
AJS101	Introduction to Criminal Justice	3
AJS109	Substantive Criminal Law	3
AJS123	Ethics and the Administration of Justice (3) OR	
PAD101	Survey of Public Administration (3)	3
AJS131	Police Management Techniques I	3
+AJS132	Police Management Techniques II	3
AJS211	Police Planning	3
AJS225	Criminology	3
AJS249	Community Policing	3
AJS260	Procedural Criminal Law	3
AJS270	Community Relations	3
AJS275	Criminal Investigations I	3

#### Restricted Electives: (6 Credits)

		<b>Credits</b>
AJS110	Law and Legal Review I	3
AJS124	Correctional Institutions	3
AJS133	Correctional Supervision I	3
AJS200	Current Issues in Criminal Justice	3
AJS201	Rules of Evidence	3
AJS205	Criminal Justice Reporting Writing	3
AJS210	Constitutional Law	3



AJS212	Juvenile Justice Procedures	3
AJS220	Organized Crime	3
AJS230	The Police Function	3
AJS107	Patrol Procedures	3

**General Studies Requirements: (25 Credits)**

**Core: (15 Credits)**

**First-Year Composition**

Any approved general studies courses in the First-Year Composition area. 6

**Oral Communication**

Any approved general studies course in the Oral Communication area. 3

**Critical Reading**

Any approved general studies course in the Critical Reading area. 3

**Mathematics**

Any approved general studies course in the Mathematics area. 3

**Distribution: (10 Credits)**

**Humanities & Fine Arts**

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

**Social and Behavioral Sciences**

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

**Natural Science**

Any approved general education course in the Natural Science area. 4

**Administration of Justice Studies Certificate Requirements**

**Program Description:** The Administration of Justice curriculum is designed to prepare men and women for careers within the criminal justice system, including, but not limited to: law enforcement, the courts, probation and parole, corrections, and the various social service agencies that support the criminal justice system. It is interdisciplinary in nature and provides the student with a broad knowledge of the conceptual occupational issues and concerns existent within the criminal justice system. The program also provides criminal justice practitioners with the opportunity for continued education and academic growth and development.

**Note:** Students who have completed an Arizona POST certified Academy may be waived from the following courses: AJS101, AJS109, AJS260, AJS270 and AJS275, AJS107 and AJS205 through the "credit by evaluation" process. Students without prior experiences in the field of law enforcement should consult with the program director. Students should consult with an advisor in planning their academic schedule in order to complete degree or certificate requirements in an expedient manner.

(Note: +indicates course has prerequisites and/or corequisites.)

(Note: Students must earn a grade of "C" or better for all courses within the Required Courses Area.)

**Required Courses: (33 Credits)**

**Credits**

AJS101	Introduction to Criminal Justice	3
AJS109	Substantive Criminal Law	3
AJS123	Ethics and the Administration of Justice (3) OR	
PAD101	Survey of Public Administration (3)	3
AJS131	Police Management Techniques I	3
+AJS132	Police Management Techniques II	3
AJS211	Police Planning	3
AJS225	Criminology	3
AJS249	Community Policing	3
AJS260	Procedural Criminal Law	3
AJS270	Community Relations	3
AJS275	Criminal Investigations I	3

**Total Credits: 33**



**General Education Requirements: Credits: 23-24****CORE: Credits: 13-14**

First-Year Composition

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

**Oral Communication**

COM100	Introduction to Human Communication (3) OR	
+COM230	Small Group Communication (3)	3

**Critical Reading**

Met by CRE101 OR

Equivalent as indicated by assessment in Program Prerequisites area. 0

**Mathematics**

+MAT150	College Algebra / Functions (5) OR	
+MAT151	College Algebra / Functions (4) OR satisfactory completion of a higher level mathematics course.	4-5

**DISTRIBUTION: Credits: 10****Humanities and Fine Arts**

Any approved General Education course in the Humanities and Fine Arts area. 3

**Social and Behavioral Sciences**

ECN211	Macroeconomic Principles (3) OR	
ECN212	Microeconomic Principles (3) OR	
SBU200	Society and Business (3)	3

**Natural Sciences**

Any approved General Education course in the Natural Sciences area. 4

**Banking and Finance Certificate Requirements**

**Description:** To meet the changing image and many challenges of the world of finance, the role of the modern banker today demands specialized knowledge and flexible job performances. The Certificate in Banking and Finance career program has been developed to prepare qualified men and women for entry or advancement in the banking profession

**Program Notes:**

Students must earn a grade of "C" or better in each course in the Required Courses and Restricted Electives areas.

+ indicates course has prerequisite and/or corequisite.

**Program Prerequisites: Credits: 3**

+ENG101	First Year Composition (3) OR Equivalent as indicated by assessment.	3
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### Banking and Finance Certificate Requirement Continues . . .

#### Required Courses: (36 Credits)

		<b>Credits</b>
ACC111	Accounting Principles I	3
+ACC230	Uses of Accounting Information I	3
+ACC240	Uses of Accounting Information II	3
CIS105	Survey of Computer Information Systems	3
GBS103	Principles of Banking	3
GBS131	Business Calculations	3
GBS151	Introduction to Business	3
GBS205	Legal, Ethical, and Regulatory Issues in Business	3
GBS206	Business Law (UCC)	3
+GBS233	Business Communication	3
GBS261	Investments I	3
GBS294	Consumer Credit	3

**Total Credits: 36**

### Building Inspection Certificate Requirements

**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.

#### Program Notes:

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

+ indicates course has prerequisite and/or corequisite

#### Program Prerequisites: None

#### Required Courses: (21 Credits)

		<b>Credits</b>
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
+CNS290AC	Construction Internship	3

**Total Credits: 21**



## COMPUTER APPLICATIONS TECHNOLOGY

**Division Chair - Instructional Computing: Dr. Valerie Akuna (623) 935-8079**

**Degree:** Associate in Applied Science (AAS), Computer Applications Technology  
(NOTE: See page 73 for AAS degree requirements.)

**Certificate:** Computer Applications Technology

### Computer Applications Technology AAS Degree Requirements

**Program Description:** The Associate in Applied Science (AAS) Computer Applications Technology Program includes courses in the following microcomputer areas: general usage and applications, operating systems, word processing, database, spreadsheets, and desktop publishing. Other skills which are integrated with the microcomputer training are accounting, English, and math.

Many of the courses are offered in a self-paced format to enable students to enter and complete the program in a timely and flexible manner. Students take the courses for personal development of microcomputer skills and to prepare for or enhance employment. This degree program is designed to prepare students for entry-level occupations in the rapidly expanding field of computer information systems. Upon completion of the program students should be able to operate a microcomputer and use a variety of software in a professional manner.

**Note:** Students should consult with an advisor in planning their academic schedule in order to complete degree or certificate requirements in an expedient manner. Required courses may not be available every semester or year. Due to limited course offerings, students may find it necessary to extend completion time lines and attend day, evening and summer classes. Due to the changing nature of technology training, always check with an academic advisor for the most current requirements for your program of study.

#### Program Notes:

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

+ indicates course has prerequisite and/or corequisite

NOTE: Students must earn a grade of “C” or better for each course in the Required Courses area. BPC/CIS120++ courses cannot be used to satisfy both “Required Courses” and “Restricted Electives” areas.

<b>Required Courses: (30 Credits)</b>		<b>Credits</b>
BPC/CIS114*	Electronic Spreadsheet (any module)	3
BPC/CIS117*	Database Management (any module)	3
BPC/CIS118*	Desktop Presentation Software (any module)	3
BPC/CIS120*	Microcomputer Graphics (any module)	3
BPC/CIS121AE	Windows Operating System: Level I	1
BPC/CIS133AA	The Internet/World Wide Web: Level I (1) AND	
+BPC/CIS133BA	The Internet/World Wide Web: Level II (1) AND	
+BPC/CIS133CA	The Internet/World Wide Web: Level III (1) OR	
BPC/CIS133DA	The Internet/World Wide Web (3)	3
+BPC/OAS135*	Word Processing Software (any module)	2
+BPC138*	Desktop Publishing (any module)	3
CIS105	Survey of Computer Information Systems	3
+CIS190	Introduction to Local Area Networks	3
OAS120	Financial Record Keeping	3





### Computer Applications Technology AAS Continues . . .

#### Restricted Electives: (9 Credits)

**Credits**

Students should select nine (9) credits from the following courses in consultation with a program advisor.

BPC/CIS120DB	Computer Graphics: Adobe Illustrator	3
BPC/CIS120DC	Fireworks: Web Graphics	3
BPC/CIS120DF	Computer Graphics: Adobe Photoshop	3
+BPC170	Computer Maintenance I: A+ Prep	3
+CIS/MMT140	Survey of Multimedia Technology	2
+CIS150	Programming Fundamentals	3
+CIS159	Visual Basic Programming I	3
+CIS233DA	Web Design and Publishing	3
OAS101AA	Computer Typing I: Keyboard Mastery (1) OR	
OAS102	Computer Typing II: Document Production (3)	1-3
TQM/CSM101	Quality Customer Service	3
CIS250	Management of Information Systems	3

#### General Studies Requirements: (25 Credits)

##### Core: (15 Credits)

##### First Year Composition:

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

##### Oral Communication:

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

##### Critical Reading:

Any approved general education course in the Critical Reading area or (Note: equivalent as indicated by assessment)		3
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##### Mathematics:

+MAT 102 Mathematical Concepts/Applications		3
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##### Distribution: (10 Credits)

##### Humanities & Fine Arts:

Any approved general education course in the Humanities and Fine Arts area.		3
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##### Natural Science:

Any approved general education course from the Natural Science area		4
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##### Social & Behavioral Sciences:

ECN 212 Microeconomic Principles		3
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(Note: +indicates course has prerequisites and/or corequisites.)

\* indicates courses cannot be used to satisfy both "Required Courses" and "Restricted Electives" area.



## Computer Applications Technology Certificate Requirements

**Program Description:** This certificate program consists of 26 credits including courses in the following microcomputer areas: general usage and applications, operating systems, word processing, database, spreadsheets, and desktop publishing. With proper choices, a student who completes the certificate may apply all those courses toward the Associate in Applied Science (AAS) Degree program. Many of the courses are offered in a self-paced format to enable students to enter and complete the program in a timely and flexible manner. Students take the courses for personal development of microcomputer skills and to prepare for or enhance employment. Upon completion of the program, students should be able to operate a microcomputer and operate a variety of software in a professional manner.

### Program Notes:

+ indicates course has prerequisite and/or corequisite

++ indicates any module.

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

<b>Required Courses: (20 Credits)</b>	<b>Credits</b>
BPC/CIS114++	Electronic Spreadsheet (any module) 3
BPC/CIS117++	Database Management (any module) 3
BPC/CIS133AA	Internet/Web Development:Level I-A (1) AND
+BPC/CIS133BA	Internet/Web Development:Level I-B (1) AND
+BPC/CIS133CA	Internet/Web Development:Level I-C(1) OR
BPC/CIS133DA	Internet/Web Development Level I (3) 3
+BPC/OAS135++	Word Processing Software (any module) 2
+BPC138++	Desktop Publishing (any module) 3
CIS105	Survey of Computer Information Systems 3
OAS120	Financial Record Keeping 3

<b>Restricted Electives: (6 Credits)</b>	<b>Credits</b>
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Students should select six (6) credits from the following courses in consultation with a program advisor

BPC/CIS118++	Desktop Presentation Software (any module) 3
BPC/CIS120DB	Computer Graphics: Adobe Illustrator 3
BPC/CIS120DC	Fireworks: Web Graphics 3
BPC/CIS120DF	Computer Graphics: Adobe Photoshop 3
+BPC170	Computer Maintenance I: A+ Prep 3
+CIS/MMT140	Survey of Multimedia Technology 2
+CIS150	Programming Fundamentals 3
+CIS190	Introduction to Local Area Networks 3
+CIS233DA	Internet/Web Development Level II 3
OAS101AA	Computer Typing I: Keyboard Mastery (1) OR
OAS102	Computer Typing II: Document Production (3) 1-3
CSM/TQM101	Quality Customer Service 3

**Total Credits: 26**

## COMPUTER HARDWARE AND DESKTOP SUPPORT

**Division Chair - Instructional Computing: Dr. Valerie Akuna (623) 935-8079**

### Computer Hardware and Desktop Support Certificate Requirements

**Program Description:** The Certificate of Completion in Computer Hardware and Desktop Support is designed to provide training to work in an entry-level computer maintenance and help-desk position. Students will be provided the opportunity to apply technical concepts, fundamentals, and interpersonal skills in a help-desk environment through an internship.

#### Computer Hardware and Desktop Support Continues . . .

<b>Required Courses: (16-20 Credits)</b>	<b>Credits</b>	
BPC110	Computer Usage and Applications (3) OR	
CIS105	Survey of Computer Information Systems (3)	3
BPC/CIS121AB	Microsoft Command Line Operations	1
+BPC170	Computer Maintenance I: A+ Prep	3
+BPC171	Recycling Used Computer Technology	1
+BPC270	Microcomputer Maintenance II	3
CIS102	Interpersonal and Customer Service Skills for IT Professionals	1
+CIS190	Introduction to Local Area Networks (3) OR	
CNT140	Cisco Networking Fundamentals (4) OR	
MST140	Microsoft Networking Essentials (3)	3-4
+CIS290AA	Computer Information Systems Internship (1) OR	
+CIS290AB	Computer Information Systems Internship (2) OR	
+CIS290AC	Computer Information Systems Internship (3) OR	
+CIS296WA-WD	Cooperative Education (any module) (1-4)	1-4

(Note: + indicates course has prerequisites and/or corequisites)

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

## CULINARY STUDIES

**Division Chair - Occupational Education: Fredrick Maihofer (623) 935-8468**

**Degree:** Associate in Applied Science (AAS) Culinary Studies  
(Note: See page 73 for AAS degree Requirements)

**Certificate:** Basic Culinary Studies  
Culinary Studies

**Program Description:** The Culinary Studies Associate in Applied Science is designed to train students who wish to become professional chefs and cooks. A formal dining room is operated by the program and provides practical work experience for students. Instruction includes principles of professional cooking and baking, volume food production, food sanitation and safety, purchasing, customer service, and basic nutrition concepts and menu planning.

**Admissions Criteria:** Entrance into the program is by application and acceptance only. Students must have ENG101 or ENG107 and MAT090 or MAT091 or MAT102 or equivalent. Prior to being considered for and acceptance into the program, students must complete the program prerequisites area.

**Note:** Students must obtain Maricopa County Food Handlers Card at the conclusion of the first semester.

**Program Prerequisites: (6-8 Credits) Credits**

+ENG101	First-Year Composition (3) OR	
+ENG107	First-Year Composition for ESL (3)	3
+MAT090	Developmental Algebra (5) OR	
+MAT091	Introductory Algebra (4) OR	
+MAT092	Introductory Algebra (3) OR	
+MAT102	Mathematical Concepts/Applications (3)	3-5

**Required Courses: (36 Credits) Credits**

FON100	Introductory Nutrition	3
HRM126	Food Service Cost Systems	2
HRM140	Food Production Concepts	3
FON118	Commercial Baking Techniques	3
+FON144	Gourmet Foods	3
FON179	Garde Manger	3
FON182	American Regional Cuisine	3
FON183	International Cuisines	3
+FON119	Catering - Planning and Production	1
FON180	Principles and Skills for Professional Cooking	3
FON218	Commercial Baking: Classical Desserts	3
HRM244	Quality Sanitation Management	3
HRM275	Restaurant Management	3

**Restricted Electives: (3 Credits) Credits**

HRM110	Introduction of Hospitality and Tourism Management	3
CIS105	Survey of Computer Information Systems	3
MGT101	Techniques of Supervision	3
TQM/CSM101	Quality Customer Service	3
FON102	Menu Planning	2

**General Studies Requirements: (24-25 Credits)****Core: (15 Credits)****First Year Composition:**

+ENG101	First Year Composition (3) OR	
+ENG107	First Year Composition for ESL (3) AND	
+ENG102	First Year Composition (3) OR	
+ENG108	First Year Composition for ESL (3)	6

**Oral Communication:**

Any approved general education course in the Oral Communication area.	3
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**Critical Reading:**

Any approved general education course in the Critical Reading area.	3
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**Mathematics:**

Any approved general education course in the Mathematics (MAT) area.	3-5
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**Distribution: (10 Credits)****Humanities & Fine Arts:**

Any approved general education course in the Humanities and Fine Arts area.	2-3
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**Social & Behavioral Sciences:**

ECN211	Macroeconomic Principles (3) OR	
PSY101	Introduction to Psychology (3) OR	
SOC101	Introduction to Sociology (3)	3

**Natural Science:**

Any approved general education course from the Natural Science area	4
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## Culinary Studies Certificate Requirements

**Program Description:** The Culinary Studies Certificate of Completion is designed to train students who wish to become professional chefs and cooks. A formal dining room is operated by the program and provides practical work experience for students. Instruction includes principles of professional cooking and baking, volume food production, food sanitation and safety, purchasing, customer service, and basic nutrition concepts and menu planning.

**Admissions Criteria:** Entrance into the program is by application and acceptance only. Students must have ENG101 or ENG107 and MAT090 or MAT091 or MAT102 or equivalent. Prior to being considered for and acceptance into the program, students must complete the program prerequisites area.

**Note:** Students must obtain Maricopa County Food Handlers Card at the conclusion of the first semester.

<b>Program Prerequisites: (6-8 Credits)</b>		<b>Credits</b>
+ENG101	First-Year Composition (3) OR	
+ENG107	First-Year Composition for ESL (3)	3
+MAT090	Developmental Algebra (5) OR	
+MAT091	Introductory Algebra (4) OR	
+MAT092	Introductory Algebra (3) OR	
+MAT102	Mathematical Concepts/Applications (3)	3-5

<b>Required Courses: (30 Credits)</b>		<b>Credits</b>
FON100	Introductory Nutrition	3
HRM126	Food Service Cost Systems	2
HRM140	Food Production Concepts	3
FON118	Commercial Baking Techniques	3
+FON144	Gourmet Foods	3
FON179	Garde Manger	3
FON182	American Regional Cuisine	3
+FON119	Catering - Planning and Production	1
FON180	Principles and Skills for Professional Cooking	3
FON218	Commercial Baking: Classical Desserts	3
HRM244	Quality Sanitation Management	3

<b>Restricted Electives: (3 Credits)</b>		<b>Credits</b>
HRM110	Introduction to Hospitality and Tourism Management	3
CIS105	Survey of Computer Information Systems	3
MGT101	Techniques of Supervision	3
TQM/CSM101	Quality Customer Service	3

## Basic Culinary Studies Certificate Requirements

**Program Description:** The Basic Culinary Studies Certificate of Completion is designed to introduce students who wish to become professional chefs and cooks to the fundamentals of culinary studies. A formal dining room is operated by the program and provides practical work experience for students. Instruction includes commercial food production concepts including catering, baking and sanitation. Courses in this certificate are in alignment with the Associate in Applied Science (AAS) degree in Culinary Studies (Major Code 3151).

**Admissions Criteria:** Entrance into the program is by application and acceptance only. Students must have ENG101 or ENG107 and MAT090 or MAT091 or MAT102 or equivalent. Prior to being considered for and acceptance into the program, students must complete the program prerequisites area.

**Note:** Students must obtain Maricopa County Food Handlers Card at the conclusion of the first semester.

**Basic Culinary Studies Certificate Requirements Continues . . .**

<b>Program Prerequisites: (6-8 Credits)</b>		<b>Credits</b>
+ENG101	First-Year Composition (3) OR	
+ENG107	First-Year Composition for ESL (3)	3
+MAT090	Developmental Algebra (5) OR	
+MAT091	Introductory Algebra (4) OR	
+MAT092	Introductory Algebra (3) OR	
+MAT102	Mathematical Concepts/Applications (3)	3-5

<b>Required Courses: (16 Credits)</b>		<b>Credits</b>
HRM140	Food Production Concepts	3
FON179	Garde Manger	3
+FON119	Catering - Planning and Production	1
FON180	Principles and Skills for Professional Cooking	3
FON118	Commercial Baking Techniques	3
HRM244	Quality Sanitation Management	3

(Note: + indicates course has prerequisites and/or corequisites)

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

**Baking and Pastry Certificate Requirements\***

**Program Description:** The Baking and Pastry Certificate is designed to train students who wish to become professional pastry chefs. A formal restaurant and kitchen lab operated by the culinary program will provide practical work experience in the areas of dessert preparation. Instruction will be given in the areas of baking, advanced pastry, wedding cakes, baking theory, food sanitation, and business applications related to commercial baking.

**Program Notes:**

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

+ indicates course has prerequisites and/or corequisites.

Students with transfer credits should contact the Culinary Studies Department Program Director.

<b>Required Courses: (23 Credits)</b>		<b>Credits</b>
FON118	Commercial Baking	3
FON218	Commercial Baking: Classical Desserts	3
HRM244	Quality Sanitation Management	3
+FON126	Specialty Breads and Breakfast Pastry	3
+FON221	Commercial Wedding Cake Production	3
+FON224	Professional Pastry Techniques	3
FON120	Baking Theory and Retail Operations	3
HRM126	Food Cost Systems	2

*\*Certificate is effective Spring 2009 - Consult with an advisor for information.*



## CUSTOMER SERVICE MANAGEMENT

**Division Chair - Occupational Education: Fredrick Maihofer (623) 935-8468**

**Certificate:** Customer Service Management

### Customer Service Management Certificate Requirements

**Program Description:** This program prepares students to be competitive in today's domestic and global economies. It provides the student quality management theories and skills to better serve both internal and external customers. Emphasis is on practical application of skills and knowledge.

<b>Required Courses: (9 Credits)</b>		<b>Credits</b>
TQM/CSM101	Quality Customer Service	3
CSM202	Principles of Process Improvement	3
CSM203	Teamwork Dynamics	3

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

## DESKTOP PUBLISHING

**Division Chair - Instructional Computing: Dr.Valerie Akuna (623) 935-8079**

**Certificate:** Desktop Publishing

### Desktop Publishing Certificate Requirements

**Program Description:** The Desktop Publishing certificate is designed to prepare students to work with and design professional publications. The courses focus on training the student in project management, Internet navigation, desktop design, web page design, and graphics design.

<b>Required Courses: (24 Credits)</b>		<b>Credits</b>
CIS105	Survey of Computer Information Systems (3) OR	
BPC110	Computer Usage and Applications (3)	3
BPC/CIS120DB	Computer Graphics: Adobe Illustrator	3
BPC/CIS120DF	Computer Graphics: Adobe Photoshop	3
BPC/CIS133AA	Internet/Web Development: Level I-A (1) AND	
+BPC/CIS133BA	Internet/ Web Development : Level I -B (1) AND	
+BPC/CIS133CA	Internet/Web Development : Level I - C (1) OR	
BPC/CIS133DA	Internet/Web Development: Level I (3)	3
+BPC138BA	Windows Desktop Design/Pub. Using Quark Express	3
+BPC138CA	Windows Desktop Design/Pub. Using Pagemaker	3
+CIS233AA	Internet/Web Development Level II - A (1) AND	
+CIS233BA	Internet/Web Development Level II - B (1) AND	
+CIS233CA	Internet/Web Development Level II - C (1) OR	
+CIS233DA	Internet/Web Development Level II (3)	3
+BPC238BA	Windows Adv. Desktop Design/Pub. Using Quark Express OR	
+BPC238CA	Windows Adv. Desktop Design/Pub. Using Pagemaker	3

(Note: + indicates course has prerequisites and/or corequisites)

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

## EMERGENCY RESPONSE AND OPERATIONS

**Division Chair - Occupational Education: Fredrick Maihofer (623) 935-8468**

**Degree:** Associate in Applied Science (AAS), Fire Science Technology  
(NOTE: See page 73 for AAS degree requirements.)

**Certificate:** Basic Firefighter

**Program Description:** The Associate in Applied Sciences (AAS) in Emergency Response and Operations provides students with a curriculum specific to the student's individual needs in addition to the knowledge and skills needed in today's changing public safety workplace. The program develops education, skills, and techniques for planning, responding, and mitigating various emergency situations within the student's specific discipline with emphasis on effective response and operations. The curriculum combines coursework in public safety emergency services with a general education component.

### Program Notes:

+ indicates course has prerequisite and/or corequisite

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

### Admission Criteria:

Students pursuing Track I, Fire Operations OR

Track II, Advanced Emergency Medical Technology-Paramedi, may be required to complete a program entrance exam as appropriate OR

Permission of Program Director

### Program Prerequisites: (6-8 Credits)

#### Track I, Fire Operations

+EMT/FSC104 Basic Emergency Medical Technology (8) OR  
Permission of Program Director 8

OR

Track II, Advanced Emergency Medical Technology-Paramedic  
Current validation in Basic Life Support (BLS) Health Care Provider/Professional Rescuer

OR

+EMT235 Emergency Cardiac Care (3) AND  
+EMT236 Pharmacology in an Emergency Setting (3) OR  
Permission of Program Director 6

OR

Advanced cardiac life support course OR

Emergency cardiac care course, AND

EMT-Paramedic certification AND

Current employment as an EMT Paramedic

OR

Permission of Program Director

### Required Courses: (17.5-18)

**Students must select one of the following three tracks:**

#### Track 1 Credits: 18

		Credits
+FSC102	Fire Department Operations	11
FSC105	Hazardous Materials/First Responder	3
FSC130	Fitness for Firefighters/CPAT	1
FSC134	Fitness and Conditioning/Firefighters	3



### Emergency Response and Operations Continues...

OR

#### Track II Credits: 17.5

#### Advanced Emergency Medical Technology-Paramedic

+EMT242	Pediatric Advanced Life Support OR	
+EMT265	Pediatric Education for Prehospital Providers: Advanced	1
+EMT240	Advanced Cardiac Life Support	2
+EMT245	Trauma Management I	2
+EMT272AA	Advanced Emergency Medical Technology	12.5

OR

#### Track III Credits: 18

#### Emergency Management

AJS/FSC139	Emergency Response to Terrorism	3
AJS/FSC146	Disaster Recovery Operations	3
AJS/FSC147	Emergency Preparedness	3
AJS/FSC148	Fundamentals of Emergency Management	3
AJS/FSC149	Hazard Mitigation	3
AJS/FSC224	Incident Command Systems	3

#### Restricted Electives: (17 - 18 Credits)

#### Credits

AJS+++++	Any approved AJS prefixed course	1-6
DPR+++++	Any approved DPR prefixed course	1-6
EMT+++++	Any approved EMT prefixed course	1-6
FSC+++++	Any approved FSC prefixed course	1-6
LET+++++	Any approved LET prefixed course	1-6

#### General Studies Requirements: (25 Credits)

##### Core: (15-17 Credits)

##### First-Year Composition:

Any approved general education courses from the First-Year Composition area	6
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##### Oral Communication:

Any approved general education courses from the Oral Communication area	3
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##### Critical Reading:

Any approved general education courses from the Critical Reading area	3
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##### Mathematics:

Any approved general education course from the Mathematics area	3
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##### Distribution: (10 Credits)

##### Humanities and Fine Arts

Any approved general education courses from the Humanities and Fine Arts area	3
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##### Social and Behavioral Sciences

Any approved general education courses from the Social and Behavioral Sciences area	3
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##### Natural Sciences

Any approved general education courses from the Natural Sciences area	4
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## FIRE SCIENCE TECHNOLOGY

**Division Chair - Occupational Education: Fredrick Maihofer (623) 935-8468**

**Degree:** Associate in Applied Science (AAS), Fire Science Technology  
(NOTE: See page 73 for AAS degree requirements.)

**Certificate:** Basic Firefighter

### Fire Science Technology AAS Degree Requirements

**Program Description:** The Fire Science Technology Certificate of Completion and Associate in Applied Science (AAS) are designed for students who need (1) advanced training as professional firefighters, (2) basic preparation courses for a career in fire services, and/or (3) more comprehensive information about fire hazard and prevention. The Degree and Certificate can be used by professional firefighters for promotions and salary advancement within the Fire Services. The unique feature of the Degree and Certificate is that the instructors will be professional firefighters and/or licensed Emergency Medical Training Personnel.

#### Program Notes:

+ indicates course has prerequisite and/or corequisite

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

#### Required Courses: (40 Credits)

	<b>Credits</b>
FSC102	11
FSC105	3
FSC118	3
FSC108	3
FSC111	2
FSC202	3
FSC117	3
FSC204	3
FSC205	3
FSC208	3
FSC214	3

#### Restricted Electives: (4 Credits)

FSC++++	4
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#### General Studies Requirements: (25-27 Credits)

##### Core: (15-17 Credits)

##### First-Year Composition:

ENG101	3
ENG107	3
ENG102	3
ENG111	6

##### Oral Communication:

COM100	3
COM110	3
+COM225	3
+COM230	3

##### Critical Reading:

+CRE101	3
+CRE111	3



**Fire Fighter AAS Requirements Continues...****Mathematics:**

MAT102	Mathematical Concepts/Applications (3) OR	
MAT120	Intermediate Algebra (5) 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 mathematics course.	3-5

**Distribution: (10 Credits)****Humanities and Fine Arts:**

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

**Social and Behavioral Sciences:**

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

SOC101	Introduction to Sociology (3) recommended	3
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**Natural Sciences:**

Any approved general education course from the Natural Sciences area

The following courses are recommended.

BIO100	Biology Concepts (4) OR	
CHM130	Fundamental Chemistry (3) AND	
CHM130LL	Fundamental Chemistry Lab (1) OR	
PHY101	Introduction to Physics (4)	4

(Note: + indicates course has prerequisites and/or corequisites)

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

**Basic Firefighter Certificate Requirements**

**Program Description:** The Certificate of Completion (CCL) Basic Firefighter is designed for students who need (1) advanced training as professional firefighters, (2) basic preparation courses for a career in fire services and/or (3) more comprehensive information about the fire hazard and prevention. Certificate can be used by professional firefighters for promotions and salary advancement within the Fire Services. The program will provide courses for plant safety for fire protection personnel and basic emergency services for laypersons who need intensive first aid training. The unique feature of the program is that the instructors are professional firefighters and/or licensed Emergency Medical Training Personnel.

**Program Notes:**

+ indicates course has prerequisite and/or corequisite

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

**Required Courses: (30 Credits)**

		<b>Credits</b>
+ EMT104	Basic Emergency Medical Technology	8
+ EMT238	Vehicular Extrication and Patient Stabilization	2
+ FSC102	Fire Department Operations	11
FSC105	Hazardous Materials First Responder	3
FSC108	Fundamentals of Fire Prevention	3
+ FSC208	Firefighter Safety/Building Construction	3

## HOSPITALITY/HOTEL MANAGEMENT

**Division Chair - Occupational Education: Fredrick Maihofer (623) 935-8468**

**Degree:** Associate in Applied Science (AAS), Hospitality/Hotel Management  
(NOTE: See page 73 for AAS degree requirements.)

**Certificate:** Hospitality/Hotel Management

### Hospitality/Hotel Management AAS Degree Requirements

**Program Description:** The Hospitality/Hotel Management program is designed to train graduates for management careers in the hotel industry. The hospitality industry is among the fastest growing in the United States, offering numerous career opportunities. This program also transfers to four –year colleges and universities.

<b>Required Courses: (32 Credits)</b>		<b>Credits</b>
CIS105	Survey of Computer Information Systems	3
HRM110	Introduction to Hospitality and Tourism Management	3
HRM120	Hotel Facility Management	3
HRM126	Food Service Cost Systems	2
HRM130	Guest Services Management	3
HRM140	Food Production Concepts	3
HRM244	Quality Sanitation Management	3
HRM270	Hospitality Marketing	3
HRM275	Restaurant Management	3
+HRM280	Hospitality and Tourism Law	3
MGT101	Techniques of Supervision	3

<b>Restricted Electives: (minimum of 7 credits)</b>		<b>Credits</b>
ACC111	Accounting Principles I	3
+HRM260	Hospitality Human Resources Management	3
+HRM296WA	Cooperative Education	1
+HRM298AA	Special Projects	1
TQM/CSM101	Quality Customer Service	3

**General Studies Requirements: (25-27 Credits)**

**Core: (15-17 Credits)**

**First-Year Composition:**

+ENG101	First-Year Composition (3) AND	
+ENG102	First-Year Composition (3)	6

**Oral Communication:**

COM100	Introduction to Human Communication (3) OR	
COM100AA	Intro to Human Communication Part I (1) AND	
COM100AB	Intro to Human Communication Part II (1) AND	
COM100AC	Intro to Human Communication Part III (1) OR	
COM110	Interpersonal Communication (3) OR	
+COM225	Public Speaking (3) OR	
+COM230	Small Group Communication (3)	3

**Critical Reading:**

+CRE101	Critical and Evaluative Reading I OR equivalent by assessment	3
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### Hotel Management AAS Requirements Continues...

#### Mathematics:

+Any approved general education course from the Mathematics area 3-5

#### Distribution: (10 Credits)

##### Humanities and Fine Arts:

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

##### Social and Behavioral Sciences:

ECN211	Macroeconomic Principles (3) OR	
PSY101	Introduction to Psychology (3) OR	
SOC101	Introduction to Sociology (3)	3

##### Natural Sciences:

Any approved general education course from the Natural Sciences area 4

(Note: + indicates course has prerequisites and/or corequisites)

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

### Hospitality/Hotel Management Certificate Requirements

**Program Description:** The Hospitality/Hotel Management program is designed to train graduates for management careers in the hotel industry. The hospitality industry is among the fastest growing in the United States, offering numerous career opportunities. This program also transfers to four –year colleges and universities.

#### Required Courses: (32 Credits)

		<b>Credits</b>
CIS105	Survey of Computer Information Systems	3
HRM110	Introduction to Hospitality and Tourism Management	3
HRM120	Hotel Facility Management	3
HRM126	Food Service Cost Systems	2
HRM130	Guest Services Management	3
HRM140	Food Production Concepts	3
HRM244	Quality Sanitation Management	3
HRM270	Hospitality Marketing	3
HRM275	Restaurant Management	3
+HRM280	Hotel and Tourism Law	3
MGT101	Techniques of Supervision	3

#### Restricted Electives: (6 credits)

		<b>Credits</b>
ACC111	Accounting Principles I	3
+HRM260	Hospitality Human Resources Management	3
TQM/CSM101	Quality Customer Service	3

(Note: + indicates course has prerequisites and/or corequisites)

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

## INDUSTRIAL OPERATIONS TECHNOLOGY

**Division Chair - Occupational Education: Fredrick Maihofer (623) 935-8468**

**Degree:** Associate in Applied Science (AAS), Industrial Operations Technology  
(NOTE: See page 73 for AAS degree requirements.)

**Certificates:** Industrial Operations Technology

**Program Description:** The Industrial Operations Technology Associate in Applied Science prepares students for employment in industrial plants where they will maintain production line equipment. The program is designed to provide an in-depth study of industrial electricity, motors, and controls, transformers and wiring for industrial applications, programmable logic controls, controls and instrumentation, electro/mechanical devices, industrial air conditioning, and fluid power.

**Admissions Criteria:** Completion of math ASSET test with a minimum score of 43 and departmental approval.

### Required Courses: (37 Credits)

**Certificate of Completion in Industrial Operations Technology (5000)**

### Restricted Courses: (12 Credits)

### Credits

Select 12 credits from the following courses in consultation with a program advisor:

CIS/CCT175EA	Introduction to Structured Query Language	1
+CIS190	Introduction to Local Area Networks	3
CNT140AAAA	Cisco Networking Fundamentals	4
ELC119	Concepts of Electricity and Electronics	3
ELC120	Solid State Fundamentals	3
+FAC210	Facilities Air Conditioning Systems	3
+FAC210LL	Facilities Air Conditioning Systems Lab	1
FAC213	Controls	3
FAC214	Instrumentation	3
+GTC181	Introduction to Fluid Power	3
HVA240	Psychometrics	2
MET100AA	Tool Room I: Introduction to Machine Processes	2
+MET100AB	Tool Room II: Machine, Processes, and Employment	2
MET140	Computer-Aided Drafting for Manufacturing	3
+MET103AA	Lathe I: Basic Manual Lathe Operations	1
+MET103AB	Lathe II: Secondary Manual Lathe Operations	1
+MET104AA	Mill I: Basic Machine Operations	1
OSH101	Introduction to Environmental Hazardous Materials Technology	3
OSH102	Introduction to Industrial Hygiene	3
WLD106	Arc Welding	5
+WLD206	Advanced Welding - Heliarc and Wire Feed	5

### General Studies Requirements: (22 Credits)

#### Core: (12 Credits)

#### First-Year Composition

+ENG101	First-Year Composition (3) AND	
+ENG111	Technical Writing (3)	6

(Note: ENG102 First-Year Composition is acceptable **only** if ENG111 is not available.)

#### Oral Communication

COM110	Interpersonal Communication	3
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#### Critical Reading

+CRE101	Critical and Evaluative Reading I (3) OR Equivalent by assessment	
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### Industrial Operations Technology AAS Continues...

#### Mathematics

Waived. Waiver submitted and on file at District Curriculum Office for MAT103AA and MAT103AB addressing the embedded competencies within occupational program. 0

#### Distribution: ( 10 Credits)

#### Humanities & Fine Arts

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

#### Social Behavioral Sciences

SOC101 Introduction to Sociology 3

#### Natural Sciences

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

(Note: + indicates course has prerequisites and/or corequisites.)

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

### Industrial Operations Technology Certificate Requirements

**Program Description:** The Industrial Operations Certificate of Completion prepares students for employment in industrial plants where they will maintain production line equipment. The program is designed to provide an in-depth study of industrial electricity, motors, and controls, transformers and wiring for industrial applications, programmable logic controls, controls and instrumentation, electro/mechanical devices, industrial air conditioning, and fluid power.

**Admissions Criteria:** Completion of math ASSET test with a minimum score of 43 and departmental approval.

#### Required Courses: (25 Credits) Credits

+ELC105	Electricity for Industry	3
+ELC105LL	Electricity for Industry Lab	1
+ELC115	Motors, Controls and Wiring Diagrams	3
+ELC115LL	Motors, Controls and Wiring Diagrams	1
+ELC219	Programmable Controllers	4
+FAC186	Electro-Mechanical Devices	3
+FAC220	Controls and Instrumentation	3
+FAC220LL	Controls and Instrumentation Lab	1
MAT103AA	Mathematics for Industrial Applications I	2
+MAT103AB	Mathematics for Industrial Applications II	2
OSH106	Industry Safety	2

#### Restricted Electives: (12 Credits) Credits

Students should select twelve (12) credits from the following courses in consultation with a program advisor:

CIS175EA	Introduction to Structured Query Language	1
+CIS190	Introduction to Local Area Networks	3
CNT140	Cisco Networking Basics	4
ELC119	Concepts of Electricity and Electronics	3
ELC120	Solid State Fundamentals	3
+ELC214	Servo Systems	3
+ELC214LL	Servo Systems Lab	1
+FAC210	Facilities Air Conditioning Systems	3
+FAC210LL	Facilities Air Conditioning Systems Lab	1
FAC213	Controls	3

FAC214	Instrumentation	3
+GTC181	Introduction to Fluid Power	3
HVA240	Psychometrics	2
(Note: + indicates course has prerequisites and/or corequisites.)		
(Note: Students must earn a grade of "C" or better in all courses within the program.)		
MET100AA	Tool Room I: Introduction to Machine Processes	2
+MET100AB	Tool Room II: Machine, Processes, and Employment	2
MET140	Computer-Aided Drafting for Manufacturing	3
+MET103AA	Lathe I: Basic Manual Lathe Operations	2
+MET103AB	Lathe II: Secondary Manual Lathe Operations	1
+MET104AA	Mill I: Basic Machine Operations	2
+MET104AB	Mill II: Vertical Mill Attachments	1
OSH101	Introduction to Environmental Hazardous Materials Technology	3
OSH102	Introduction to Industrial Hygiene	3
WLD106	Arc Welding	5
+WLD206	Advanced Welding – Heliarc and Wire Feed	5

## INFORMATION SECURITY

**Division Chair - Instructional Computing : Dr. Valerie Akuna (623) 935-8079**

**Degree:** Associate in Applied Science (AAS), Information Security  
(NOTE: See page 73 for AAS degree requirements.)

**Certificates:** Information Security Forensics  
Information Security Technology  
Information Security Administration  
Information Security Wireless Networks

**Program Description:** The Associate of Applied Science (AAS) Degree in Information Security is designed to provide students with the knowledge and tools to understand how networks, operating systems and programs function. Emphasis is placed on developing the theoretical and practical skills needed to maintain security on mission-critical data and systems. The program is designed to meet the training needs of government and industry employees. The program covers a variety of information security disciplines which include both vendor-neutral and vendor-specific information technology (IT) security training. The Information Security program prepares students for internationally recognized IT certifications and high demands in business, industry and government.

**Admissions Criteria:** None

### Required Courses: (27 Credits)

Certificate of Completion: Information Security Technology (5347)

### Restricted Electives: (12 Credits)

### Credits

Students should select 12 credits from the list below of which 6 credits must be ITS prefix courses.

+CIS162AB	C++: Level I(3) OR	
+CIS162AD	C#: Level I(3) OR	
+CIS163AA	Java Programming: Level I(3)	3
+CIS238US	UNIX Security	3
+CIS271DL	Linux Security	3
+CNT160	Cisco Switching Basics and Intermediate Routing	3
+CNT170	Cisco Wide Area Networks (WAN Technologies)	3
+CNT182	Cisco Secure Pix Firewall Configuration	3


**Information Operations Technology AAS Continues...**

+CNT185	Cisco Network Security	4
+CNT186	Fundamentals of Wireless LANs	4
ITS100	Information Security Awareness	1
+ITS150	Building Trusted Networks in the Enterprise	3
+ITS160	Managing Trusted Networks in the Enterprise	3
+ITS170	Information Security Policy Development	1
+ITS171	Information Security Risk Management	1
ITS172	Viruses and Other Malicious Software	1
+ITS230	Deploying Snort Intrusion Detection System (IDS)	3
+ITS231	Router Hardening	1
+ITS232	Layer 2 Attacks and Defenses	3
+ITS233	Wireless Network Security	3
+ITS290	Computer Security Incident Response	3
+ITS291	Computer Forensics Foundations	4
+ITS292	Advanced Computer Forensics	4
+ITS295AA	Special Topics in Information Security	1
+ITS295AB	Special Topics in Information Security	2
+ITS295AC	Special Topics in Information Security	3
+ITS298AA	Special Projects	1
ITS298AB	Special Projects	2
ITS298AC	Special Projects	3
+MST152	Microsoft Windows Server	4
+MST259	Designing Windows Network Security	3

**General Education: (25-27 Credits)**
**Core: (15-17 Credits)**
**First-Year Composition:**

		<b>Credits</b>
+ENG101	First-Year Composition (3) AND	
+ENG102	First-Year Composition (3) OR	
+ENG107	First-Year Composition for ESL (3) AND	
+ENG108	First-Year Composition for ESL (3)	6

**Oral Communication:**

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

**Critical Reading:**

+CRE101	Critical and Evaluative Reading I OR equivalent by assessment	3
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**Mathematics:**

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

**Distribution: (10 Credits)**
**Humanities and Fine Arts:**

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

**Social and Behavioral Sciences:**

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

**Natural Sciences:**

Any approved general education course from the Natural Sciences area 4

(Note: + indicates course has prerequisites and/or corequisites)

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

## Information Security Forensics Certificate Requirements

**Program Description:** The Certificate of Completion (CCL) in Information Security Forensics is designed to provide students with the knowledge and tools to gather evidence, often as part of a criminal investigation, from computers and computer networks. The discipline requires a technical knowledge of the relationship between a computer's operating system and the supporting hardware (e.g. hard disks), and between the operating system and system/application programs and the network. Evidence gathering must precede in a manner that ensures that the evidence is admissible in a court of law, and can be documented and presented in an intelligible manner. The Information Security Forensics Certificate of Completion is part of a comprehensive Information Security program, which prepares students for internationally recognized industry certifications.

**Note:** Students should consult with an advisor in planning their academic schedule in order to complete degree or certificate requirements in an expedient manner. Required courses may not be available every semester or year. Due to limited course offerings, students may find it necessary to extend completion time lines and attend day, evening and summer classes.

### 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: (6 Credits)

		Credits
+BPC170	Computer Maintenance I: A+ Prep	3
CIS105	Survey of Computer Information Systems	3

### Required Courses: (24 Credits)

		Credits
CIS126DA	UNIX Operating System (3) OR	
CIS126DL	Linux Operating System (3)	3
+ITS110	Information Security Fundamentals	4
+ITS120	Legal, Ethical and Regulatory Issues	3
+ITS290	Computer Security Incident Response	3
+ITS291	Computer Forensics Foundations	4
+ITS292	Advanced Computer Forensics	4
MST150	Microsoft Windows Professional (3) OR	
MST150DA	Microsoft Windows 2000 Professional (3) OR	
MST150XP	Microsoft Windows XP Professional (3)	3

## Information Security Technology Certificate Requirements

**Program Description:** The Certificate of Completion (CCL) in Information Security Technology is designed to provide students with the knowledge and tools to understand how networks, operating systems and programs function, as well as, how to protect them. Emphasis is placed on developing the knowledge and skills to maintain security on mission-critical data and computer systems. The program is designed to meet the training needs of employees in both public and private sectors. The program covers a variety of information security disciplines that include both vendor-neutral and vendor-specific security training. The Information Security Technology program prepares students for internationally recognized industry certifications.

**Note:** Students should consult with an advisor in planning their academic schedule in order to complete degree or certificate requirements in an expedient manner. Required courses may not be available every semester or year. Due to limited course offerings, students may find it necessary to extend completion time lines and attend day, evening and summer classes.





### Industrial Operations Technology Certificate Requirements Continues

#### 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: (6 Credits)

+BPC170	Computer Maintenance I: A+ Prep	3
CIS105	Survey of Computer Information Systems	3

#### Required Courses: (27 Credits)

		Credits
CIS126DA	UNIX Operating System (3) OR	
CIS126DL	Linux Operating System (3)	3
CNT140AA	Cisco Networking Fundamentals	4
+CNT150AA	Cisco Routing Protocols and Concepts	4
+ITS110	Information Security Fundamentals	4
+ITS120	Legal, Ethical and Regulatory Issues	3
+ITS130	Operating System Security	3
+ITS140	Network Security	3
MST150	Microsoft Windows Professional (3) OR	
MST150DA	Microsoft Windows 2000 Professional (3) OR	
MST150XP	Microsoft Windows XP Professional (3)	3

(Note: + indicates course has prerequisites and/or corequisites)

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

### Information Security Administration Certificate Requirements

**Program Description:** The Certificate of Completion (CCL) in Information Security Administration is designed to provide students with the knowledge and tools to understand how networks, operating systems and programs function, as well as, how to protect them. Emphasis is placed on developing the knowledge and skills to maintain security on mission-critical data and computer systems. The program is designed to meet the training needs of employees in both public and private sectors. The program covers a variety of information security disciplines that include both vendor-neutral and vendor-specific security training. The Information Security Technology program prepares students for internationally recognized industry certifications.

#### 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: (27 Credits)

Certificate of Completion: Information Security Technology (5347)	27
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#### Required Courses: (23 Credits)

		Credits
+CIS162AB	C++: Level I (3) OR	
+CIS162AD	C#: Level I (3) OR	
+CIS163AA	Java Programming: Level I (3)	3
+CNT160	Cisco Switching Basics and Intermediate Routing	3
+CNT170	Cisco Wide Area Networks (WAN) Technologies	3
+CNT186	Fundamentals of Wireless LANs	4
+ITS150	Building Trusted Networks in the Enterprise	3
+ITS160	Managing Trusted Networks in the Enterprise	3
+MST152	Microsoft Windows Server	4

**Information Security Administration Certificate Requirements Continues . . .**

<b>Restricted Elective: (Credits 6)</b>		<b>Credits</b>
+CIS238US	UNIX Security	3
+CNT182	Cisco Secure PIX Firewall Configuration	3
+CNT185	Cisco Network Security	4
ITS100	Information Security Awareness	1
ITS170	Information Security Policy Development	1
+ITS171	Information Security Risk Management	1
ITS172	Viruses and Other Malicious Software	1
+ITS230	Deploying Snort Intrusion Detection System (IDS)	3
+ITS231	Router Hardening	1
+ITS232	Layer 2 Attacks and Defenses	3
+ITS233	Wireless Network Security	3
+MST259	Designing Windows Network Security	3

**Information Security Wireless Networks Certificate Requirements**

**Program Description:** The Certificate of Completion (CCL) in Information Security Wireless Networks is designed to provide students with the knowledge and tools to design secure wireless local area networks (LANs) and defend wireless LANs against the latest hacking techniques, implement the latest wireless LAN security solutions and understand the impact of new wireless solutions. The Wireless Network Security Certificate of Completion is part of a comprehensive Information Security program which prepares students for internationally recognized industry certifications.

**Note:** Students should consult with an advisor in planning their academic schedule in order to complete degree or certificate requirements in an expedient manner. Required courses may not be available every semester or year. Due to limited course offerings, students may find it necessary to extend completion time lines and attend day, evening and summer classes.

**Program Notes:**

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

<b>Program Prerequisites: (Credits 6)</b>		<b>Credits</b>
+BPC170	Computer Maintenance I: A+Prep	3
CIS105	Survey of Computer Information Systems	3

<b>Required Courses: (Credits 23)</b>		<b>Credits</b>
+CNT160	Cisco Switching Basics and Intermediate Routing	3
+CNT170	Cisco Wide Area Networks (WAN) Technologies	3
+CNT186	Fundamentals of Wireless LANs	4
+ITS110	Information Security Fundamentals	4
+ITS130	Operating System Security	3
+ITS140	Network Security	3
ITS233	Wireless Network Security	3
+ITS230	Deploying Snort Intrusion Detection System (IDS)	3
+ITS231	Router Hardening	1
+ITS232	Layer 2 Attacks and Defenses	3
+ITS233	Wireless Network Security	3
+MST259	Designing Windows Network Security	3



## LINUX NETWORKING ADMINISTRATION

**Division Chair - Instructional Computing: Dr. Valerie Akuna (623) 935-8079**

**Degree:** Associate in Applied Science (AAS), Linux Networking Administration  
(NOTE: See page 73 for AAS degree requirements.)

**Certificates:** Linux Associate  
Linux Networking Administration  
Linux Professional

### Linux Networking Administration AAS Degree Requirements

**Program Description:** This program will 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 ensure a student's knowledge and skill level in preparation for employment or for improving current professional skills. Objectives for a variety of industry certifications are encompassed within course and program objectives.

**Note:** Students should consult with an advisor in planning their academic schedule in order to complete degree or certificate requirements in an expedient manner. Required courses may not be available every semester or year. Due to limited course offerings, students may find it necessary to extend completion time lines and attend day, evening and summer classes. Due to the changing nature of technology training, always check with an academic advisor for the most current requirements for your program of study.

(Note: + indicates course has prerequisites and/or corequisites.)

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

<b>Required Courses: (24-25 Credits)</b>		<b>Credits</b>
+BPC170	Computer Maintenance I: A+ Prep (3) OR	
+BPC273	Advanced Server Computer Maintenance: (3) Server+ Prep	3
CIS126DL	Linux Operating System (3) OR	
CIS126AL	Linux Operating System I (1) and	
+CIS126BL	Linux Operating System II (1) and	
+CIS126CL	Linux Operating System III (1)	3
+CIS238DL	Linux System Administration	3
+CIS239DL	Linux Shell Scripting	3
+CIS240DL	Linux Network Administration	3
+CIS271DL	Linux Security	3
+CIS190	Introduction to Local Area Networks (3)	3-4
CNT140AA	Cisco Networking Fundamentals (4) OR	
MST140	Microsoft Networking Essentials (3) OR	
MST150++	Microsoft Windows Professional (any module)	3

### Restricted Electives: (12 Credits)

BPC110	Computer Usage and Applications (3) OR	
CIS105	Survey of Computer Information Systems (3)	3
BPC/CIS120DF	Computer Graphics: Adobe Photoshop	3
BPC/CIS121AB	Microsoft Command Line Operations	1
BPC/CIS133DA	Internet/Web Development Level I	3
+BPC170	Computer Maintenance I: A+ Prep	3
BPC/CIS224	Project Management Microsoft Project for Windows	3
+BPC270	Microcomputer Maintenance II	3
+BPC273	Advanced Server Computer Maintenance: Server+Prep	3
BPC/CIS120DC	Fireworks: Web Graphics	3

**Linux Networking Administration AAS Degree Requirements (Cont.)**

+ CIS190	Introduction to Local Area Networks (3)	
CNT140AA	Cisco Networking Fundamentals (4) OR	
MST140	Microsoft Networking Essentials (3) OR	3-4
+ CIS233DA	Internet/Web Development Level II	3
+ CIS270	Essentials of Network and Information Security	3
+ CIS296WC	Cooperative Education	3
CIS298AC	Special Projects	3
+ CNT120	Adobe Web Design	3
+ CNT150AA	Cisco Routing Protocols and Concepts	4
+ CNT160	Cisco Switching Basics and Intermediate Routing	3
+ CNT170	Cisco Wide Area Networks (WAN)	3
MST150++	Microsoft Windows Professional (Any module)	3
+ MST152++	Microsoft Windows Server (Any module)	4
+ MST155	Implementing Windows Network Infrastructure	3
+ MST157	Implementing Windows Directory Services	3
+ MST232	Managing a Windows Network Environment	3
CIS250	Management of Information Systems	3
CIS280	Current Topics in Computing	3

**General Studies Requirements: (25 Credits)****Core: (15 Credits)****First-Year Composition:**

+ENG101	First-Year Composition (3) AND	
+ENG102	First-Year Composition (3)	6

**Oral Communication:**

Any approved course in the Oral Communication area	3
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**Critical Reading:**

+CRE101	Critical and Evaluative Reading I or (Note: Equivalent as indicated by assessment)	3
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**Mathematics:**

+MAT102	Mathematical Concepts/Applications or Higher	3
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**Distributions: (10 Credits)****Humanities and Fine Arts**

Any approved general education course in the Humanities and Fine Arts area.	3
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**Social Behavioral Sciences:**

Any approved general education course in Social and Behavioral Sciences area.	3
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**Natural Sciences:**

Any approved general education course in the Natural Science area.	4
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## Linux Associate Certificate Requirements

The Certificate of Completion (CCL) Linux Associate program will 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 ensure a student's knowledge and skill level in preparation for employment or for improving current professional skills. Objectives for a variety of industry certifications are encompassed within course and program objectives.

### 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: (12 Credits)

		<b>Credits</b>
CIS126DL	Linux Operating System (3) OR	
CIS126AL	Linux Operating System I (1) AND	
+CIS126BL	Linux Operating System II (1) AND	
+CIS126CL	Linux Operating System III (1)	3
+CIS238DL	Linux System Administration	3
+CIS240DL	Linux Network Administration	3
+CIS271DL	Linux Security	3

### Restricted Electives: (12 Credits)

		<b>Credits</b>
BPC/CIS121AB	Microsoft Command Line Operations	1
BPC/CIS133DA	Internet/Web Development Level I (3) OR	
+CNT120	Adobe Web Design (3)	3
+BPC170	Computer Maintenance I: A+ Prep	3
BPC/CIS224	Project Management Microsoft Project for Windows	3
+BPC273	Advanced Server Computer Maintenance: Server+Prep	3
CIS105	Survey of Computer Information Systems	3
+CIS190	Introduction to Local Area Networks (3) OR	
CNT140AA	Cisco Networking Fundamentals (4) OR	
MST140	Microsoft Networking Essentials (3)	3-4
+CIS233DA	Internet/Web Development Level II	3
+CIS239DL	Linux Shell Scripting	3
+CIS270	Essentials of Network and Information Security	3
+CNT150AA	Cisco Routing Protocols and Concepts	4
MST150	Microsoft Windows Professional	3
CIS280	Current Topics in Computing	3

## Linux Networking Administration Certificate Requirements

**Program Description:** The Certificate of Completion (CCL) Linux Networking Administration program will 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 ensure a student's knowledge and skill level in preparation for employment or for improving current professional skills. Objectives for a variety of industry certifications are encompassed within course and program objectives.

### 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: (24-25 Credits)**

		<b>Credits</b>
+BPC170	Computer Maintenance I: A+ Prep (3) OR	
+BPC273	Advanced Server Computer Maintenance (3)	3
CIS126DL	Linux Operating System (3) OR	
CIS126AL	Linux Operating System I (1) AND	
+CIS126BL	Linux Operating System II (1) AND	
+CIS126CL	Linux Operating System III (1)	3
+CIS238DL	Linux System Administration	3
+CIS239DL	Linux Shell Scripting	3
+CIS240DL	Linux Network Administration	3
+CIS271DL	Linux Security	3
+CIS190	Introduction to Local Area Networks (3) OR	
CNT140AA	Cisco Networking Fundamentals (4) OR	
MST140	Microsoft Networking Essentials (3)	3-4
MST150++	Microsoft Windows Professional (Any module.)	3

**Restricted Electives: (12 Credits)**

		<b>Credits</b>
BPC110	Computer Usage and Applications (3) OR	
CIS105	Survey of Computer Information Systems (3)	3
BPC/CIS120DF	Computer Graphics: Adobe Photoshop	3
BPC/CIS121AB	Microsoft Command Line Operations	1
BPC/CIS133DA	Internet/Web Development Level I	3
+BPC170	Computer Maintenance I: A+ Prep	3
BPC/CIS224	Project Management Microsoft Project for Windows	3
+BPC270	Microcomputer Maintenance II	3
+BPC273	Advanced Server Computer Maintenance: Server+Prep	3
CIS120DC	Fireworks: Web Graphics	3
+CIS190	Introduction to Local Area Networks (3)	
CNT140AA	Cisco Networking Fundamentals (4) OR	
MST140	Microsoft Networking Essentials (3) OR	3-4
+CIS233DA	Internet/Web Development Level II	3
+CIS270	Essentials of Network and Information Security	3
+CIS296WC	Cooperative Education	3
CIS298AC	Special Projects	3
+CNT120	Adobe Web Design	3
+CNT150AA	Cisco Routing Protocols and Concepts	4
+CNT160	Cisco Switching Basics and Intermediate Routing	3
+CNT170	Cisco Wide Area Networks (WAN) Technologies	3
MST150++	Microsoft Windows Professional (Any module)	3
+MST152++	Microsoft Windows Server (any module)	4
+MST155	Implementing Windows Network Infrastructure	3
+MST157	Implementing Windows Directory Services	3
+MST232	Managing a Windows Network Environment	3
CIS250	Management of Information Systems	3
CIS280	Current Topics in Computing	3

**Linux Professional Certificate Requirements**

**Program Description:** The Certificate of Completion (CCL) Linux Professional program will 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 ensure a student's knowledge and skill level in preparation for employment or for improving current professional skills. Objectives for a variety of industry certifications are encompassed within course and program objectives.



**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: (6 Credits)**

		<b>Credits</b>
CIS126DL	Linux Operating System (3) OR	
CIS126AL	Linux Operating System I (1) AND	
+CIS126BL	Linux Operating System II (1) AND	
+CIS126CL	Linux Operating System III (1)	3
+CIS238DL	Linux System Administration	3

**Restricted Electives: (6 Credits)**

		<b>Credits</b>
BPC/CIS121AB	Microsoft Command Line Operations	1
+BPC170	Computer Maintenance I: A+ Prep	3
+BPC273	Advanced Server Computer Maintenance: Server+ Prep	3
CIS105	Survey of Computer Information Systems	3
+CIS190	Introduction to Local Area Networks	3
+CIS240DL	Linux Network Administration	3
+CIS270	Essentials of Network and Information Security	3
+CIS271DL	Linux Security	3
CNT140AA	Cisco Networking Fundamentals (4) OR	
MST140	Microsoft Networking Essentials (3)	3-4
+CNT150AA	Cisco Routing Protocols and Concepts	4
MST150++	Microsoft Windows Professional (Any module.)	3
CIS280	Current Topics in Computing	3

## MICROSOFT NETWORKING TECHNOLOGY

**Division Chair - Instructional Computing: Dr. Valerie Akuna (623) 935-8079**

**Degree:** Associate in Applied Science (AAS), Microsoft Networking Technology  
(NOTE: See page 73 for AAS degree requirements.)

**Certificates:** Microsoft Desktop Support Technology  
Microsoft Product Specialist  
Microsoft Systems Administration  
Microsoft Systems Engineer

**Microsoft Networking Technology AAS Degree Requirements**

**Program Description:** The Associate in Applied Science (AAS) in Microsoft Networking Technology program develops skills to implement a network infrastructure and install, configure, monitor, optimize, and troubleshoot Windows server and Windows client workstations. Courses in the program also help to prepare for Microsoft Certified Product Specialist (MCP), Microsoft Certified Systems Administrator (MCSA), and Microsoft Certified Systems Engineer (MCSE) examinations. The curriculum is taught by Microsoft Certified Professionals.

**Note:** Students should consult with an advisor in planning their academic schedule in order to complete degree or certificate requirements in an expedient manner. Required courses may not be available every semester or year. Due to limited course offerings, students may find it necessary to extend completion time lines and attend day, evening and summer classes. Due to the changing nature of technology training, always check with an academic advisor for the most current requirements for your program of study.

**Program Notes:**

+ indicates course has prerequisites and/or corequisites)

++ indicates any module.)

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



**Program Prerequisites:**

CIS105	Survey of Computer Information Systems (3) OR Permission of Department or Division	3
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**Required Courses: (24-25 Credits)****Credits**

Courses selected cannot apply in both Required Courses and Restricted Electives area.

BPC/CIS121AB	Microsoft Command Line Operations	1
+ BPC170	Computer Maintenance I: A+ Prep	3
CIS102	Interpersonal and Customer Service Skills for IT Professionals	1
CIS126DA	UNIX Operating System (3) OR	
CIS126AA	UNIX Operating System: Level I (1) AND	
+ CIS126BA	UNIX Operating System: Level II (1) AND	
+ CIS126CA	UNIX Operating System: Level III (1) OR	
CIS126DL	Linux Operating System (3) OR	
CIS126AL	Linux Operating System II (1) AND	
+ CIS126BL	Linux Operating System II (1) AND	
+ CIS126CL	Linux Operating System III (1)	3
+ CIS190	Introduction to Local Area Networks OR (3)	
CNT140AA	Cisco Networking Fundamentals (4) OR	
MST140	Microsoft Networking Essentials (3)	3-4
MST150++	Microsoft Windows Professional (any course)	3
+MST152++	Microsoft Windows Server (and course)	4
+MST155	Implementing Windows Network Infrastructure	3
+MST157	Implementing Windows Directory Services	3

**Restricted Electives: (13 Credits)****Credits**

Students should select thirteen (13) credits from the following courses in consultation with a program advisor:

BPC110	Computer Usage and Applications (3) OR	
CIS105	Survey of Computer Information Systems (3)	3
+ BPC171	Recycling Used Computer Technology	1-3
+ BPC270	Microcomputer Maintenance II	3
+ CIS150	Programming Fundamentals	3
+ CIS159	Visual Basic Programming I	3
+ CIS162AB	C++: Level I (3) OR	
+ CIS162AC	Visual C++: Level I (3)	3
+ CIS280++	Any CIS280 Current Topics in Computing course	1-3

Students may select no more than four (4) credits combined from CIS282AA-AC, CIS290AA-AC and CIS296WA-WD courses.

+CIS282++	Volunteerism for Computer Information Systems: A Service Learning Experience (Any module) (1-3) OR	
+CIS290++	Computer Information Systems Internship (Any module) (1-3) OR	
+ CIS296++	Computer Information Systems Internship (Any Module) (1-3) OR	
+ CNT150AA	Cisco Routing Protocols and Concepts	4
+MST141	Supporting Microsoft Windows Desktop Operating Systems	3
+MST142	Supporting Applications on Microsoft Windows Desktop Operating Systems	3
MST150++	Microsoft Windows Professional (any course)	3
Selected course will not apply in both required courses and restricted electives.		
+MST152++	Microsoft Windows Server (any course)	3-4



Selected course will not apply in both required courses and restricted electives.

+MST157	Implementing Windows Directory Services	3
+MST232	Managing a Windows Network Environment	3
+MST242	Microsoft Exchange Server	4
+MST244	Microsoft SQL Server Administration	3
+MST252	Microsoft Windows Network Upgrade	3
+MST253	Designing a Microsoft Windows 2000 Directory Services Infrastructure	3
+MST254	Microsoft SQL Server Design & Implementation	3
+MST255	Designing Windows Network Infrastructure	3
+MST259	Designing Windows Network Security	3
MST298A++	Special Projects (Any module)	1-3

### General Education Requirements: (25 Credits)

#### Core: (15 Credits)

#### First-Year Composition:

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

#### Oral Communication:

Any approved general education course in the Oral Communication area	3
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#### Critical Reading:

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

+Any approved general education course in the Mathematics area	3
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#### Distribution: (10 Credits)

#### Humanities and Fine Arts:

Any approved general education course in the Humanities and Fine Arts area	3
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#### Social and Behavioral Sciences:

Any approved general studies course in the Social and Behavioral Sciences area	3
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#### Natural Sciences:

Any approved general education course in the Natural Sciences area	4
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### Microsoft Desktop Support Technology Certificate Requirements

**Program Description:** The Certificate of Completion in Microsoft Desktop Support Technology is designed to provide training to work in an entry-level computer maintenance and help-desk position. Students will develop the skills to successfully troubleshoot desktop environments running on the Microsoft Windows operating system. Courses in the program also help to prepare for the Microsoft Certified Desktop Support Technician (MCDST) examinations.

#### Program Notes:

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

#### Program Prerequisites:

In lieu of the courses listed below, students with experience in the information technology field may meet these program prerequisite requirements with the permission of the instructor.



BPC/CIS121AB	Microsoft Command Line Operations	1
CIS102	Interpersonal and Customer Service Skills for IT Professionals	1

**Required Courses: (18-19 Credits)****Credits**

BPC110	Computer Usabe and Applications (3) OR	
CIS105	Survey of Computer Information Systems (3)	3
+BPC170	Computer Maintenance I: A+ Prep	3
+CIS190	Introduction to Local Area Networks OR (3)	
CNT140AA	Cisco Networking Fundamentals (4) OR	
MST140	Microsoft Networking Essentials (3)	3-4
+MST141	Supporting Microsoft Windows Client Operating Systems	3
+MST142	Supporting Applications on Microsoft Windows Client Operating Systems	3
+MST150XP	Microsoft Windows XP Professional	3

**Microsoft Product Specialist Certificate Requirements**

**Program Description:** The Certificate of Completion in Microsoft Product Specialist provides training for an entry-level position working with Windows networks. Knowledge and skills are developed to install, configure, customize, optimize, and troubleshoot Windows servers and Windows client workstations. Courses in the program also help to prepare for Microsoft Certified Product Specialist (MCP), Microsoft Certified Systems Administrator (MCSA), and Microsoft Certified Systems Engineer (MCSE) examinations. The curriculum is taught by Microsoft Certified Professionals.

**Program Notes:**

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

Overall program minimum G.P.A. = 2.00.

+ indicates course has prerequisites and/or corequisites.

++ indicates any module.

**Program Prerequisites: (3 Credits)****Credits**

CIS105	Survey of Computer Information Systems (3) OR Permission of Department or Division	3
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**Required Courses: (13-15 Credits)****Credits**

BPC/CIS121AB	Microsoft Command Line Operations	1
+BPC170	Computer Maintenance I: A+ Prep	3
+CIS190	Introduction to Local Area Networks (3) OR	
CNT140AA	Cisco Networking Fundamentals (4) OR	
MST140	Microsoft Networking Essentials (3)	3-4
MST150++	Any MST150 course	3
+MST152++	Any MST152 course	4



## Microsoft Systems Administration Certificate Requirements

**Program Description:** The Certificate of Completion in the Microsoft Systems Administration provides training for professionals who implement, manage, and troubleshoot existing network and system environments based on current Microsoft Server operating systems. The courses in the program also prepare for Microsoft Certified Product Specialist (MCP), Microsoft Certified Systems Administrator (MCSA), and Microsoft Certified Systems Engineer (MCSE) examinations.

### Program Notes:

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum G.P.A. = 2.00.

+ indicates course has prerequisites and/or corequisites.

++ indicates any module.

### Program Prerequisites: (3 credits)

CIS105	Survey of Computer Information Systems (3) OR Permission of Department or Division	3
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### Required Courses: (20-21 Credits)

		Credits
BPC/CIS121AB	Microsoft Command Line Operations	1
+BPC170	Computer Maintenance I: A+ Prep	3
+CIS190	Introduction to Local Area Networks (3) OR	
CNT140AA	Cisco Networking Fundamentals (4) OR	
MST140	Microsoft Networking Essentials (3)	3-4
MST150++	Any MST150 course	3
+MST152++	Any MST152 course	4
+MST155	Implementing Windows Network Infrastructure	3
+MST232	Managing Window Network Environment	3

## Microsoft Systems Engineer Certificate Requirements

**Program Description:** The Certificate of Completion in Microsoft Systems Engineer provides training for an intermediate- to supervisory-level position working with Windows networks. The program develops skills to install, configure, customize, optimize, and troubleshoot Windows servers, Windows client workstations, Microsoft Backoffice products. Courses in the program also help to prepare for Microsoft Certified Product Specialist (MCP), Microsoft Certified Systems Administrator (MCSA), and Microsoft Certified Systems Engineer (MCSE) examinations. The curriculum is taught by Microsoft Certified Professionals.

### Program Notes:

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum G.P.A. = 2.00.

+ indicates course has prerequisites and/or corequisites.

++ indicates any module.

### Program Prerequisites: (3 credits)

CIS105	Survey of Computer Information Systems (3) OR Permission of Department or Division	3
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### Required Courses: (32-33Credits)

		Credits
BPC/CIS121AB	Microsoft Command Line Operations	1
+BPC170	Computer Maintenance I: A+ Prep	3
+CIS190	Introduction to Local Area Networks (3) OR	
CNT140AA	Cisco Networking Fundamentals (4) OR	
MST140	Microsoft Networking Essentials (3)	3-4
MST150++	Any MST150 course	3

+MST152++	Any MST152 course	4
+MST155	Implementing Windows Network Infrastructure	3
+MST157	Implementing Windows Directory Services	3
+MST232	Managing a Windows Network Environment	3
+MST244	Microsoft SQL Server Administration	3
+MST253	Designing a Microsoft Windows 2000 Directory Services Infrastructure (3) OR	
+MST255	Designing Windows Network Infrastructure	3
+MST259	Designing Windows Network Security (3)	3

## NETWORKING TECHNOLOGY: CISCO

**Division Chair - Instructional Computing: Dr. Valerie Akuna (623) 935-8079**

**Degree:** Associate in Applied Science (AAS), Networking Technology: Cisco  
(NOTE: See page 73 for AAS degree requirements.)

**Certificates:** Networking Administration: Cisco  
Networking Technology: Cisco

### Networking Technology: Cisco AAS Degree Requirements

**Program Description:** Estrella Mountain Community College, a Cisco Systems recognized Regional Academy, prepares students for industry-recognized certification. The curriculum is taught by Cisco Systems Certified Professionals.

The Associate of Applied Science in Networking Technology: Cisco provides training for a supervisory position working with Cisco Systems networking and Internet hardware. 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); use the MS-DOS operating systems; troubleshoot problems with various common hardware and software configurations; perform administrative tasks in a network; develop methods for customer service; and describe the basic components of electronic systems. Courses in the program also prepare students for the Cisco Certified Networking Associate examination.

**Note:** Students should consult with an advisor in planning their academic schedule in order to complete degree or certificate requirements in an expedient manner. Required courses may not be available every semester or year.

#### Required Courses: (25 Credits)

#### Credits

(Note: A course cannot be used to satisfy the Required Course and Restricted Electives Area.)

BPC/CIS121AB	Microsoft Command Line Operations	1
+BPC170	Computer Maintenance I: A+ Prep	3
CIS102	Interpersonal and Customer Service Skills for IT Professionals	1
CIS126DA	UNIX Operating System (3) OR	
CIS126AA	UNIX Operating System: Level I (1) AND	
+CIS126BA	UNIX Operating System: Level II (1) AND	
+CIS126CA	UNIX Operating System: Level III (1) OR	
+CIS191	Novell NetWare System Administration (3) OR	
MST150	Microsoft Windows Professional (3)	3
CNT140AA	Cisco Networking Fundamentals	4
+CNT150AA	Cisco Routing Protocols and Concepts	4
+CNT160	Cisco Switching Basics and Intermediate Routing	3
+CNT170	Cisco Wide Area Networks (WAN) Technologies	3
ELT100	Survey of Electronics	3





### Networking Technology AAS Degree Requirements Continues...

<b>Restricted Electives: (15 Credits)</b>		<b>Credits</b>
BPC110	Computer Usage and Application (3) OR	
CIS105	Survey of Computer Information Systems (3)	3
CIS126DA	UNIX Operating System (3) OR	
CIS126AA	UNIX Operating System: Level I (1) AND	
+CIS126BA	UNIX Operating System: Level II (1) AND	
+CIS126CA	UNIX Operating System: Level III (1) OR	
+CIS191	Novell NetWare System Administration (3) OR	
MST150	Microsoft Windows Professional (3)	3
+CIS190	Introduction to Local Area Networks OR	
MST140	Microsoft Networking Essentials	3
+CIS270	Essentials of Network and Information Security	3
+CIS296WA-WD	Cooperative Education	1-4
CIS298AA-AC	Special Projects	1-3
+MST145	Microsoft Client System Administration	3
+MST240	Microsoft Transmission Control Protocol/Internet Protocol (TCP/IP)	3

(Note: + indicates course has prerequisites and/or corequisites)

(Note: Students must earn a grade of "C" or better for each course listed in the "Required Course" area.)

(Note: A course cannot be used to satisfy both Required Courses and Restricted Electives areas.)

### General Education Requirements: (25 Credits)

#### Core: (15 Credits)

#### First-Year Composition:

+ENG101	First Year Composition AND	3
+ENG102	First Year Composition	3

#### Oral Communication:

COM100	Introduction to Human Communication (3) OR	
COM110	Interpersonal Communication (3) OR	
+COM230	Small Group Communication (3)	3

#### Critical Reading:

+CRE101	Critical and Evaluative Reading I (3) OR Equivalent as indicated by assessment.	3
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#### Mathematics:

+MAT102	Mathematical Concepts/Applications	3
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#### Distribution: (10 Credits)

#### Humanities and Fine Arts:

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

#### Social and Behavioral Sciences:

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

#### Natural Sciences:

Any approved general education course in the Natural Sciences area 4



## Networking Administration: Cisco Certificate Requirements

**Program Description:** Estrella Mountain Community College, a Cisco Systems recognized Regional or Local Academy, prepares students for industry-recognized certification. The curriculum is taught by Cisco Systems Certified Professionals. The Certificate of Completion in Networking Administration: Cisco provides training for a position working with Cisco Systems networking and Internet hardware. 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). Courses in the program also prepare students for the Cisco Certified Networking Associate examination.

(Note: + indicates course has prerequisites and/or corequisites)

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

<b>Required Courses: (14 Credits)</b>		<b>Credits</b>
CNT140AA	Cisco Networking Fundamentals	4
+CNT150AA	Cisco Routing Protocols and Concepts	4
+CNT160	Cisco Switching Basics and Intermediate Routing	3
+CNT170	Cisco Wide Area Networks (WAN) Technologies	3

## Networking Technology: Cisco Certificate Requirements

**Program Description:** Estrella Mountain Community College, a Cisco Systems recognized Regional or Local Academy, prepares students for industry-recognized certification. The curriculum is taught by Cisco Systems Certified Professionals. The Certificate of Completion in Networking Technology: Cisco provides training for a supervisory position working with Cisco Systems networking and Internet hardware. 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), use the MS-DOS operating systems; troubleshoot problems with various common hardware and software configurations; and perform administrative tasks in a network; Courses in the program also prepare students for the Cisco Certified Networking Associate examination.

(Note: + indicates course has prerequisites and/or corequisites)

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

<b>Required Courses: (21 Credits)</b>		<b>Credits</b>
BPC/CIS121AB	Microsoft Command Line Operations	1
+BPC170	Computer Maintenance I: A+ Prep	3
CIS126DA	UNIX Operating System (3) OR	
CIS126AA	UNIX Operating System: Level I (1) AND	
+CIS126BA	UNIX Operating System: Level II (1) AND	
+CIS126CA	UNIX Operating System: Level III (1) OR	
+CIS191	Novell NetWare System Administration (3) OR	
MST150	Microsoft Windows Professional (3)	3
CNT140AA	Cisco Networking Fundamentals	4
+CNT150AA	Cisco Routing Protocols and Concepts	4
+CNT160	Cisco Switching Basics and Intermediate Routing	3
+CNT170	Cisco Wide Area Networks (WAN) Technologies	3



## NURSING

**Department Chair -Nursing: Sandra Maas (623) 935-8621**

**Degree:** Associate in Applied Science (AAS), Nursing  
(NOTE: See page 73 for AAS degree requirements.)

### **Nursing : AAS Degree Requirements**

**Program Description:** The Associate in Applied Science (AAS) Nursing Program is available at nine of the Maricopa Community Colleges. Clinical experiences are provided in a variety of healthcare settings. The Nursing Program provides eligibility for students to apply for the national exam for the registered nurse license. Licensing requirements are the exclusive responsibility of the State Board of Nursing.

The Associate in Applied Science (AAS) Nursing Program is approved by the Arizona State Board of Nursing and accredited by the National League for Nursing Accrediting Commission (NLNAC), 61 Broadway 33<sup>rd</sup> Floor, New York, New York 10006, 212.363.5555, ext 153.

#### **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  
Phoenix College  
Rio Salado 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.

All nursing applicants for licensure will be fingerprinted to permit the Department of Public Safety to obtain state and federal criminal history information. If there is any question about eligibility for licensure or certification, contact the nursing education consultant at the Arizona State Board of Nursing (602-889-5150).

#### **Health Declaration:**

It is essential that Nursing students be able to perform a number of physical activities in the clinical portion of the program. At a minimum, students will be required to lift patients, stand for several hours at a time and perform bending activities. The clinical nursing experience also places students under considerable mental and emotional stress as they undertake responsibilities and duties impacting patients' lives. Students must be able to demonstrate rational and appropriate behavior under stressful conditions. Individuals should give careful consideration to the mental and physical demands of the program prior to making application.



**Health & Safety Requirements for the Nursing Program:**

1. Students must submit a Health and Safety Documentation verifying completion of all requirements and maintain current status throughout the program.
2. Students must submit the Health Declaration Form signed by a licensed health care provider.
3. Students must test negative on a timed urine drug screen.
4. Students must provide a copy of their current and valid Finger Print Clearance Card upon application.

**Grade Requirements:**

Student must obtain a “C” grade or better in all courses within the program.

**Course Fee Information:**

Please see class schedule for information regarding course fees.

**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 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 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, chronic and community based health care settings. The AAS degree in Nursing provides the graduate with an educational foundation for articulation into the university setting.

**Program Notes:**

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

+ indicates course has prerequisites and/or corequisites

**Admission Criteria:**

High School diploma or GED, formal application and admission to the program is required. A passing score on a nursing program admission test is required to complete an application. Applicants for Advanced Placement must receive a passing score on a practical nursing content exam for the 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 reserved the right to deny acceptance of an admission application if the applicant was dismissed for issues relating to academic integrity, unsafe patient care, and/or two (2) or more failures from any nursing program.

All applicants holding or receiving a certificate 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.



## Nursing AAS Degree Requirements Continues. . .

### Program Prerequisites (18-20 Credits)

Area Note: The credit hour range is subject to change depending on the student's educational experience.

BIO156	Introductory Biology for Allied Health (4) OR	
BIO181	General Biology (Majors) I (4) OR	
	One year of high school biology	0-4
+BIO201	Human Anatomy and Physiology I	4
+CHM130	Fundamental Chemistry (3) AND	
+CHM130LL	Fundamental Chemistry Laboratory (1) OR	
	One year of high school chemistry	0-4
+MAT120	Intermediate Algebra (5) OR	
+MAT121	Intermediate Algebra (4) OR	
+MAT122	Intermediate Algebra (3) OR	
	Satisfactory completion of higher level mathematics course 3-5	
PSY101	Introduction to Psychology (3) OR	
+PSY240	Developmental Psychology (3)	3

### Required Courses (35 Credits)

+NUR151	Nursing Theory and Science I	10
+NUR171	Nursing Theory and Science II	8
+NUR251	Nursing Theory and Science III	8
+NUR271	Nursing Theory and Science IV	7
+NUR291	Nursing Clinical Capstone	2

### General Education Requirements: (19 Credits)

#### CORE: (9 Credits)

##### First-Year Composition

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

##### Oral Communication

Waived.

0

##### Critical Reading

+CRE101	Critical and Evaluative Reading I (3) OR	
	Equivalent by assessment	3

##### Mathematics

Met by MAT120, or MAT121, or MAT122 OR

Satisfactory completion of higher level mathematics course

0

##### Distribution: Credits: 10

##### Humanities/Fine Arts

Any approved course in the Humanities and Fine Arts area.

2

##### Natural Science

0

+BIO202	Human Anatomy and Physiology II (4)	
	AND	
+BIO205	Microbiology (4)	8

##### Social and Behavioral Sciences

0

Met by PSY101pr PSY240 in Program Prerequisites area.

## Oracle Database Administration Certificate Requirements

**Division Chair - Instructional Computing: Dr. Valerie Akuna (623) 935-8079**

**Program Description:** This program provides students with the latest Oracle Database Administration skills necessary to perform the duties of an Oracle DBA as well as the requisite knowledge needed for the Oracle Certified Professional (OCP) Program examinations.

**Note:** Students should consult with an advisor in planning their academic schedule in order to complete degree or certificate requirements in an expedient manner. Required courses may not be available every semester or year.

<b>Program Prerequisites: (7 Credits)</b>		<b>Credits</b>
CIS105	Survey of Computer Information Systems	3
CIS122AC	UNIX Operating System: Multi-User	1
+ENG101	First Year Composition (3) OR	
OAS108	Business English (3)	3

<b>Required Courses: (16 Credits)</b>		<b>Credits</b>
+CIS119DO	Introduction to Oracle: SQL	3
+CIS119DP	Oracle: Database Administration	3
+CIS119DQ	Oracle: Backup and Recovery	2
+CIS119DR	Oracle: Performance: Tuning	3
+CIS164AG	Oracle: Data Modeling and Relational Database Design	2
MGT101	Techniques of Supervision (3) OR	
MGT175	Business Organization and Management (3)	3

(Note: + indicates course has prerequisites and/or corequisites)

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

## ORGANIZATIONAL MANAGEMENT

**Division Chair - Occupational Education: Fredrick Maihofer (623) 935-8468**

**Degree:** Associate in Applied Science (AAS), Organizational Management  
(NOTE: See page 73 for AAS degree requirements.)

**Certificate:** Organizational Leadership

### Organizational Management AAS Degree Requirements

**Program Description:** The Associate in Applied Science (AAS) in Organizational Management provides students with a customized curriculum specific to the student's individual needs in addition to the knowledge and skills needed in today's changing workplace. The program develops leadership and communication skills and techniques for planning, directing, and evaluating business situations, with an emphasis on effective allocation of time, money, materials, space, and personnel. The curriculum combines coursework in leadership with a general education component.

**Program Notes:**

+indicates course has prerequisites and/or corequisites

**Required Courses: Credits: 17-18**

Certificate of Completion in Organizational Leadership (5731)	17-18
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**Restricted Electives: Credits: 19-22**

Students must choose 19-22 industry/job specific course credits from any MCCC CD occupational program and have them approved by a department chair.

These industry/job specific course credits must include a minimum of 9 credits with a common subject.







### Organizational Management AAS Requirements Continues...

**General Education: Credits: 25-27**

**CORE: Credits: 15-17**

#### First-Year Composition

Any approved general education course from the First-Year Composition area. 6

#### Oral Communication

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

#### Critical Reading

Any approved general education course from the Critical Reading area 3

#### Mathematics

Any approved general education course from the Mathematics area. 3-5

**Distribution: Credits: 10**

#### Humanities and Fine Arts

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

#### Social and Behavioral Sciences

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

3

#### Natural Sciences

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

(Note: + indicates course has prerequisites and/or corequisites)

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

### Organizational Leadership Certificate Requirements

**Program Description:** The Certificate of Completion (CCL) in Organizational Leadership provides students with knowledge and skills needed in today's changing workplace. The program develops leadership and communication skills and techniques for planning, directing, and evaluating business situations. This program also emphasizes procedures for effective allocation of time, money, materials, space, and personnel.

#### Program Notes:

+indicates course has prerequisites and/or corequisites

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

#### Required Courses: (17-18 Credits)

	<b>Credits</b>	
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
+GBS233	Business Communications (3) OR	
MGT175	Business Organization and Management (3) OR	
TQM240	Project Management in Quality Organizations (2)	2-3
MGT101	Techniques of Supervision (3) OR	
MGT229	Management and Leadership I (3)	3

## POWER PLANT TECHNOLOGY

**Division Chair - Occupational Education: Fredrick Maihofer (623) 935-8468**

### Power Plant Technology AAS Degree Requirements

Program Description: The Associate of Applied Science in Power Plant Technology is designed to provide power plant staff/apprentices with trade-related classroom training as required by the US Department of Labor, Bureau of Apprenticeship and Training, and the State of Arizona, Apprenticeship Division. This program consists of a core curriculum that is common to all power plant apprenticeships. The apprentice selects a track of study - mechanical, electrical, instrumentation, heating ventilation and air conditioning, welding or machining – to complete specialized, craft-related training.

#### Admission Criteria:

Acceptance to Power Plant Technology program.

#### Required Courses: (21 Credits)

	<b>Credits</b>
BPC101AA Introduction to Microcomputers I: IBM	1
GTC/FAC/MIT/OSH106 Industrial Safety	2
GTC/MET107 Technical Mathematics I	3
+ GTC/MET108 Technical Mathematics II	3
GTC216 Properties of Materials	3
PPT101 Hand and Power Tools	1
PPT103 Print Reading and Plant Drawings	1
PPT118 Conduct of Maintenance	1
PPT200 Industry Events	1
PPT202 Plant Systems and Components I	2
+ PPT203 Plant Systems and Components II	2
PPT204 Measuring and Test Equipment	1

#### Restricted Elective: (17 Credits)

#### Credits

Students will select one of the following tracks and complete 17 craft-related credits from the list of restricted elective courses indicated in each specialty track below.

##### Track I: Power Plant Technology: Mechanical

PPT102 Introduction to Electricity	3
PPT104 Properties of Materials	1
PPT105 Air Compressor Principles	1
PPT106 Diesel Engine Systems	1
PPT107 Lubrication	1
PPT108 Turbines	1
PPT109 Pipefitting Auxiliaries I	2
PPT110 Valves Maintenance I	2
PPT112 Principles of Machining	3
PPT113 Pumps I	2
PPT114 Drive and Gear Components	1
PPT115 Hydraulics and Pneumatics	2
PPT116 Introduction to Welding and Metal Fabrication	3
PPT117 Forklift Operations	1
PPT119 Instrument Air Compressor Maintenance	2
PPT205 Rigging	2
PPT206 Bearings	1
PPT207 Heat Exchangers	1
PPT208 Thermal Insulation	0.5
+ PPT209 Pipefitting Auxiliaries II	2
+ PPT210 Valve Maintenance II	3


**Power Plant AAS Degree Requirements Continues...**

PPT211	Couplings	0.5
PPT212	Control Valves and Actuators	1
PPT213	Pumps II	3
PPT214	Machine Alignment	3
PPT215	Relief and Safety Valves	1
PPT217	Refueling Overview	1
PPT218	Lathe Operations	2
PPT219	Milling Machine Operations	2

**Track II: Power Plant Technology: Electrical**

ELC119	Concepts of Electricity and Electronics	3
ELC120	Solid State Fundamentals	3
ELC210	AC Machinery and DC Machinery	3
ELC217	Motor Controls	3
+ELC218	Variable Frequency Drives	3
ELT101	Mathematics for Electronics I	3
+ELT102	Mathematics for Electronics II	3
+ELT113	Basic Electronics	4

**Track III: Power Plant Technology: Instrumentation**

ELT101	Mathematics for Electronics I	3
+ELT102	Mathematics for Electronics II	3
ELT113	Basic Electronics	4
+ELT131	Digital and Logic Circuits	4
+ELT195	Solid State Electronics	4
+ELT251	Electronic Instrumentation	3
+NET183AA	Operating Systems/PC	2
PPT102	Introduction to Electricity	3
PPT115	Hydraulics and Pneumatics	2

**Track IV: Power Plant Technology: Heating, Ventilation and Air Conditioning**

+FAC101	Refrigeration Components and Applications I	2
+FAC101LL	Refrigeration Components and Applications I Lab	1
+FAC105	Electricity for Industry	3
+FAC105LL	Electricity for Industry Lab	1
+FAC115	Motors, Controls and Wiring Diagrams	3
+FAC115LL	Motors, Controls and Wiring Diagrams Lab	1
+FAC210	Facilities Air Conditioning Systems	3
+FAC210LL	Facilities Air Conditioning Systems Lab	1
+HVA112	Heating and Air Conditioning	3
+HVA112LL	Heating and Air Conditioning Lab	1
HVA143	Load Calculation and Duct Design	3
+HVA234	HVAC and Refrigeration Installation	3
+HVA234LL	HVAC and Refrigeration Installation Lab	1

**Track V: Power Plant Technology: Welding**

WLD101	Welding I	3
WLD106	Arc Welding	5
+WLD201	Welding II	3
+WLD206	Advanced Welding – Heliarc and Wire Feed	5
+WLD208	Advanced Arc Welding – Certification	5

**Track VI: Power Plant Technology: Machining**

+MET102	Machine Processes, Theory and Application	5
MET110	Survey of Manufacturing Materials	1
+MET112	Inspection Techniques	3

**Power Plant Technology AAS Degree Requirements (Cont.)**

MET114	Machine Trades Print Reading	3
+MET115	Teamwork Dynamics in Manufacturing	2
MET140	Computer-Aided Drafting for Manufacturing	3
+MET203	Machine Tools	5
+MET206	CNC Programming	3
+MET236	CAD/CAM Computer Numerical Control (CNC) Programming	3
+MET260	Tooling and Fixturing	3
+MET264	Manufacturing Process Planning	3

**General Studies Requirements: (22 Credits)****Core: (12 Credits)****First-Year Composition:**

+ENG101	First-Year Composition (3) AND	
+ENG102	First-Year Composition (3) OR	
+ENG111	Technical Writing (3)	6

**Oral Communication:**

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

**Critical Reading:**

+CRE101	Critical and Evaluative Reading I (3) OR	
+CRE111	Critical Reading for Business and Industry (3) OR Equivalent by Assessment	3

**Mathematics**

Waived		0
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Note: Waiver submitted and on file at the District Curriculum Office for GTC/MET108 addressing the embedded competencies within the occupational program.

**Distribution: Credits: (10 Credits)****Humanities/Fine Arts**

Any approved course in the Humanities and Fine Arts area.	3
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**Social and Behavioral Sciences:**

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

+PHY110	Fundamental of Physical Science	4
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(Note: + indicates course has prerequisites and/or corequisites)

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





## PROGRAMMING AND SYSTEM ANALYSIS PROGRAMMING AND SYSTEM ANALYSIS

**Division Chair - Instructional Computing: Dr. Valerie Akuna (623) 935-8079**

**Degree:** Associate in Applied Science (AAS), Programming and System Analysis  
(NOTE: See page 73 for AAS degree requirements.)

**Certificate:** Programming and System Analysis

### Programming and System Analysis AAS Degree Requirements

**Program Description:** The Associate in Applied Science (AAS) program provides an in-depth exploration of different computer language and technical skills. The program includes, but is not limited to the following: operating systems, local area networks, business communication, team roles, and dynamics.

**Note:** Students should consult with an advisor in planning their academic schedule in order to complete degree or certificate requirements in an expedient manner. Required courses may not be available every semester or year.

#### Program Prerequisites: (3 credits)

+ CRE101	Critical and Evaluative Reading I (3) OR Equivalent by assessment	3
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#### Required Courses: (25-26 Credits)

	<b>Credits</b>
BPC/CIS117DM	3
BPC/CIS117AM	1
+ BPC/CIS117BM	1
+ BPC/CIS117CM	1
CIS105	3
BPC/CIS121AB	1
CIS121AE	1
CIS126AA	1
CIS126AL	1
+ CIS150	3
+ CIS150AB	3
+ CIS159	3
CIS162	3
+ CIS162AA	3
+ CIS162AB	3
+ CIS162AC	3
+ CIS162AD	3
+ CIS190	3
+ CNT140AA	4
+ MST140	3
+ CIS225	3
+ CIS225AB	3
+ GBS233	3

#### Restricted Electives: (15 Credits)

	<b>Credits</b>
CIS126DA	3
+ CIS166	3
+ CIS166AA	3
+ CIS166AB	3
+ CIS169	3
+ CIS224	3
+ CIS250	3
+ CIS259	3
+ CIS262++	3
+ CIS263AA	3
+ CIS290AC	3

**Programming and System Analysis AAS Degree Requirements Continues...****General Studies Requirements: (22 Credits)****Core: (12 Credits)****First-Year Composition:**

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

**Oral Communication:**

Any approved general education course in the Oral Communication area	3
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**Critical Reading:**

+ Met by CRE101 in Program Prerequisites area	0
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**Mathematics:**

+ MAT212	Brief Calculus	3
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**Distribution: (10 Credits)****Humanities and Fine Arts:**

Any approved general education course in the Humanities and Fine Arts area	3
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**Social and Behavioral Sciences:**

ECN211	Macroeconomic Principles (3) OR	
ECN212	Microeconomic Principles (3) OR	
SBU200	Society and Business (3)	3

**Natural Sciences:**

Any approved general education course in the Natural Sciences area	4
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(Note: + indicates course has prerequisites and/or corequisites)

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

## Programming and System Analysis Certificate Requirements Programming

**Program Description:** The Certificate of Completion (CCL) program 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, business communication, team roles, and dynamics.

**Program Prerequisites: (3 credits)**

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

**Required Courses: (25-26 Credits)****Credits**

BPC/CIS117DM	Microsoft Access: Database Management (3) OR	
BPC/CIS117AM	Database Management: Microsoft Access - Level I (1) AND	
+ BPC/CIS117BM	Database Management: Microsoft Access - Level II (1) AND	
+ BPC/CIS117CM	Database Management: Microsoft Access - Level III (1)	3
CIS105	Survey of Computer Information Systems	3
CIS121AB	MS-DOS (1) OR	
CIS121AE	Windows Operating System: Level I (1) OR	
CIS126AA	UNIX Operating System: Level I (1) OR	
CIS126AL	Linux Operating System I (1)	1
+ CIS150	Programming Fundamentals (3) OR	
+ CIS150AB	Object-Oriented Programming Fundamentals (3)	3



**Programming and System Analysis Certificate Requirements Continues...****Select 2 courses for a total of 6 credits:**

+CIS159	Visual Basic Programming I (3) OR	
+CIS162	C Programming I (3) OR	
+CIS162AA	C: Level 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
+CIS190	Introduction to Local Area Networks (3) OR	
+CNT140AA	Cisco Networking Fundamentals (4) OR	
+MST140	Microsoft Networking Essentials (3)	3-4
+CIS225	Business Systems Analysis and Design (3) OR	
+CIS225AB	Object-Oriented Analysis and Design (3)	3
+GBS233	Business Communication	3

(Note: + indicates course has prerequisites and/or corequisites)

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

## RETAIL MANAGEMENT

**Division Chair - Occupational Education: Fredrick Maihofer (623) 935-8468**

**Degree:** Associate in Applied Science (AAS), Retail Management  
(NOTE: See page 73 for AAS degree requirements.)

**Certificate:** Retail Management

### Retail Management AAS Degree Requirements

**Program Description:** The 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.

#### 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: (39 Credits)

ACC111	Accounting Principles I	3
+ACC230	Uses of Accounting Information I	3
+ACC240	Uses of Accounting Information II	3
BPC110	Computer Usage and Applications (3) OR	
CISI05	Survey of Computer Information Systems (3)	3
COM110	Interpersonal Communication (3) OR	
IND133	Speaking in Business (3)	3
GBS110	Human Relations in Business and Industry (3) OR	
MGT251	Human Relations in Business (3)	3
GBS131	Business Calculations (3) OR	
+GBS161	Mathematics of Business (3)	3
GBS205	Legal, Ethical, and Regulatory Issues in Business	3
+GBS233	Business Communication	3
MGT101	Techniques of Supervision (3) OR	
MGT229	Management and Leadership I (3)	3

MGT179	Utilizing the Human Resources Department (3) OR	
MGT276	Personnel/Human Resources Management (3)	3
MKT268	Merchandising	3
MKT271	Principles of Marketing	3

**General Education: ( 25 Credits)****CORE: (15 Credits)****First-Year Composition**

+ENG101	First-Year Composition (3) OR	
+ENG107	First-Year Composition for ESL (3) AND	
+ENG102	First-Year Composition (3) OR	
+ENG108	First-Year Composition for ESL (3) OR	
+ENG111	Technical Writing (3)	6
ENG102 or ENG108 recommended for students pursuing a BAS degree at an Arizona university.		

**Oral Communication**

+COM230	Small Group Communication	3
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**Critical Reading**

+CRE101	Critical and Evaluative Reading I (3) OR Equivalent by assessment	3
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**Mathematics**

+MAT102	Mathematical Concepts/Applications (3) OR Satisfactory completion of a higher level mathematics course	3
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**Distribution Credits: 10****Humanities and Fine Arts**

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

**Social and Behavioral Sciences**

SBU200	Society and Business	3
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**Natural Sciences**

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

**Social and Behavioral Sciences:**

ECN211	Macroeconomic Principles (3) OR	
ECN212	Microeconomic Principles (3) OR	
SBU200	Society and Business (3)	3

**Retail Management Certificate Requirements**

**Program Description:** The Retail Management Certificate is designed to prepare individuals working in the food industry, and related fields, for the management challenges of the future. The curriculum encompasses several business essentials and also emphasizes the skill sets needed for effective management and communication in the work environment.

**Required Courses: (30 Credits)****Credits**

ACC111	Accounting Principles I	3
BPC110	Computer Usage & Application (3) OR	
CIS105	Survey of Computer Information Systems	3
+ENG101	First-Year Composition (3) OR	
+ENG107	First-Year Composition for ESL	3
GBS131	Business Calculatins (3) OR	
+MAT102	Mathematical Concepts & Applications (3)	3



### Retail Management Certificate Requirements Continues...

+GBS233	Business Communication	3
COM110	Interpersonal Communication (3) OR	
IND133	Speaking in Business	3
MGT101	Techniques of Supervision (3) OR	
MGT229	Management and Leadership I	3
MGT179	Utilizing the Human Resource Department (3) OR	
MGT276	Personnel/Human Resources Management	3
+MKT268	Mechandising	3
MKT271	Principles of Marketing	3

(Note: + indicates course has prerequisites and/or corequisites)

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

### SMALL BUSINESS MANAGEMENT

**Division Chair - Occupational Education: Fredrick Maihofer (623) 935-8468**

**Certificate:** Small Business Management

#### Small Business Management Certificate Requirements

Program Description: This program is designed to meet the needs of individuals who wish to own and/or manage a small business. It is a flexible program composed of one and two-credit courses, which can be offered on non-traditional schedules and can be completed rapidly. These factors increase the opportunity for more members of the small business community to take advantage of these courses. This program offers a planned content core. Students earn a certificate upon program completion.

**Note:** Students should consult with an advisor in planning their academic schedule in order to complete degree or certificate requirements in an expedient manner.

#### Required Courses: (9 Credits)

		Credits
SBS200	Small Business Operations	2
SBS202	Small Business Bookkeeping and Tax Preparation	1
SBS203	Financing and Cash Management for a Small Business	1
SBS204	Small Business Marketing and Advertising	2
SBS214	Small Business Customer Relations	1
SBS220	Internet Marketing for Small Business	2

(Note: + indicates course has prerequisites and/or corequisites)

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



## SPEECH LANGUAGE PATHOLOGY ASSISTANT

**Division Chair - Occupational Education: Fredrick Maihofer (623) 935-8468**

**Certificate:** Speech Language Pathology Assistant

**Degree:** Associate in Applied Speech Language Pathology Assistant  
(NOTE: See page 73 for AAS degree requirements.)

### Speech Language Pathology Assistant AAS Degree Requirements

**Program Description:** The Associate in Applied Science (AAS) in Speech-Language Pathology Assistant is designed to provide comprehensive academic and practical education and training for Speech-Language Pathology Assistants. The program provides training in working with speech and language disordered adults and children, including bilingual populations. The program content is based upon the recommendations of the American Speech-Language Hearing Association (ASHA) and the Arizona State Licensure Statue for Speech Language Pathology Assistants. In addition to work in the classroom, the program provides students with the opportunity to gain practical experience in working with clients/patients in a variety of settings under the direction and supervision of an ASHA certified speech-language pathologist. A CCL in Speech-Language Pathology Assistant is also available.

#### 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.

#### Required Courses: (32 Credits)

	<b>Credits</b>	
SLP104	Speech, Language, Hearing Development	3
+SLP205	Introduction to Communication Disorders	3
SLP210	Speech and Hearing Anatomy and Physiology	3
SLP212	Language Disorders and Rehabilitation	3
+SLP214	Speech Disorders and Rehabilitation	3
+SLP215	Speech and Hearing Disorders and Rehabilitation	3
+SLP217	Clinical Ethics and Documentation	3
+SLP218	Behavior Management	2
+SLP235AA	Speech-Language Pathology Practicum (1) AND	
+SLP235AB	Speech-Language Pathology Practicum (2) OR	
+SLP235AC	Speech-Language Pathology Practicum (3)	3
+SLP240	Assistive Technology and Augmentative Communication	3
+SLP242	Low Incidence Disabilities	3

#### Restricted Electives: (6-8 Credits)

COM263	Elements of Intercultural Communication	3
+ENG213	Introduction to the Study of Language	3
+PSY230	Introduction to Statistics	3
+PSY240	Developmental Psychology	3
+SLP298++	Special Projects (Any Suffix Course)	1-3
SOC101	Introduction to Sociology	3
+SOC210	The Child in Society	3



## Speech Language Pathology Assistant AAS Requirements Continues...

### Foreign Language Sequence

Any foreign language- i.e. SPA101 AND SPA102 OR SPA101AA AND SPA102AA  
6-8

#### Choose 6-8 credits from the following Foreign Language sequence courses:

ARB+++	any ARB/Arabic sequence courses
CHI+++	any CHI/Chinese sequence courses
FRE+++	any FRE/French sequence courses
GER+++	any GER/German sequence courses
GRK+++	any GRK/Greek sequence courses
HEB+++	any HEB/Hebrew sequence courses
ITA+++	any ITA/Italian sequence courses
JPN+++	any JPN/Japanese sequence courses
POR+++	any POR/Portuguese sequence courses
LAT+++	any LAT/Latin sequence courses
NAV+++	any NAV/Navajo sequence courses
PIM+++	any PIM/Pima sequence courses
RUS+++	any RUS/Russian sequence courses
SPA+++	any SPA/Spanish sequence courses

### General Education: ( 22-27 Credits)

#### CORE: (12-17Credits)

#### First-Year Composition

+ENG101	First-Year Composition (3) AND	3
+ENG102	First-Year Composition (3)	3

#### Oral Communication

COM110	Interpersonal Communication	3
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#### Critical Reading

+CRE101	Critical and Evaluative Reading I (3) OR Equivalent by assessment	0-3
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#### Mathematics

	Any approved general education course from the Mathematic area	3-5
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#### Distribution Credits: 10

##### Humanities and Fine Arts

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

##### Social and Behavioral Sciences

PSY101	Introduction to Psychology	3
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##### Natural Sciences

BIO100	Biology Concepts (4) OR	
BIO156	Introductory Biology for Allied Health (4)	4

## Speech Language Pathology Assistant Certificate Requirements

**Division Chair - Occupational Education: Fredrick Maihofer (623) 935-8461**

**Certificate:**Speech Language Pathology Assistant

**Program Description:** The Certificate of Completion (CCL) in Speech-Language Pathology Assistant is designed to provide comprehensive academic and practical education and training for Speech-Language Pathology Assistants. The program provides training in working with speech and language disordered adults and children, including bilingual populations. The program content is based upon the recommendations of the American Speech-Language-Hearing Association (ASHA) and the Arizona State Licensure Statue for Speech Language Pathology Assistants. In addition to work in the classroom, the program provides students with the opportunity to gain practical experience in working with clients/patients in a variety of settings under the direction and supervision of an ASHA certified speech-language pathologist. An AAS in Speech-Language Pathology Assistant is also available.

### 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.

### Required Courses: (35 Credits)

### Credits

+ENG101	First-Year Composition	3
SLP104	Speech, Language, Hearing Development	3
+SLP205	Introduction to Communication Disorders	3
SLP210	Speech and Hearing Anatomy and Physiology	3
SLP212	Language Disorders and Rehabilitation	3
+SLP214	Speech Disorders and Rehabilitation	3
+SLP215	Speech and Hearing Disorders and Rehabilitation	3
+SLP217	Clinical Ethics and Documentation	3
+SLP218	Behavior Management	2
+SLP235AA	Speech-Language Pathology Practicum (1) AND	
+SLP235AB	Speech-Language Pathology Practicum (2) OR	
+SLP235AC	Speech-Language Pathology Practicum (3)	3
+SLP240	Assistive Technology and Augmentative Communication	3
+SLP242	Low Incidence Disabilities	3

**Total Credits: 35**





## STRENGTH, NUTRITION, AND PERSONAL TRAINING

**Fitness Manager - Lyle Bartelt - (623) 935-8405**

**Certificate:** Retail Management

**Degree:** Associate in Applied Science Strength, Nutrition and Personal Training  
(NOTE: See page 73 for AAS degree requirements.)

### Strength, Nutrition, and Personal Training AAS Degree Requirements

**Program Description:** The Strength, Nutrition, and Personal Training Associate in Applied Science (AAS) prepares students with the knowledge and experience required to be eligible for the American College of Sports Medicine (ACSM) Health and Fitness Instructor Certification, ACSM personal trainer certification, the National Strength and Conditioning Association (NSCA) personal trainer certification, and the American Council on Exercise (ACE) personal trainer certification. This degree will provide students with a stronger educational background making them more marketable in the field of fitness and nutrition. This degree will also meet the needs of individuals with existing degrees in such fields as Exercise Physiology, Nutrition, Athletic Training and other health related disciplines. Registered dietitians, clinical exercise physiologists, personal trainers, exercise specialists, strength and conditioning specialists, coaches, athletes and others interested in acquiring knowledge in exercise, nutrition and health are also eligible for this program.

#### Program Notes:

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

#### Required Courses: (41-42Credits)

	<b>Credits</b>
FON100	Introductory Nutrition 3
+FON210	Sports Nutrition and Supplements for Physical Activities 2
+FON230	Nutrition for Special Populations 3
+FON247	Weight Management Theory 3
MGT253	Owning and Operating a Small Business 3
HES154	First Aid/Cardiopulmonary Resuscitation (3) OR BLS Health Care Provider and First Aid Certification 3
PED112	Professional Applications of Fitness Principles 3
PED125	Exercise Science 3
+PED139++	Practical Applications of Personal Training Skills and Techniques Internship (3) (any module) OR 3
+PED285	Exercise Program Design and Instruction (3) 3
PED145	Guidelines for Exercise Testing and Prescription 3
PSY101	Introduction to Psychology 3
+PSY215	Introduction to Sport Psychology 3

#### AND

**Choose one of the following series for 5-6 credits:**

#### Series 1: ( 6 Credits)

PED212SC	Instructional Competency Lab: Muscular Strength and Conditioning 2
PED212CR	Instructional Competency Laboratory: Cardiorespiratory Exercises and Activities 2
PED212FL	Instructional Competency Laboratory: Flexibility and Mind- Body Exercises 2

**Strength, Nutrition and Personal Training Required Courses Continues...****OR****Series 2: ( 5 Credits)**

PED130	Strength Fitness-Physiological Principles and Training Techniques	3
PED132	Cardiovascular Fitness: Physiological Principles and Training Techniques (2) OR	
PED212CR	Instructional Competency Laboratory: Cardiorespiratory Exercise and Activities (2)	2

**OR****Series 3: (5 Credits)**

+PED275	Methods of Enhancing Physical Performance	3
PED132	Cardiovascular Fitness: Physiological Principles and Training Techniques (2) OR	
PED212CR	Instructional Competency Laboratory: Cardiorespiratory Exercise and Activities (2)	2

**General Education Requirements: (25-27 Credits)****Core: (15-17Credits)****First-Year Composition:**

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

**Oral Communication:**

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

**Critical Reading:**

+CRE101	Critical and Evaluative Reading I	3
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**Mathematics:**

+MAT120	Intermediate Algebra (5) OR	
+MAT121	Intermediate Algebra (4) OR	
+MAT122	Intermediate Algebra (3)	3-5

**Distribution: (10 Credits)****Humanities and Fine Arts:**

Any approved general education course in the Humanities and Fine Arts area		3
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**Social and Behavioral Sciences:**

CFS205	Human Development (3) OR	
HES100	Healthful Living (3)	3

**Natural Sciences:**

BIO160	Introduction to Human Anatomy and Physiology	4
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## STRENGTH AND CONDITIONING PERSONAL TRAINER

**Certificate:** Strength and Conditioning Personal Trainer

### Strength and Conditioning Personal Trainer Certificate Requirements

**Program Description:** The Strength and Conditioning Personal Trainer certificate prepares students for employment in the fitness industry as Strength and Conditioning Personal Trainers/Coaches. This curriculum provides students with a fundamental knowledge of human physiology and anatomy, prevention and treatment of exercise related injuries, emergency response readiness, health appraisals and assessments; application of exercise fitness principles and strength training techniques; a fundamental knowledge of nutrition, weight control, stress management and exercise physiology, and biomechanics; skills in exercise testing and fitness measures as well as writing exercise prescriptions and program designs for diverse populations.

**Note:** Students should consult with an advisor in planning their academic schedule in order to complete degree or certificate requirements in an expedient manner.

### Program Notes:

+ indicates course has prerequisites and/or corequisites.

### Required Courses: (31 Credits)

		<b>Credits</b>
BIO160	Introduction to Human Anatomy and Physiology	4
HES154	First Aid/Cardiopulmonary Resuscitation	3
HES271	Prevention and Treatment of Athletic Injuries	3
PED112	Professional Applications of Fitness Principles	3
PED125	Exercise Science	3
PED130	Strength Fitness-Physiological Principles and Training Techniques	3
PED145	Guidelines for Exercise Testing and Prescription	3
HES100	Healthful Living	3
+PED275	Methods of Enhancing Physical Performance	3
+PED285	Exercise Program Design and Instruction	3



## TEACHER ASSISTING

**Division Chair - Occupational Education: Fredrick Maihofer (623) 935-8468**

**Degree:** Associate in Applied Science (AAS), Teacher Assisting  
(NOTE: See page 73 for AAS degree requirements.)

### Teacher Assisting AAS Degree Requirements

**Program Description:** This program is designed to prepare for employment as an assistant to the classroom teacher in grades k-12. The curriculum includes experiences as a teacher assistant in an educational setting under the leadership and supervision of a professional teacher. The program provides foundation work, which will allow the aide to pursue a higher degree in the field of education.

**Note:** Students should consult with an advisor in planning their academic schedule in order to complete degree or certificate requirements in an expedient manner. Required courses may not be available every semester or year. Due to limited course offerings, students may find it necessary to extend completion time lines and attend day, evening and summer classes.

#### Program Notes:

+ indicates course has prerequisites and/or corequisites.

#### Required Courses: (6 Credits)

		Credits
EDU205	Self Assessment for Teaching	3
EDU221	Introduction to Education	3

#### Restricted Electives: (9 Credits)

		Credits
EDU222	Introduction to the Exceptional Learner	3
EDU230	Cultural Diversity in Education	3
EDU291	Children's Literature (3) OR	
ENH291	Children's Literature 3	3
EDU282AA	Volunteerism for Education: A Service Learning Experience (1) OR	
EDU282AB	Volunteerism for Education: A Service Learning Experience (2) OR	
EDU282AC	Volunteerism for Education: A Service Learning Experience (3) OR	
EDU296WA	Cooperative Education (1) OR	
EDU296WB	Cooperative Education (2) OR	
EDU296WC	Cooperative Education (3)	1-3
+ENG213	Introduction to the Study of Language	3
POS220	U.S. and Arizona Constitution	3

#### General Studies Requirements: (24-27 Credits)

##### Core: (15-17Credits)

##### First-Year Composition:

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

##### Oral Communication:

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



### Teaching Assisting AAS Degree Requirements Continues...

#### Critical Reading:

+CRE101 Critical and Evaluative Reading I 3

#### Mathematics:

+MAT102 Mathematical Concepts/Applications (3) OR  
 +MAT120 Intermediate Algebra (5) OR  
 +MAT122 Intermediate Algebra (3) OR  
 (Note: equivalent as indicated by assessment OR  
 approved mathematics courses which are required in a  
 specific AAS program or satisfactory completion of a higher  
 level mathematics course) 3-5

#### Distribution: (9-10 Credits)

##### Humanities and Fine Arts:

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

##### Social and Behavioral Sciences:

Any approved general education course in the Social and  
 Behavioral Science area 3

##### Natural Sciences:

Any approved general education course in the Natural Sciences area 4

## WEB DEVELOPER

**Division Chair - Instructional Computing: Dr. Valerie Akuna (623) 935-8079**

**Program Description:** This certificate prepares a software developer to properly create and maintain web applications. In addition to web page development, this certificate prepares software developers to fully manage and develop corporate web systems using interactive applications. Developers will be able to write programs to manage corporate database via the web.

#### Program Notes:

+ indicates course has prerequisites and/or corequisites

++ indicates any module

Students must earn a grade of "C" or better for each course listed within the program.

Required Courses:	(30 Credits)	Credits
CIS105	Survey Computer Information Systems	3
BPC/CIS117DM	Microsoft Access: Database Management	3
BPC/CIS120DC	Flash: Digital Animation	3
BPC/CIS120DF	Computer Graphics: Adobe Photoshop (3) OR	
BPC/CIS120AF	Computer Graphics: Adobe Photoshop: Level I (1) AND	
BPC/CIS120BF	Computer Graphics: Adobe Photoshop: Level II (1) AND	
BPC/CIS120CF	Computer Graphics: Adobe Photoshop: Level III (1)	3
CIS126AA	UNIX Operating System: Level I	1
CIS/BPC133DA	Internet/Web Development Level I	3
+CIS166++	Web Scripting/Programming (any module)	3
+CIS233DA	Internet/Web Development Level II	3
+CIS234	XML Application Development	3
+CIS235	e-Commerce	3
+CIS298AB	Special Projects (2) OR	
+CIS290AB	Computer Information Systems Internship (2) OR	
+CIS296WB	Cooperative Education (2)	2



The SouthWest Skill Center opened summer of 1999 at Estrella Mountain Community College. It serves the fast growing community in the West Valley with training that prepares students for entry level job opportunities.

Programs include: A variety of Allied Health Field programs such as: Emergency Medical Technician Program, Health Core Curriculum, Medical Assistant Program, Medical Billing & Coding Program, Spanish Medical Interpreter Program, Nursing Assistant Program, Phlebotomy Program, and Practical Nursing Program. Additional programs include: Distribution Logistics Technician Program.

Classes are offered throughout the year, with the daytime programs running Monday through Friday from 8:00am-4:00pm, and the evening programs running Monday through Thursday from 5:00pm-9:00pm, with the exception of the Nursing Program which runs from 8:00 am to 2:00pm, Monday through Thursday.

Tuition is \$4.60 per clock hour, \$5.60 per clock hour for the Nursing Program, lab fees are applied accordingly per program. There is a \$15.00 graduation fee, and a \$15.00 registration fee. Registration fees are nonrefundable. Tuition and fees apply from July 1, 2008 through June 30, 2009, and are subject to change per Governing Board approval.





## Distribution Logistics Technician Program

The SouthWest Skill Center's new Distribution Logistics Technician training program will provide you with skills necessary to succeed and progress in today's high performance distribution environment. A Distribution Technician is responsible for receiving, storing and distribution of materials, equipment and products. You'll also be responsible for inbound inventory control. You will be introduced to:

**Length of Program - Approximately 14 weeks / 160 clock hours**

### Distribution Logistics Technician Curriculum

Orientation to CDP Program	Protecting Materials and Merchandise
Introduction to the CDP Program	Palletizing
Introduction to Business Principles	Handling Systems
General Plant Safety	Processing Hazardous Materials
Learning for Success	Scanners and Data Entry
Managing Change	Warehousing Data Applications
Self Management and Personal Wellness	Problem Solving
Positive Work Ethic	Introduction to Industrial Controls
The Art of Effective Communication	Introduction to Computers and Automation
Working Together	Math and Measure
Positive Image	Calculators
Interview Skills	Powered Industrial Truck Operator
Warehousing and Distribution	Warehousing Simulations
Warehousing Productivity Measures	Strategic Career Skills
Methods of Inventory Management	

## Emergency Medical Technician (EMT) Program

This program includes techniques of emergency care, stabilization, and immobilization of victim's illness and injuries. Recognition and documentation of signs and symptoms of illness and injury, intervention, and evaluation of the intervention are integrated into the program. Techniques for assessment, administration of oxygen, use of specific immobilization devices, and preparation for transportation are other areas of the program. The EMT program is the first step toward a fire fighter career. The techniques taught in the program are in accordance with national and state curriculum. Students will have the opportunity to participate in clinical rotations through a local emergency department.

**Length of Program - Approximately 16 weeks / 132 clock hours**

### Program requirements include:

- A high school diploma or GED is required for admission.
- TABE Assessment Test
- Completed application packet

### **EMT104 - Basic Emergency Medical Technology**

Techniques of emergency medical care in accordance with national and state curriculum. Study of the human body, patient assessment, treatment of medically or traumatically compromised patients, special hazards, and medical operations. IV monitoring, Sudden Infant Death Syndrome (SIDS), patient-assisted medication administration, automated external defibrillator, and blood-glucose monitoring. Includes participation in two eight-hour clinical rotations through a local emergency department scheduled during the semester outside normal class hours. Requires personal pocket mask, stethoscope, pen light, and trauma scissors. Prerequisites: Must be at least 18 years of age prior to applying to the BLS (Basic Life Support) Training Program per Arizona Revised Statutes, and must have a current validation in Basic Life Support (BLS) Health Care Provider/Professional Rescuer. Minimum ninth grade level reading proficiency on the Nelson-Denney Examination or appropriate ESL course placement score. Proof of: TB testing or chest x-ray with a negative result within 6 months prior to registration; Immunity to rubella (German measles) and rubeola.

### **Health Care Core Curriculum**

The following courses make up the pathway that can lead a student into the Medical Assistant Program, the Medical Terminology & Transcription Program and/or the Nurse Assistant Program. Individual program requirements follow this listing. Students are exempt from HCC's (except CPR) if they have current credential license or degree in health care discipline, or two years of work experience in a related health sciences field.

**HCC109 - CPR for Health Care Provider** Current American Heart Association standards for one and two rescuer cardiopulmonary resuscitation (CPR) and obstructed airway procedures on the adult, infant, and pediatric victim. Use of automated, external defibrillation and resuscitation equipment. Prerequisites: None. Cross-References: RES109

**HCC130AA - Health Care Today** Overview of current health care professions including career and labor market information. Health care delivery systems, third-party payers, and facility ownership. Health organization structure, patient rights and quality care. Prerequisites: None.

**HCC130AB - Workplace Behaviors in Health Care** Health care and life values. Definition and importance of values, ethics, and essential behaviors in the workplace. Worker rights and responsibilities. Prerequisites: None.

**HCC130AC - Personal Wellness and Safety** Introduces healthful living practices to include nutrition, stress management, and exercise. Includes Occupational Safety and Health Administration (OSHA) standard precautions and facility safety. Use of principles of body mechanics in daily living activities. Prerequisites: None.

**HCC130AD - Communication and Teamwork in Health Care Organizations** Emphasis on basic communication skills which facilitate team work 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.

**HCC130AE - Legal and Ethical Issues in Health Care** Basic, legal terminology used in the health care setting. Basic legal concepts related to health care employment. Identification of ethical guidelines including client privacy and rights and ethical decision making. Prerequisites: None.

**HCC130AF - Decision Making in the Health Care Setting** Principles and application of the decision making. Description and application of process improvement and the relationships to the decision making model. Prerequisites: None.



**HCC145AA - Medical Terminology for Health Care Workers I** 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.

**HCC145AB- Medical Terminology for Health Care Workers II** Additional medical terms used in health care. Body systems approach to more detailed terms related to structures, functions, diseases, procedures, and diagnostic tests. Building and analyzing terms using standard word parts. Common abbreviations and symbols and term spelling. Prerequisites: HCC145AA.

**HCC145AC- Medical Terminology for Health Care Workers III** Medical terminology used with special care populations and in special services. Includes obsteric, pediatric mental health, diagnostic imaging, oncology, and surgery terms. Use of word parts and term spelling. Prerequisites: HCC145AA and HCC145AB, or HCC146.

### Medical Assistant Program

Students learn clinical and administrative skills needed to work in a doctor's office. Medical Assistants are skilled professionals who can run a busy office and handle the medical tests performed in a doctor's office. As part of MCCD's Health Care Integrated Education System, the SouthWest Skill Center Medical Assistant courses cover the same content material as the MCCD college credit courses and are included in an articulation agreement, which make them transferable within the MCCD college district. For more information, call at (623) 535-2808.

#### Certificates of Completion:

Front and Back Office	960 clock hours
Front Office	553 clock hours
Back Office	688 clock hours

#### Health Care Core Curriculum

- HCC109 - CPR for Health Care Provider
- HCC130AA - Health Care Today
- HCC130AB - Workplace Behaviors in Health Care
- HCC130AC - Personal Wellness and Safety
- HCC130AD - Communication and Teamwork in Health Care Organizations
- HCC130AE - Legal and Ethical Issues in Health Care
- HCC130AF - Decision Making in the Health Care Setting
- HCC145AA - Medical Terminology for Health Care Workers I
- HCC145AB - Medical Terminology for Health Care Workers II
- HCC145AC - Medical Terminology for Health Care Workers III

#### Medical Assistant Curriculum

##### Course Descriptions

**HCE102 - Orientation to the Physiological and Psychological Body Systems** Application of basic physiology and psychology of body systems as they relate to an entry-level health care professional's role. Prerequisites: HCC130, HCC145 or (HCC145AA, HCC145AB, and HCC145AC), or permission of instructor.

**HCE109 - Phlebotomy & Specimen Processing Basic Skills** Theory and practice of basic phlebotomy and specimen processing including laboratory test codes, equipment, and procedures. Prerequisites: None. Corequisites: HCC130, HCC145AA or permission of coordinator.

**HCE110 - Fundamental Phlebotomy Skills** Application of fundamental phlebotomy techniques in a clinical laboratory setting or health care environment. Prerequisites: HCE109 or permission of coordinator.

**HCE167 - Laboratory Testing in Patient Care Service Centers** Basic point of care testing in a clinical setting. Includes procedures for urinalysis, whole blood hematology, glucose monitoring cholesterol and coagulation testing. Specimen collection and handling. Compliance with Occupational Health and Safety Administration (OSHA) and the Clinical Laboratory Improvement Amendments (CLIA) regulations. Prerequisites: None. Corequisites: HCC130, HCC145, or permission of coordinator.

**HCE221 - Administration of Medication** Principles and procedures for administering medications. Includes classifications, uses, effects, legal regulations, calculating dosages, and correct terminology. Emphasis on oral and parental drug administration. Prerequisites: None. Corequisites: HCC130, HCC145, or permission of coordinator.

**HCE222 - Clinical Procedures** Principles and procedures for the medical assistant. Methods of assisting clinicians with physical examinations, procedures, treatments, and minor surgical procedures in the medical office. Includes vital signs, height, and weight, collection of patient data and documentation. Prerequisites: None. Corequisites: HCC130, HCC145, or permission of coordinator.

**HCE226 - Administrative Procedures** Principles and procedures for front office administrative skills. Methods of telephone management, correspondence and mail processing, appointment scheduling, medical records management and data collection. Includes medical assistant as office manager. Prerequisites: None. Corequisites: HCC130, HCC145 or permission of coordinator

**HCE227 - Insurance, Billing & Coding** Application of insurance, coding and billing. Includes legal and ethical issues, federal state, and private insurance claims. Procedural and diagnostic coding, and banking and accounting principles. Prerequisites: None. Corequisites: HCC130, HCC145, or permission of coordinator.

**HCE229 - Automated Computer System for Medical Office Management** Principles and procedures in using an office automated computerized system for entering patient information and tracking patient billing. Includes use of accounting cycle from originating data to closing ledger entries. Prerequisites: None. Corequisites: HCC130, HCC145 or equivalent or permission of coordinator.

**HCE251 - Emergencies in the Medical Office** Prerequisites: None. Corequisites: HCC130, HCC145, or permission of coordinator.

**HCE261 - Applied EKG** Entry-Level training to professionally perform, process, and explain the electrocardiogram. Overview of cardiac anatomy, physiology, and conduction systems. Overview of commonly encountered drugs in cardiac medicine. Data collection, selection, processing, and presentation of the appropriate medical/clinical professional to review. Selected specific non-invasive cardiac testing procedures. Prerequisites: None. Corequisites: HCC130, HCC145, or permission of coordinator.

**HCE274 - Administrative Medical Assisting Externship** Practicum in administrative medical assisting. Application of administrative duties procedures, and knowledge derived from medical assisting courses. Prerequisites: HCC130, HCC145, HCE226, HCE227, HCE/BPC229, and permission of coordinator.

**HCE275 - Clinical Medical Assisting Externship** Practicum in clinical medical assisting. Application of clinical skills, procedures, and knowledge derived from medical assisting courses. Prerequisites: HCC130, HCC145, HCE104, HCE109, HCE110, HCE167, HCE221, HCE222, HCE251, HCE261, and permission of coordinator.



**HIM105 - Health Record Documentation** Introduction to health record content, structure, and origin of clinical information for various healthcare settings. A basic review of federal, state, and organizational documentation guidelines. Legal and ethical issues applicable to health information documentation and coding practices. Prerequisites: HCC130 or permission of Program Director.

### **Phlebotomy Program**

This 410 clock hour program is designed to prepare a person to obtain blood specimens by skin puncture and venipuncture. The phlebotomist may find employment in hospitals, patient service centers, life insurance companies, doctor's offices, outreach services, and donor centers. This program can be customized to accommodate the phlebotomy needs of any health care professional currently employed in the health care setting. Students in the Phlebotomy program will be in contact with potentially infectious blood, tissues, and body fluids. Upon completion of the program, the student are eligible to take a national certification examination. Enrollment requirements must be met in order to enroll. For more information, call at (623) 535-2802.

### **Health Care Core Curriculum - Prerequisite or Corequisite - 150 Clock Hours +**

Please note: Students are exempt from HCC's (except CPR) if they have current credential license or degree in health care discipline, or two years of work experience in a related health sciences field.

HCC109 - CPR for Health Care Provider  
 HCC130AA - Health Care Today  
 HCC130AB - Workplace Behaviors in Health Care  
 HCC130AC - Personal Wellness and Safety  
 HCC130AD - Communication and Teamwork in Health Care Organizations  
 HCC130AE - Legal and Ethical Issues in Health Care  
 HCC130AF - Decision Making in the Health Care Setting  
 HCC145AA - Medical Terminology for Health Care Workers I  
 HCC145AB - Medical Terminology for Health Care Workers II  
 HCC145AC - Medical Terminology for Health Care Workers III

### **Course Descriptions**

**HIM105 - Health Record Documentation** Introduction to health record content, structure, and origin of clinical information for various healthcare settings. A basic review of federal, state, and organizational documentation guidelines. Legal and ethical issues applicable to health information documentation and coding practices. Prerequisites: HCC130 or permission of Program Director.

**BPC005- Introduction to Computers** Introductory course in fundamentals of computers, including hardware components, operating system characteristics, and basic software applications. Prerequisites: None.

**BPC111AA- Computer Keyboarding Level I** Mastery of essential microcomputer keyboarding skills. Emphasis on touch typing of alphabetic and numeric keys and symbols. Prerequisites: None

**HCE109 - Phlebotomy & Specimen Processing Basic Skills** Theory and practice of basic phlebotomy and specimen processing including laboratory test codes, equipment, and procedures. Prerequisites: None. Corequisites: HCC130, HCC145AA or permission of coordinator.

**HCE111 - Specimen Processing and Advanced Techniques in Phlebotomy Procedures** Theory and practice of advanced techniques in phlebotomy and specimen processing including laboratory test codes, equipment, and procedures. Prerequisites: HCE109 or permission of instructor.



**HCE122 - Practicum: Phlebotomy and Specimen Processing** Application of phlebotomy and specimen processing techniques in a clinical laboratory setting or health care environment. Prerequisites or Corequisites: HCE111 or permission of Program Director.

**HCE122 - Practicum: Phlebotomy and Specimen Processing** Application of phlebotomy and specimen processing techniques in a clinical laboratory setting or health care environment. Prerequisites or Corequisites: HCE111 or permission of Program Director.

## **SOUTHWEST SKILL CENTER NURSING PROGRAMS**

The SouthWest Skill Center offers their students two exit points for employment that begins with Nurse Assistant and the Practical Nurse Certificate Program. Additionally, completion of the Practical Nursing Program prepared the student for application and possible entry into the Associate Degree R N Program after the completion of additional re-requisites and entrance testing.

### **Nurse Assistant Program**

The Nurse Assistant (NA) Program is a 6 week, 144 hour program. Application to the program requires the successful completion of the TABE entrance test with a 9<sup>th</sup> grade reading level and a 6<sup>th</sup> grade math level. The program has no other preadmission requirements. The Nurse Assistant Course of study and its competencies meet the requirements of the Arizona State Board of Nursing to educationally qualify the student to take the certification examination to become a certified nurse assistant. Completion of the NA Program does not guarantee certification. Skills lab and clinical experiences are conducted. For more information, contact the SouthWest Skill Center Nursing Department at (623) 535-2702.

### **Practical Nursing Program**

**Program Description:** The Nursing Program is designed as a terminal Practical Nursing Program. The Nursing Program provides eligibility for students seeking certification and licensure through the Arizona State Board of Nursing. Licensing requirements are the exclusive responsibility of the Arizona State Board of Nursing.

The Nursing Program is licensed and approved by the Arizona State Board of Nursing.

#### **Waiver of Licensure/Certification Guarantee:**

Admission or graduation from the Nursing Program does not guarantee obtaining a license 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 or school requirements for graduation.

Pursuant to A.R.S. § 32-1606(B)(17), an applicant for practical nurse license by examination is not eligible for licensure if the applicant has any felony convictions and has not received an absolute discharge from the sentences for all felony convictions. The absolute discharge must be received five or more years before submitting this application. If you cannot prove that the absolute discharge date is five or more years, the Board cannot process your application.







All nurse and nursing assistant applicants for certification and licensure will be fingerprinted to permit the Department of Public Safety to obtain state and federal criminal history information. If there is any question about eligibility for licensure or certification, contact the nursing education consultant at the Arizona State Board of Nursing (602-331-8111). All students must submit a copy of a fingerprint clearance card with their application for the Maricopa Community College District Nursing Program.

**Health Declaration:**

It is essential that Nursing students be able to perform a number of physical activities in the clinical portion of the program. At a minimum, students will be required to lift patients, stand for several hours at a time and perform bending activities. The clinical nursing experience also places students under considerable mental and emotional stress as they undertake responsibilities and duties impacting patients' lives. Students must be able to demonstrate rational and appropriate behavior under stressful conditions. Individuals should give careful consideration to the mental and physical demands of the program prior to making application.

**Health & Safety Requirements for the Nursing Program:**

1. Students must submit a completed Health and Safety Documentation Checklist and supporting documentation and maintain current status throughout the program.
2. Students must submit a CPR card for Health Care Provider and maintain current status throughout the program.
3. Health Declaration Form signed by a licensed health care provider.
4. Negative urine drug screen.

**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. Students may apply to the Nursing Program after completing the prerequisite courses and admission requirements.

**Practical Nurse Pathway**

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 (L.P.N.) are employed in acute, long-term, and community-based health care agencies under the direction of a registered nurse or physician. Practical Nurses function within their legal scope of practice and use professional standards of care in illness and health promotion activities for clients and families across the life span.

**Nurse Assistant Program**

The Nurse Assistant (NA) Program is a 6 week, 144 hour program. There is no prerequisite for admission into the NA program of study. Successful completion of the TABE entrance test is required prior to application. Completion of the NA Program does not guarantee certification. Skills lab and clinical experiences are conducted. For more information, contact the SouthWest Skill Center Nursing Department , at (623) 535-2702.

**Nurse Assistant Curriculum (6 weeks - 144 hours)**

**NUR156 - Nurse Assisting** Role of the nurse assistant for clients across the wellness/illness continuum within the nurse assisting scope of practice. Introduction to problem solving process specific to meeting the basic and holistic needs of clients. Professional communication skills essential for the nursing assistant. Nursing interventions to ensure the needs and safety of the client. Specific types of diseases, conditions and alterations in behavior of the client. Principles of nutrition and fluid balance. Special needs of the elder client in the acute and long-term care settings. Basic emergency care skills and procedures. Prerequisites: None. Corequisite: NUR157.

**NUR157 - Nurse Assisting Lab** Demonstration of problem solving, professional behavior and therapeutic communication skills. Demonstration of caring behaviors and ensuring environmental safety for the client. Provides opportunity for the development of clinical competency in the performance of selected nursing assisting skills and procedures through participation in the care of clients. Prerequisites: None. Corequisites: NUR156.

## **Practical Nurse Program SouthWest Skill Center Practical Nurse Program**

The Practical Nurse Program (PN) is an accelerated program which meets the requirement of the Arizona State Board of Nursing to prepare students to take the NCLEX-PN licensing examination to become a Licensed Practical Nurse. The program is 42 weeks or 1008 clock hours.

### **Practical Nurse Curriculum**

HCC145AA	Medical Terminology for Health Care Workers I
PNC200AB	Structure and Function of the Body
PNC200AD	Medical Math Calculations
PNC200AE	Fundamentals of Nursing
NUR156	Nurse Assisting
NUR157	Nurse Assisting Lab/Clinical
NUR161	Nursing Process/Critical Thinking
NUR163	Health Assessment/Health Promotion I
NUR167	Pharmacology Medication Administration I
NUR169	Nursing Science I
NUR181	Nursing Process/Critical Thinking
NUR185	Developing Nurse's Role I
NUR187	Pharmacology and Medication Administration II
NUR189	Nursing Science II

### **Course Descriptions:**

**NUR161 - Nursing Process/ Critical Thinking** Overview of nursing concepts and theories focusing on meeting basic human needs across the life span based on the wellness/illness continuum within the practical nurse scope of practice. Theoretical concepts focus on care of the well client, elder client, and clients with selected alterations in health and psychological/ mental health disorders. Emphasis on the role of the practical nurse in the nursing care plan utilizing established nursing diagnoses. Focus on the development of the critical thinking process related to nursing care of clients in acute care and community settings. Prerequisites: Admission into the Practical Nursing Program. Corequisites: NUR169 or permission of Nursing Department Chairperson. Course note: Nursing Process/Critical Thinking course and Nursing Science course must be successfully completed concurrently to meet program requirements.

**NUR163 - Health Assessment/Health Promotion I** Emphasis on basic health assessment and history skills and promotion of wellness by using holistic nursing assessments for clients. Includes use of healthy life style strategies and primary prevention. Prerequisites: Admission into the Practical Nursing Program.

**NUR167 - Pharmacology Medication Administration I** Basic pharmacology knowledge and skills to administer medications. Emphasis on developing the role of the nurse using critical thinking skills for safe practice in the administration of medications. Introduction and application of mathematical concepts to drug dosage calculations. Overview of selected drug classifications and groupings. Emphasis on principles of drug metabolism and effects, interactions and adverse reactions, and nursing implications for safe practice. Prerequisites: Admission into the Practical Nursing Program.



**NUR169 - Nursing Science I** Development of clinical competency in the performance of selected nursing skills and procedures. Participation in the care of clients experiencing problems of alteration in health and selected mental health disorders. Clinical practice experiences with individuals and families in a variety of acute and community settings. Includes application of nursing process to care of elderly clients in acute and long-term care. Application of holistic nursing concepts and theories related to health promotion, disease/illness prevention, and health restoration of individuals. Prerequisites: Admission into the Practical Nursing Program. Corequisites: NUR161 or permission of Nursing Department Chairperson. Course Note: Nursing Process/Critical Thinking course and Nursing Science course must be successfully completed concurrently to meet program requirements.

**NUR181 - Nursing Process/Critical Thinking II** Focus on nursing concepts and theories to meet basic human needs across the life span based on the wellness/illness continuum. Includes concepts of anatomy, physiology, pathophysiology, and concepts of clinical nutrition to care of clients across the lifespan. Emphasis on the nursing process related to pediatric and adult clients with selected alterations in health. Introduction to care of the well childbearing client and childbearing family. Role of the practical nurse in planning nursing care and applying established nursing diagnoses for clients. Emphasis on the utilization of critical thinking processes related to nursing care of clients in acute care and community settings. Prerequisites: NUR161, NUR163, NUR169, Corequisites: NUR189 or permission of Nursing Department Chairperson. Course Note: Nursing Process/Critical Thinking course and Nursing Science course must be successfully completed concurrently to meet program requirements.

**NUR185 - Developing Nurse's Role I** Overview of roles in nursing with emphasis on transition from nursing assistant to practical nurse. Includes introduction of the core values of the nursing program, nursing history, standards, and scope of practice. Introduces concepts and skills required of the practical nurse, and application of communication techniques and delegation to teamwork and leadership. Prerequisites: Admission into the Practical Nursing Program.

**NUR187 - Pharmacology & Medication Administration II** Overview of selected drug classifications and groupings. Emphasis on principles of drug metabolism and effects, interaction and adverse reactions, and nursing implications for safe practice. Prerequisites: NUR161, NUR163, HUR167, and NUR169.

**NUR189 - Nursing Science II** Application of holistic nursing concepts and theories related to health promotion, disease/illness prevention and health restoration of individual and families. Development of clinical competency in the performance of selected nursing skills, participation in the care of clients across the life span including clients with alterations in health. Experiences with individuals, families, and small groups of clients in a variety of acute care, and community settings. Application of nursing concepts and theories related to the development of care plans, client teaching, and discharge planning. Prerequisites: NUR161, NUR163, NUR169, Corequisites: NUR181 or permission of Nursing Department Chairperson. Course Note: Nursing Process/Critical Thinking course and Nursing Science course must be successfully completed concurrently to meet program requirements.

continuum. Includes concepts of anatomy, physiology, pathophysiology, and concepts of clinical nutrition to care of clients across the lifespan. Emphasis on the nursing process related to pediatric and adult clients with selected alterations in health. Introduction to care of the well childbearing client and childbearing family. Role of the practical nurse in planning nursing care and applying established nursing diagnoses for clients. Emphasis on the utilization of critical thinking processes related to nursing care of clients in acute care and community settings. Prerequisites: NUR161, NUR163, NUR169, Corequisites: NUR189 or permission of Nursing Department Chairperson.

## Nursing Core Classes

Nursing Core Classes are non-transferable. The competencies for each course are derived from the Practical Nursing curriculum and were created to better prepare the student for the program.

**HCC145AA - Medical Terminology for Health Care Workers I** 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.

**PNC200AB -Structure and Function of the Body** Structure and Function of the body is the study of anatomy & physiology. Includes cells, tissues, integumentary system, skeletal system, muscular system, nervous system, endocrine system, circulatory

**PNCAD -Medical Math Calculations** Review of basic math skills, addition, subtraction, multiplication, division, fractions, decimals, percentages, metric conversions, pharmacology abbreviations, common equivalents and drug calculations.

**PNC200AE -Fundamentals of Nursing** Overview of nursing concepts and theories focusing on promoting health and wellness, preventing illness, restoring health, and caring for the dying within the practical nurse scope and practice. Includes concepts focus on developing critical thinking skills and performing basic therapeutic, rehabilitative, preventive, and palliative care for individuals.

## Spanish Medical Interpreter Program

The Spanish Medical Interpreter Program is a twelve week, 140-hour program for bilingual people who would like to interpret in a health care setting. Classes serve as an introduction to the role of medical interpreter and basic medical terminology in Spanish for health care personnel. Emphasis on systems of the body, legal and ethical topics, cultural awareness and vocabulary needed in a health care setting.

**Spanish Medical Interpreter (140 clock hours)**

### Program requirements include:

- A high school diploma or GED is required for admission
- TABE Assessment Test
- Spanish/English Placement Exam

### Spanish Medical Interpreter Curriculum

SIM100 Intro to Medical Interpreting	SIM102 Legal Issues and Ethics
SIM103 Culture and Medicine	SIM107 Basic Anatomy, Special Senses & Subspecialties
SIM108 Cardiovascular System	SIM110 Digestive System
SIM109 Respiratory System	SIM112 Genitourinary Reproductive System
SIM111 Musculoskeletal System	SIM115 Nervous System
SIM113 Endocrine System	
SIM114 Immune System	
SIM120 Professional Externship	

### SIM100 - Introduction to Medical Interpreting

This course introduces the field of interpreting, interpretation models, cognitive processes associated with interpretation, professional ethical standards, employment opportunities, and working conditions. Topics include specialized jargon, code of ethics, interpreter assessments/qualifications, and protocol associated with various settings. Upon completion, students should be able to explain the rationale for placement of interpreters and apply ethical standards to a variety of working situations.

**SIM102 - Legal Issues and Ethics**

Focus on policies regarding medical interpreting in health care settings based on guidance from the federal government. Basic, legal terminology used in Spanish. Basic medical interpreter legal concepts and protocol. Identification of ethical guidelines including client privacy and rights, risk management, and ethical decision making.

**SIM103 - Culture and Medicine**

This course provides cultural sensitivity instruction, as well as in-depth focus on professional ethics for the interpreter. Emphasis is placed on researching fundamentals of professional ethics, creating ethical guidelines for interpreters and learning about Hispanic cultural issues. Upon completion, students should be able to apply professional ethics and an understanding of the Hispanic culture in the interpreting field.

**SIM107 - Basic Anatomy, Special Senses and Subspecialties**

Basic medical terminology in Spanish for health care settings. Emphasis on pronunciation of commonly used medical abbreviations for medical specialists and branches of medicine.

**SIM108 - Cardiovascular System**

Focus on anatomy and physiology of the heart, common disorders and diseases. Analyze, define, and spell medical terms and interpret abbreviations used in diagnosis and treatment.

**SIM109 - Respiratory System**

Focus on anatomy and physiology of the Respiratory system, common disorders and diseases. Analyze, define, and spell medical terms and interpret abbreviations used in diagnosis and treatment

**SIM110 - Digestive System**

Focus on anatomy and physiology of the gastrointestinal system, and oral cavity. Diseases and disorders, and diagnostic procedures. Analyze, define, and spell medical terms and interpret abbreviations used in diagnosis and treatment.

**SIM111 - Musculoskeletal System**

Focus on anatomy and physiology of muscles and bones, common diseases, and examinations. Analyze, define, and spell medical terms and interpret abbreviations used in diagnosis and treatment.

**SIM112 - Genitourinary Reproductive System**

Focus on anatomy and physiology of the male and female urinary system, reproductive systems, common tests and procedures, labor and delivery. Analyze, define, and spell medical terms and interpret abbreviations used in diagnosis and treatment.

**SIM113 - Endocrine System**

Focus on anatomy and physiology of the endocrine system, diseases, diabetes and diabetic care. Analyze, define, and spell medical terms and interpret abbreviations used in diagnosis and treatment.

**SIM114 - Immune System**

Focus on the immune system, and vaccinations. , Analyze, define, and spell medical terms and interpret abbreviations used in diagnosis and treatment.

**SIM115 - Nervous system**

Focus on the neurological system, anatomy and physiology of the brain, cranial nerves, seizures, and strokes. Analyze, define, and spell medical terms and interpret abbreviations used in diagnoses and treatment.



## 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.

### COLLEGE INDEX:

**CG = Chandler Gilbert Community College**

**EM = Estrella Mountain Community College**

**GC = Glendale Community College**

**GW = GateWay Community College**

**MC = Mesa Community College**

**PC = Phoenix College**

**PV = Paradise Valley Community College**

**RS = Rio Salado College**

**SC = Scottsdale Community College**

**SM = South Mountain Community College**

### AGRICULTURE

#### Agribusiness Sales and Service

Pest Management Aide MC

#### Agricultural Production and Management

Agribusiness MC

*(See Agribusiness Sales and Service and Horticulture sections for additional programs and related areas)*

Ranch and Livestock Management Aide MC

Ranch and Livestock Management Specialist MC

Urban Horticulture MC

*(See Horticulture section for additional programs and related areas)*

#### Equine Training and Management

Equine Science SC

Veterinary Technology/Animal Health MC

#### Horticulture

Landscape Aide MC

Landscape Specialist MC

*(See Agricultural Production and Management section for additional programs and related areas)*

Workforce Development: Horticulture Level I RS

Workforce Development: Horticulture Level II RS

### BUSINESS

#### Accounting

Accounting PC, GW

Accounting - Specialized Para-Professional PV

Bookkeeping SC

Microcomputer Accounting PC, PV

*(See Business Administration for additional information and related areas)*

Paraprofessional Accounting GC

#### Business Administration

Business MC, SC



Business (Fastrack)	SC	Microcomputer Business Applications	CG,GC
General Business	CG, GC, GW,PC, PV	(See Office Occupations section for additional programs and related areas)	
(See Management and Finance section for additional programs and related areas)		Information Technology: Computer Applications Specialist	SM
Import/Export Trade	GW,PV	Microsoft Database Administration	CG
International Business	GW,PV	Microsoft Desktop Support Technology	EM, GC, GW, MC, PV,SC
International Trade	MCC	Microsoft Networking Technology	EM, GC, GW, PV, SC
<b>Computer Science</b>		Microsoft Product Specialist	CG, EM, GC, GW, PV, SC
Advanced Computer Usage and Applications	RS	Microsoft Applications Development	GW, MC, PV, SC
Computer Applications Technology	EM	Microsoft Systems Administration	EM, GC, GW, PV, SC
Computer Applications: Microsoft Office Specialist/Advanced	MC	Microsoft Systems Engineer	EM, GC, GW, PV, SC
Computer Applications: Microsoft Office Specialist/Basic	MC	Network Administration	SC
Computer Hardware and Desktop Support	CG, EM, GW, MC, PC, SC	Network Administration: CISCO Network Associate	MC
Computer Hardware and Network Support	SC	Network Administration: CISCO Network Professional	MC
Computer Information Systems	GC, MC, PC, PV, SC, SM	Network Administration: Microsoft Windows NT	MC
Computer Networking Technology	PV	Network Administration: Microsoft Windows	MC
Information Technology: Programming and Systems Analysis	SM	Network Administration: Novell	MC
Computer Systems Maintenance	PV	Network Administration: UNIX-Solaris	MC
Computer Technology	RS	Network Administration: Microsoft Windows	MC
Computer Usage and Applications	RS	Network Professional	RS
Database Development	SC	Network Security	MC
Desktop Publishing	EM	Networking	RS
Education Technology	GW	Networking Administration: Cisco	CG, EM, GC, GW, SM
Geographic Information Systems	MC	Networking System Administration	MC
Helpdesk Specialist	GC	Networking Technology: Cisco	CG, EM, GC, GW, PC
Information Assurance	MC	Oracle Database Administrator	EM
Information Security	EM, GC, GW	Oracle Database Operations	CG
Information Security Administration	EM, GC, GW	Personal Computer Applications	SC
Information Security Technology	EM, GC, GW	Computer Programming	MC
Information Security Wireless Networks	EM, GC, GW	Programming	RS
Information Technology	CG	Programming and System Analysis	CG, EM, GC, GW, MC, PC, PV, SC, SM
Information Technology Support	SM	Software Development	SC
Information Technology: Web and Graphic Design	SM	Technology Troubleshooting and A+ Preparation	RS
Information Technology: Cisco Networking Professional	SM	Web Design	GC, GW, PV, RS, SC
Information Technology: Network Server	SM	Web Designer	MC
Information Technology: Network Security	SM	Advanced Web Designer	MC
Web Developer	MC	Web Developer	GC, GW, MC, PC, PV, EM
Linux Associate	CG, EM, GC, GW, MC	Web Development	SC
Linux Networking Administration	EM, GC, GW, MC	Web Server Administrator	MC
Linux Professional	CG, EM, GC, GW, MC, PV	Web Technology	MC
Microcomputer Applications	GC	<b>Finance</b>	
(See Office Occupations section for additional programs and related areas)		Banking and Finance	PC, EM
Microcomputer Applications: Office Specialist/Core Level	CG	Real Estate	GC, MC, PC
(See Office Occupations section for additional programs and related areas)		Real Estate: Prelicense	PC
Microcomputer Applications: Office Specialist/Expert Level	CG	Home Inspection	MC
(See Office Occupations section for additional programs and related areas)		Certified Residential Appraiser	MC
		Licensed Real Estate Appraiser	MC
		Residential Appraisal Trainee	MC
		Advanced Nursing	SM
		<b>Management</b>	
		Business Management	SM
		Credit Union Management	PC

General Business	GW, PC	Multimedia Technology	MC
Human Resources Management	PC	Screenwriting	SC
Management	PC, MC, SC	Video Production Technology	CC
Management I	PC	Web Publishing Design: Foundation	CC
Management II	PC	Web Publishing Design: Design and Authoring	CC
Middle Management	GC, PV	<b>Biology</b>	
		Biomedical Research Technology	CG
Military Leadership	RS	<b>Middle Management</b>	
Public Administration	RS	Public Relations	MC
Public Administration: Legal Services	RS	<i>(See Management sections for additional information and related areas)</i>	
Public Relations	GC	<b>Office Occupations</b>	
<i>(See Middle Management section for additional programs and related areas)</i>		Customer Service/Information Professional	PV
Project Management	MC	Administrative Office Coordinator	CC
Retail Management	CG, GC, GW, EM, MC, PC, PV, RS, SM	Computer Application	PC
Retail Management and Marketing	SC	Computer Software Applications	PV
Retail Sales Manager	MC	Data Entry Clerk	EM
Small Business	MC	General Office Secretary	EM, GC
Small Business Entrepreneurship	GC, SM	Paralegal Studies	PC
Small Business Management	EM	Legal Secretarial	PC
Supervision	GC	Medical Office Support	PC
Supervision and Management I	SM	Medical Office Support: Basic Clerical	PC
Supervision and Management II	SM	Medical Office Support: Basic Transcription	PC
Supervision	GC	Administrative Office Professional	PV
Supply Chain and Operations Management	GW	Administrative Technology	GW
Tribal Development	SC	Office Automation Systems	SC, SM
<b>Marketing</b>		Office Coordinator	CC
Marketing	MC, PC, SC	Office Fundamentals	SC
Marketing I	PC	Technology Support Analyst Level I	MC
Marketing II	PC	Technology Support Analyst Level II	MC
Salesmanship	MC	Business Technology Specialist	GW
<b>Media Technology</b>		Office Support I	PC
Animation: Advanced Imaging and Animation	GC	Office Support II	PC
Animation: Drawing for Animation	GC	Office Support	PC
Animation: Imaging and Design Foundation	GC	Office Technology	GW
Broadcast Production	SC	Realtime Reporting Scoping	GW
Digital Arts	MC	Realtime Reporting -Broadcast Captioning	GW
Digital Photography	PC	Realtime Reporting-Judicial	GW
Digital Arts: Web Design	MCC	Realtime Reporting-Advanced Placement CART	GW
Digital Arts: Digital Illustration	MCC	Realtime Reporting-Advanced Placement Broadcast	
Digital Arts: Digital Photography	MCC	Captioning	GW
Digital Arts: Graphic Design	MCC	Receptionist	EM
Editing	SC	Word Processing	SC
eLearning Design Specialist	RS	<b>Total Quality Management</b>	
Film Analysis and Criticism	SC	Automobile Insurance: Customer Service	RS
Film Production	SC	Automobile Policy: Customer Service	RS
Game Technology	MC, GW	Broadband Telecommunications	RS
Media Arts: Computer Art/Illustration	CG, PC, PV	Broadband Telecommunications: Field Operations	RS
Media Arts: Desktop Publishing	PC	Credit Counseling: Customer Service	RS
Media Arts: Digital Animation	PC	Customer Service Management	EM
Media Arts: Digital Imaging	CG, PC	Broadband Telecommunications: Account Services	RS
Media Arts: Web Design	PC	Human Services - Assistance: Customer Service	RS
Motion Picture/Television Production	SC	Human Services-Long Term Care:	
Multimedia	GC	Customer Service	RS
		Human Services-Specialist: Customer Service	RS
		Insurance-Customer Service	RS

Insurance Claims and Losses: Customer Service	RS	<b>Emergency Medical Technology</b>	
Motor Vehicle: Customer Service	RS	Advanced Emergency Medical	
Organizational Leadership	CG, EM, GW, MC, PV, RS	Technology (Paramedic)	GC, PC, SC, PV
Organizational Management	CG, EM, GW, MC, PV, RS	Basic Emergency Medical Technology	GC, MC, PC, SC, PV
Pharmacy Benefits Management - Customer Service	RS	Community Emergency Response Team (CERT): Level I - PC	
Pharmacy: Customer Service	SM	Emergency Communications and Deployment	PC
Quality Customer Service	GW	Intermediate Emergency Medical Technology	MC, PC
Quality Process Leadership	GW, RS	<i>(See Allied Health section for additional programs and related areas)</i>	
Travel Agency: Customer Service	RS	Paramedicine	MC
Utilities Customer Service	RS	Secondary Basic Emergency Medical Technology	PC
<b>HEALTH OCCUPATIONS</b>		<b>Nursing</b>	
<b>Allied Health</b>		Fast Track Practical Nursing	GW
Advanced Behavioral Health Sciences	GC, SM	Nursing	CG, EM, GC, GW, MC, PC, PV, SC, RS
Basic Behavioral Health	GC, SM	Nurse Assisting	CG, GC, GW, MC, PC, PV, SC, RS, EM
Clinical Laboratory Sciences	PC	Practical Nursing	CG, GC, GW, MC, PC, PV, SC, RS, EM
Community Health Advocate, Diabetes	MC, SC	<b>HOME ECONOMICS</b>	
Clinical Research Associate	GW	<b>Early Childhood Education</b>	
Developmental Disabilities Specialist	GC, CG	Adult Development and Aging	GC, MC, RS
Diagnostic Medical Ultrasound	GW	Adolescent Studies	PC
Direct Care Practice	MC	Adolescent Development	GC, MC, RS
Donor Phlebotomy	PC	Child and Family Organization Management and Administration	GC, MC, RS
Electroneurodiagnostics	GW	Curriculum for Young Children	PC
Health Information	PC	Early Childhood Education and Administration	PC
Health Information Technology	PC	Early Childhood Classroom Management	PC
Health Services Management	GW	Early Care and Education	MC
Health Unit Coordinating	GW	Early Care Specialist	MC
Histology Technology	PC	Early Childhood Development	SC, SM
Hospital Central Service Technology	GW	Early Childhood Development: Montessori	SM
Laboratory Assisting	PC	Early Childhood Education	PV, GC, RS
Computed Tomography	GW	Early Childhood Administration and Management	GC, MCC, RSC, SM
Magnetic Resonance Imaging	GW	Family Life Education	GC, MC, SC, RS
Medical Assisting	PC	Family Development	PC
Medical Billing and Coding: Physician-Based	PC	Family Support	PC
Medical Coding: Physician Based	PC	Infant/Toddler Development	SC
Medical Front Office	PC	Parent Education	GC, MC, RS, SC
Medical Radiography	GW	<b>Community Re-Entry</b>	
Medical Transcription	GW	Workforce Development and Community Re-Entry	RS
Medical Transcription Level I	GW	<b>Education</b>	
Nuclear Medicine Technology	GW	Bilingual Endorsement	MC, PC
Patient Care Technician	PC	English as a Second Language (ESL) Endorsement	MC, PC
Perioperative Nursing	GW	Instructional Assistance	MC, PC
Phlebotomy	PC	Reading Specialist Endorsement	MC
Physical Therapist Assisting	GW	Teacher Assisting	EM, GW
Recovery	SM	<b>Family and Consumer Science</b>	
Respiratory Care	GW	Nutrition for Fitness and Wellness	G C ,
Radiation Therapy	GW	MC	
Surgical Technologist First Assisting	GW	<b>Food and Nutrition</b>	
Surgical Technology	GW	Advanced Professional Culinary Arts	SC
Speech Language Pathology Assistant	EM	Basic Culinary Studies	EM
<b>Dental</b>		Commercial Baking	PC
Clinical Dental Assisting	RS	Commercial Food Preparation	PC
Dental Assisting	PC, (Mor)	Culinary Studies	EM, PC, MC
Dental Hygiene	PC, RS, MC		
Dental Office Management	PC		

Baking and Pastry	EM	Information Security Forensics	EM, GC,
Culinary Fundamentals	SC	GW	
<i>(See Hospitality section for additional programs and related areas)</i>			
Dietetic Technology	CG,PV	Judicial Studies	MC
Food Service Administration	PC	Justice & Government Agency Administration Level I, II	MC
Professional Food and Beverage Service	PC	Justice Studies	CG, MC, SC
Workforce Development: Culinary Arts	RS	Law Enforcement Technology Field Training	RS
<b>Home Economics</b>		Law Enforcement Investigator	CC
Advanced Interior Design	PC	Law Enforcement Technology	RS
Alteration Specialist	MC	Law Enforcement	SC
Apparel Construction	PC	Law Enforcement Training Academy	GC,CG
Costume Design and Production	MC	Legal Studies	MC
Costuming	PC	Police Academy Preparation Level I	SC
Fashion Design	PC	Police Science	MC, SC
Fashion Design Level I	PC	Police Supervision	CC
Fashion Design Level II	PC	Public Safety Technology	RS
Fashion Illustration Level I	PC	Victimology	MC
Fashion Illustration Level II	PC	<b>Fire Science</b>	
Fashion Illustration Level III	PC	Basic Firefighter	MC, PV, EM
Home Furnishing & Materials	GC, MC, PC	Driver Operator	MC
Interior Design	MC, PC, SC	Emergency Management	GC, GW, MC, PV, SM
Interior Design Advanced	MC	Emergency Response and Operations	CGCC, EM, GC, MC, PC, PV, RSC, SC
Interior Design: Professional Level	SC	Fire Academy	GC,SC
Pattern Design Level I	PC	Fire Officer I	MC
Pattern Design Level II	PC	Fire Science	CG, GC, PC, PV,RS
Kitchen and Bath Design	PC	Fire Science Technology	GC, EM,MC, SC, PV
<b>Merchandising</b>		Firefighter Operations	GC, MC, PC, PC, SC
Fashion Merchandising & Design	MC	<b>Hospitality</b>	
Fashion Merchandising	PC	Advanced Professional Culinary Arts	SC
Image Consultant	MC	Airline Operations	RS
<b>SERVICE OCCUPATIONS</b>		Airline Operations: Ground Operations	RS
<b>Administration of Justice</b>		Airline Operations: Initial Flight Attendant	RS
Administration of Justice	EM,GC, PC, PV	Airline Operations: Passenger Services	RS
Administration of Justice Comprehensive	PC	Airline Operations: Reservations & Ticketing Operations	RS
Administration of Justice Fundamentals	PC	Airline Operations: Reservations	RS
Administration of Justice Studies	CG, MC, SC	Airline Operations: Vacations	RS
Advanced Corrections	RS	Culinary Arts	SC
Basic Corrections	RS	<i>(See Food &amp; Nutrition section for additional programs and related areas)</i>	
Corrections	RS	Hospitality and Tourism/Golf Management	SC
Crime and Accident Scene Photography	PC	Hospitality and Tourism/Hotel Management	SC
Crime and Intelligence Analysis	CG	Hospitality and Tourism/Restaurant Management	SC
Crime Scene Investigation	SC	Hospitality and Tourism/Spa & Wellness Center Management	SC
Criminal Justice Studies	CG		SC
Crime Scene Technology	SC	Hospitality/Hotel Management	EM
Cyber Forensics Technician	MC	Hospitality and Tourism/Tourism Development and Management	SC
Detention Services	RS	<b>Library Media Technology</b>	
Evidence Technology	PC	Library Information Technology	MC
Fingerprint Classification and Identification	PC	Library Information Technology: Advanced	MC
Forensic Investigation	MC	Library Information Technology: Basic	MC
Forensic Science	CG	Library Information Technology: Practitioners	MC
Forensic Technology	PC	Library Information Technology: School Library Media Center	MC
Forensic Science: Crime Lab	SC		MC
Global Citizenship	MC		
Homeland Security	CG		
Information Assurance	MC		



<b>Mortuary Science</b>			
Mortuary Science	MC		
<b>Music</b>			
Audio Production Technology	GC, MC, PC, PV, SC		
Dance Technology	SC		
Music Business	CG, GC, GW, MC, PC, PV, SC, SM		
<b>Parks, Recreation, Leisure and Fitness Studies</b>			
Recreation Management	MC, PC, SC		
<b>Health and Physical Education/Fitness</b>			
Group Fitness Instructor	GC, MC		
Personal Trainer	GC, MC		
Strength and Conditioning Personal Trainer	CG, EM, GC, GW, MC, PV, SC, SM		
Strength, Nutrition & Personal Trainer	MC, CG, EM, GC, GW, PV, SC, SM		
Teaching, Healing Meditation & Stress Management	PV		
Therapeutic Massage	CG, PC		
Yoga Instruction	SC		
<b>Social Sciences</b>			
Chemical Dependency Level I	RS		
Chemical Dependency Level II	RS		
Chemical Dependency	RS		
Clinical Research Coordinating	GW		
Interpreter Preparation	PC		
Professional Addictions Counseling	RS		
Deaf Studies	PC		
<b>Social Services</b>			
Gerontology	PC		
Gerontology: Aging Services Management	PC		
Gerontology: Eldercare	PC		
Gerontology: Foundations	PC		
Gerontology: Generalist	PC		
Gerontology: Program Development	PC		
Human Services	GC		
<b>TECHNOLOGY AND TRADE INDUSTRIAL</b>			
<b>Air Conditioning and Refrigeration</b>			
Air Conditioning/Refrigeration/Facilities	GW		
Residential & Light Commercial Air Conditioning	GW		
<b>Apprenticeship Related Instruction</b>			
Bricklaying	GW		
Construction Management	GW, PC		
Carpentry	GW		
Construction Trades: Millwright	GW		
Construction Trades: Painting	GW		
Construction Trades: Sheet Metal	GW		
Electricity	GW		
Heat and Frost Insulation	GW		
Heavy Equipment Operations	GW		
Ironworking	GW		
Millwright	GW		
Mechanical Trades: Plumbing	GW		
Mechanical Trades: Heating, Ventilating and Air Conditioning	GW		
Mechanical Trades: Sheet Metal			GW
Painting			GW
Pipefitter-Refrigeration			GW
Plumbing			GW
Power Plant Technology			GW, EM, GC
Roofing			GW
Sheet Metal			GW
Steamfitting			GW
<b>Aviation and Aeronautics</b>			
Aircraft Construction Technology			CG
Aircraft Maintenance Technology (Part 147)			CG
Aircraft Maintenance Technology			CG
Airframe Maintenance (Part 147)			CG
Airway Science Technology, Flight Emphasis			CG
Aviation Electronics Maintenance Technology			CG
Avionics Technology			CG
Composite Technology			CG
Flight Technology			CG
Meter Technology			CG
Powerplant Maintenance (Part 147)			CG
Sheet Metal Structures Technology			CG
<b>Automotive Technology</b>			
Air Conditioning and Electrical Accessories			GW
Air Conditioning			MC
Automotive Chassis			GC
Automotive Drive Trains			GW
Automotive Electrical Systems			MC
Automotive Engine Performance Diagnosis & Air Conditioning			GC
Automotive Performance Technology			MC
Automotive Suspension, Steering and Brakes			GW
Automotive Technology			GC, GW
Brakes, Alignment, Suspension and Steering			MC
Caterpillar Technician Training			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
<b>Building and Construction</b>			
Building Inspection			EM, MC
Building Safety and Construction Technology			PC
Building Planning & Safety Technology			SC
Carpentry			GW
Civil Engineering Technology			PC
Heavy Equipment Operations			GW
Home Improvement Retail Operations: Flooring			GW
Home Improvement Retail Operations: Kitchen			GW
Home Improvement Retail Operations: Millworks			GW
Plan Review			MC
Pre-Contractor Licensing			MC
Workforce Development: Carpentry Level I			RS
Workforce Development: Carpentry Level II			RS
Workforce Development: Furniture Construction/Refinishing Level I			RS

Workforce Development: Furniture Construction/Refinishing Level II	RS	Electronics Manufacturing Technology	CC
<b>Commercial Art/Advertising Art</b>		Electronics Technology	MC
Computer Graphic Design	PC	Industrial Education	GC, MC
<i>(See Media Technology section for additional programs and related areas)</i>		Industrial Operations Technology	EM, GW
Workforce Development: Graphic Arts Level I	RS	Network Maintenance	CC
Workforce Development: Graphic Arts Level II	RS	Telecommunications Technology	SM
<b>Drafting Technology</b>		Workforce Development: Electrical Level I	RS
CAD Technology	GC	Workforce Development: Electrical Level II	RS
Architectural CADD Level III	MC	<b>Environmental Technology</b>	
Architectural Detailing CADD Level III	MC	Biotechnology	MC
Architectural Drafting	PC	Biotechnology and Molecular Biosciences	CC
Architectural Technology	SC	Environmental Science Technology	GW
Architecture	MC	Geospatial Technology: Environmental Sciences	PC
Basic CAD	GC	Geospatial Technologies	MC
CAD Application	GC	Hazardous Materials Response	PC
CAD-Based Design Documentation	GC	Hydrologic Studies	GW
Computer-Aided Drafting	MC, PC	Occupational Safety and Health Technology	GW
Computer Aided Design & Drafting CADD Level I	MC	Safety, Health and Environmental Studies	PV
Commercial Drafting CADD Level II	MC	Wastewater Treatment	GW
Construction	MC	Water Distribution and Collection	GW
Construction Drafting I	MC	Water Purification Technology	GW
Construction Drafting II	MC	Water Technologies	GW
Construction Drafting III	MC	Water Treatment	GW
Construction Drafting CADD Level III	MC	Water Technologies Level 1	GW
Electro/Mechanical Drafting	MC	Water Technologies Level 2	GW
Electromechanical Manufacturing Technology	MC	Water Technologies Level 3	GW
Industrial Design Technology	GW	Water Technologies Level 4	GW
Industrial Design Technology: Design Specialist: SolidWorks	GW	<b>Engineering</b>	
Manufacturing Productivity	MC	Civil Engineering Technology	PC
Manufacturing Productivity: Conventional Machines Level I	GW	Surveying Technology	PC
Manufacturing Productivity: Conventional Machines Level II	GW	<b>Manufacturing</b>	
Manufacturing Productivity: Process Improvement	GW	Aerospace Manufacturing Technology	GW
Manufacturing Productivity: Team Leadership	GW	Automated Manufacturing Systems	CG
Manufacturing Productivity: Engineering Graphics	GW	CAD/CAM/CNC I	MC
Manufacturing Productivity: CNC CAD/CAM Programming	GW	CAD/CAM/CNC II	MC
Manufacturing Productivity: CNC operation	GW	Manufacturing Engineering Technology	MC
Manufacturing Productivity: Quality Assurance	GW	Machining	MC
Journalism	GC, PC, PV, SC, SM, MC	Manufacturing Management	MC
Graphic Design	GC, SC	Manufacturing Welding	MC
Mechanical Drafting	MC	<i>(See Welding Technology section for additional programs and related areas)</i>	
Micro Circuit Mask Design	MC	<b>Machinist</b>	
Microcomputer Servicing	GC	Machining and Product Development Technology	MC
Residential Drafting CADD Level II	MC	Tractor-Trailer Driving	CC
Surveying and Civil Drafting CADD Level II	MC	<b>Welding Technology</b>	
<b>Electronics/Electrical Technology</b>		Welding	MC, PC
Computer and Networking Technology	GC	<i>(See Manufacturing section for additional programs and related areas)</i>	
Electric Utility Technology	CG	Workforce Development: Welding Level I	RS
Electrical Technology	GW	Workforce Development: Welding Level II	RS
Electromechanical Automation Technology	MC		
Electronics Engineering Technology	MC		



## MARICOPA SKILL CENTER

### AREAS/PROGRAMS/CERTIFICATES:

The Maricopa Skill Center (MSC), a division of GateWay Community College, offers entry-level courses and programs for hands-on job training at 1245 E. Buckeye Road, Phoenix. The more than 200 courses and 60 non-credit programs at Maricopa Skill Center certificates are open-entry /open-exit, and self-paced. Several of our programs hold credit articulation agreements with ASU and Gateway Community College and most programs culminate in leading industry certifications.

#### Accounting

- Accounting Associate Certificate Program
- Accounting Clerk Certificate Program
- Accounts Payable Clerk Certificate Program
- Accounts Receivable/Payable Clerk Certificate Program
- Payroll Clerk Certificate Program

#### Administrative Assistant

- Administrative Assistant Certificate Program
- Administrative Clerk Certificate Program

#### Computer Aided Drafting

- AutoCAD Draftsmen 2-D Technician Certificate Program
- AutoCAD Draftsmen 2-D, 3-D, & Solids Technician Certificate Program

#### Computer Repair & Networking

- Computer Support Specialist Certificate Program

#### Cosmetology

- Aesthetician Certificate Program
- Cosmetologist Certificate Program
- Nail Technician Certificate Program

#### Customer Service

- Call Center Operator Certificate Program
- Customer Service Specialist Certificate Program

#### Information Processor

- Data Entry Operator Certificate Program
- Information Processor Specialist Certificate Program
- Legal Administrative Assistant

#### Printing

- Digital Press Operator Certificate Program
- Offset Press Operator Certificate Program

#### Soldering

- IPC Certified Soldering

#### Travel & Tourism

- Reservations & Hospitality Representative Certificate Program
- Travel & Tourism Specialist Certificate Program

#### Medical Assistant

- Medical Administrative Assistant Certificate Program
- Medical Assistant Front & Back Office Certificate Program
- Medical biller/Coder Certificate Program

#### Nursing

- Practical Nursing Certificate Program

#### Auto Body

- Auto Body Basic Metal Repair & Refinishing Certificate Program

- Auto Body Basic Metal Repair Certificate Program
- Auto Body Basic Refinishing Certificate Program

#### Automation Technology

- Automation Technology Certificate Program

#### Construction Trades

- Construction Trades with Introduction to HVAC Certificate Program
- Construction Trades Worker I Certificate Program
- Construction Trades Worker II Certificate Program
- Maintenance Carpentry Worker Certificate Program
- Maintenance Electrician Worker Certificate Program
- Maintenance Electrician Worker with Introduction to HVAC Certificate Program

#### Construction Trades

- Maintenance Plumbing Worker Certificate Program

#### Culinary Arts

- Baker Certificate Program
- Cook Certificate Program

#### Industrial Spray Painter

- Industrial Spray Painter Certificate Program

#### Machine Trades

- CNC Machinist Certificate Program
- Machinist's Assistant Certificate Program
- Manual Machinist Certificate Program

#### Meat Cutter

- Apprentice Meat Cutter Certificate Program
- Meat & Deli Counterperson Certificate Program
- Meat Department Helper Certificate Program
- Meat Room Cleanup Certificate Program
- Portion Control Cutter Certificate Program
- Self-service Meat Wrapper Certificate Program

#### Welding

- Arc Welder Certificate Program
- Combination Welder - 2 Process Certificate Program
- Combination Welder - 3 Process Certificate Program
- Combination Welder - 3 Process with Intro to Pipe Welding Certificate Program
- Combination Welder - 4 Process Certificate Program
- Flux Core Welder Certificate Program
- MIG Welder Certificate Program
- TIG Welder/TIG Fingertip Welder Certificate Program

#### Accounting

- Small Business Accounting Course Bundle

#### Online/Hybrid Delivery Programs

- Automation Technology Certificate Program

## SOUTHWEST SKILL CENTER AT EMCC CERTIFICATES

The SouthWest Skill Center at Estrella Mountain Community College, located at 3000 North Dysart Road, Avondale, offers entry-level courses and programs for hands-on job training.

Our Programs are listed below and reference any certificate issued by that program:

### **Distribution Logistics Technician Program**

Certified Distribution Logistics Technician (2/2008)

### **Emergency Medical Technology Program**

Emergency Medical Technician (1/2008)

### **Medical Assistant Program (Certificate Programs)**

Medical Assistant Front/Back Office

Medical Assistant Front Office

Medical Assistant Back Office

Medical Billing & Coding

Phlebotomy (beginning 7/1/2006)

### **Nursing Programs (Certificate Programs)**

Nurse Assistant Program

Practical Nurse Program

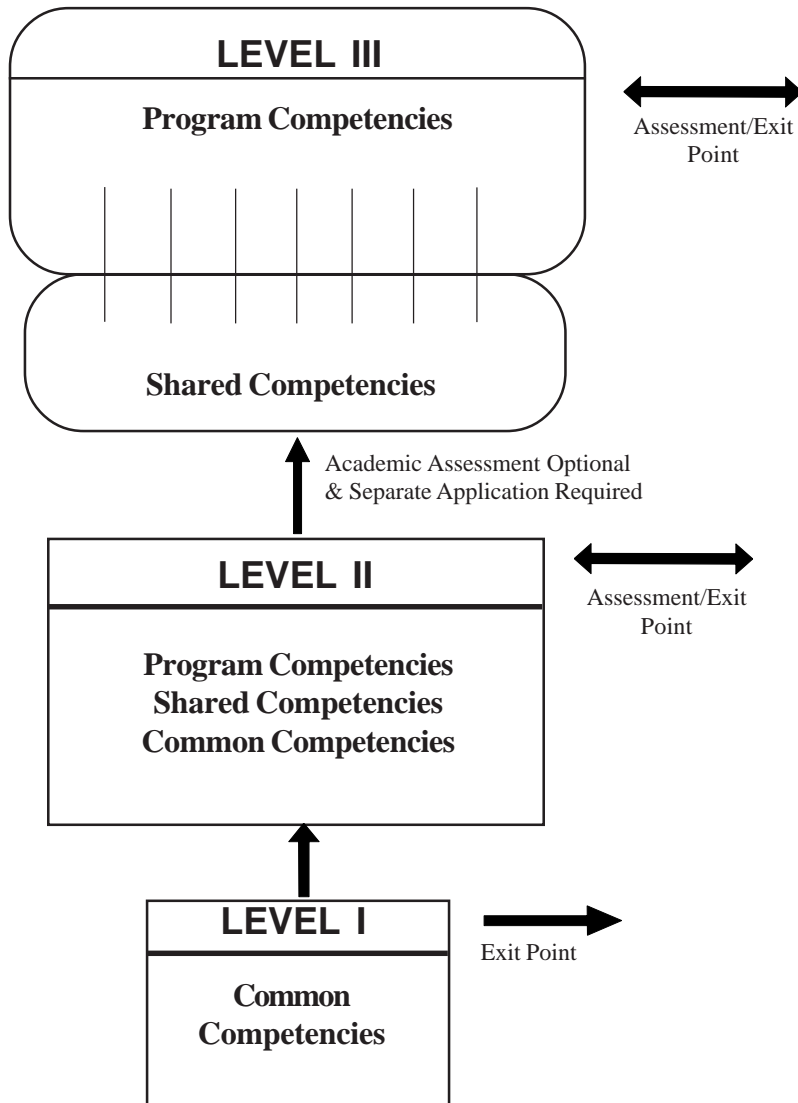
## THE MCCD HEALTH CARE INTEGRATED EDUCATIONAL SYSTEM (HCIES)

In collaboration and partnership with the health care community and its response to the dynamic changes occurring in the health care arena and health care professions' practice, the Maricopa Community Colleges integrated the curriculum of all allied health and nursing programs. All HCIES program pathways and educational offerings emphasize the achievement of relevant competencies and provide value to the individual, the employer, and the community. As a result, graduates of the various HCIES program pathways will meet the community's demand for a flexible, multi-skilled health care workforce that meets employer and consumer needs. Refer to individual college catalogs for specific health care program pathways. For further information, <http://healthcare.maricopa.edu> is a comprehensive information source.

#### **Note:**

1. Students are responsible for completing General Education coursework required for their particular Health Care Pathway.
2. All students must successfully demonstrate required reading, writing, and mathematics competencies. Academic remediation is available.
3. It may be possible for some students to meet Health Care Competency requirements for Level I and Level II common competencies through assessment of prior experience and/or education.
4. Completion of Level I and Level II does not guarantee admission into Level III Health Care Pathways.

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**Entry Point**

- Assessment of Basic Academic Skills
- Specialized Placement (if appropriate)

*Chandler Gilbert (CGCC), Estrella Mountain (EMCC), GateWay (GWCC), Glendale (GCC), Mesa (MCC), Phoenix (PC), Paradise Valley (PVCC), Rio Salado (RSC), Scottsdale (SCC), South Mountain (SMCC), and the Maricopa Skill Center (MSC) and the Southwest Skill Center (SWCC/EMCC) offer health care courses. Not all courses are offered at all sites. Please contact the specific college for more informatin regarding the availability of courses and course schedule information.*

**LEVEL I - Common Competencies - 2.0 credits**

**Some** Health Care Students must satisfactorily achieve the

HCC130AA	Health Care Today .....	0.5
HCC130AB	Workplace Behavior in Healthcare .....	0.5
HCC130AC	Personal Wellness and Safety .....	0.5
HCC130AD	Communication and Teamwork in Health Care Organizations .....	0.5

**LEVEL II - Common Competencies - Credits Vary**

**Some** Health Care Students must satisfactorily achieve the Level II Common Competencies. See your advisor for which Medical Terminology course satisfies your pathway's course requirements.

HCC130AE	Legal and Ethical Issues in Health Care .....	0.5
HCC130AF	Decision Making in the Health Care Setting .....	0.5
HCC145AA	Medical Terminology for Health Care Workers I .....	1.0
HCC145AB	Medical Terminology for Health Care Workers II .....	1.0
HCC145AC	Medical Terminology for Health Care Workers III .....	1.0

**LEVEL II - Shared and Program Competencies Credits Vary**

Required of only certain health occupations program pathways. Refer to specific program pathway curriculum or check with a program advisor. Shared Competencies are shared by several health program pathways. Program Competencies are specific to individual health occupations program pathways.

**LEVEL III - Shared and Program Competencies\***

**Credits Vary**

Share Competencies are shared by several Health Care Pathways. Program Competencies are specific to individual Health Care Pathways. These are required for certain Health Occupations Program Pathways. Refer to specific Pathway requirements or check with an advisor.

\* Certain Health Care Pathways require satisfactory achievement of all level I and II common Competencies prior to being admitted and registering for courses in Level III. Admission into Level III Health Care Pathways is based on meeting additional requirements and involves a separate admission process. See your advisor for more information.

**Examples of Level II Health Care Pathways\*\***

- Clinical Research Coordinating (GWCC)
- Community Health Advocate for Diabetes (MCC)
- Dental Assisting (PC, RSC)
- Dental Office Management (PC)
- Diagnostic Medical Ultrasound (GWCC)
- Direct Care Practice (MCC)
- Health Information Technology (PC)
- Health Unit Coordinating (GWCC)
- Histology Technician (PC)
- Hospital Central Service (GWCC)
- Laboratory Assisting (PC)
- Medical Assisting (MSC, PC, SWSC/EMCC)
- Medical Billing (PC)
- Medical Coding: Physician or Hospital Based (PC)
- Medical Transcription (GWCC, SWSC/EMCC)
- Nuclear Medicine Technology (GWCC)
- Nurse Assisting (GCC, GWCC, MCC, MSC, PC, PVCC, SCC, SWSC/EMCC)
- Patient Care Technician (PC)
- Perioperative Nursing (GWCC)
- Phlebotomy (PC)
- Surgical Technician First Assistant (GWCC)
- Surgical Technology (GWCC)
- Teaching Healing Meditation and Stress Management (PVCC)
- Therapeutic Massage (CGCC, PC)

**Examples of Level III Health Care Pathways\*\***

- Dental Hygiene (PC, RSC)
- Dental Office Management (PC)
- Diagnostic Medical Ultrasound (GWCC)
- Direct Care Practice (MCC)
- Health Information Technology (PC)
- Health Services Management (GWCC)
- Histology Technician (PC)
- Medical Assisting (MSC, PC, SWSC/EMCC)
- Medical Radiography (GWCC)
- Nuclear Medicine Technology (GWCC)
- Nursing (CGCC, EMCC, GCC, GWCC, MCC, PC, RSC, SCC)
- Physical Therapist Assisting (GWCC)
- Practical Nursing (GCC, GWCC, MCC, MSC, PC, PVCC, RSC, SCC, SWSC/EMCC)
- Respiratory Care (GWCC)
- Surgical Technology (GWCC)
- Therapeutic Massage (CGCC, PC)

\*\*subject to change

**HCIES Assumption of Risk/Release of Liability**

Most of the program pathways of the HCIES include a program of study in a clinical training environment which 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 program pathways of HCIES will have learning experience in a health care setting where they will begin 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).

**HCIES College of Attendance**

As the programs within the HCIES are integrated across the Maricopa Community College District, college of attendance requirements for the completion of the healthcare program pathways can be met through the completion of coursework taken at all the Maricopa Community Colleges and Skill Centers.

**Requirement of Background Check**

Students enrolled in most of the HCIES pathways will be in a clinical learning experiences, working with children, elderly persons, and other vulnerable populations. Arizona State law and healthcare agency policies require evidence of clear background checks prior to entering such learning experiences. Students seeking admission to some health programs will be required to provide a current Fingerprint Clearance Card at the time of application to or enrollment in clinical courses, according to program guidelines. The Fingerprint Clearance Card must remain in effect for the durations of time of program enrollment. It is advised that students carry proof of clearance at all times during any agency learning experience.

Note: Even though the Fingerprint Clearance Card is valid for 6 years, certain State licensing boards may require a new background check or clearance card upon request for State licensure or certification.

**Waiver of Licensure/Certificate Guarantee**

Many of the HCIES 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 HCIES program does not guarantee the receipt of a license or certificate to practice in the field of study.





## **Additional Campus Programs**

*Estrella Mountain offers a variety of campus programs designed for specialized and flexible needs. These include Developmental Education, Fitness Center, Genesis West, Honors Program, Inspire.Teach, Learning for Life (Community Education Program) and Workforce Development.*





# DEVELOPMENTAL EDUCATION

## DEVELOPMENTAL EDUCATION PROGRAM

Developmental Education is a program that enhances student skills in English, English as a Second Language, Mathematics and Reading. Strong emphasis is placed on instruction with individual support, small classes, caring faculty and creative learning experiences. Instruction is enriched through technology, interaction with other learners, and opportunities to conduct volunteer work in the community. Additional instructional support is provided by the Learning Enhancement and Learning Enhancement and Writing Support Center and the Nasa Center . (See page 20-21 for more information.)

Students are advised to participate in the Developmental Education program based on assessment scores and advisor referral. Required courses must be successfully completed before moving on to the next level with exception on satisfactory score on the CELSA placement test. Students enrolled in one or more developmental courses are considered participants in the developmental program.

Developmental Education courses build confidence and contribute to student academic success. Developmental Education courses are designed to maximize a student's ability to pursue additional education and training. In addition, Developmental Education courses also offer students the opportunity to build an educational foundation for transfer programs, degree programs and training/career programs.

### Credit Classes

A variety of credit classes are offered to students who wish to improve their literacy and communication skills including English as a Second Language (ESL), English, Mathematics, and Reading.

### English as a Second Language

English as a Second Language (ESL) increases a student's ability to perform basic communication skills in English. Students learn to read and write basic English. Vocabulary and learning strategies are also emphasized. Students use software and computers to review grammar, write sentences and paragraphs, and read short selections. Note: \*Some courses are taught in hybrid format.

ESL Classes offered in the Developmental Education Program include:

#### Basic Level:

+ESL001BA	Basic ESL I: Personal and Health Safety	2
+ESL001BB	Basic ESL I: Services and Employment	2

#### Level I

+ESL010	English as a Second Language I: Grammar	3
+ESL011	ESL I: Listening and Speaking	3
+ESL012	ESL I: Writing with Oral Practice	3
+RDG010	Reading English as a Second Language I	3

#### Recommended Courses

*+ESL013	Vocabulary for ESL I	1
*+ESL014	Idiomatic English for ESL I	1
+RDG008	Phonics	3



**Level II**

+ESL020	English as a Second Language II: Grammar	3
+ESL021	ESL II: Listening and Speaking	3
+ESL022	ESL II: Writing with Oral Practice	3
+RDG020	Reading English as a Second Language II	3

**Level III**

*+ESL030	English as a Second Language III: Grammar	3
+ESL031	ESL III: Listening and Speaking	3
+ESL032	ESL III: Writing with Oral Practice	3
+RDG030	Reading English as a Second Language III	3

**Recommended Courses**

*+RDG031	Advanced vocabulary ESL Speakers (non-native speakers)	3
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**Level IV**

+ESL040	English as a Second Language IV: Grammar	3
*+ESL041	ESL IV: Listening and Speaking	3
+ESL042	ESL IV: Writing with Oral Practice	3
+RDG040	Reading English as a Second Language IV	3

**Recommended Courses**

+ESL043	Basic Vocabulary for ESL IV	1
+ESL044	Vocabulary for ESL IV	1

**Level V**

+ESL050	Review Grammar for ESL	3
+ESL051	Pronunciation Improvement for ESL Speakers	3

**Recommended Courses**

+COM080	Conversation Circles Practice in Conversing in English (non native speakers)	3
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Note: Course descriptions are listed on pages 212. Not all courses are offered every semester.

+ indicates that a course has prerequisites or corequisites.

\* indicates that the course is taught in hybrid format.

**English**

Developmental English courses are designed for recent high school graduates, GED graduates or any re-entry student who needs to fortify his/her skills before taking other college English classes. Students have opportunities for group interaction and engage in writing projects using the computer/software with support from Learning Enhancement and Information Resources.

English Courses taught in the Developmental Education Program include:

+ENG061	Basic Writing Skills	3
+ENG071	Fundamentals of Writing	3

Note: Course descriptions are listed on page 211.

+ indicates that a course has prerequisites or corequisites.



## Reading

Developmental reading courses are designed to meet the needs of recent high school graduates, GED graduates, the returning student or college students who wish to improve their reading skills. Reading classes emphasize learning strategies for life skills reading and for understanding college textbooks. Learning vocabulary, reading for enjoyment, volunteering in the community, and using technology are major class activities.

Reading Classes in the Developmental Education Program include:

+RDG071	Basic Reading	3
+RDG081	Reading Improvement	3
+RDG091	College Reading Skills I	3

Note: Course descriptions are listed on page 244.

+ indicates that a course has prerequisites and/or corequisites.



## FITNESS CENTER

Estrella Mountain offers both credit and non-credit courses in physical education including PED115, the Lifetime Fitness course (2 credits). Students can choose to participate in PED115 Lifetime Fitness in either the on-campus Fitness Center or in an off campus location. Students must be registered in the off-campus option to do this. Options are available for self-paced open participation fitness center courses and for stand alone physical activity courses such as Yoga and Pilates.

The Fitness Center offers students, employees, and community members an educationally based exercise program in the West Valley. A versatile inventory of fitness equipment, including a full line of free weights, Cybex & Nautilus Circuit Equipment, Stairmaster Climbers, Upright and Recumbent Bikes, Gravitron, Schwinn Airdynes, Elliptical Trainers, Crossrobic Trainer, Indoor Rowers and full array of treadmills support the education provided by highly qualified Fitness Instructors.

Professional, caring staff provide participants with individual instruction and supervision in all aspects of a personal exercise program without having to pay additional fees beyond basic registration in the Fitness Center. The Fitness Center offers easily accessible exercise education so participants are ensured the support that empowers efficient, effective, safe and enjoyable exercise. In addition, Fitness Center participants receive information, encouragement, and support to develop and maintain healthy lifestyle behaviors.

Flexible hours allow participants use of the center at their convenience. Special programs designed specifically for business, industry, families, and seniors are available. A variety of other wellness recreation and activity classes are also available.

Finally, the Fitness & Wellness program also offers degree and certificate programs for those students pursuing a career or avocation in fitness or wellness. Contact the Fitness Center for more information.





## GENESIS WEST

Genesis West offers students an alternative to traditional high school. Genesis West is a program that allows students to obtain a high school diploma while also earning college credit. The Genesis West program is made possible through a partnership with Agua Fria, Dysart and Tolleson High School Districts and Estrella Mountain Community College. For more information, call (623) 935-8900. Students are fully integrated into the college environment therefore must possess the maturity and the independence to meet the challenge of being a high school student on a college campus. The criteria is as follows:

- Be between 16 and 21 years of age
- Possess a minimum ability level at 8th grade or above
- Obtain a high school counselor referral
- Provide a written application and complete a formal interview
- Obtain two written recommendations
- Attend all classes and Genesis West activities
- Maintain good academic standing
- Be willing to contribute positively to the community



## HONORS PROGRAM

### Program Description

The Honors Program is designed to enhance the intellectual experience of students through enrollment in Honors courses, the Honors Forum, and increased contact with other Honors students at Estrella Mountain and within the Maricopa District. Participation in the program also presents students with growth potential in the areas of leadership through attendance at local, regional and national conferences. Cultural enrichment activities are also stressed with frequent attendance at theater, symphony, museum, and lecture events.

### Honors Program Graduation Requirements

Honors students who graduate with at least twelve (12) credits in honors courses and who maintain a cumulative 3.25 GPA or higher, will be designated as Honors Program graduates. Honors students who graduate with at least fifteen (15) credits in honors courses, (including 3 credits from HUM190), and who have a cumulative 3.5 GPA or higher, at graduation, will be designated as Honors Program graduates with Distinction.

### Honors Program Eligibility

Presidents' Scholarships are available for new students who have recently graduated from an accredited Maricopa County high school. To be eligible, students must verify that they rank in the top 15% of their graduating class or have been placed in ENG101 Honors, into Intermediate Algebra or higher, and are exempt from CRE101 (Critical Reading) on the ASSET placement test. They must begin their college studies in the academic year following high school graduation. Fee Waivers are available for continuing and transfer students who have accumulated a minimum of 12 credits in courses numbered 100-level or above and who have a cumulative grade point average of 3.25 or better. Applicants are required to submit two letters of recommendation from Estrella Mountain faculty addressed to the Honors Program Coordinator prior to the start of classes. Partial tuition fee waivers (based on the number of credits for which the applicant is enrolled and completes) will be granted to those who are accepted into the program. To retain fee waiver eligibility, students must complete at least one honors course each semester and maintain a cumulative grade point average of 3.25 or higher. Fee waiver students are also eligible for additional Honors Program scholarships once they are enrolled in the Program.



## INSPIRE.TEACH

Estrella Mountain Community College offers a variety of programs for students interested in education and teaching that will transfer to a university. Our Teacher Education program, inspire.teach, encourages and prepares students to choose and excel in the teaching profession. Estrella Mountain Community College is committed to inspiring students from all groups to explore teaching careers, increase the number of diverse professionals within Arizona's education workforce, and address the teacher shortage by strengthening the pipeline and preparing high quality teachers for the classroom. For more information please visit: <http://www.estrellamountain.edu/occed/teachered/index.asp>



## LEARNING FOR LIFE (COMMUNITY EDUCATION)

Learning For Life is the community education program at Estrella Mountain Community College. We provide flexible and convenient general interest, non-credit courses designed to upgrade skills for personal and professional development. Courses are offered in the following areas of interest; Arts and Crafts, Business and Occupations, Computers, Health and Fitness, Home in and Out, Personal Enrichment, Next Chapter, and Kid's College. For specific information concerning any of our programs, please contact Registration at (623) 935-8888.



## TEACHER EDUCATION ALLIANCE (TEALL)

The Teacher Education Alliance (TEALL) is a new program designed to assist students working on their Associate in Arts in Elementary Education (AAEE) Degree through Maricopa Community Colleges to smoothly transition to Arizona State University. Benefits for those who join include:

- Guaranteed admission to one of ASU's professional teacher preparation programs
- Direct and guaranteed transfer of your AAEE degree to a Bachelor of Arts in Elementary Education degree program at Arizona State University Tempe, West or Polytechnic campus
- Advising, scholarship opportunities, professional development workshops, and special events specific to Alliance students
- Access tutoring, electronic and technology resources, library collections, and athletic events at both the Maricopa Community Colleges and ASU.

For more information call 623-935-8479 or visit: <http://www.maricopa.edu/alliance/teacher>



## WORKFORCE DEVELOPMENT

In addition to the college's numerous programs and courses, Estrella Mountain designs, develops and delivers customized training solutions to help organizations reach their business objectives. We work closely with clients, assessing their needs and goals, to build training solutions that provide convenience and enhance business performance. Quality faculty, targeted curriculum and flexible locations are hallmarks of the service. For more information, call 623-935-8492.





## Course Descriptions

*Estrella Mountain offers a variety of courses which meet certificate and degree requirements. Course offerings are continuously expanding- a sampling of new courses includes: CIS181-IBM Mainframes Z OS Level I, CIS117DK DB2: Database Management, CIS281 IBM Mainframes Z OS Level II, RPT103 Radiation Fundamentals, RPT113 Radiation Monitoring, RPT223 Radioactive Dosimetry, RPT233 Radioactive Materials Handling, RPT243 Radiological Safety and Response, RPT253 Radiation Protection, RPT290 Radiation Protection Internship, SLP217 Clinical Ethics & Documentation, SLP240 Assistive Technology and SLP242 Low Incidence Disability.*





## PREFIX LISTING

ACC	Accounting	HUM	Humanities
AES	Aerospace Studies	ITS	Information Technology Security
AIS	American Indian Studies	INT	Interior Design
AJS	Administration of Justice	MAT	Mathematics
ARH	Art Humanities	MCO	Mass Communications
ART	Art	MET	Manufacturing Technology
ASB	Anthropology (Soc/Behv Sciences)	MGT	Management
AST	Astronomy	MHL	Music: History/Literature
BIO	Biology	MKT	Marketing
BLT	Building Safety & Construction Technology	MST	Microsoft Technology
BPC	Business/Personal Computers	MUP	Music: Performance
CAD	Computer Aided Drafting	NUR	Nursing
CFS	Child/Family Studies	OAS	Office Automation Systems
CHM	Chemistry	OSH	Occupational Safety & Health
CIS	Computer Information Systems	PAD	Public Administration
CNS	Construction	PED	Physical Education
CNT	Cisco Networking Technology	PHI	Philosophy
COM	Communication	PHS	Physical Science
CPD	Counseling and Personal Development	PHY	Physics
CRE	Critical Reading	POS	Political Science
CRW	Creative Writing	PPT	Power Plant Technology
CSM	Total Quality Management	PSY	Psychology
DAN	Dance	RDG	Reading Education
ECE	Engineering Science	REC	Recreation
ECH	Early Childhood Education	REL	Religious Studies
ECN	Economics	RPT	Radiation Protection Technician
EDU	Education	SBS	Small Business Management
ELC	Electricity	SBU	Society and Business
ELT	Electronics Technology	SLG	Sign Language
EMT	Emergency Medical Technology	SLP	Speech Language Pathology
ENG	English	SOC	Sociology
ENH	English Humanities	SPA	Spanish
EPD	Education Professional Development	STO	Storytelling
ESL	English as a Second Language	SWU	Social Work
FAC	Facilities Management	TCM	Telecommunication
FON	Food and Nutrition	THE	Theatre
FSC	Fire Science Technology	THP	Theatre Performance/ Production
GBS	General Business	TQM	Total Quality Management
GLG	Geology	WLD	Welding Technology
GPH	Physical Geography	WST	Women Studies
GTC	General Technology		
HCC	Health Core Curriculum		
HES	Health Science		
HIS	History		
HVA	Heating, Ventilating & Air Conditioning		
HRM	Hotel Restaurant Management		

## ACCOUNTING

### 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/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: Grade of "C" or better in ACC111 or ACC211, or a grade of "C" or better in (ENG101 and MAT151 and CRE101), or equivalent, or satisfactory score on District placement exam.

### ACC240

#### 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.

### ACC250

#### Introductory Accounting Lab

1 Credit. 3 Periods.

Procedural details of accounting for the accumulation of information and generation of reports for internal and external users. Prerequisites: None.

## AEROSPACE STUDIES

### AES101

#### The Air Force Today 1

LEC 2 Credits. 1 Period.

LAB 0 Credits. 1 Period.

Introduction to U.S. Air Force and AFROTC. Topics include: the Air Force mission and organization, customs and courtesies, officer opportunities, officership and professionalism. Prerequisites: None.

### AES103

#### The Air Force Today II

LEC 2 Credits. 1 Period.

LAB 0 Credits. 1 Period.

Introduction to U.S. Air Force and AFROTC. Topics include: the Air Force mission and organization, customs and courtesies, officer opportunities, officership, and professionalism. Prerequisites: AES101 or ASU Department of Aerospace Studies approval.

### AES201

#### Evolution of USAF Air and Space

##### Power I

LEC 2 Credits. 1 Period.

LAB 0 Credits. 1 Period.

Further preparation of AFROTC candidate. Topics include: Air Force heritage and leaders, communication skills, ethics, leadership, quality Air Force, and values. Prerequisites: AES103 or ASU Department of Aerospace Studies approval.

### AES203

#### Evolution of USAF Air and Space

##### Power II

LEC 2 Credits. 1 Period.

LAB 0 Credits. 1 Period.

Topics include: the air Force mission and organization, customs and courtesies, officer opportunities, officership, and professionalism. Prerequisites: AES201 or ASU Department of Aerospace Studies approval.

### AES294

#### Air Force Physical Fitness

LEC 1 Credits. 3 Period.

Beginning instruction in adapted physical activities and a variety of sports and sports activities to include calisthenics, sit-ups, push-ups, running, basketball, volleyball, and other physical events. Prerequisites: None. Corequisites: AES101, or AES103, or AES201, or AES203. Course Note: AES294 may be repeated for credit.

## ADMINISTRATION OF JUSTICE

### AJS101

#### Introduction to Criminal Justice

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, common defenses utilized. Includes specific offenses and the essential elements of each offense. Required in AJS curriculum. Prerequisites: None.

### AJS110

#### Law and Legal Review I

3 Credits. 3 Periods.

In-depth study of the Arizona laws governing arrest by peace officers, as well as, an intensive study of the Arizona substantive criminal law code (ARS Title 13). Focuses on specific sections of ARS Title 4 and ARS Title 8, as they apply to peace officers in Arizona. Partially fulfills the Arizona POST (Peace Officer Standard and Training) Board requirements for Proficiency Skills Academy attendance. Prerequisites: None.

### AJS123

#### Ethics and the Administration of Justice

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.

**AJS124****Correctional Institutions**

3 Credits. 3 Periods.

An examination of correctional institutions with an emphasis on personnel and security measures, care and treatment programs and institutional planning. The criminal justice system and matters of custody and treatment. Inmate subcultures, and organized crime in correctional institutions and jails. Prerequisites: None.

**AJS131****Police Management Techniques I**

3 Credits. 3 Periods.

Police supervisory techniques for planning, organization, coordination, reporting, budgeting and handling related personnel problems. Prerequisites: None.

**AJS132****Police Management Techniques II**

3 Credits. 3 Periods.

Management of police personnel including selections procedures, disciplinary practices, public relations, elements of supervision, service ratings, recruiting and probation, and related personnel problems. Prerequisites: AJS131 or instructor's approval.

**AJS133****Correctional Supervision I**

3 Credits. 3 Periods.

Basic supervision of correctional employees. Personnel practices, employee discipline and motivation, trust/team building, and one-minute manager principles. Prerequisites: None.

**AJS139****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.

**AJS146****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.

**AJS147****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.

**AJS148****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.

**AJS149****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.

**AJS150****Defensive Tactics**

1 Credit. 1 Period.

Skills in the protection against persons armed with dangerous and deadly weapons, demonstration and drill in a limited number of holds and come-alongs, and restraint of prisoners and the mentally ill. May be repeated twice for credit. Prerequisites: None.

**AJS200****Current Issues in Criminal Justice**

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.

**AJS211****Police Planning**

3 Credits. 3 Periods.

An analysis of the process of planning, and a descriptive study of logical and systematic approaches to strategic, short-range, operational, organizational and tactical planning within a law enforcement organization. Prerequisites: None.

**AJS212****Juvenile Justice Procedures**

3 Credits. 3 Periods.

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

**AJS213****Evidence Technology/Fingerprints**

3 Credits. 3 Periods.

Fingerprint identification, interpretation, and classification. The fundamentals of fingerprinting and the problems in developing latent prints, preservation of evidence and the chain of evidence. Prerequisites: None.

**AJS215****Criminalistic: Physical Evidence**

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.

**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.

**AJS224****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

**AJS225****Criminology**

3 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 crimes 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.

**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.

**AJS242****Crime Scene Processing**

3 Credits. 3 Periods.

Procedures and technology required to process crime scenes including how to protect a crime scene, collect information, search for, collect, and preserve physical and biological evidence, and conduct field tests. Practical experience in evidence collection and crime scene sketching and processing. Prerequisites: AJS213 and (AJS214 or AJS241) or permission of instructor.

**AJS249****Community Policing**

3 Credits. 3 Periods.

Examines the history, philosophy, implementation, administration, application, benefits and future of community policing. 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.

**AJS269AC****Internship**

3 Credits. 15 Periods.

Supervised field training for preservice administration of justice students. Maximum of three (3) credit hours allowed in program. Prerequisites: Student sponsored by governmental enforcement agency, and departmental approval.

**AJS270****Community Relations**

3 Credits. 3 Periods.

Examination, recognition and understanding of community problems; community action programs; methods of coping with human behavior, victimology, conflict and communication; ethnic and minority cultures and environments; the community and relationships with the criminal justice system. Prerequisites: None.

**AJS275****Criminal Investigation I**

3 Credits. 3 Periods.

Introduction to the theory of criminal investigation. Examines crime scene

procedures, case preparation, interviewing, and basic investigative techniques. Prerequisites: None.

**AMERICAN INDIAN STUDIES****AIS101****Survey of American Indian Issues**

3 Credits. 3 Periods.

Introduction to critical issues related to Native Americans. Examines political, economic, and social issues. Focuses on contemporary issues and factors influencing American Indian communities. Prerequisites: None.

**AIS140****American Indian History**

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. Cross-References: HIS140.

**ANTHROPOLOGY****ASB102****Introduction to Cultural and Social Anthropology**

3 Credits. 3 Periods.

Principles of cultural and social anthropology, with illustrative materials from a variety of cultures. The nature of culture; social, political, and economic systems; religion, aesthetics and language. Prerequisites: None.

**ASB211****Women in Other Cultures**

3 Credits. 3 Periods.

Cross-cultural analysis of the economic, social, political, and religious factors that affect women's status in traditional and modern societies. Prerequisites: None.



**ASB220****Anthropology Goes to the Movies**

3 Credits      3 Periods

Archaeology and anthropology through the lens of popular films of the 20th and 21st Century. Explores the popularity of ancient humans as a topic for film ventures and how accurately they are portrayed. Provides the student with a basic knowledge of anthropology and offers film images of anthropologists and archaeologists and the practice of archaeology and anthropology. Analyzes accuracy of films depicting culture and our human past. Prerequisites: None.

**ASB222****Buried Cities and Lost Tribes: Old World**

3 Credits      3 Periods

Introduction to archaeology through discoveries and the researchers who made them. Emphasis on methods of archaeological fieldwork and what these discoveries reveal about humanity, including the nature of archaeological inquiry, the development of human social groups, the changing role of religion in evolving societies, the origins of agriculture, the origins of settled lifeways, the rise of cities and complex societies, political strife across different cultures and the forces which tend to fragment societies. Examples drawn from Africa, Asia, Europe, the Pacific Islands, and Australia. Prerequisites: None.

**ASB223****Buried Cities and Lost Tribes: New World**

3 Credits      3 Periods

Introduction to archaeology through discoveries and the researchers who made them. Emphasis on methods of archaeological fieldwork and what these discoveries reveal about humanity, including the nature of archaeological inquiry, the development of human social groups, the changing role of religion in evolving societies, the origins of agriculture, the origins of settled lifeways, the rise of cities and complex societies, political strife across different cultures and the forces which fragment societies. Examples drawn from North American, Central America, and South America. Prerequisites: None.

**ASB226****Human Impacts on Ancient Environments**

3 Credits      3 Periods

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

**ASB238****Archaeology of N America**

3 Credits      3 Periods

Introduction to North American prehistory. Prerequisites: None.

**ASB251****Introduction to Museums**

3 Credits      3 Periods

The changing nature of museum practice in acquiring and managing collections and disseminating information. Prerequisites: None.

**ART****ART100****Introduction to Computer Graphic Art**

1 Credit      2 Periods

Conceptualization, visualization, and production of art using the computer. Prerequisites: None.

**ART111****Drawing I**

3 Credits      6 Periods

Fundamental principles of drawing. Emphasis on composition and facility in objective and expressive representation, using variety of drawing media. Prerequisites: None.

**ART112****Two-Dimensional Design**

3 Credits      6 Periods

Study of fundamental elements and principles of two-dimensional design. Prerequisites: None. Cross-References: ADA112

**ART122****Drawing and Composition II**

3 Credits      6 Periods

Emphasis on composition and exploration of drawing media. Prerequisites: ART111.

**ART131****Photography I**

3 Credits      6 Periods

Basic black and white photographic principles and techniques. Camera functions and controls. Darkroom experience in film processing and printmaking. Camera required. Prerequisites: None.

**ART132****Photography II**

3 Credits      6 Periods

Advanced camera and darkroom techniques. Aesthetic awareness with personal expression. Prerequisites: ART131 or permission of instructor.

**ART151****Sculpture I**

3 Credits      6 Periods

Exploration of sculptural form and expression in clay, plaster, stone, wood and metal. Prerequisites or Corequisites: ART115 or permission of instructor.

**ART152****Sculpture II**

3 Credits      6 Periods

Emphasis on control of sculptural media. Prerequisites: ART151.

**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.

**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.

**ART180AE****Designer's Tools: Adobe Photoshop**

1 Credits. 2 Periods.

Introduction to the multiple elements of Photoshop software package using the microcomputer. Basic foundation in the use of electronic techniques including appropriate input and output production devices. Prerequisites: ART100 or permission of instructor. Cross-References: ADA180AE.

**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.

**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.

**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.

**ART298AA****Special Projects**

Lab 1 Credit. 1 Period.

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.

**ART298AC****Special Projects**

Lab 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.

**ART HUMANITIES****ARH101****Prehistoric through Gothic Art**

3 Credits. 3 Periods

History of art from prehistoric through medieval period. Prerequisites: None.

**ARH102****Renaissance through Contemporary****Art**

3 Credits. 3 Periods

History of art from around the world from the Renaissance through contemporary period. Prerequisites: None.

**ARH109****History of American Art**

3 Credits. 3 Periods.

Development and variety of American Art. Presentation of architecture, sculpture, painting and decorative objects. 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**

3 Credits. 3 Periods.

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

**ARH217****Mexican Art History**

3 Credits. 3 Periods.

Art of Mexico and related cultures, from the prehistoric to the contemporary period. Prerequisites: None.

**ASTRONOMY****AST111****Introduction to Astronomy**

LEC 3 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 equivalent.

**AST112****Introduction to Astronomy II**

LEC 3 Credits. 3 Periods.

Introduction to astronomy for the non-science major. Structure and evolution of stars; star clusters; galaxies; cosmology. Prerequisites: MAT092 or equivalent.

**AST113****Astronomy I Laboratory**

LEC 1 Credit. 3 Periods.

Astronomical observations and exercises to supplement AST111. Prerequisites or Corequisites: AST111.

**AST114****Astronomy II Laboratory**

LEC 1 Credit. 3 Periods.

Astronomical observations and exercises to supplement AST112. Prerequisites or Corequisites: AST112.

**BIOLOGY****BIO100****Biology Concepts**

LEC 4 Credits. 3 Periods.

LAB 0 Credits. 3 Periods.

A one-semester introductory course covering basic principles and concepts of biology. Methods of scientific inquiry and behavior of matter and energy in biological systems are explored. Field trips may be required at student's expense. Prerequisites: None.

**BIO105****Environmental Biology**

LEC 4 Credits. 3 Periods.

LAB 0 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.



**BIO107****Introduction to Biotechnology**

LEC 4 Credits. 3 Periods.

LAB 0 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.

**BIO109****Natural History of the Southwest**

LEC 4 Credits. 3 Periods.

LAB 0 Credits. 3 Periods.

Study of the common plants and animals of the Southwest including their distribution, adaptation, behavior, and ecology. Introduction to basic field and laboratory techniques used in the study of natural history. Specific field problems presented dealing with plant and animal analysis and ecological interrelationships. Prerequisites: None. Course Note: Field trips may be required.

**BIO160****Introduction to Human Anatomy and Physiology**

LEC 4 Credits. 3 Periods.

LAB 0 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 I (Majors)**

LEC 4 Credits. 3 Periods.

LAB 0 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: None. One year of high school or one semester of college-level biology and chemistry is strongly recommended.

**BIO182****General Biology (Majors) II**

LEC 4 Credits. 3 Periods.

LAB 0 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, biological diversity, biology of organisms, and ecology. Prerequisites: A grade of C or better in BIO181. Course Note: Field trips may be required.

**BIO201****Human Anatomy and Physiology I**

LEC 4 Credits. 3 Periods.

LAB 0 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: (BIO156 or BIO181 with a grade of "C" or better) or (one year high school biology course with a grade of "C" or better). (CHM130 or higher numbered CHM prefixed course) or (one year of high school chemistry) suggested but not required.

**BIO202****Human Anatomy and Physiology II**

LEC 4 Credits. 3 Periods.

LAB 0 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.

**BIO205****Microbiology**

LEC 4 Credits. 3 Periods.

LAB 0 Credits. 3 Periods.

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

## BUILDING SAFETY & CONSTRUCTION TECHNOLOGY

**BLT110****Techniques of Public Works****Supervision**

3 Credits 3 Periods.

Overview of the foundations of supervision and how to get things done within an organization through other people in the public works environment. The functions of planning, organizing, staffing, motivating and controlling presented. Prerequisites: None.

**BLT121****Electrical Codes**

3 Credits 3 Periods.

Principles of safe electrical installations and proper inspection procedures. Topics include

conduit installation, transformer service, raceways, control circuits, grounding and bonding, hazardous occupancies and the National Electrical Code. Prerequisites: None.

**BLT127****Plumbing Codes**

3 Credits 3 Periods.

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

**BLT128****Mechanical Codes**

3 Credits 3 Periods.

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

**BLT210****Advanced Topics in Public Works Management**

3 Credits 3 Periods.

Overview of strategic processes a public works manager oversees during normal day-to-day operations. Included are people skills, public relations, legal issues, government interactions, finance and budgeting, and strategic planning.

Prerequisites: BLT110 or permission of instructor.

**BLT262****Introduction International Residential Code (IRC)**

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.

**BLT263AK****Building Codes: IBC**

3 Credits            3 Periods.

Designed specifically to acquaint students with safety principles of building construction under the International Building Code (IBC), including structural requirements for wood, masonry and concrete, fire resistance of building construction, fire resistant materials, and ratings and occupancy requirements. Prerequisites: None.

**CHEMISTRY****CHM107****Chemistry and Society**

3 Credits.            3 Periods.

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

**CHM107LL****Chemistry and Society Lab**

1 Credits.            3 Periods.

A Laboratory experience in support of CHM107. Prerequisites or Corequisites: CHM107.

**CHM130****Fundamental Chemistry**

3 Credits.            3 Periods.

Elements of general chemistry for all students. Serves to prepare the student for CHM151, or CHM230. Prerequisites: Grade of "C" or better in CHM090, or MAT091, or MAT092, or MAT102, or satisfactory score on math placement exam. Course Note: Course content designed to meet the needs of students in such areas as agriculture, home economics, nursing, and physical education among others.

**CHM130LL****Fundamental Chemistry Laboratory**

1 Credit.            3 Periods.

Laboratory experience in support of CHM130. Prerequisites or Corequisites: CHM130.

**CHM150****General Chemistry I**

4 Credits.            4 Periods.

A detailed study of the principles of chemistry. Completion of CHM151LL required to meet the Natural Science requirement. Prerequisites: (CHM130 and CHM130LL), or (one year of high school chemistry with a grade of C or better taken within the last five years), and completion of intermediate algebra or equivalent. Completion of CHM130 and CHM130LL within the last two years is recommended.

**CHM151****General Chemistry I**

3 Credits.            3 Periods.

Detailed study of principles of chemistry for science majors and students in pre-professional curricula. Prerequisites: (CHM130 and CHM130LL), or (one year of high school chemistry with a grade of C or better taken within the last five years), and completion of intermediate algebra or equivalent. Completion of all prerequisites within the last two years is recommended.

**CHM151LL****General Chemistry I Lab**

1 Credit.            3 Periods.

Laboratory experience in support of CHM151. Prerequisites: CHM130LL or permission of instructor. Prerequisites or Corequisites: CHM150 or CHM151.

**CHM152****General Chemistry II**

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. Prerequisites: CHM150 or CHM151 and CHM151LL. Completion of CHM150 or CHM151 and CHM151LL within the last two years recommended.

**CHM152LL****General Chemistry II Lab**

1 Credit.            3 Periods.

Laboratory experience in support of CHM152. Prerequisites: CHM151LL or permission of instructor. Prerequisites or Corequisites: CHM152.

**CHM154****General Chemistry II with Qualitative****Analysis**

3 Credits.            3 Periods.

A study of the chemical properties of the major groups of elements, equilibrium theory, thermodynamics, kinetics, electrochemistry, and other selected topics. Includes qualitative analysis. Prepares students for all sophomore chemistry courses. Completion of CHM154LL required to meet the Natural Science requirement. Prerequisites: CHM150 or CHM151 and CHM151LL. Completion of CHM150 or CHM151 and CHM151LL within the last two years recommended.

**CHM154LL****General Chemistry II with Qualitative Laboratory**

2 Credits.            6 Periods.

Laboratory experience in support of CHM154. Includes qualitative analysis. Prerequisites: CHM151LL or equivalent. Prerequisites or Corequisites: CHM154.

**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: CHM152 and CHM152LL, or CHM154 and CHM154LL. Completion of (CHM152 and CHM152LL) or (CHM154 and CHM154LL) within the last two years recommended.

**CHM235LL****General Organic Chemistry I****Laboratory**

1 Credits.            4 Periods.

Laboratory experience in support of CHM235. Prerequisites: CHM152LL, or CHM154LL, or equivalent. Prerequisites or Corequisites: CHM235.

**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: CHM235 and CHM235LL. Completion of CHM235 and CHM235LL within the last two years recommended.

**CHM236LL****General Organic Chemistry IIA****Laboratory**

1 Credits.            4 Periods.

Laboratory experience in support of CHM236. Prerequisites: CHM235LL or equivalent. Prerequisites or Corequisites: CHM236.

**CHILD/FAMILY STUDIES****CFS176****Child Development**

3 Credits. 3 Periods.

Study of the science of human development from conception through adolescence. Includes observation skills, parent and adult roles in the lives of children, and contemporary issues. Prerequisites: None. Cross-References: ECH176

**CFS178****Survey of Early Childhood Education**

3 Credits. 3 Periods.

Orientation to basic concepts of day care and nursery programs. History and philosophy of child care services including state regulations governing those services. Observation opportunities provided. Prerequisites: None.

**CFS192****Child Care Center Staff Development**

1 Credit. 1 Period.

Presents strategies to administrators and supervisors in child care centers for developing the personal and professional growth of child care staff. Prerequisites: None.

**CFS269****Child Care Seminar**

1 Credits. 1 Period.

Emphasizes the blend of job-related activities including career exploration, employment procedures, human relations, and on-the-job issues. May be repeated for a total of three (3) credit hours. Prerequisites: Departmental approval.

**CFS284AB****Early Childhood Teaching Internship**

3 Credits. 3 Periods.

Work experience in child care centers. 80 hours of designated work per credit. Maximum of 6 credits allowed. Prerequisites: CFS/ECH176 and permission of department. Corequisites: CFS/ECH269. Cross Referenced: ECH284AB

**CFS285AA****Family-School Interaction: Preschool**

1 Credit. 1 Period.

Interaction among parents, teachers and the preschool. Emphasis on methods used cooperatively by parents and preschool teachers to provide for education and developmental needs. Prerequisites: CFS176 or CFS278 or permission of instructor.

**CONSTRUCTION****CNS175****Working Drawing Analysis:****Blueprint Reading**

3 Credit. 3 Period.

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.

**CNS290AC****Construction Internship**

3 Credit. 15 Period.

Construction internship office/field experience with private / public agencies or citizen volunteer groups. Prerequisites: CNS282, or permission of department. Course Note: May not repeat specific assignment for more than (3) credit hours. Standard grading available according to procedures outlined in college catalog.

**NETWORKING TECHNOLOGY****CNT120****Adobe Web Design**

3 Credits. 4 Periods.

Development of knowledge and skills required to design web pages and their elements using a variety of Adobe applications including GoLive, Premiere, Photoshop, Illustrator and Live Motion. Design theory relevant to maximizing web readership including interactive and multimedia elements, speed and accessibility optimization, and intuitive user interfaces. Prerequisites: CIS105 or permission of instructor. CIS150 recommended.

**CNT140****Cisco Networking Basics**

4 Credits. 6 Periods.

Introduction to the computer networking field. Covers network terminology and protocols, local area networks (LAN), and wide area networks (WAN). Includes Open Systems Interconnection (OSI) models, cabling and cabling tools, routers, router programming, Ethernet, Internet Protocol (IP) addressing, and network standards. Preparation for the Cisco Certified Network Associate examination. Prerequisites: None.

**CNT140AA****Cisco Networking Fundamental**

4 Credits. 6 Periods.

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

**CNT150****Cisco Networking Router****Technologies**

4 Credits. 6 Periods.

Knowledge of skills to install, configure, customize, maintain and troubleshoot Cisco routers and components. Preparation for Cisco certification examination.

Prerequisites: CNT140 or permission of Instructor.

**CNT150AA****Cisco Routing Protocols and Concepts**

4 Credits. 6 Periods.

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



**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.

**CNT160****Cisco Switching Basics and Intermediate Routing**

3 Credits. 4 Periods.

Advanced Internet Protocol (IP) addressing techniques, Variable Length Subnet Masking (VLSM), Intermediate routing protocols, Routing Internet Protocol version 2 (RIPv2), Single-area Open Shortest Path First (OSPF), and Enhanced Interior Gateway Routing Protocol (EIGRP), Command Line Interface configuration of switches, Ethernet switching, Virtual Local Area Networks (VLANs), Spanning Tree Protocol (STP) and Virtual local-area Network Trunking Protocol (VTP). Preparation for Cisco Certified Network Associate certification examination. Prerequisites: CNT150 or permission of instructor.

**CNT168****CCNA Discovery - Designing and Supporting Computer Networks**

4 Credits. 6 Periods.

Networking design and customer support including gathering requirements, designing basic networks, establishing proof-of-concept, and performing project management tasks. Lifecycle services, including upgrades, competitive analyses, and system integration, in the context of pre-sale support. Prerequisites: CNT158.

**CNT170****Cisco wide Area Networks (WAN) Technologies**

3 Credits. 4 Periods.

Advanced Internet Protocol (IP) addressing techniques including Network Address Translation (NAT) Port Address Translation (PAT) and Dynamic Host Control Protocol (DHCP). Also covers Wide Area Network

(WAN) technology and terminology, Point-to-Point Protocol (PPP), Integrated Services Digital Network (ISDN), Dial on Demand Routing (DDR), Frame Relay, and network management. Preparation for Cisco Certified Network Associate certification examination. Prerequisites: CNT160 or permission of instructor.

**CNT182****Cisco Secure PIX Firewall Configuration**

3 Credits. 4 Periods.

Applications of Cisco Networking technologies in designing and implementing security solutions to reduce risk of revenue loss and vulnerability. Hands-on experience and skills in security policy design and management, security technologies, products and solutions, secure firewall design, installation, configuration and maintenance, AAA (Authentication, Authorization, and Accounting) and VPN (Virtual Private Network) implementation using firewalls. Preparation for the CSPFA (Cisco Secure PIX Firewall Advanced) exam, which applies toward the CCSP (Cisco Certified Security Professional) and the Cisco Firewall Specialist certifications. Prerequisites: CNT170 or permission of instructor.

**CNT185****Cisco Network Security**

4 Credits. 5 Periods.

Applications of Cisco Networking technologies in designing and implementing security solutions to reduce risk of revenue loss and vulnerability. Hands-on experience and skills in security policy design and management, security technologies, products and solutions, firewall and secure router design, installation, configuration and maintenance, AAA (Authentication, Authorization, and Accounting) and VPN (Virtual Private Network) implementation using firewalls and routers. Preparation for the MCNS (Managing Cisco Network Security) and CSPFA (Cisco Secure PIX Firewall Advanced) exams toward certification as a Cisco Firewall Specialist. Exams also apply to CCSP (Cisco Certified Security Professional) certification. Prerequisites: CNT170, or permission of instructor.

**CNT186****Fundamentals of Wireless LANs**

4 Credits. 5 Periods.

Design, planning, implementation, operation, and troubleshooting of wireless networks. Overview of technologies, security, and design best practices with emphasis on hands-on

skills in wireless LAN (local area network) setup and troubleshooting, 802.11a & 802.11b technologies, products and solutions, site surveys, resilient WLAN design, installation and configuration, WLAN Security - 802.1x, EAP (Extensible Authentication Protocol), LEAP (Light Extensible Authentication Protocol), WEP (Wired Equivalent Privacy), SSID (Service Set Identifier), and vendor interoperability strategies. Prepare students to earn Cisco Wireless LAN Support Specialist designation and to take the Certified Wireless Network Administrator (CWNA) exam. Prerequisites: CNT170, or permission of instructor.

**CNT190****Cisco Network Design**

3 Credits. 4 Periods.

Development of knowledge and skills required to design small- to-midsize local and wide-area networks according to design principals developed by Cisco Systems. Preparation for Cisco Certified Design Associate (CCDA) industry examination. Prerequisites: CNT170, or Cisco Certified Network Associate certification, or permission of instructor.

**CNT200****CCNP: Building Scalable Cisco Internetworks (BSCI)**

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: CNT170 or CCNA industry certification, or permission of instructor. Corequisites: CNT210 and CNT220.

**CNT210****Cisco Networking Remote-Access Networks**

4 Credits. 6 Periods.

Emphasis on development of knowledge and skills to build, configure and troubleshoot a remote-access network to interconnect central sites of branch offices, home offices and control access to the central site plus maximize bandwidth over remote links. Preparation for Cisco Certified Network Professional (CCNP) exam. Prerequisites: CNT170, or CCNA industry certification, or permission of instructor. Corequisites: CNT200 and CNT220.

**CNT220****Cisco CCNP: Building Multi-Layer Switched Networks**

4 Credits. 6 Periods.

Development of knowledge and skills in building campus networks using advanced and multi-layer switching technologies. Preparation for Cisco Certified Network Professional (CCNP) exam. Prerequisites: CNT170 or CCNA industry certification, or permission of Instructor. Corequisites: CNT200 and CNT210.

**CNT230****Cisco Network Troubleshooting**

4 Credits. 6 Periods.

Introduction to optimizing and providing effective Quality of Service (QoS) techniques in converged networks operating voice, wireless and security applications. Topics include implementing a Voice over Internet Protocol (VoIP) network, implementing QoS on converged networks, specific Internet Protocol (IP) QoS mechanisms for implementing the DiffServ QoS model, AutoQoS, wireless security and basic wireless management. Preparation for Cisco Certified Network Professional (CCNP) exam.

Prerequisites: CNT200, CNT210, and CNT220, or permission of Instructor.

**CNT298AC****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.

**COMMUNICATION****COM080****Conversation Circles**

3 Credits. 3 Periods.

Practice in conversing in English for non-native speakers. Emphasis in developing conversational techniques to facilitate building and maintaining relationships: May be repeated for a total of six (6) credit hours. Prerequisites: None.

**COM100****Introduction to Human Communication**

3 Credits. 3 Periods.

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

**COM110****Interpersonal Communication**

3 Credits. 3 Periods.

Theory and practice of communication skills which affect day-to-day interactions with other persons. Topics may include using verbal and nonverbal symbols, interactive listening, resolving interpersonal conflict, developing and maintaining personal and professional relationships. Prerequisites: None.

**COM225****Public Speaking**

3 Credits. 3 Periods.

Designed to enhance the student's ability to present public speeches confidently and competently. Also designed to improve information literacy and critical thinking skills. Prerequisites: ENG101 or ENG107, or equivalent.

**COM230****Small Group Communication**

3 Credits. 3 Periods.

Principles and processes of small groups and development of skills for participation and leadership in small group settings. Practice in problem solving, decision making, and information sharing. Prerequisites: ENG101 or ENG107 or equivalent.

**COM241****Introduction to Oral Interpretation**

3 Credits. 3 Periods.

The study, analysis, and preparation for performance of prose, poetry, and dramatic literature. Preparation of material for public audiences. Prerequisites: ENG101 or ENG107, or equivalent. Cross-References: THP241.

**COM243****Interpreters Theatre**

3 Credits. 4 Periods.

Study, analysis, rehearsal, and performance of various types of literature. Prerequisites: None. Cross-References: THP243

**COM259****Communication in Business and Professions**

3 Credits. 3 Periods.

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

**COM263****Elements of Intercultural Communication**

3 Credits. 3 Periods.

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

**COMPUTING****BPC101AA****Introduction to Computers I:**

1 Credit. 2 Periods.

Computer software applications for the personal computer, including electronic spreadsheet and word processing, keyboarding review, and a desktop environment. Prerequisites: None.

**BPC101BA****Introduction to Computers II:**

1 Credit. 1 Period.

Computer software applications for the personal computer, including database management, computer graphics, electronic spreadsheet, and word processing, and operating system commands. Prerequisites: BPC101AA.

**BPC110****Computer Usage and Application**

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.

**BPC114AE****Excel: Level I**

1 Credit. 2 Periods.

Computer spreadsheet skills for solving business problems using Excel, including calculations, forecasting, and projections. Prerequisites: None.

**BPC117AM****Database Management: Microsoft Access: Level I**

1 Credit. 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. Cross-reference: CIS117AM.

**BPC117BM****Database Management: Microsoft Access: Level II**

1 Credit. 2 Periods.

Exploration of additional components of the Microsoft Access database management program. Prerequisites: BPC/CIS117AM or permission of instructor. Cross-reference: CIS117BM.

**BPC117CM****Database Management: Microsoft Access: Level III**

1 Credit. 1 Period.

Application of the features of the Microsoft Access program to some common database management problems. Prerequisites: BPC117BM or CIS117BM. Cross-reference: CIS117CM.

**BPC117DK****DB2: Database Management**

3 Credits. 4 Periods.

Introduction to the basic elements, exploration of additional components and common database management problems related to the DB2 program. Prerequisites: None.

**BPC117DM****Microsoft Access: Database Management**

3 Credits. 5 Periods.

Introduction to the basic elements, exploration of additional components and common database management problems related to the Microsoft Access program. Prerequisites: None. Cross-References: CIS117DM.

**BPC118AB****Powerpoint: Level I**

1 Credit. 2 Periods.

Use of Powerpoint software to produce professional-quality presentation visuals. Prerequisites: None. Cross-reference: CIS118AB.

**BPC118BB****Powerpoint: Level II**

1 Credit. 2 Periods.

Use of Powerpoint software add movement and sound to desktop presentations to enhance audience attention. Prerequisites: BPC/CIS118AB. Cross-reference: CIS118BB.

**BPC118CB****Powerpoint: Level III**

1 Credit. 1 Period.

Use of Powerpoint software for advanced desktop presentation techniques, including advanced animation and sound sequences. Prerequisites: BPC/CIS118BB. Cross-reference: CIS118CB.

**BPC118DB****Desktop Presentation: Powerpoint**

3 Credits. 5 Periods.

Use of PowerPoint to produce professional-quality presentation visuals with animation and sound. Prerequisites: None. Cross-Reference: CIS118DB.

**BPC120AF****Computer Graphics: Adobe Photoshop: Level I**

1 Credit. 2 Periods.

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

**BPC120BF****Computer Graphics: Adobe Photoshop: Level II**

1 Credit. 1 Period.

Provides students with the capability to use Adobe Photoshop graphics software on a computer. Includes working with masks, channels and layers, and combining raster and vector graphics. Prerequisites: BPC/CIS120AF.

**BPC120CF****Computer Graphics: Adobe Photoshop: Level III**

1 Credit. 1 Period.

Provides students with the capability to use Adobe Photoshop graphics software on a computer. Includes color printing, color management, creation of graphics for the Web. Prerequisites: BPC/CIS120BF.

**BPC120DB****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.

**BPC120DC****Flash: Digital Animation**

3 Credit. 4 Periods.

Provides students with the ability to use Flash graphics software on microcomputers. Covers basic animation techniques used in the creation, manipulation, and editing of Flash animation graphics. Prerequisites: None. Cross-References: CIS120DC

**BPC120DF****Computer Graphics: Adobe Photoshop**

3 Credit. 4 Periods.

Provides students with the capability to use Adobe Photoshop graphics software on a computer. Basic foundation course in the use of electronic techniques to select, manipulate, and edit images, work with masks, channels and layers; combine raster and vector graphics; print in color, manage color, and create graphics for the web. Prerequisites: None.



**BPC121AB****Microsoft Command Line Operations**

1 Credit. 2 Periods.

Use of the Microsoft command line interface: basic concepts, internal and external commands, subdirectories, and editor.

Prerequisites: None. Cross-References: CIS121AB

**BPC121AE****Windows Operating System: Level I**

1 Credit. 2 Periods.

Specific topics include booting and shutting down the computer, navigating the desktop, start button features, taskbar status, and receiving on-line help support. Exploring and managing folders and files, running programs, and learning about Wordpad and Paint application programs. Prerequisites: None.

**BPC128****Introduction to Desktop Publishing**

1 Credit. 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.

**BPC133AA****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. Cross-References: CIS133AA

**BPC133BA****Internet/Web Development Level I -B**

1 Credits. 1 Periods.

Exploration of additional Internet resources. Hands-on experience with a variety of resource discovery and information retrieval tools as well as enhancement of Web pages. Prerequisites: BPC/CIS133AA. Cross-References: CIS133BA

**BPC133CA****Internet/Web Development Level I-C**

1 Credits. 1 Periods.

Web site development using enhancement codes. Includes frames, style sheets and javascript as well as design principles and typography. Prerequisites: BPC/CIS133BA. Cross-References: CIS133CA

**BPC133DA****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. Cross-References: CIS133DA

**BPC135DK****Word: Level I**

2 Credits. 2 Periods.

Using word processing software to create and name files, edit text, format and print a variety of documents. Prerequisites: The ability to use a keyboard at a minimum of 24 wpm or permission of instructor. Cross-reference: OAS135DK.

**BPC138AA****Windows Desktop Design & Publishing**

3 Credits. 4 Periods.

Use of Windows based microcomputers and appropriate commercial software package to compose and print textual and graphic materials of high quality. Includes overview of micro operating system, word processing of copy, use of graphics programs, layout of design elements, and printing alternatives. Prerequisites: CIS105 or BPC110 or permission of instructor.

**BPC138BA****Windows Desktop Design & Publishing Using Quark Express**

3 Credits. 4 Periods.

Use of Windows based microcomputers and appropriate commercial software package to compose and print textual and graphic materials of high quality. Includes overview of micro operating system, word processing of copy, use of graphics programs, layout of design elements, and printing alternatives. Prerequisites: CIS105 or BPC110 or permission of instructor.

**BPC138CA****Windows Desktop Design & Publishing Using Pagemaker**

3 Credits. 4 Periods.

Use of Windows based microcomputers and appropriate commercial software package to compose and print textual and graphic materials of high quality. Includes overview of micro operating system, word processing of copy, use of graphics programs, layout of design elements, and printing alternatives. Prerequisites: CIS105 or BPC110 or permission of instructor.

**BPC138DA****Desktop Design & Publishing Using Adobe InDesign**

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. Cross-References: CIS138DA

**BPC170****Computer Maintenance I: A+ Prep**

3 Credits. 4 Periods.

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

**BPC171****Recycling Used Computer Technology**

1 Credit. 2 Periods.

Use of hardware maintenance knowledge and skills to refurbish used computers. May be repeated for a total of three (3) credits. Prerequisites or Corequisites: BPC170 or permission of instructor.

**BPC238BA****Windows Advanced Desktop Design & Publishing Using Quark Express**

3 Credits. 4 Periods.

Advanced use of Windows microcomputers and commercial software packages to compose and print textual and graphic materials of high quality. Includes review of fundamental desktop techniques and concepts, alternative treatment of copy, use of complex graphics programs, typographical manipulation, color separating, exploration of alternative layout programs, preparation of larger-scale and unusual publications, and additional printing alternatives. Prerequisites: BPC138BA or permission of instructor.

**BPC238CA****Windows Advanced Desktop Design & Publishing Using Pagemaker**

3 Credits. 4 Periods.

Advanced use of Windows microcomputers and commercial software packages to compose and print textual and graphic materials of high quality. Includes review of fundamental desktop techniques and concepts, alternative treatment of copy, use of complex graphics programs, typographical manipulation, color separating, exploration of alternative layout programs, preparation of larger-scale and unusual publications, and additional printing alternatives. Prerequisites: BPC138CA or permission of instructor.

**BPC270****Microcomputer Maintenance II**

3 Credits. 4 Periods.

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

**BPC273****Advanced Server Computer Maintenance: Server+ Prep**

3 Credits. 4 Periods.

Focuses on complex technical aspects of the microcomputer server, including hardware installation, configuration, and troubleshooting. Strong emphasis on network operating systems installations, data storage subsystems, and data recovery. Preparation for the CompTIA Server+ examination. Prerequisites: (BPC170 and MST140) or permission of instructor.

**BPC278****Software Installation - MS Windows**

3 Credits. 4 Periods.

Installing and configuring microcomputer software. Emphasis placed on the installation, configuration, upgrade, and related problem resolution of microcomputer operating system and applications software. Prerequisites: CIS105, CIS114 (any module whose course number suffix begins with a "D"), CIS117 (any module whose course number suffix begins with a "D"), and BPC170 with grade of C or better, or permission of instructor.

**COMPUTER AIDED DRAFTING****CAD100****Fundamentals of 2D AutoCAD**

3 Credits. 6 Periods.

Utilize AutoCAD software to generate two-dimensional (2-D) drawings and components in a generic installation. Apply basic AutoCAD commands and properties to format, draw, edit, layer, dimension, import/export, and manage drawing files. Creation, manipulation, and hardcopy production of 2-D drawing files from major AutoCAD command and display environments and plot options. Prerequisites: None.

**CAD120****Getting Started with CAD**

1 Credit. 2 Periods.

Basic commands, drawing aids; input devices; use of default settings. Prerequisites: None.

**CAD135****Fundamentals of 2D AutoCAD**

3 Credit. 6 Periods.

Identification and utilization of hardware and software components in a typical AutoCAD installation. Creation, manipulation, and hardcopy production of drawing files from major AutoCAD command and display environments and plot options. Collaboration in the setup, collation, and plotting of representative detail sheets. Prerequisites: None.

**CAD145****Survey of CAD**

3 Credit. 6 Periods.

Survey of the basic standards and procedures for drawing setups and design documentation in the fields of architecture, manufacturing, and civil technology. Multisource hardcopy design presentation. Prerequisites: CAD100 and CAD101, or permission of Instructor.

**CAD150****Two-Dimensional CAD**

1 Credit. 2 Periods.

Constructing scaled two-dimensional drawing using CAD. Prerequisites or Corequisites: (CAD105, CAD110, CAD115, CAD120, and CAD125) or permission of instructor.

**CAD200****Three-Dimensional CAD: AutoCAD**

2 Credit. 4 Periods.

Advanced techniques in construction of three-dimensional objects. Prerequisites: CAD150, or DFT105, or permission of instructor.

**COMPUTER INFORMATION SYSTEMS****CIS102****Interpersonal and Customer Service Skills for IT Professionals**

1 Credit. 1 Period.

Examines behaviors necessary to develop and support an effective client service organization. Focuses on methods of increasing the effectiveness of help-desk professionals when responding to a range of customer conditions. Prerequisites: None.

**CIS103****Using Help Desk Software**

2 Credits. 3 Periods.

Help desk software applications for tracking calls, querying data, recording macros, and generating reports. Prerequisites: CIS105 or permission of instructor.

**CIS105****Survey of Computer Information Systems**

3 Credits. 4 Periods.

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

**CIS107****The Electronic Game Industry**

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.

**CIS110****Home Entertainment and Computer Networking**

3 Credits. 4 Periods.

Fundamentals of networking for the home user including internet connectivity, wired and wireless local area networks, networking device configuration, integration of entertainment electronics, security and ethics. Prerequisites: None.

**CIS114AE****Excel: Level I**

1 Credit. 2 Periods.  
Computer spreadsheet skills for solving business problems using Excel, including calculations, forecasting and projections. Prerequisites: None. Cross-reference: BPC114AE.

**CIS114BE****Excel: Level II**

1 Credit. 2 Periods.  
Additional Excel spreadsheet techniques, including macro programming, database searching, extraction, and linking to obtain prescribed reports and graphs. Prerequisites: BPC/CIS114AE or permission of instructor. Cross-reference: BPC114BE.

**CIS114CE****Excel: Level III**

1 Credit. 1 Period.  
Additional Excel spreadsheet techniques, including complex macros, statistics, and matrix manipulation. Project design using multiple, integrated spreadsheets. Prerequisites: BPC/CIS114BE or permission of instructor. Cross-reference: BPC114CE.

**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. Cross-reference: BPC114DE.

**CIS117AM****Database Management: Microsoft****Access: Level I**

1 Credit. 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. Cross-reference: BPC117AM.

**CIS117BM****Database Management: Microsoft****Access: Level II**

1 Credit. 2 Periods.  
Exploration of additional components of the Microsoft Access database management program. Prerequisites: BPC/CIS117AM or permission of instructor. Cross-reference: BPC117BM.

**CIS117CM****Database Management: Microsoft****Access: Level III**

1 Credit. 1 Period.  
Application of the features of the Microsoft Access program to some common database management problems. Prerequisites: BPC117BM or CIS117BM. Cross-reference: BPC117CM.

**CIS117DK****DB2: Database Management**

3 Credits. 4 Periods.  
Introduction to the basic elements, exploration of additional components and common database management problems related to the DB2 program. Prerequisites: None. Cross-References: BPC117DK.

**CIS117DM****Microsoft Access: Database****Management**

3 Credits. 5 Periods.  
Introduction to the basic elements, exploration of additional components and common database management problems related to the Microsoft Access program. Prerequisites: None. Cross-reference: BPC117DM.

**CIS118AB****PowerPoint: Level I**

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

**CIS119DO****Introduction to Oracle: SQL**

3 Credits. 4 Periods.  
Use of Oracle tools and methodologies to fulfill real-world business information requirements. Hands-on exercises for designing, creating, and maintaining database structures to store, retrieve, update, and display data in a relational database using the SQL programming language. Creating and maintaining database objects. Advanced retrieval techniques. Prerequisites: CIS105 or permission of instructor.

**CIS119DP****Oracle: Database Administration**

3 Credits. 4 Periods.  
Basic administrative tasks performed by a database administrator (DBA). Conceptual understanding and hands-on applications of the Oracle database architecture and

interaction of its components. Prerequisites: (CIS119DO, and CIS164AB), or CIS126++, or permission of instructor.

**CIS119DQ****Oracle: Backup and Recovery**

2 Credits. 3 Periods.  
Various backup, failure, restore, and recovery scenarios that apply to Oracle database environments. Backup methodologies based on business requirements in a mission critical enterprise. Multiple strategies and Oracle tools such as Recovery Manager. Prerequisites: CIS119DP or permission of the instructor.

**CIS119DR****Oracle: Performance Tuning**

3 Credits. 4 Periods.  
Recognizing, troubleshooting, and resolving common performance related problems in administering an Oracle database. Includes an interactive workshop that will provide participants with the opportunity to walk through numerous real-world performance tuning case studies. Prerequisites: CIS119DP or permission of the instructor.

**CIS120AB****Computer Graphics: Adobe****Illustrator- Level I**

1 Credit. 2 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, graphics design, and color graphics. Prerequisites: None. Cross-References: BPC120AB

**CIS120AF****Computer Graphics: Adobe****Photoshop: Level I**

1 Credit. 2 Periods.  
Provides students with the capability to use Adobe Photoshop graphics software on a computer. Basic foundation course in the use of electronic techniques to select, manipulate, and edit images, for graphic design and image correction. Prerequisites: None. Cross-reference: BPC120AF.



**CIS120BB****Computer Graphics: Adobe Illustrator-Level II**

1 Credit. 1 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, and create a PDF file. Prerequisites: BPC/CIS120AB Cross-References: BPC120BB

**CIS120BF****Computer Graphics: Adobe Photoshop: Level II**

1 Credit. 1 Periods.

Provides students with the capability to use Adobe Photoshop graphics software on a computer. Includes working with masks, channels and layers, and combining raster and vector graphics. Prerequisites: BPC/CIS120AF. Cross-References: BPC120BF

**CIS120CB****Computer Graphics: Adobe Illustrator-Level III**

1 Credit. 1 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, graphics design, color graphics, determine file formats appropriate for web and print, and utilize tools to optimize graphics. Prerequisites: BPC/CIS120BB. Cross-References: BPC120CB

**CIS120CF****Computer Graphics: Adobe Photoshop: Level III**

1 Credit. 1 Period.

Provides students with the capability to use Adobe Photoshop graphics software on a computer. Includes color printing, color management, creation of graphics for the Web. Prerequisites: BPC/CIS120BF. Cross-Reference: BPC120CF.

**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. Cross-References: BPC120DB

**CIS120DC****Flash: Digital Animation**

3 Credits. 4 Periods.

Provides students with the ability to use Flash graphics software on microcomputers. Covers basic animation techniques used in the creation, manipulation, and editing of Flash animation graphics. Prerequisites: None. Cross-References: BPC120DC.

**CIS120DF****Computer Graphics: Adobe Photoshop**

3 Credits. 4 Periods.

Provides students with the capability to use Adobe Photoshop graphics software on a computer. Basic foundation course in the use of electronic techniques to select, manipulate, and edit images, work with masks, channels and layers; combine raster and vector graphics; print in color, manage color, and create graphics for the web. Prerequisites: None. Cross-References: BPC120DF.

**CIS121AB****Microsoft Command Line Operations**

1 Credit. 2 Periods.

Use of the Microsoft command line interface: basic concepts, internal and external commands, subdirectories, and editor. Prerequisites: None. Cross-References: BPC121AB.

**CIS121AE****Windows Operating System: Level I**

1 Credit. 2 Periods.

Specific topics include booting and shutting down the computer, navigating the desktop, start button features, taskbar status, and receiving on-line help support. Exploring and managing folders and files, running programs, and learning about Wordpad and Paint application programs. Prerequisites: None. Cross-References: BPC121AE.

**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.

**CIS126AA****Unix Operating System: Level I**

1 Credits. 2 Periods.

Use of the UNIX operating system: system components, built-in commands, files and directories, editors, and UNIX Shell and command lines. Prerequisites: None.

**CIS126AL****Linux Operating System I**

1 Credits. 2 Periods.

Introduction to the Linux Operating system. Develop knowledge and skills required to install, configure a Linux-based workstation including basic network functions. Prerequisites: None.

**CIS126BA****Unix Operating System: Level I**

1 Credits. 1 Period.

Installation, configuration, and maintenance of the UNIX operating system Prerequisites: CIS126AA.

**CIS126BL****Unix Operating System: Level II**

1 Credits. 1 Periods.

Introduction to the Linux Operating system. Develop knowledge and skills required to configure a Linux-based workstation including basic printing functions. Learn basic command line and Graphical User Interface (GUI) desktop environment utilities and applications. Prerequisites: CIS126AL or permission of instructor.

**CIS126CA****Unix Operating System: Level III**

1 Credits. 1 Periods.

Create login scripts and batch files, and maintain system communications. Prerequisites: CIS126BA.

**CIS126CL****Linux Operating System III**

1 Credits. 1 Periods.

Introduction to the Linux Operating system. Develop knowledge and skills required to install and configure applications, and to troubleshoot a Linux-based workstation including basic network functions. Learn basic command line and Graphical User Interface (GUI) desktop environment utilities and applications. Prerequisites: CIS126BL or Permission of Instructor.

**CIS126DA****UNIX Operating System**

3 Credits. 4 Periods.

Use of a UNIX operating system including system components, built-in commands, files, and directories, editors, and UNIX shell and command lines. Installation, configuration, and maintenance of a UNIX operating system. Create scripts and batch files, and maintain system communications. Prerequisites: None.

**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 Linux-based workstation including basic network functions. Learn basic command line and Graphical User Interface (GUI) desktop environment utilities and applications. Fundamental abilities to achieve the entry-level industry certification covered. Prerequisites: None.

**CIS127DL****Linux Utilities**

3 Credits. 4 Periods.

Introduces Linux Command Line Utilities. Develops entry level knowledge and skills required for basic Linux system administration. Includes basic command line environment utilities and applications. Provides fundamental skills needed to pursue advanced Linux concepts. Prerequisites: CIS126DA, or CIS126DL, or permission of instructor.

**CIS133AA****Internet/Web Development Level I-A**

1 Credit. 2 Periods.

Overview of the Internet and its resources. Hands-on experience with various Internet communication tools. Prerequisites: None. Cross-References: BPC133AA.

**CIS133BA****Internet/Web Development: Level I - B**

1 Credit. 1 Period.

Exploration of additional Internet resources. Hands-on experience with a variety of resource discovery and information retrieval tools as well as enhancement of Web pages. Prerequisites: BPC/CIS133AA. Cross-References: BPC133BA.

**CIS133CA****Internet/Web Development: Level I - C**

1 Credit. 1 Period.

Web site development using the enhancement codes. Includes frames, style sheets and

javascript as well as design principles and typography. Prerequisites: BPC/CIS133BA. Cross-References: BPC133CA.

**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. Cross-References: BPC133DA.

**CIS140****Survey of Multimedia Technology**

2 Credits. 3 Periods.

Introduction to multimedia technology and its uses. Overview of the various hardware and software used in developing and delivering multimedia. Emphasis on how multimedia is used in education and training. Provides a basic understanding of the process used to define and develop multimedia applications. Prerequisites: CIS105, or permission of instructor. Cross-reference: MMT140.

**CIS150****Programming Fundamentals**

3 Credits. 4 Periods.

Structured program design and logic tools. Use of computer problems to demonstrate and teach concepts using appropriate programming language. Prerequisites: CIS105 or permission of instructor.

**CIS150AB****Object-Oriented Programming****Fundamentals**

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.

Prerequisite: CIS105 or permission of instructor.

**CIS158****COBOL Programming I**

3 Credits. 4 Periods.

Programming in structured COBOL for preparation of business reports. Hands-on computer experience. 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.

**CIS162****C Programming I**

3 Credits. 4 Periods.

Beginning C programming. Includes features needed to construct programs, functions, pointers, input and output options, data types, structures, and unions, and disk file operations. Prerequisites: CIS105 or permission of instructor.

**CIS162AA****C: Level I**

3 Credits. 4 Periods.

Beginning C programming. Includes features needed to construct programs, functions, pointers, input and output options, data types, structures, and unions, and disk file operations. Prerequisites: CIS105, or permission of instructor.

**CIS162AB****C++: Level I**

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.

**CIS162AC****Visual C++: Level I**

3 Credits. 4 Periods.

Beginning C programming. Includes features needed to construct programs, functions, pointers, input and output options, data types, structures, and unions, and disk file operations. Prerequisites: CIS105, or permission of instructor.



**CIS162AD****C#: Level I**

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**

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.

**CIS164AC****Oracle: Developer Forms I**

3 Credits. 4 Periods.

Building and testing interactive applications consisting of one or more Developer forms modules. Building a complete forms application using Oracle Developer. Customizing forms with graphical user input items, such as check boxes, list items and radio groups. Modifying data access by creating event-related triggers. Prerequisites: CIS164AB, or permission of instructor.

**CIS164AD****Oracle: Developer Forms II**

2 Credits. 3 Periods.

An opportunity to broaden skills using Developer Forms. Complex concepts, such as programming function keys, timers, and record groups. Using programmatic controls to manage the behavior and appearance of windows at runtime. Creating advanced multiple-form applications and managing multiple transactions across modules. Prerequisites: CIS164AC or permission of instructor.

**CIS164AE****Oracle: Developer Reports**

3 Credits. 4 Periods.

Building a variety of standard and custom reports in a client-server environment. Using a graphical user interface (GUI) environment to retrieve, display, and format data in many styles to create tabular, matrix, mailing label, and letter reports. Customizing more complex reports, embedding graphical charts in reports, and using the Intelligent Remote Reports Server. Prerequisites: CIS164AB or permission of instructor.

**CIS164AG****Oracle: Data Modeling and Relational Database Design**

2 Credits. 3 Periods.

Top-down, systematic approach to developing a relational database and defining requirements as entities, attributes, and relationships. Developing an entity-relationship (ER) diagram that accurately reflects the business. Mapping the ER diagram to an initial database design. Prerequisites: CIS105 or permission of instructor.

**CIS166****Web Scripting/Programming**

3 Credits. 4 Periods.

Software development for Web sites, including client-side script and Common Gateway Interface (CGI) scripting. Covers Web-based transaction processing and use of databases in conjunction with the Web. Includes security issues. Prerequisites: CIS133CA or CIS133DA 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 instructor.

**CIS166AB****Web Scripting with Perl/CGI**

3 Credits. 4 Periods.

Introduction to basic server-side programming using the common gateway interface (CGI) with the Perl programming language. Covers basic form development programming logic, Structured Query Language (SQL) and the Perl Database Interface (DBI) and CGI modules. Prerequisites: CIS133CA or CIS133DA or permission of 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.

**CIS166AD****Web Scripting with Java Server Pages (JSP)**

3 Credits. 4 Periods.

Introduction to web scripting using JSP (Java Server Pages). Web application development using Hypertext Markup Language (HTML), JSP, programming logic, and Structured Query Language (SQL). Prerequisites: (CIS133CA or CIS133DA) and CIS163AA 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 instructor.

**CIS169****Introduction to Visual Basic for Applications**

3 Credits. 4 Periods.

Introduction to Visual Basic for Applications (VBA) using Microsoft Office environments. Includes Dynamic Data structures, VBA class modules and error trapping and handling. Creation of customized office applications and network shares as well as multimedia techniques also covered. Prerequisites: CIS159 or permission of instructor.

**CIS175EA****Introduction to Structured Query Language**

1 Credits. 2 Periods.

Introduction to Structured Query Language. Focuses on the query operation, including data collection, grouping and multi-table queries. Prerequisites: None. Cross-References: CCT175

**CIS181****IBM Mainframe Z OS - Level I**

3 Credits. 4 Periods.

Fundamental knowledge and skills to begin using the basic functions of a mainframe computer. User interfaces of the z/OS mainframe operating system and the role of mainframes in today's business world. Tools, utilities and processes for developing a simple program to run on z/OS. Prerequisites: CIS105 and CIS150, or permission of instructor.

**CIS190****Introduction to Local Area Networks**

3 Credits. 4 Periods.

Overview of local area networks. Emphasis on the elements of a local area network, current issues and products, and use of a local area network. Includes terminology, hardware and software components, connectivity, resource monitoring and sharing, electronic mail and messaging, and security issues. Prerequisites: CIS105 or permission of instructor.

**CIS191****Novell NetWare System****Administration**

3 Credits. 4 Periods.

Knowledge and skills required to administer or manage a Novell NetWare local area network operating system. Level I, II, and III network management tasks. Prerequisites: CIS105 or permission of instructor.

**CIS214DE****Advanced Excel Spreadsheet: Level II**

3 Credits. 5 Periods.

Advanced Excel spreadsheet features including formatting techniques, macros and Visual Basic for applications. Templates, built-in functions and lists as well as analysis tools including Pivot Tables and Goal Seek covered. Import and export data, workgroup collaboration and Internet features of Excel emphasized. Prerequisites: CIS114DE or permission of instructor. Cross-References: BPC214DE.

**CIS217AM****Advanced Microsoft Access: Database Management**

3 Credits. 4 Periods.

Advanced database concepts including database design, primary and secondary key selection and relationships between tables. Queries, sub forms, macros, events, Visual Basic modules and Access Internet features also covered. Prerequisites: (BPC/CIS117DM or BPC/CIS117CM). Cross-References: BPC217AM.

**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: BPC/CIS120DC or permission of Instructor.

**CIS220DF****Advanced PhotoShop**

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: (BPC/CIS120AF, BPC/CIS120BF and BPC/CIS120CF) or BPC/CIS120DF, or permission of instructor. Cross-References: BPC220DF

**CIS221****Advanced DOS**

2 Credits. 3 Periods.

Advanced DOS commands, concepts, and usage. Emphasis on batch file programming, configuration and optimization of the DOS environment, various commercial utilities, security and disaster planning, and legal considerations. Prerequisites: CIS121AB or (BPC102AA and BPC102BA) 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 ccMail. Prerequisites: None. Cross-References: BPC224

**CIS225****Business Systems Analysis and Design**

3 Credits. 3 Periods.

Investigation, analysis, design, implementation and evaluation of business computer systems. Prerequisites: Any programming language or permission of instructor.

**CIS225AB****Object-Oriented Analysis and Design**

3 Credits. 3 Periods.

Methodologies and notations for fundamental object-oriented analysis and design including use cases, objects, classes, stereotypes, and relationships. Object-oriented iterative process for system development. A continuous application development exercise for applying the analysis and design concepts. Prerequisites: Any program language, or permission of instructor.

**CIS226AA****Internet/Intranet Server Administration-UNIX**

3 Credits. 4 Periods.

Set up and management of internet/intranet services, including World Wide Web (WWW) and Simple Mail Transfer Protocol (SMTP) in a UNIX environment. Includes coverage of security issues. Prerequisites: (CIS126DA and CIS133DA), or permission of instructor

**CIS233AA****Internet/Web Development Level II-A**

1 Credit. 2 Periods.

Design and creation of pages on the World Wide Web using hypertext markup language (HTML). Hands-on experience authoring HTML and preparing sophisticated web documents. Prerequisites: BPC/CIS133BA or permission of instructor

**CIS233BA****Internet/Web Development Level II-B**

1 Credit. 1 Period.

Hands-on experience designing Web presentations using advanced markup languages, programming languages, scripts, and multimedia. Prerequisites: CIS233AA or permission of instructor.

**CIS233CA****Internet/Web Development Level II-C**

1 Credit. 1 Period.

Exploration of best practices/issues for web design and publishing and careers in web development and e-commerce. Prerequisites: CIS233BA or permission of instructor.

**CIS233DA****Internet/Web Development Level II**

3 Credits. 4 Periods.

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

**CIS234****XML Application Development**

3 Credits. 4 Periods.

The use of Extensible Markup Language (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 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

**CIS238US****Unix Security**

3 Credits. 4 Periods.

Unix system administration and security management including directory structure, access control and authentication mechanisms, password management, system logs and monitoring, process accounting, configuring public services, restricted environments, the sudo command, SSH (Secure Shell), file system mount options, file integrity management, immutable/append-only files and system security levels, loadable kernel modules, rootkits, non-executable stacks, backups, common vulnerabilities and exposures, and firewall filtering. Prerequisites: CIS238, 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: CIS238DL 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 instructor approval.

**CIS241DL****Apache Web Server Administration (Linux/Unix)**

3 Credits. 4 Periods.

Knowledge and skills to install, configure and securely manage a Linux/Unix Apache web server in an Open Source Environment. Securely incorporates Common Gateway Interface (CGI) handlers, Secure Socket Layer (SSL), dynamic content, and customization of the Apache web server with add-in modules. Preparation for entry-level industry certification exams will be covered. Prerequisites: CIS266AA, or CIS226AL, or CIS238DL, or permission of instructor.

**CIS250****Management 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.

**CIS253****Computer Game Development -Level III**

3 Credits. 4 Periods.

Advanced object oriented game development, controlling and programming game and windows resources using the game development language. Modeling real-time simulations and game worlds using advanced programming techniques and artificial intelligence. Creation of network and Internet based multi-player games using object oriented techniques and packet based communication protocols. Prerequisites: CIS251 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.

**CIS262****C Programming II**

3 Credits. 4 Periods.

Advanced level C programming. Programming with emphasis on data management, dynamic allocation, varied memory models, interfacing with the operating system, efficiency, and advanced debugging techniques. Prerequisites: CIS162, or permission of instructor.

**CIS262AA****C: Level II**

3 Credits. 4 Periods.

Advanced level C programming. Programming with emphasis on data management, dynamic allocation, varied memory models, interfacing with the operating system, efficiency, and advanced debugging techniques. Prerequisites: CIS162AA, or permission of instructor.



**CIS262AB****C++: Level II**

3 Credits. 4 Periods.

Advanced level C++ programming with emphasis on arrays, data management, dynamic memory allocation, object-oriented programming concepts, input/output operations, libraries, and debugging techniques. Includes overview of other advanced applications of C++. Prerequisites: Permission of instructor

**CIS262AC****Visual C++: Level II**

3 Credits. 4 Periods.

Advanced-level C programming. Programming with emphasis on data management, dynamic allocation, varied memory models, interfacing with the operating system, efficiency, and advanced debugging techniques. Prerequisites: CIS162AC, 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 the 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.

**CIS274DL****Linux Enterprise Network Security**

3 Credit. 4 Periods.

Develop knowledge and skills to configure and securely manage a Linux enterprise network environment. Utilize applications, utilities, and Linux Kernel modules to install and configure Linux Enterprise Networking services. Prerequisites: CIS271DL or permission of instructor.

**CIS280****Current Topics in Computing**

3 Credit. 4 Periods.

Critical inquiry of current topics in computing. Application of industry trends to solve problems and/or investigate issues. Prerequisites: None.

**CIS281****IBM Mainframe Z OS - Level II**

3 Credit. 4 Periods.

Examines the major categories of z/OS mainframe operating system interactive workloads such as transaction processing, database management and web-serving. Introduces z/OS system programming concepts including system libraries, security and network communications. Prerequisites: CIS181, or permission of instructor.

**CIS290AA****Computer Information Systems****Internship**

1 Credit. 6 Periods.

Work experience in business or industry. Prerequisites: Permission of instructor.

Cross-References: BPC290AA

**CIS290AB****Computer Information Systems****Internship**

2 Credits. 12 Periods.

Work experience in business or industry. Prerequisites: Permission of instructor.

Cross-References: BPC290AB

**CIS290AC****Computer Information Systems****Interships**

3 Credits. 18 Periods.

Work experience in business or industry. Prerequisites: Permission of instructor.

Cross-References: BPC290AC

**CIS296WB****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 concurrently enrolled in at least one class which is related to student's major or career interest or with permission of the instructor.

**CIS296WC****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 concurrently enrolled in at least one class which is related to student's major or career interest or with permission of the 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 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 of Director or instructor.

**CIS298AB****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.

**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.

## COUNSELING AND PERSONAL DEVELOPMENT

**CPD100****Orientation for Student Development**

1 Credit. 1 Period.

Offered to orient new students to college life. Emphasis on assessing students' academic potential, facilitating curricular advisement and registration procedures, learning academic survival skills, and becoming aware of all services available to students on campus and in the community. Prerequisites: None.

**CPD103BD****African 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.

**CPD103BL****Dynamics of Leadership**

2 Credits. 2 Periods.

Designed to provide strategies that may be

used when assuming leadership roles. Focus on improving supervisory confidence through the development of appropriate competitive behaviors, problem-solving skills, and techniques of leadership. Prerequisites: None.

**CPD104****Career and Personal Development**

3 Credits. 3 Periods.

An overview of the process of career/life planning through self-awareness and understanding. Focus on specific skill development such as dealing with change, decision making, goal setting and understanding lifestyles. Provides opportunity to evaluate interests, skills and values. Emphasis on the development of a comprehensive career search process which includes current occupational information, specific tools for researching the job market and acquiring employment. Prerequisites: None.

**CPD150****Strategies for College Success**

3 Credits. 3 Periods.

Focus on increasing student success through the college orientation and personal growth, study skills development, and educational and career planning. Prerequisites: None. Cross-reference: AAA150.

**CPD150AA****College Orientation & Personal Growth**

1 Credit. 1 Period.

Emphasis on increasing student success through college orientation, identification of learning style and the use of time management, goal-setting, and interpersonal communication strategies. Prerequisites: None. Cross-References: AAA150AA

**CPD150AB****Study Skills Development**

1 Credit. 1 Period.

Emphasis on increasing student success through the use of study strategies including materials organization, note-taking, reading, test-taking, memory, and critical and creative thinking. Prerequisites: None. Cross-reference: AAA150AB.

**CPD150AC****Educational & Career Planning**

1 Credit. 1 Period.

Emphasis on increasing student success through educational and career planning. Prerequisites: None. Cross-Reference: AAA150AC.

**CPD160****Introduction to Multiculturalism**

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

## 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.

**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; production of marketable quality short fiction. 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.

**CRW240AB****Studio Workshop I: Publishing Your Work**

1 Credit. 1 Period.

Studio course focusing on elements of publication including manuscript preparation, appropriate markets, query, and cover letters. Prerequisites: None.



**CRW272****Planning and Structuring the Novel**

3 Credits. 3 Periods.

Focus on planning, structuring, and beginning a novel; prewriting, writing, analysis, evaluation, and revision of novel plans and excerpts. Prerequisites: 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.

**CRITICAL READING****CRE101****Critical and Evaluative Reading I**

3 Credits. 3 Periods.

Emphasis on applying critical inquiry skills to varied and challenging reading materials. Includes analysis, synthesis, and evaluation through written discourse. Prerequisites: ENG101 and (reading placement test score of 41 or higher (ASSET), or grade of "C" or better in RDG091, or permission of instructor.)

**CRE111****Critical Reading for Business and Industry**

3 Credits. 3 Periods.

Emphasis on reading skills required for success in business and technology. Includes interpretation of technical and professional materials with an emphasis on critical analysis and reading. Prerequisites: Reading Asset test score, or grade of "C" or better in RDG091, or permission of instructor.

**DANCE****DAN131****Ballet I**

1 Credit. 3 Periods.

Introduction to the theory and practice of ballet at the beginning level. Development of movement quality and performance skills. Prerequisites: None.

**DAN133****Modern Jazz Dance I**

1 Credit. 3 Periods.

Introduction to the theory and practice of modern jazz dance at the beginning level. Development of movement quality and performance skills. Prerequisites: None. Course Note: May be repeated for a total of two (2) credit hours.

**DAN120AE****World Dance: Middle Eastern Dance**

1 Credit. 3 Periods.

Theory and practice of Middle Eastern dance. Development of movement quality and performance skills. Prerequisites: None.

**DAN125AC****Social Dance: Latin**

1 Credit. 2 Periods.

Theory and practice of Latin dance. Development of movement quality and performance skills individually, with a partner or in a group setting. May include Salsa, Mambo, Cha Cha Cha, Merengue, Rumba, Bachata, International Latin Ballroom, or Latin Ballroom Performance. Prerequisites: None. Course Note: May be repeated for a total of four (4) credit hours.

**DAN136****Modern Jazz Dance II**

1 Credit. 3 Periods.

Theory and practice of modern jazz dance at the advanced beginning level. Development of movement quality and performance skills. Prerequisites: DAN133 or permission of instructor.

**DAN233****Modern Jazz Dance III**

1 Credit. 3 Periods.

Theory and practice of modern jazz dance at the beginning intermediate level. Development of movement quality and performance skills. Prerequisites: DAN136 or permission of instructor.

**DAN236****Modern Jazz Dance IV**

1 Credit. 3 Periods.

Theory and practice of modern jazz dance at the intermediate level. Development of movement quality and performance skills. Prerequisites: DAN233 or permission of instructor.

**EARLY CHILDHOOD EDUCATION****ECH176****Child Development**

3 Credits. 3 Periods.

Study of the science of human development from conception through adolescence. Includes observation skills, parent and adult roles in the lives of children, and contemporary issues. Prerequisites: None. Cross-References: CFS176

**ECH270****Observing Young Children**

1 Credit. 1 Period.

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 Credit. 1 Period.

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.

**ECH275****Literacy Development and the Young Child**

1 Credit. 1 Period.

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 Credit. 1 Period.

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. May be repeated for a total of four (4) credits. Prerequisites: None.

**ECH282****Discipline/Guidance of Child Groups**

1 Credit. 1 Period.

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**

1 Credit. 1 Period.

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.

**ECONOMICS****ECN211****Macroeconomic Principles**

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**

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.

**EDUCATION****EDU205****Self Assessment for Teaching**

3 Credits. 3 Periods.

An exploratory course for students considering a teaching career. Examination of the field of education in the United States through field experiences, self-assessment activities and career information. Prerequisites: None.

**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. Includes SEI, ESL, and bilingual strategies. Prerequisites: None. Course Note:

Approved school-based practicum is required. EDU220 incorporates the 45-clock hour curricular framework for provisional SEI endorsement through the Arizona Department of Education.

**EDU221****Introduction to Education**

3 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. Prerequisites: None. Course Note: Requires minimum of 30 hours of field experience in elementary or secondary classroom environment.

**EDU222****Introduction to the Exceptional Learner**

3 Credits. 3 Periods.

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

**EDU225****Foundations for Serving English Language Learners (ELL)**

3 Credits. 3 Periods.

Rationale for and current educational and legal issues for English Language Learners (ELL). Comparison and evaluation of various types of language educational models including Structured English Immersion (SEI), English as a Second Language (ESL) and bilingual. Prerequisites: None.

**EDU230****Cultural Diversity in Education**

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 (SEI) and English as a Second Language (ESL) Teaching Methods**

3 Credits. 3 Periods.

Methods of planning, developing, and analyzing lesson plans in all content areas using English Language Learners (ELL) Standards. Emphasis on components of curriculum content, teaching strategies, development/evaluation/adaptation of teaching materials, and the role of culture in learning. Examines the alignment of ELL Proficiency Standards to the Arizona Language Arts Academic Standards. Covers multiple assessment techniques, tracking of student progress using the state mandated English language proficiency assessment, and use of assessment results for placement and accommodation. Prerequisites: (EDU220 or EPD220 or EDU225) or permission of Department or Division. Course Note: Approved school-based practicum required. EDU233 incorporates curricular framework for the 45-clock hour requirement for SEI endorsement through the Arizona Department of Education.

**EDU236****Introduction to Relationships in a Classroom Setting**

3 Credits. 3 Periods.

Analysis of K-12 classroom interactions, classroom environment, and classroom management skills from a teacher's point of view. Focus on classroom as a multidimensional environment in which principles of classroom design, communication, management, and resources determine effectiveness. Prerequisites: None. EDU221 suggested but not required.

**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****Volunteerism for Education: A Service Learning Experience**

1 Credit. 1 Period.

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

**EDU282AB****Volunteerism for Education: A Service Learning Experience**

2 Credit. 2 Period.

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

**EDU282AC****Volunteerism for Education: A Service Learning Experience**

3 Credit. 3 Period.

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

**EDU291****Children's Literature**

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**

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. Cross-References: HUM292, STO292

**EDU296WA****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 concurrently enrolled in at least one class which is related to student's major or career interest or with permission of the instructor.

**EDU296WB****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 concurrently enrolled in at least one class which is related to student's major or career interest or with permission of the instructor.

**EDU296WC****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 concurrently enrolled in at least one class which is related to student's major or career interest or with permission of the instructor.

**EDUCATION  
PROFESSIONAL  
DEVELOPMENT****EPD220****Introduction to Serving English Language Learners (ELL)**

3 Credits. 3 Periods.

Rationale for and current educational and legal issues for English Language Learners (ELL). Comparison and evaluation of various types of language educational models including Structured English Immersion (SEI), English as a Second Language (ESL) and bilingual. Includes SEI, ESL, and bilingual strategies. Prerequisites: Provisional or standard elementary, secondary, or special education teaching certificate, or permission of Department or Division. Course Note: Approved school-based practicum is required. EPD220 incorporates the 45-clock hour curricular framework for provisional SEI endorsement through the Arizona Department of Education.

**EPD233****SEI and ESL Teaching Methods for Certified Teachers**

3 Credits. 3 Periods.

Methods of planning, developing, and analyzing lesson plans in all content areas using English Language Learners (ELL) Standards. Emphasis on components of curriculum content, teaching strategies, development/evaluation/adaptation of teaching materials, and the role of culture in learning. Examines the alignment of ELL Proficiency Standards to the Arizona Language Arts Academic Standards. Covers multiple assessment techniques, tracking of student progress using the state mandated English language proficiency assessment, and use of assessment results for placement and accommodation. Prerequisites: Provisional or standard elementary, secondary, or special education teaching certificate and (EDU220 or EPD220 or EDU225), or permission of Department or Division. Course Note: Approved school-based practicum required. EPD233 incorporates curricular framework for the 45-clock hour requirement for SEI endorsement through the Arizona Department of Education.



## ELECTRICITY

### ELC105

#### Electricity for Industry

3 Credits. 3 Periods.

Electricity related to industrial applications. Operation of and safety protocols for the use of electrical meters. Electrical loads calculations and evaluation of air conditioning power sources. Single-phase motors, motor resistance and motor terminals. Function of electro-magnetic solenoids and transformers. National Electric Code. Prerequisites: None. Corequisites: ELC/FAC/HVA105LL or permission of instructor. Cross-References: HVA105, FAC105.

### ELC105LL

#### Electricity for Industry Lab

1 Credits. 3 Periods.

Diagramming and assembling series circuits, parallel circuits and wiring relays, thermostats, switches and lights. Electrical readings on compressors. Emphasis on safety. Prerequisites: None. Corequisites: ELC/FAC/HVA105 or permission of instructor. Cross-References: FAC105LL, HVA105LL.

### ELC115

#### Motors Controls and Wiring

##### Diagrams

3 Credits. 3 Periods.

Principles of three-phase motors. Wye and Delta wiring. Calculation of motor current draw. Sequence of operation, wiring diagram and electrical components associated with industrial equipment. Procedures for evaluating electrical problems. Safety stressed. Prerequisites: ELC/FAC/HVA105 or permission of department or ELC/FAC/HVA105LL or permission of department. Corequisites: ELC/FAC/HVA115LL or permission of department. Cross-References: FAC115, HVA115.

### ELC115LL

#### Motors, Controls, and Wiring

##### Diagrams Lab

1 Credits. 3 Periods.

Drawing wiring diagrams, wiring systems and checking electrical circuits. Troubleshooting electrical problems of three-phase motors and controls. Safety stressed. Prerequisites: ELC/FAC/HVA105 or permission of department or ELC/FAC/HVA105LL or permission of department. Corequisites: ELC/FAC/HVA115 or permission of department. Cross-References: FAC115LL, HVA115LL.

### ELC119

#### Concepts of Electricity and Electronics

3 Credits. 3 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.

### ELC120

#### Solid State Fundamentals

3 Credits. 3 Periods.

Theory of operation of semi-conductor devices, component and system construction, operation, installation, and service. Specific and practical applications in relations to temperature, light, speed and pressure control. Includes amplifiers, power supplies, integrated circuits, fiberoptics, and safety. Prerequisites: None.

### ELC210

#### AC Machinery and DC Machinery

3 Credits. 3 Periods.

Principles and operation of AC (Alternating current) and DC (direct current) motors, generators, and alternators. Includes single-phase motors along with induction, synchronous, and wound-rotor types of three-phase motors. DC motors including shunt-field, series field, wound rotor, permanent magnet, stepper and brushless types. Prerequisites: None.

### ELC217

#### Motor Controls

3 Credits. 3 Periods.

Electrical symbols, line diagrams and logic. Contacts and starters, control devices, reversing circuits and power distribution systems. Magnetism and magnetic solenoids, reduced voltage starters, and circuits. Hand tools and safety procedures. Prerequisites: None.

### ELC218

#### Variable Frequency Drives

3 Credits. 3 Periods.

Principles and operation of frequency controlled AC (Alternating current) motor drives, including current source inverters (CSI), variable voltage inverters (VVI) and pulse width modulated inverters (PWM). Heating, ventilation and air conditioning (HVAC) applications along with energy savings, motor pump sizing and torque load calculations. Prerequisites: Permission of instructor.

### ELC219

#### Programmable Controllers

4 Credits. 6 Periods.

Principles and applications of programmable logic controls (PLC's). Numbering systems, control strategies, and ladder logic. Basic machine functions and operations to include programming, troubleshooting and maintenance. Application of PLC programming, operations and troubleshooting skills. Prerequisites: ELC105 and ELC115 and ELC119, or permission of instructor.

## ELECTRONICS

### ELT100

#### Survey of Electronics

3 Credits. 3 Periods.

An introduction to the field of electronics for those who may not intend to specialize in electronics. Essentially nonmathematical in nature; includes familiarization with a wide range of electronic components. Application to electronic systems, such as radio transmitters and receivers - both AM(amplitude modulation) and FM(frequency modulation), television transmitters and receivers, logic control, and computers. Application also to automotive electronics. Prerequisites: None.

### ELT101

#### Mathematics for Electronic I

3 Credits. 3 Periods.

Basic principles of Algebra with applications to the analysis of electronic circuits. Emphasis on the use of the calculator for conversions and DC (direct current) circuit problems. Prerequisites: None.

### ELT102

#### Mathematics for Electronics II

3 Credits. 3 Periods.

The study of simultaneous equations, quadratic equations, trigonometric relationships, periodic functions and logarithms as applied to AC(alternating current) circuit analysis. Application of the scientific calculator to technical problem solving in electronics. Prerequisites: ELT101 or equivalent.

**ELT113****Basic Electronics**

LEC 4 Credits. 3 Periods.

LAB 0 Credits. 3 Periods.

Direct and alternating current electrical circuits. Theory and practical lab experience, using the appropriate test equipment and computer solutions. Ohm's Law, Kirchhoff's Laws, and various network theorems applied to the study and analysis of series, parallel, and series-parallel circuit configurations. Includes complex algebra, impedance, frequency response, and resonance. Prerequisites or Corequisites: ELT102 or equivalent.

**ELT131****Digital and Logic Circuits**

LEC 4 Credits. 3 Periods.

LAB 0 Credits. 3 Periods.

Digital concepts and fundamentals, number systems and codes, Boolean algebra and combinational logic, logic reduction techniques, and logic hardware. Memories and programmable logic arrays. Hands-on hardware and computer-aided logic design experiments. Prerequisites: ELT113 or permission of instructor. Cross-References: SMT131.

**ELT195****Solid State Electronics**

LEC 4 Credits. 3 Periods.

LAB 0 Credits. 3 Periods.

Characteristics and use of solid state devices in practical circuit applications. Circuit analysis techniques and computer simulations. Includes, diodes, transistors, four-layer devices, operational amplifiers, and interfacing devices. Prerequisites: ELT113 or departmental approval.

**ELT251****Electronic Instrumentation**

LEC 3 Credits. 2 Periods.

LAB 0 Credits. 3 Periods.

Electronic instruments and their usage in measuring and analyzing electronic circuits. Includes both analog and digital meters, oscilloscopes, and digital logic analyzers. Covers automatic test equipment, various transducers, and reliability requirements. Prerequisites: (ELT195 and ELT131) or departmental approval.

**ENGINEERING SCIENCE****ECE102AA****Engineering Analysis Tools and Techniques**

LEC 2 Credits. 2 Periods.

LAB 0 Credits. 2 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 departmental approval. Corequisites: MAT151 or MAT182 or MAT187.

**ECE103AB****Engineering Problem Solving and Design**

LEC 2 Credits. 2 Periods.

LAB 0 Credits. 2 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 and (high school physics or PHY111).

**EMERGENCY MEDICAL TECHNOLOGY****EMT104****Basic Emergency Medical Technology**

8 Credits. 9.45 Periods.

Techniques of emergency medical care in accordance with national and state curriculum. Study of the human body, patient assessment, treatment of medically or traumatically compromised patients, special hazards, and medical operations. IV monitoring, Sudden Infant Death Syndrome (SIDS), patient-assisted medication administration, automated external defibrillators, and blood-glucose monitoring. Includes participation in two eight-hour clinical rotations through a local emergency department scheduled during the semester outside normal class hours. Requires personal pocket mask, stethoscope, pen light, and trauma scissors. Prerequisites: Must be at least 18 years of age prior to applying to the BLS (Basic Life Support) Training Program per Arizona Revised Statutes, and must have a current validation in Basic Life Support (BLS) Health Care Provider/Professional Rescuer. Minimum

ninth grade level reading proficiency on the Nelson-Denney Examination or appropriate Reading course placement score. Proof of: TB testing or chest x-ray with a negative result within 6 months prior to registration; Immunity to rubella (German measles) and rubeola. Cross-References: FSC104

**EMT238****Vehicular Extrication and Patient Stabilization**

2 Credits. 2 Periods.

Participative course designed for the Emergency Medical Technicians (EMT). Incorporates new knowledge and skills necessary to access, extricate, and care for victims of crash incidents. Provides exposure to scene management, including size-up, disentanglement, victim stabilization for single and multi-victim situations, hazardous materials incidents, integration of local emergency medical services (EMS) for patient assessment and management, and standard operating procedures to selected victim scenarios. Prerequisites: Basic EMT certification, current enrollment in an EMT-Basic program, nurse with emergency department experience, or law enforcement personnel, or permission of instructor.

**EMT240****Advanced Cardiac Life Support**

2 Credits. 2 Periods.

Designed to provide the healthcare professional with comprehensive information to identify emergency cardiovascular care and protocols for the patient in cardiac arrest, post-resuscitative patient management, and core cases in Advanced Cardiac Life Support (ACLS) according to current Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care 2004. Includes the ACLS approach to cardiovascular emergencies, elements of emergency cardiovascular care, ethical and legal issues, airway assessment and management, ventilation techniques, oxygen therapy, intravenous therapy, analyzing and interpreting the electrocardiogram (ECG), analyzing and interpreting the 12-lead ECG, myocardial ischemia, injury, and infarction, electrical interventions, cardiovascular pharmacology, acute coronary syndromes, emergency cardiovascular care algorithms, acute stroke and transient ischemic attack, and special resuscitation situations. Prerequisites: Current validation in Basic Life Support (BLS) Health Care Provider/Professional Rescuer and (EMT235 and EMT236, or permission of instructor).



**EMT242****Pediatric Advanced Life Support**

1 Credit. 1 Period.

Didactic and psychomotor skill education and training in techniques of Pediatric Advanced Life Support. Includes endotracheal intubation, defibrillation, arrhythmia recognition, pharmacology, and intraosseous infusion. Required for American Heart Association Provider approval and validation. Prerequisites: (Current validation in Basic Life Support (BLS) Health Care Provider/ Professional Rescuer or [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.

**EMT265****Pediatric Education for Prehospital Providers: Advanced**

1 Credit. 1.43 Period.

An interactive, scenario based course designed for Advanced EMTs who practice in the field. Enables providers to perform a rapid assessment of sick and injured children in variety of circumstances. Includes scene management, use of pediatric assessment triangle, developmental differences, injury prevention, airway management techniques, intravenous and 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, special issues in pediatric transportation. Treatment to children is in accordance with recommendations of the American Academy of Pediatrics. Prerequisites: Advanced cardiac life support course or emergency cardiac care course, and

EMT-Paramedic certification, and current employment as an EMT Paramedic, or permission of instructor.

**EMT272AA****Advanced Emergency Medical****Technology**

12.5 Credits. 17.3 Periods.

Designed to provide the emergency medical technician with advanced knowledge about the acute critical differences in physiology, pathophysiology, and clinical symptoms, as they pertain to prehospital emergency care. Emphasis on developing diagnostic and advanced emergency treatment skills necessary to care for the acutely ill and seriously injured. Prerequisites:

([MAT102 or equivalent, or a satisfactory score on the ASSET, or COMPASS, or Accuplacer placement exam], ENG101, EMT235, and EMT236), or permission of Program Director. Comprehensive written, oral and practical evaluation on all EMT272AA prerequisite courses. Valid Arizona certification and employment as an EMT for one full calendar year. Corequisites: EMT272AB and EMT272LL.

**ENGLISH****ENG061****Basic Writing Skills**

3 Credits. 3 Periods.

Emphasis on preparation for college-level composition with a focus on foundational skills. Establishing effective writing strategies through six or more writing projects comprising at least 1500 words in total. Prerequisites: Appropriate English placement test score or permission of department/division chair. Course Note: Through six or more writing projects comprising at least 1500 words (final drafts), the student will demonstrate an understanding of writing as a process through the ability to complete the ENG061 competencies.

**ENG071****Fundamentals of Writing**

3 Credits. 3 Periods.

Emphasis on preparation for college-level composition with a focus on organizational skills. Developing effective writing strategies through five or more writing projects comprising at least 2000 words in total. Prerequisites: Appropriate English placement test score or permission of department/division chair. Course Note: Through five or more writing projects comprising at least 2000 words (final drafts), the student will demonstrate an understanding of writing as a process through the ability to complete the ENG071 competencies.

**ENG101****First-Year Composition**

3 Credits. 3 Periods.

Emphasis on rhetoric and composition with a focus on expository writing and understanding writing as a process. Establishing effective college-level writing strategies through four or more writing projects comprising at least 3,000 words in total. Prerequisites: Appropriate English placement test score or (a grade of "C" or better in ENG071). Course Note: Through four or more writing projects comprising at least 3,000 words (final drafts), the student will demonstrate an understanding of expository writing as a process per the course competencies.

**ENG102****First Year Composition**

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: ENG101 with a grade of "C" or better.

**ENG107****First-Year Composition for ESL**

3 Credits. 3 Periods.

Equivalent of ENG 101 for students of English as a Second Language (ESL). Emphasis on rhetoric and composition with a focus on expository writing and understanding writing as a process. Establishing effective college-level writing strategies through four or more writing projects comprising at least 3,000 words in total. Prerequisites: Appropriate ASSET/COMPASS placement test score, or a grade of "C" or better in ENG071 or ESL077. Course Note: Through four or more writing projects comprising at least 3,000 words in total, the student will demonstrate an understanding of writing as a process per the course competencies

**ENG108****First Year Composition for ESL**

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. Course Note: Through three or more writing projects comprising at least

4,000 words in total, the student will demonstrate an understanding of writing as a process per the course competencies. Not open to students who have completed ENG101.

**ENG111****Technical Writing**

3 Credits. 3 Periods

Analysis, planning, organization, research, and writing of technical reports and oral presentations for specific job-related audiences. Preparation of recommendation and feasibility reports, proposals, and applications of graphics in documents and oral presentations. Prerequisites: ENG101 with a grade of "C", or better, or permission of instructor.

**ENG200****Reading and Writing About Literature**

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.

**ENG210****Creative Writing**

3 Credits. 3 Periods.

Skills and techniques used in the production of marketable materials for contemporary publications that buy prose fiction, poetry, and expository articles. May be repeated for a total of six (6) credit hours with departmental approval. Prerequisites: ENG102 with a grade of "C", or better, or permission of department.

**ENG213****Introduction to the Study of Language**

3 Credits. 3 Periods.

Study of language as code; phonetics, phonology, morphology, syntax, semantics; language acquisition; historical and sociolinguistics. Prerequisites: ENG102, or ENG111 with a grade of "C", or better, or permission of instructor.

**ENG217****Personal and Exploratory Writing**

3 Credits. 3 Periods.

Using writing to explore one's self and the world one lives in; emphasis on journal writing as a source and inspiration for public writing. Prerequisites: ENG101 or ENG107 or equivalent.

**ESL001BA****Basic ESL I: Personal Health and Safety**

2 Credits. 2 Periods.

Listening, speaking, reading and writing in English at a basic level. Focus on survival skills related to personal health and safety when living in the United States. Introduction to elementary grammatical patterns. Prerequisites: None. Course Note: Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. May be repeated for a total of four (4) credits.

**ESL001BB****Basic ESL I: Services & Employment**

2 Credits. 2 Periods.

Listening, speaking, reading and writing in English at a basic level. Focus on survival skills related to services and employment when living in the United States. Introduction to elementary grammatical patterns. Prerequisites: ESL001BA or permission of instructor. Course Note: Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. May be repeated for a total of four (4) credits.

**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. Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. May be repeated for a maximum of six (6) credits. Prerequisites: Appropriate ESL placement test score.

**ESL011****ESL I - Listening & 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. May be repeated for a maximum of six (6) credits. Prerequisites: Appropriate ESL placement test score or ESL002.

**ESL012****ESL I-Writing with Oral Practice**

3 Credits. 3 Periods.

Emphasis on basic conventions of writing in English. Includes introduction to the alphabet, capitalization, punctuation, and simple sentence structure. May be repeated for a maximum of six (6) credits. Prerequisites: Approximate ESL placement test score or permission of instructor.

**ESL013****Vocabulary for ESL I**

1 Credits. 1 Periods.

Emphasis on the acquisition of basic English vocabulary including identifying and pronouncing words related to people, medical/dental care, occupations and other activities. May be repeated for a maximum of two (2) credits. Prerequisites: Appropriate ESL placement test score or permission of instructor.

**ESL014****Idiomatic English for ESL I**

1 Credits. 1 Periods.

Study of idiomatic English for speakers of English as a Second Language(ESL). Emphasis on commonly misunderstood expressions. Includes practice on a computer or with audio tapes. May be repeated for a maximum of two (2) credits. Prerequisites: Appropriate ESL placement test score or permission of instructor.

**ESL020****English as a Second Language II:****Grammar**

3 Credits. 3 Periods.

Second level of English as a Second Language (ESL). Continued emphasis on conversational skills, pronunciation, vocabulary building and grammar with some reading and sentence level writing. Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. May be repeated for a maximum of six (6) credits. Prerequisites: Appropriate ESL placement test score, or a grade of "P" or "C" or better in ESL010, or (ESL010AA, ESL010AB, and ESL010AC).

**ESL021****ESL II - Listening & 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 and responses. May be repeated for a maximum of six (6) credits. Prerequisites: Appropriate ESL placement test score or ESL010 or ESL011 or ESL012 or RDG010.

**ESL022****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 Periods.  
Third level of English as a Second Language (ESL). Emphasis on sentence structure and paragraph building. Extensive grammar study and writing practice. Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. May be repeated for a maximum of six (6) credits. Prerequisites: Appropriate ESL placement test score or a grade of "P" or "C" or better in ESL020 or (ESL020AA, ESL020AB and ESL020AC).

**ESL031****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. May be repeated for a maximum of six credits. Prerequisites: Appropriate ESL placement test score or ESL020 or ESL021 or ESL022 or RDG020.

**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 Periods.  
Fourth-level of English as a Second Language (ESL). Continued emphasis on sentence structure and paragraph building. Extensive grammar study and writing practice. Credit (P) or no credit (Z).

Standard grading available according to procedures outlined in catalog. May be repeated for a maximum of six (6) credits. Prerequisites: Appropriate ESL placement test score, or a grade of "P" or "C" or better in ESL030, or (ESL030AA, ESL030AB, and ESL030AC).

**ESL041****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. May be repeated for a maximum of six (6) credits. Prerequisites: Appropriate ESL placement test score or ESL030 or ESL031 or ESL032 or RDG030.

**ESL042****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.

**ESL043****Vocabulary for ESL IV**

1 Credits. 1 Periods.  
Emphasis on the acquisition of basic English vocabulary including identifying and pronouncing words related to people, medical/dental care, occupations and other activities. May be repeated for a maximum of two (2) credits. Prerequisites: Appropriate ESL placement test score or permission of instructor.

**ESL044****Idiomatic English for ESL IV**

1 Credits. 1 Periods.  
Study of idiomatic English for speakers of English as a Second Language (ESL). Emphasis on commonly misunderstood expressions. Includes practice on a computer or with audio tapes. May be repeated for a maximum of two (2) credits. Prerequisites: Appropriate ESL placement test score or permission of instructor.

**ESL050****Review Grammar For ESL**

3 Credits. 3 Periods.  
Review of grammatical concepts for ESL (English as a Second Language) students who have some previous experience in reading and writing English. Appropriate for

students who want to practice sentence skills in English. May be repeated for a total of six (6) credits. Prerequisites: Appropriate ESL course placement score, or a grade of C or better in ESL040, or permission of instructor.

**ESL051****Pronunciation Improvement for ESL****Speakers**

3 Credits. 3 Periods.  
Individualized pronunciation practice and drills for English as a second language (ESL) speakers. May be repeated for a maximum of six (6) credits. Prerequisites: Appropriate ESL course placement score, or a grade of C or better in (ESL020 or ESL021 or ESL022 or RDG020), or permission of instructor.

**ESL052****Job-Specific Writing and Speaking Skills for ESL**

3 Credits. 3 Periods.  
Using and understanding English for specific employment or vocational training. Includes English speaking, reading and writing skills. Prerequisites: Appropriate ESL test score or satisfactory completion of ESL049, or permission of instructor.

**ESL071****Advanced Pronunciation and Oral Reading for ESL**

3 Credits. 3 Periods.  
Pronunciation practice and review, spelling of Pronunciation practice and review, spelling of English sounds, and oral reading for stress and intonation patterns in English. Prerequisites: A grade of C or better in ESL051, or permission of instructor. Course Note: May be repeated for a total of six (6) credit hours.

**ENGLISH HUMANITIES****ENH110****Introduction to Literature**

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**

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.

**ENH114****African-American Literature**

3 Credits. 3 Periods.

Survey of major African-American writers from Colonial period through the present; analysis of trends and movements within African-American literary history; analysis of literary types and selected works. Prerequisites: None.

**ENH117****Rap Literature: The Oral Tradition**

3 Credits. 3 Periods.

Survey of selected rap poetry looking at the oral tradition of Africa, the Caribbean, and the United States as precursors to East Coast, West Coast, Southern, North Central, and International development of the genre. Investigation of cultural environments, historical events, competitions (the "battles"), artists' biographies, and parallel art forms as they relate to the analysis of the genre and its themes. Prerequisites: None.

**ENH120****The Literature of Science Fiction**

3 Credits. 3 Periods.

Surveys the last one hundred and fifty years of Science Fiction literature. Investigates the similarities between Science Fiction and other imaginative literatures. Examines the Science Fiction genre, sub genres, and themes from a variety of perspectives, as well as social issues. Prerequisites: None.

**ENH201****World Literature Through the Renaissance**

3 Credits. 3 Periods.

Examines a selection of the world's literary masterpieces within their cultural contexts from ancient times through the Renaissance. Analyzes the influences of major literary philosophies, themes, genre, and styles. Assesses the contributions of major writers. Introduces the terminology of literary analysis. Prerequisites: None.

**ENH202****World Literature After the Renaissance**

3 Credits. 3 Periods.

Includes a selection of the world's literary masterpieces from the Renaissance to modern times. Prerequisites: None.

**ENH205****Asian American Literature**

3 Credits. 3 Periods.

Survey of major Asian American writers. Examines literary types and selected works in their relationship to American cultural heritage and to contemporary culture. Prerequisites: ENG101 or ENG107.

**ENH212****The Mexican American Novel**

3 Credits. 3 Periods.

A study of the social, historical, and cultural backgrounds as well as the form and content of the Mexican American novel. Prerequisites: ENG101. ENH112 suggested but not required. Cross-References: CCS212

**ENH221****Survey of English Literature Before 1800**

3 Credits. 3 Periods.

Emphasizes the social and political backgrounds as well as the form and content of English literature from Anglo-Saxon times to the end of the eighteenth century. Prerequisites: (ENG101 or ENG107) or equivalent.

**ENH222****Survey of English Literature After 1800**

3 Credits. 3 Periods.

Emphasizes the social and political backgrounds as well as the form and content of English literature in the nineteenth and twentieth centuries. Prerequisites: (ENG101 or ENG107) or equivalent.

**ENH230****Introduction To Shakespeare**

3 Credits. 3 Periods.

Introduces Shakespeare the playwright, the sonneteer, the linguist, and the citizen of the 17th century. Considers the major tragedies, comedies, histories, and sonnets; focuses on the use of language; and connects the writer to the time. Some emphasis on Shakespeare's influence through the centuries, noting parallels between the late 16th century and the late 20th century. Prerequisites: None.

**ENH241****American Literature Before 1860**

3 Credits. 3 Periods.

Includes literature written prior to 1860 in the United States. Prerequisites: None.

**ENH242****American Literature After 1860**

3 Credits. 3 Periods.

Includes literature written after 1860 in the United States. Prerequisites: None.

**ENH251****Mythology**

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**

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.

**ENH256****Shakespeare on Film**

3 Credits. 3 Periods.

Presents cinematic versions of Shakespeare's plays and explains and analyzes how the dramatist's major tragedies, comedies, histories and romances have been presented on film. Prerequisites: None.

**ENH259****American Indian Literature**

3 Credits. 3 Periods.

Contemporary American Indian forms of literary expression. Selected oral traditions of American Indians. Trends and movements within American Indian literary history. Prerequisites: None.

**ENH275****Modern Fiction**

3 Credits. 3 Periods.

Includes novels and short stories of modern writers which reflect significant themes of our time. Prerequisites: None.

**ENH284****19th Century Women Writers**

3 Credits. 3 Periods.

Investigates major themes in literature by women writing in the 19th century including the nature of women's lives in the family, in work situations, and in society. Poetry, prose, essays and drama are examined with an emphasis on common themes. Prerequisites: None. Cross-Reference: WST284

**ENH285****Contemporary Women Writers**

3 Credits. 3 Periods.

Explores twentieth century literature (short stories, essays, plays, and poetry) written by women and about women. Focus on themes relevant to women's lives regardless of age, creed, or ethnic background. Prerequisites: None. Cross-reference: WST285.

**ENH291****Children's Literature**

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. Cross-reference: EDU291.

**ENH294****Multicultural Folktales**

3 Credits. 3 Periods.

Study of multicultural folktales, exploring the impact of the oral tradition in American society and showing classroom applications. Prerequisites: None. Cross-References: EDU294, STO294.

**ENH295****Banned Books and Censorship**

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.

## FACILITIES MANAGEMENT

**FAC101****Refrigeration Components and Applications I**

2 Credits. 2 Periods.

Major components of refrigeration systems. Properties of refrigerants and piping practices. Prerequisites: None. Corequisites: FAC/HVA101LL or permission of instructor. Cross-References: HVA101

**FAC101LL****Refrigeration Applications and Components I Lab**

1 Credits. 3 Periods.

Servicing refrigeration units. Includes soldering tubing, installing/removing manifold gauge set, evacuating and charging the system. Emphasis on safety. Prerequisites: None. Corequisites: FAC/HVA101 or permission of instructor. Cross-References: HVA101LL

**FAC104****Introduction to Facilities Management**

3 Credits. 3 Periods.

Survey of the total responsibilities of the facilities organization in manufacturing, business, and government. Includes methods for coordinating the physical workplace with the people and work of the organization. Prerequisites: None.

**FAC105****Electricity for Industry**

3 Credits. 3 Periods.

Electricity related to industrial applications. Operation of and safety protocols for the use of electrical meters. Electrical loads calculations and evaluation of air conditioning power sources. Single-phase motors, motor resistance and motor terminals. Function of electro-magnetic solenoids and transformers. National Electric Code. Prerequisites: None. Corequisites: ELC/FAC/HVA105LL or permission of instructor. Cross-References: HVA105, ELC105

**FAC105LL****Electricity for Industry Lab**

1 Credits. 3 Periods.

Diagramming and assembling series circuits, parallel circuits and wiring relays, thermostats, switches and lights. Electrical readings on compressors. Emphasis on safety. Prerequisites: None. Corequisites: ELC/FAC/HVA105 or permission of instructor. Cross-References: ELC105LL, HVA105LL

**FAC106****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.

**FAC115****Motors, Controls and Wiring Diagrams**

3 Credits. 3 Periods.

Principles of three-phase motors. Wye and Delta wiring. Calculation of motor current draw. Sequence of operation, wiring diagram and electrical components associated with industrial equipment. Procedures for evaluating electrical problems. Safety stressed. Prerequisites: ELC/FAC/HVA105, or permission of department, or ELC/FAC/HVA105LL, or permission of department. Corequisites: ELC/FAC/HVA115LL or permission of department. Cross-References: ELC115, HVA115.

**FAC115LL****Motors, Controls and Wiring Diagrams Lab**

1 Credits. 3 Periods.

Drawing wiring diagrams, wiring systems and checking electrical circuits. Troubleshooting electrical problems of three-phase motors and controls. Safety stressed. Prerequisites: ELC/FAC/HVA105, or permission of department, or ELC/FAC/HVA105LL, or permission of department. Corequisites: ELC/FAC/HVA115 or permission of department. Cross-References: ELC115LL, HVA115LL

**FAC185****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 ELT101, or GTC108, or equivalent, or permission of instructor. Corequisites: None. ELE100 or ELT100 suggested but not required. Cross-References: GTC185, HVA185



**FAC186****Electro-Mechanical Devices**

3 Credits. 5 Periods.

Concepts, principles, maintenance, and troubleshooting of mechanical and electro-mechanical devices. Mechanical alignment of shafts, pillow blocks, gears, and couplers on mechanical equipment. Bearings removal and installation. Installation and troubleshooting of pump seals. Vernier calipers, micrometers, tachometers. Use and operation of air flow hoods for air balancing. Belt drive systems and set up and operation of variable frequency drives. Cooling tower water treatment controls and chemical additives. Prerequisites: (FAC/HVA101, FAC/HVA101LL, FAC/ELC/HVA105 and FAC/ELC/HVA105LL or equivalent), or permission of instructor. Cross-References: HVA186

**FAC210****Facilities Air Conditioning Systems**

3 Credits. 3 Periods.

Fundamental principles of air conditioning including all-air, all-water (hydronic) and air-water combination systems. Overview of the physical principles, including air distribution systems and heating and cooling load calculation. System components and application theory for boilers, chillers, pumps, fans, and cooling towers. Theory and application of central air conditioning systems, air cleaning and humidification devices, pressure boosting, heat storage, expansion and pressurization equipment. Properties of water, pressure distribution in hydronic systems, flow in pipes, pressure drop/head loss, pump applications and pressurization of open and closed hydronic systems. Fundamentals of low and high temperature water systems. Prerequisites: (FAC/HVA101, HVA112 and ELC/FAC/HVA115) or permission of department. Corequisites: FAC/HVA210LL or permission of department. Cross-References: HVA210

**FAC210LL****Facilities Air Conditioning Systems****Lab**

1 Credits. 3 Periods.

Routine procedures on operational central forced-air conditioning systems and hydronic pumping systems. Components and function of large chillers, cooling towers, hot water boilers, associated piping, pumps and constant volume and variable air volume (VAV) air handlers. Perform pump sizing calculations and measurements. Perform measurements and calculations of pressure and air velocity in ducts. Apply the

principles of psychometrics to central air handling systems.

Evaluation of the energy balance of components and systems. Personal and equipment safety. Prerequisites: (FAC/HVA101, HVA112 and ELC/FAC/HVA115), or permission of department. Corequisites: FAC/HVA210 or permission of department. Cross-References: HVA210LL.

**FAC213****Controls**

3 Credits. 3 Periods.

Control theory and terminology, pneumatics, electrical, and electronic control devices, flow control devices, elementary and advanced control systems. Electric and electronic control systems, programmable logic controls, and facilities management systems. Prerequisites: None. Cross-References: HVA213.

**FAC214****Instrumentation**

3 Credits. 3 Periods.

Process and terms used in instrumentation, methods of heat transfer, calculations for heat temperature, and heat transfer. Measuring and calculating pressure, fluid flow, measuring humidity, control action, and instrumentation symbols. Prerequisites: None. Cross-References: HVA214.

**FAC220****Controls and Instrumentation**

3 Credits. 3 Periods.

Control theory and terminology, pneumatics, electrical, and electronic control devices, flow control devices, elementary and advanced control systems. Electric and electronic control systems, programmable logic controls, and facilities management systems. Process and terms used in instrumentation, methods of heat transfer, calculations for heat temperature, and heat transfer. Measuring and calculating pressure, fluid flow, measuring humidity, control action, and instrumentation symbols. Prerequisites: FAC/HVA210 or permission of department. Corequisites: FAC/HVA220LL or permission of department. Cross-References: HVA220.

**FAC220LL****Controls and Instrumentation Lab**

1 Credits. 3 Periods.

Calibrating pneumatic electrical, and electronic control devices. Commissioning and troubleshooting elementary and advanced control systems. Programming and tuning direct digital control (DDC) devices. Installing, testing and calibration control and instrumentation sensors. Developing and

testing sequences of operation for control loops. Recording and analyzing data from facility management systems. Prerequisites: FAC/HVA210 or permission of department. Corequisites: FAC/HVA220 or permission of department. Cross-References: HVA220LL.

**FIRE SCIENCE  
TECHNOLOGY****FSC102****Fire Department Operations**

11 Credits. 19.6 Periods.

Introductory fire science course primarily designed for the fire department recruit. Includes firefighting skills, equipment, and administrative policies, fire department operations, personnel policies, and International Fire Service Accreditation Congress Practical Skills Testing. Prerequisites: (EMT104, 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.

**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.

**FSC111****Emergency Vehicle Driver Operator**

2 Credits. 2 Periods.

Emergency vehicle operators training including the problems facing operators; the personal qualities of emergency vehicle operator candidates; legal responsibilities of operators; and physical forces involved in driving an emergency vehicle. Includes hands-on training in an emergency response vehicle. Prerequisites: None.

**FSC113****Introduction to Fire Suppression**

3 Credits. 3 Periods.

Characteristics and behavior of fire, fire hazard properties of ordinary materials, extinguishing agents, fire suppression organization and equipment, basic fire fighting tactics, and public relations as affected by fire suppression. Prerequisites: None.

**FSC117****Fire Apparatus**

3 Credits. 3 Periods.

Principles of care, maintenance and operation of fire apparatus and pumps. Includes pump construction and accessories, pumping techniques, power development, and transmission. Driving, troubleshooting and producing effective fire streams. Prerequisites: None.

**FSC118****Fire Hydraulics**

3 Credits. 3 Periods.

Review of basic mathematics. Hydraulic laws and formulas as applied to the fire service. Application of formulas and mental calculations to hydraulic problems, water supply variables, and discharge requirements for pumpers. Prerequisites: None.

**FSC130****Fitness for Firefighters/CPAT**

1 Credit. 1.5 Period.

Skills and abilities required for entry level position in the fire service including physical ability, and stamina. Opportunity to take the International Association of Fire Fighters (IAFF) Candidate Physical Ability Test (CPAT) at the end of the course. Prerequisites: None.

**FSC134****Fitness and Conditioning for Firefighters**

3 Credits. 4.6 Periods.

Overview of all aspects of fitness for current and prospective firefighters. Includes physical and mental aspects of performance for optimal achievement on fire department agility tests and fire fighting tasks; individual conditioning strategies, nutritional guidelines, protective clothing concepts, and basic exercise principles. Pre-employment, evaluation, and lifelong fitness and conditioning. Prerequisites: None.

**FSC139****Emergency Response to Terrorism**

3 Credits. 3 Periods.

Fundamentals of emergency response to suspected terrorist events. Historical perspective of terrorist activities and methods by which responders can identify and protect themselves and the public from these threats. Coordination of responding agencies. Prerequisites: None.

**FSC146****Disaster Recovery Operations**

3 Credits. 3 Periods.

Specialized knowledge and skills for the emergency manager in developing programs and activities associated with disaster recovery assistance and mitigation actions that reduce losses from future disasters. Prerequisites: None.

**FSC147****Emergency Preparedness**

3 Credits. 3 Periods.

Emergency preparedness related to natural and manmade disasters. Planning concepts and the planning process; awareness and education programs and strategies for the general community as well as business and industries. Prerequisites: None.

**FSC148****Fundamentals of Emergency Management**

3 Credits. 3 Periods.

Emergency management systems including career opportunities, function, tasks and responsibilities of the emergency management program manager, role of the emergency manager in mitigation, preparedness, response, and recovery. Past civil defense and current emergency management systems since evolution from World War II. Prerequisites: None.

**FSC149****Hazard Mitigation**

3 Credits. 3 Periods.

Knowledge and skills required to develop programs to reduce losses from future disasters, emergencies, and other extreme events caused by natural and manmade hazards. Prerequisites: None.

**FSC202****Supervisory Training for Firefighters**

3 Credits. 3 Periods.

Administrative methods applied to the fire service, departmental organization, and personnel management. Includes fire alarm

signaling systems, fire service planning, and relationships with other city departments. Prerequisites: None.

**FSC204****Firefighting Tactics and Strategy**

3 Credits. 3 Periods.

Methods of coordinating personnel, equipment, and apparatus on the fireground. Practical methods of controlling and extinguishing structural and other types of fires. Includes simulation exercises. Prerequisites: FSC113, or permission of instructor, or equivalent

**FSC205****Command Strategies for Major Emergencies**

3 Credits. 3 Periods.

Effective methods of managing major emergency incidents including multiple alarm structural fires, high rise fires, major brush fires, complex hazardous materials incidents and multi-casualty medical incidents. Includes incidents that require the commitment of resources based on a transitional situation and/or managing the effective interaction between numerous agencies to achieve control. Prerequisites: FSC204.

**FSC208****Firefighter Safety and Building Construction**

3 Credits. 3 Periods.

Actions necessary to provide for the safety of firefighters operating on the fireground. Effects that fire and heat may have on various types of building construction resulting in the loss of structural integrity. Includes signs and symptoms of structural damage. Prerequisites: FSC113, or permission of instructor, or equivalent

**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.

**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.

**FOOD AND NUTRITION****FON100****Introductory Nutrition**

3 Credits. 3 Periods.

Basic nutrition concepts for health and fitness. Emphasizes current dietary recommendations for maximizing well-being and minimizing risk of chronic disease. Focuses on use of tables, food guides, and guidelines for making healthy food choices. Includes unique nutrition needs for selected stages of the lifecycle, methods for evaluating credibility of nutritional claims, principles of vegetarian nutrition, safe and economic use of supplements, principles of energy balance, basic elements of food safety, diet for exercise and sports, and personal dietary evaluation techniques. Not for pre-dietetics or other preprofessional majors. May not be taken for credit if credit has been earned in FON100AA and/or FON100AC. Prerequisites: None.

**FON100AD****Nutrition Sports and Physical****Activity**

1 Credits. 1 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 pregame meal, and glycogen recovery. Emphasis on maximizing fitness, performance, and safety. Prerequisites: FON100AA, or equivalent, or permission of instructor.

**FON102****Menu Planning**

2 Credits. 2 Periods.

Principles and techniques of menu planning for food service operations where food is served in quantity; includes applications for health care institutions, commercial kitchens, school cafeterias, and industrial facilities. Prerequisites: None. Cross-References: HRM102.

**FON118****Commercial Baking Techniques**

3 Credits 5 Periods.

Principles and techniques for preparation, storage, and serving of bakery products. Includes breads, cakes, pies, pastry, cookies, fillings, and icings. Emphasis on practical experiences in a commercial bakery. Prerequisites: None.

**FON119****Catering - Planning and Production**

1 Credits 3 Periods.

Focuses on the basic steps of the catering process in a commercial food setting. Includes a review of safety and sanitation principles. Emphasizes practical experiences in booking and record keeping, planning, ordering, production, and service set-up and break-down for both in-house and off-premise catered events. Prerequisites: FON117 or FON180.

**FON120****Baking Theory and Retail Operations**

3 Credits. 5 Periods.

Baking principles to include detailed study of ingredients, heat transfer, and recipe conversions. Basic business operations for a retail bakery including bakery product line and floor plan design. Prerequisites: None.

**FON126****Specialty Breads and Breakfast Pastry**

3 Credits. 5 Periods.

The preparation of classical and artisan breads using advanced production techniques and skills. Classic breakfast pastry, with the production of laminated doughs, sweet doughs, and rich yeast doughs to include Danish, croissant, puff pastry, brioche, and other international classics. Completion of edible centerpieces made out of various styles of bread. Prerequisites: FON118 or permission of Program Director.

**FON137****Nutrition Supplements**

2 Credits 2 Periods.

Discussion of supplements and their effects on metabolic enhancement. The course will be divided into three major sections: anabolic, catabolic, and energy-producing agents. Addresses cur-

rent supplements on the market in order to advise the general public. Prerequisites: FON100 or permission of instructor.

**FON144****Gourmet Foods**

3 Credits 4 Periods.

The art and appreciation of gourmet foods, accompanied by preparation and appropriate services. Prerequisites: None. Cross-References: HRM144

**FON179****Garde Manger**

3 Credits. 5 Periods.

Prepares students for employment in garde manger pantry positions in restaurants and resorts. Includes costing out and ordering food products; food and safety factors; preparing and garnishing pantry product. Emphasis on classical food presentation. Prerequisites: None.

**FON180****Principles and Skills for Professional Cooking**

3 Credits. 5 Periods.

Introductory principles and skills for professional cooking. Introduces organizational structure of kitchen staff in different types of kitchens. Includes basic principles of safety and sanitation, equipment and utensil use, French cooking terms, recipe use, measuring techniques, identification and use of seasoning agents, and basic cooking methods applied to stocks, sauces and soups, vegetables, starches, entrees, and eggs. Emphasis on practical experiences in a commercial kitchen. Prerequisites: None.

**FON182****American Regional Cuisine**

3 Credits. 5 Periods.

American regional food preparation applied to restaurants. Review principles of sanitation and safety. Explores history and customs, serving styles, and preparation techniques of foods unique to selected American regions. Emphasis on practical cooking experiences in a restaurant setting. American regions to include, but not limited to: Southern, Cajun/Creole, New England, Mid-West, and Pacific Coast. Prerequisites: None.



**FON183****International Cuisine**

3 Credits. 5 Periods.

Gourmet international food preparation applied to restaurants. Review principles of sanitation and safety. Explores history and customs, serving styles, and preparation techniques of foods unique to selected international cultures. Emphasis on practical cooking experiences in a restaurant kitchen. Cultures to include, but not limited to: Italian, German, Oriental, Middle Eastern, and Spanish. Prerequisites: None.

**FON190****Professional Cooking Practicum**

7 Credits. 19 Periods.

Preparation of hot and cold foods in a commercial food service operation; experience in volume food production preparing salads, soups, stocks, sauces, entrees, starches, and vegetables; designed to develop knowledge and skills necessary to cook in a variety of commercial kitchens. Prerequisites: FON104, FON180, or departmental approval.

**FON210****Sports Nutrition and Supplements for Physical Activity**

3 Credits. 5 Periods.

Description: Principles of nutrition applied to fitness, exercise, and sports. Dietary fundamentals as applied to body fuels, hydration, and other unique needs for exercise and sports. Includes dietary guidelines for weight or endurance training, glycogen loading, the pre-game meal, and glycogen recovery. Emphasis on maximizing fitness, performance, and safety. Discussion of supplements and their effects on metabolic enhancement. Discussion of anabolic, catabolic, and energy-producing agents. Addresses current supplements on the market. Prerequisites: FON100AA, or FON100, or equivalent, or permission of instructor.

**FON218****Commercial Baking; Classical Desserts**

3 Credits. 5 Periods.

Advanced principles and techniques in commercial baking and dessert preparation. Focus on fine pastries with European flair and on desserts served in better hotels, restaurants, and resorts. Preparation of macaroons, tarts, puff pastries, specialty cakes, and desserts such as Bavarian creams, mousses, custards, souffles, crepe desserts, and flammeries. Preparation and use of sauces, techniques for using nuts and chocolate, and exploration of new recipes. Prerequisites: None.

**FON221****Commercial Wedding Cake****Production**

3 Credits. 5 Periods.

Basic and advanced execution for special occasion, wedding, and groom's cakes to include initial design work, baking, icing, and advanced finishing techniques to include the use of fondant and gum paste. Enhancement of cakes to include basic sugar, pastillage, and chocolate decoration. Prerequisites: FON118 or permission of Program Director.

**FON224****Professional Pastry Techniques**

3 Credits. 5 Periods.

Advanced production techniques for plated desserts, frozen desserts, modern and classical gateaux, petits fours, and chocolates. Prerequisites: FON118 and FON218, or permission of Program Director.

**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**

3 Credits. 3 Periods.

Scientific principles of human nutrition. Emphasis on health promotion and concepts for conveying accurate nutrition information in a professional setting. Addresses therapeutic nutrition principles for treatment of common health conditions. Includes exploration of food sources of nutrients, basic metabolism of nutrients in the human body, relationship between diet and other lifestyle factors, use of supplements, current recommendations for food selection throughout the life cycle, and use of nutrition tools for planning food intake or assessment of nutritional status. Prerequisites: None.

**FON247****Weight Management Theory**

3 Credits. 3 Periods.

Comprehensive study of genetic, physiological, psychological, metabolic, and

environmental influences on body weight. In-depth study of the theories of body weight with emphasis on distinguishing between behavioral and biological approaches. Focus on discovering successful healthful long-term weight management strategies. Prerequisites: FON100 or FON241 or permission of instructor.

**GENERAL BUSINESS****GBS103****Principles of Banking**

3 Credits. 3 Periods.

History, characteristics and significance of American banking system, includes types of accounts, banking services and the relationship of commercial banks to their depositors. Prerequisites: None.

**GBS110****Human Relations in Business and Industry**

3 Credits. 3 Periods.

Exploration 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.

**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.

**GBS161****Mathematics of Business**

3 Credits. 3 Periods.

Applications of basic financial mathematics; includes interest, financial statement, stocks and bonds, and international business. Prerequisites: GBS131, or MAT102, or permission of department/division.

**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.

**GBS220****Quantitative Methods in Business**

3 Credits. 3 Periods.

Business applications of quantitative optimization methods in operations management decisions. Prerequisites: (Grade of "C" or better in MAT150, or MAT151, or MAT152) or equivalent, or satisfactory score on district placement exam.

**GBS221****Business Statistics**

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**

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/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.

**GBS294****Consumer Credit**

3 Credits. 3 Periods.

Consumer lending by financial institutions. Prerequisites: None.

**GENERAL TECHNOLOGY****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. Cross-References: FAC106, MIT106, OSH106.

**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. Recommended for all technology students except electronics. Prerequisites: None. Cross-References: MET107.

**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. Cross-References: MET108.

**GTC181****Introduction to Fluid Power**

3 Credits. 6 Periods.

Develops an understanding of the fundamental laws and principles of fluids together with consideration of such fluid devices as valves, cylinders, pumps, sizes of lines, and simple hookups. Includes both hydraulics and pneumatics. Prerequisites: ELE101 or equivalent.

**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.

**GEOLOGY****GLG101****Intro to Geology I: Physical Lecture**

3 Credits. 3 Periods.

A study of the kind and arrangement of materials composing the earth's crust and the geological processes at work on and within the earth's surface. Prerequisites: None.

**GLG102****Introduction to Geology II - Historical Lecture**

3 Credits. 3 Periods.

Outlines the origin and history of the earth with emphasis on North America—its dynamic, geographic, and climatic changes; animals and plants of the past; the evolution of life. Prerequisites: None.

**GLG103****Introduction to Geology I: Physical Lab**

1 Credit. 3 Periods.

May accompany GLG101. Study of common rock-forming minerals, rocks, and maps. Prerequisites: None.

**GLG104****Introduction to Geology II - Historical Lab**

1 Credit. 3 Periods.

May accompany GLG102. Study of geological structures and rocks, fossils, and geologic maps. May require field trips. Prerequisites: None.

**GLG110****Geological Disasters and the Environment**

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 floods, earthquakes, and landslides; use of fossil fuels; mining of raw materials. Prerequisites: None.

**GLG111****Geological Disasters and the Environment Lab**

1 Credit. 3 Periods.

May accompany GLG110. Basic geological processes and concepts. Emphasis on geology-related environmental problems concerning Arizona. Case histories and field studies. May require field trips. Prerequisites: None.



## HEALTH CARE RELATED

### HCR210

#### Clinical Health Care Ethics

3 Credits. 2 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.

## HEALTH CORE CURRICULUM

### HCC109

#### CPR for Health Care Provider

.5 Credit. .5 Period.

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.

### HCC130AA

#### Health Care Today

.5 Credit. .5 Period.

Overview of current health care professions including career and labor market information. Health care delivery systems, third-party payers, and facility ownership. Health organization structure, patient rights and quality care. Prerequisites: None.

### HCC130AB

#### Workplace Behavior in Health Care

.5 Credit. .5 Period.

Health care and life values. Definition and importance of values, ethics, and essential behaviors in the workplace. Worker rights and responsibilities. Prerequisites: None.

### HCC130AC

#### Personal Wellness and Safety

.5 Credit. .5 Period.

Introduces healthful living practices to include nutrition, stress management and exercise. Includes Occupational Safety and Health Administration (OSHA) standard precautions and facility safety. Use of principles of body mechanics in daily living activities. Prerequisites: None.

### HCC130AD

#### Communication and Teamwork in the Health Care Organizations

.5 Credit. .5 Period.

Emphasis on basic communication skills which facilitate team work in the health care setting. Focus on development of personal communication skills and an understanding of how effective communication skills promote team work. Focus on intercultural communication strategies. Prerequisites: None.

### HCC130AE

#### Legal Issues in Health Care

.5 Credit. .5 Period.

Basic legal terminology used in the health care setting. Legal concepts related to health care employment, medical documentation, and communication. Introduction to regulatory requirements in health care. Prerequisites: None.

### HCC130AF

#### Decision Making in the Health Care Setting

.5 Credit. .5 Period.

Principles and application of the decision making model. Description and application of ethics and process improvement and the relationship of both to the decision making model. Prerequisites: None.

### HCC146

#### Common Medical Terminology for Health Care Workers

2 Credits. 2 Periods.

Common medical terms used in health care. 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.

## HEALTH SCIENCE

### HES100

#### Healthful Living

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.

### HES154

#### First Aid/Cardiopulmonary Resuscitation

3 Credits. 3 Periods.

Cardiopulmonary Resuscitation and first aid for the adult, child and infant patients includes Automated External Defibrillator(AED), rescue breathing, obstructed airway, and other first aid procedures. Designed to train citizen responders in skills and procedures required during emergency situation. Prerequisites: None.

### HES271

#### Prevention and Treatment of Athletic Injuries

3 Credits. 3 Periods.

Prevention and care of athletic injuries, emphasizing use of modern training techniques and support materials. Utilization of preventive taping, strapping, bandaging, cardiopulmonary resuscitation, massage, cryotherapy, hydrotherapy, and practical application of muscle reconditioning. Prerequisites: None.

## HEATING, VENTILATING & AIR CONDITIONING

### HVA112

#### Heating and Air Conditioning

3 Credits. 3 Periods.

Types and styles of cooling equipment and duct systems. Methods of supplying air to spaces for heating and cooling. Human comfort factors related to heating and cooling. Psychrometric terminology and applications. Operation, control, and metering devices for heat pumps and package air conditioning systems. Basic heating and ventilating equipment including performance measurement of heating and combustion equipment. Procedures used with DX cooling and gas-fired and electric heating equipment. Troubleshooting techniques, local gas and electric codes, and safety precautions. Prerequisites: HVA103, HVA/ELC/FAC105. Corequisites: HVA112LL.

### HVA112LL

#### Heating and Air Conditioning Lab

1 Credits. 3 Periods.

Application of routine procedures related to heating and air conditioning. Includes identification of air conditioning and heating system components, evaluation of energy balance, identification of electrical malfunctions, and proper refrigerant handling procedures. Emphasis on safety. Prerequisites: HVA103, HVA/ELC/FAC105. Corequisites: HVA112.

**HVA143****Load Calculation and Duct Design**

3 Credits. 3 Periods.

Heat transmission factors calculations for specific types and combinations of construction materials. Application of design factors for cooling and heating load determination. Methods for residential applications. Design of residential and light commercial ducting systems. Calculation of duct size for constant and variable air flow, system operating characteristics and air measuring devices. Protocols to test, adjust, and balance an air distribution system. Prerequisites: None.

**HVA234****HVAC and Refrigeration Installation**

3 Credits. 3 Periods.

Industry codes used by the trades. Pipe and duct installation practices. Procedure for the installation of heating, ventilation, air conditioning and refrigeration (HVAC) equipment. Calculation of roof pitch and wire size for HVAC equipment. Start-up procedures for HVAC equipment. Prerequisites: ELC/FAC/HVA115 or permission of instructor. Corequisites: HVA234LL.

**HVA234LL****HVAC and Refrigeration Installation****Lab**

1 Credits. 3 Periods.

Practices and application for the installation of residential and commercial refrigeration and air conditioning equipment. Actual installation problems used as the basis of discussion and code application. Prerequisites: ELC/FAC/HVA115 or permission of instructor. Corequisites: HVA234.

**HVA240****Psychrometrics**

2 Credits. 2 Periods.

Composition of air, particle pressures of dry air and water vapor, terms and symbols associated with psychrometrics. Psychrometric chart, processes, calculations, mixed air conditions, and solving of actual air conditioning and refrigeration problems. Prerequisites: None.

**HISTORY****HIS100****History of Western Civilization to the Middle Ages**

3 Credits. 3 Periods.

Survey of the origin and development of Western civilization and its institutions from

prehistory through the Ancient World and the Middle Ages. Prerequisites: None.

**HIS101****History of Western Civilization Middle****Ages to 1789**

3 Credits. 3 Periods.

Survey of origin and development of Western civilization and its institutions from the Renaissance and Reformation through Age of Enlightenment. Prerequisites: None.

**HIS102****History of Western Civilization 1789 to****Present**

3 Credits. 3 Periods.

Survey of origin and development of Western civilization and its institutions from French Revolution through the present. Prerequisites: None.

**HIS103****U.S. History to 1870**

3 Credits. 3 Periods.

The political, economic, and social development of United States from Colonial through Reconstruction period. Prerequisites: None.

**HIS104****U.S. History 1870 to Present**

3 Credits. 3 Periods.

The political, economic, and social development of United States from Reconstruction period up to present time. Prerequisites: None.

**HIS105****Arizona History**

3 Credits. 3 Periods.

The prehistoric and contemporary Native American experience, Spanish colonial times, the Mexican National period, the U.S. federal territorial years, and Arizona's political and economic development during the twentieth century. Prerequisites: None.

**HIS106****Southwest History**

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.

**HIS108****United States History 1945 to the****Present**

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.

**HIS109****Mexican-American History and****Culture**

3 Credits. 3 Periods.

Examination of origins and development of Spanish-American and Mexican-American peoples and their contribution to culture, history and development of United States. Emphasis on Mexican-American War and its impact on educational, social, and economic conditions of the Mexican-Americans of the southwest. Prerequisites: None.

**HIS145****History of Mexico**

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.

**HIS201****History of Women in America**

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.

**HIS203****African-American History I**

3 Credits. 3 Periods.

History and cultural heritage of African-Americans from their beginnings in Ancient Africa through the experience of chattel slavery in the Americas to their eventual emancipation and participation in the American Civil War. Prerequisites: None.

**HIS204****African-American History II**

3 Credits. 3 Periods.

Multifaceted experiences of African-American people from the post-Civil War period (1865) to the present, including the collective struggle for freedom, equality, and self-determination in the United States. Prerequisites: HIS203.

**HIS209****The Chicano in Twentieth Century America**

3 Credits. 3 Periods.

Analysis of the twentieth century Chicano experience. Historical perspective of the emergence of Chicanos as an influential minority in the United States. Prerequisites: None.

**HIS241****Latin American Civilization in the Colonial Period**

3 Credits. 3 Periods.

A survey of the political, economic, and social forces which molded Latin American civilization in the Colonial Period. Prerequisites: None.

**HIS273****US Experience in Vietnam****1945 - 1975**

3 Credits. 3 Periods.

Survey of the US experience in Vietnam, 1945-1975, in view of political, economic, and social forces of the Cold War. Prerequisites: None.

## 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.

**HRM120****Hotel Facility Management**

3 Credits. 3 Periods.

Fundamental duties and responsibilities of hotel facility management. Emphasis on detail tasks, including personnel, cleaning, purchasing, equipment, textiles, maintenance, and safety. Examines basic systems for hotel facility management record keeping. Prerequisites: None.

**HRM126****Food Service Cost Systems**

2 Credits. 2 Periods.

Basic skills necessary to understand and utilize cost controls. Overview of systems for purchasing, storage, production control, and budgeting. Mechanical and mathematical details emphasized. Accounting process taught with aid of microcomputer. Introduction to standardized accounting software. Prerequisites: None.

**HRM130****Guest Services Management**

3 Credits. 3 Periods.

Examines organization and management of the hotel front office and guest service operations. Explores key front office functions and related systems and skills necessary to ensure guest satisfaction and efficient operations. Prerequisites: None.

**HRM140****Food Production Concepts**

3 Credits. 3 Periods.

Concepts related to preparation of hot foods, pantry, and bakery items for commercial kitchens. Emphasis on essential components and techniques of food production, food cost control, setting standards, ordering, and inventory. Prerequisites: None.

**HRM220****Hospitality Managerial Accounting**

3 Credits. 3 Periods.

Study of financial statement analysis, asset management, ratio analysis, analytical techniques, and investment decision making. Emphasis on planning, budgeting, and management decisions. Prerequisites: ACC211.

**HRM244****Quality Sanitation Management**

3 Credits. 3 Periods.

Systems approach to answering public health concerns, reducing sanitation risks, and ensuring satisfaction for guests, staff members, and owners. Definition and implementation of sanitation quality, cost control, and risk reduction in a hospitality operation. Prerequisites: None.

**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 approval 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. Prerequisite: HRM110.

**HRM275****Restaurant Management**

3 Credits. 3 Periods.

Overview of restaurant industry with focus on the major segments. Emphasis on developing plans for: marketing, accounting system, staffing, training, menu development and cost controls for restaurant operation. Special emphasis on safety and sanitation, and legal regulations in the restaurant industry. Prerequisites: None.

**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.

**HRM296WA****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 concurrently enrolled in at least one class which is related to student's major or career interest or with permission of the instructor.



**HRM298AA****Special Projects**

1 Credit. 1 Period.

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.

**HUMANITIES****HUM107****Humanities Through the Arts**

3 Credits. 3 Periods.

Introduction to humanities including film, drama, music, literature, painting, sculpture, and architecture. Prerequisites: None.

**HUM190AA-AD****Honors Forum**

1 Credit. 1 Period.

Interdisciplinary studies of selected issues confronting the individual and society. Formal lectures followed by informal discussion with outstanding scholars and social leaders. Supplemented by readings and pre- and post-forum discussion and critique. Varied content from module to module due to changing forum themes and issues. Prerequisites: Admission to the College Honors Program or Permission of the Instructor.

**HUM120****Cultural Viewpoints in the Arts**

3 Credits. 3 Periods.

Introduction to the influence of culture and ethnicity on the artist, including factors such as race, religion, gender, class, sexual preference, age, and region. Lecture and discussion on various art forms, including literature, visual arts, music, dance, film, and theater. Prerequisites: None.

**HUM209****Women and Films**

3 Credits. 3 Periods.

Analysis of images of women in films from both historical and contemporary perspectives. Prerequisites: None. Cross-References: WST209

**HUM213****Hispanic Film**

3 Credits. 3 Periods.

Analysis of Hispanic film as art form and as social commentary. Prerequisites: None.

**HUM214****African-Americans in Film**

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.

**HUM250****Ideas and Values in the Humanities**

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**

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**

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. Cross-References: EDU292, STO292.

**INTERIOR DESIGN****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.

**INFORMATION  
TECHNOLOGY  
SECURITY****ITS100****Information Security Awareness**

1 Credits. 2 Periods.

Computer and network security topics, including network communication. Includes security policy, implementation of basic security measures, the importance of backups and the value of protecting intellectual property. Real-life examples and practical projects to reinforce the need for computer security. Prerequisites: None.

**ITS110****Information Security Fundamentals**

4 Credits. 5 Periods.

Fundamental concepts of information technology security. Topics include authentication methods, access control, cryptography, Public Key Infrastructure (PKI), network attack and defense methods, hardening of operating systems and network devices, securing remote access and wireless technologies and securing infrastructures and topologies. Emphasis on hands-on labs in both the Windows and Linux environments. Builds on thorough understanding of Transmission Control Protocol/Internet Protocol (TCP/IP) and security concepts and Microsoft (MS) Windows and Linux Administration. Prerequisites: CIS126DA or CIS126DL and CNT150 and MST150DA or MST150XP or permission of instructor.

**ITS120****Legal, Ethical and Regulatory Issues**

3 Credits. 3 Periods.

Exploration of legal and ethical issues unique to information security. Analysis of professional ethical codes and their application to information security practitioners. Federal and state laws as they relate to information security. Prerequisites: ITS110 or permission of instructor.

**ITS130****Operating System Security**

3 Credits. 4 Periods.

In-depth examination of operating system security including Transmission Control Protocol/Data Encryption Standard (DES), Triple Data Encryption (3DES), Advanced Encryption Standard (AES), Pretty Good Privacy (PGP), and other encryption technologies (TCP/IP), Internet Protocol Security (IPSec) and Cisco Internetwork Operating Systems (IOS), Microsoft Windows, Linux and Mac OSX Security. Procedures to defend networks against attacks and recovery from network disasters. Web server security. Emphasis on hands-on labs in both the Windows and Linux environments. Builds on thorough understanding of Transmission Control Protocol/Internet Protocol (TCP/IP) and security concepts and MS Windows and Linux Administration. Prerequisites: ITS110 or permission of instructor.

**ITS140****Network Security**

3 Credits. 4 Periods.

Examination of techniques used to defend network security. Design and implementation of devices including firewalls and Intrusion Detection Systems (IDSs) and Virtual Private Networks (VPNs). Risk analysis and security policies methodologies. Emphasis on hands-on labs in both the Windows and Linux environments. Builds on thorough understanding of Transmission Control Protocol/Internet Protocol (TCP/IP) and security concepts and MS Windows and Linux Administration. Prerequisites: (ITS110 and ITS130) or permission of instructor.

**ITS150****Building Trusted Networks in the Enterprise**

3 Credits. 4 Periods.

Design of a trusted network to secure electronic transactions. Techniques to secure electronic transactions to include cryptography, digital signatures, digital certificates and strong authentication. Computer forensics techniques and legislative issues. Emphasis on hands-on labs in both the Windows and Linux environments. Builds on thorough understanding of Transmission Control Protocol/Internet Protocol (TCP/IP) and security concepts and MS Windows and Linux Administration. Prerequisites: ITS110, ITS130, and ITS140, or permission of instructor.

**ITS160****Managing Trusted Networks in the Enterprise**

3 Credits. 4 Periods.

Establishment of trusted networks to ensure enterprise security. Techniques for planning and implementation of trusted networks including secure Wireless LANs (WLANs) and secure email. Emphasis on hands-on labs in both Windows and Linux environments. Builds on thorough understanding of Transmission Control Protocol/Internet Protocol (TCP/IP) and security concepts and MS Windows and Linux Administration. Prerequisites: ITS110, ITS130, ITS140 and ITS150 or permission of instructor.

**ITS170****Information Security Policy Development**

1 Credits. 1 Periods.

Components required to plan, develop and write information security policies. Policy development processes and the relationship between security and policy directions. Emphasis on writing effective information security policies in a governmental or corporate setting. Prerequisites: None.

**ITS171****Information Security Risk Management**

1 Credits. 1 Periods.

Examination and assessment of risk management in an information technology environment. Identification and valuation of organizational assets. Risk identification to include types of threats and exposures to loss. Risk mitigation techniques, documentation methods and regulatory requirements. Prerequisites: ITS110.

**ITS172****Viruses and Other Malicious Software**

1 Credits. 2 Periods.

Spyware, adware, viruses, worms and trojans. Available tools for identifying and removing malicious software. Techniques for analyzing the behavior of malicious software. Methods of infection and prevention of infection. Prerequisites: None.

**ITS230****Deploying Snort Intrusion Detection Systems (IDS)**

3 Credits. 4 Periods.

Intrusion Detection System (IDS). Examination of network intrusion detection concepts, principles and practices. Study of the mechanics and behaviors of Transmission

Control Protocol/Internet Protocol (TCP/IP). Creation of filters and rules for network monitoring. Analysis of packet structure. Evaluation of intrusion detection system architectures. Detection and analysis of scans, vulnerabilities, exploits, and attacks. Identification of countermeasures. Architectural considerations for intrusion detection systems. Prerequisites: ITS110 or permission of instructor.

**ITS231****Router Hardening**

1 Credits. 2 Periods.

The role of routers in communication networks. Device specific threats and vulnerabilities. Strategies to harden routers to protect networks. Includes standards-based and proprietary protocols. Prerequisites: CNT150 or permission of the instructor.

**ITS232****Layer 2 Attacks and Defenses**

3 Credits. 4 Periods.

Security issues associated with Layer 2, the data link layer, of the seven-layer Open Systems Interconnection (OSI) model. Countermeasures and security best practices to mitigate Layer 2 attacks applied to Ethernet networking environments. Prerequisites: CNT160 and (ITS110 or CIS270) or permission of instructor.

**ITS233****Wireless Network Security**

3 Credits. 4 Periods.

Advanced concepts of securing wireless (802.11) communications. Auditing tools, Radio Frequency (RF) jamming and Wired Equivalent Privacy (WEP) decryption tools. Policies for implementing secure Wireless Local Area Networks (WLANs) including baselines, WLAN auditing and threat monitoring and responses. The role of encryption and Virtual Private Networks (VPNs), 802.11i and Wi-Fi Protected Access (WPA) as well as network segmentation and WLAN user authentication. Prerequisites: CNT186 and (ITS110 or CIS270) or permission of instructor.



**ITS290****Computer Security Incident Response**

3 Credits. 3 Periods.

Study of computer security incidents and how to respond to those incidents. Examination of frameworks for developing response strategies. Development and presentation of an incident response plan. Prerequisites: BPC170 and ITS110 or permission of instructor.

**ITS291****Computer Forensics Foundations**

4 Credits. 5 Periods.

Development of foundational computer forensic skills. Introduction to preserving, identifying, extracting, interpreting, and documenting computer data as part of a forensically sound analysis. Examination of the physical and logical structure of hard drives. Study of the logical structure of Windows-based file systems and common applications. Introduction to the logical structure of Unix/Linux-based file systems and common applications of commercial forensic tools. Prerequisites: BPC170 and ITS110 or permission of instructor.

**ITS292****Advanced Computer Forensics**

4 Credits. 5 Periods.

Advanced computer forensics analysis techniques with commercial tools. Introduction to open-source forensic tools. Emphasis on data recovery from complex applications and media types. Study of the logical structure of Unix/Linux-based file systems. Advanced search techniques. Analysis of unallocated space, compound files, and NTFS artifacts. Prerequisites: ITS291 or permission of instructor.

**ITS295AA****Special Topics in Information****Security**

1 Credits. 2 Periods.

Exploration of special topics in Information Security. Includes both theoretical and practical aspects of the selected topic. Prerequisites: Completion of Information Security Technology certificate program or permission of instructor.

**ITS295AB****Special Topics in Information****Security**

2 Credits. 3 Periods.

Advanced level seminar in Information Security. Focuses on both the theoretical and practical aspects of selected Information Security topics. Prerequisites: Completion

of Information Security Technology certificate program or permission of instructor.

**ITS295AC****Special Topics in Information****Security**

3 Credits. 4 Periods.

Advanced level seminar in Information Security. Focuses on both the theoretical and practical aspects of selected Information Security topics. Research methods in specific Information Security disciplines. Prerequisites: Completion of Information Security Technology certificate program or permission of instructor.

**MANAGEMENT****MGT101****Techniques of Supervision**

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.

**MGT175****Business Organization and Management**

3 Credits. 3 Periods.

Covers basic principles of managing quality and performance in organizations. Covers management functions: planning, organizing, leading, and controlling. Emphasizes continual improvement, ethics, and social responsibility. Prerequisites: None.

**MGT179****Utilizing the Human Resources****Department**

3 Credits. 3 Periods.

Provides the opportunity to learn how to appropriately utilize the human resources department within an organization in order to improve job performance. Topics include staffing, training and development, manpower planning, compensation and benefits, federal labor laws and why people seek outside representation. Prerequisites: None.

**MGT229****Management and Leadership I**

3 Credits. 3 Periods.

Covers management concepts and applications for business, industry, and government organizations. Prerequisites: None.

**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 Periods.

Starting, organizing, and operating a small business, including location, finance management processes, advertisement and promotion, credit, inventory control and ethics. Prerequisites: None.

**MGT276****Personnel/Human Resources Management**

3 Credits. 3 Periods.

Human resource planning, staffing, training, compensating, and appraising employees in labor management relationships. Prerequisites: None. MGT101, or MGT175, or MGT229 suggested but not required.

**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.

**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.

## 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.

### MET102

#### Machine Processes, Theory and Application

5 Credits. 9 Periods.

Study and application of principles and theory of common metal removal processes including drilling, reaming, boring, milling, turning, and grinding. Cutting tool geometry and materials, cutting speeds and feeds, coolants, and precision measurement. Prerequisites or Corequisites: MET/GTC107 and MET109 or minimum score of 80% on related competency evaluation.

### MET103AA

#### Lathe I: Basic Manual Lathe Operations

2 Credits. 3 Periods.

Basic manual lathe operations and safety. Identification and selection of appropriate materials, tools, and chemicals for material removal process. Application of mathematical concepts in basic manual lathe operations. Process design and blueprint interpretation. Operator certification checklist. Prerequisites: MET100AA and MET100AB.

### MET103AB

#### Lathe II: Secondary Manual Lathe Operations

1 Credits. 2 Periods.

Secondary manual lathe operations and safety. Identification and selection of appropriate materials, tools, and chemicals for material removal process. Application of mathematical concepts in secondary manual lathe operations. Process design and blueprint interpretation. Operator certification checklist. Prerequisites: MET103AA.

### MET104AA

#### Mill I: Basic Machine Operations

2 Credits. 3 Periods.

Basic vertical mill operations and safety. Selection of correct tools for a specific machining operation. Mathematical calculations and operations essential in machining operations. Design of process flow charts, and material selection. Blueprint interpretation. Operator certification check sheet. Prerequisites: MET100AA and MET100AB.

### MET104AB

#### Tool Room I: Introduction to Machine Processes

1 Credits. 2 Periods.

Secondary vertical mill set-up operations and safety. Selection of correct tools for a specific machining operation. Mathematical calculations and operations essential in machining operations. Design of process flow charts, and material. Blueprint interpretation. Operator certification check sheet. Prerequisites: MET104AA.

### MET108

#### 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. Cross-References: GTC108

### MET109

#### Machine Trades Print Reading

3 Credits. 3 Periods.

Analysis and interpretation of technical drawings (prints) common to manufacturing and the machine trades. Types of print formats, line types, and view projections. Mathematical calculations for determining dimensions. Symbols and features present on prints. Prerequisites: None.

### MET110

#### Survey of Manufacturing Materials

1 Credits. 1 Periods.

Survey of metallurgy, composites, plastics, ceramics and other materials used in manufacturing. Material properties, classification and structure. Elementary strength of materials, heat treatment, and other materials processing requirements. Emphasis on relating materials and processes to specific hardware. Prerequisites: None.

### MET112

#### Inspection Techniques

3 Credits. 3 Periods.

Set-up and use of inspection tools, equipment, and procedures used in the industry. Use of ancillary equipment. Inspection planning forms and tables. Tool control activities and tool use certification process. Prerequisites: MET109 or permission of department.

### MET114

#### Quality Systems

1 Credits. 1 Periods.

Quality system models and their application to a manufacturing organization. Cost of quality in a manufacturing organization. Prerequisites: None.

### MET115

#### Teamwork Dynamics in Manufacturing

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. Concepts of team development and team problem-solving techniques. Prerequisites: None.

### MET140

#### Computer-Aided Drafting for Manufacturing

3 Credits. 6 Periods.

Use of Computer Aided Drafting (CAD) equipment (hardware and software) in manufacturing and engineering drawings. Prerequisites: None.

### MET203

#### Machine Tools

5 Credits. 9 Periods.

Set up and operation of machine tools including engine lathes, drill presses, grinders, and milling machines. Emphasis on safety procedures during machine operation. Completion of operator certification checklist. Prerequisites: MET102, MET/GTC107, and MET109.

**MET206****CNC Programming**

3 Credits. 6 Periods.

Manual programming using computer generation of program media. Set-up and operation of a three axis machine. Study of management implications and advantages of computer numerical control (CNC). Prerequisites: MET102 or (MET102AA, MET103AA, MET104AA and MET105AA), or machine shop experience or permission of program director. Cross-References: GTC206.

**MET236****CAD/CAM Computer Numerical Control (CNC) Programming**

3 Credits. 6 Periods.

Programming of Numerical Control (NC) Mill, Lathe, and Wire Electrical Discharge Machine (EDM), utilizing Computer Aided Drafting and Computer Aided Manufacturing (CAD/CAM) for design and generation of part geometry. Verification of tool path using CAD graphics. Generate programs using CAM post processor. Prerequisites: GTC/MET206. Cross-References: GTC236.

**MET260****Tooling and Fixturing**

3 Credits. 3 Periods.

Various types of jigs and fixtures and their function as related to Numerically Controlled (NC) machines. Clamping and workholding principles and also use of common jigs and fixture hardware. Prerequisites: (MET111 and MET140) or permission of department.

**MET264****Manufacturing Process Planning**

3 Credits. 3 Periods.

Development of a production plan (routing) from basic pre- production information in the product drawing, expected volume, available equipment, set-up reduction requirements, and other planning requirements. Prerequisites or Corequisites: MET260.

## MASS COMMUNICATIONS

**MCO220****Cultural Diversity and the Media**

3 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.

## MATHEMATICS

**MAT082****Basic Arithmetic**

3 Credits. 3 Periods.

Primary emphasis placed on fundamental operations with whole numbers, fractions, decimals, integers, and rational numbers; proportions, and percentages. Other topics include representations of data, geometric figures, and measurement. Prerequisites: None.

**MAT082AA****Basic Arithmetic I**

1 Credit. 1 Period.

Fundamental operations with whole numbers and integers. Prerequisites: None.

**MAT082AB****Basic Arithmetic II**

1 Credit. 1 Period.

Fundamental operations with fractions and decimals. Prerequisites: None.

**MAT082AC****Basic Arithmetic III**

1 Credit. 1 Period.

Fundamental operations with percentages; bar, line and pie graphs; measurement. Prerequisites: None.

**MAT090****Developmental Algebra**

5 Credits. 5 Periods.

Linear behavior; linear equations and inequalities in one and two variables; graphs; systems of equations in two variables; function notation, graphs, and data tables; operations on polynomials; properties of exponents; applications. Prerequisites: Grade of "C" or better in MAT082, or MAT102, or equivalent, or satisfactory score on District Placement exam. Course Note: May receive credit for only one of the following: MAT090, MAT091, MAT092, or MAT093.

**MAT091****Algebra/Anxiety Reduction**

4 Credits. 4 Periods.

Linear behavior; linear equations and inequalities in one and two variables; graphs; systems of equations in two variables; function notation, graphs, and data tables; operations on polynomials; properties of exponents; applications. Prerequisites: Grade of "C" or better in MAT082, or MAT102,

or equivalent or satisfactory score on District placement exam.

Course Note: May receive credit for only one of the following: MAT090, MAT091, MAT092, or MAT093.

**MAT092****Introductory Algebra**

3 Credits. 3 Periods.

Linear behavior; linear equations and inequalities in one and two variables; graphs; systems of equations in two variables; function notation, graphs, and data tables; operations on polynomials; properties of exponents; applications. Prerequisites: Grade of "C" or better in MAT082, or MAT102, or equivalent, or satisfactory score on District Placement exam. Course Note: May receive credit for only one of the following: MAT090, MAT091, MAT092, or MAT093.

**MAT092AA****Introductory Algebra/1st Degree Equation Inequalities**

1 Credit. 1 Period.

The study of basic operations on integers, and rational numbers and the solving of first degree one variable equations and inequalities. Prerequisites: Grade of "C" or better in MAT082, or MAT102, or equivalent, or satisfactory score on District Placement exam.

**MAT092AB****Introductory Algebra/Polynomials**

1 Credit. 1 Period.

Fundamental operations with polynomials in one or more variables. Techniques in factoring and its use in equation solving. Prerequisites: Grade of "C" or better in MAT092AA or equivalent.

**MAT092AC****Introductory Algebra/Graphing Systems**

1 Credit. 1 Period.

Graphing linear equations in two variables and solving systems of equations in two variables. Also problem solving using systems of equations, operations with rational expressions, and problem solving with rational expressions. May receive credit for only one of the following: MAT090 or MAT092. Prerequisites: Grade of "C" or better in MAT092AB or equivalent.



**MAT102****Mathematical Concepts/Applications**

3 Credits. 3 Periods.

A problem solving approach to mathematics as it applies to life and the world of work. Development, demonstration, and communication of mathematical concepts and formulas that relate to measurement, percentage, statistics, and geometry. Prerequisites: Grade of "C" or better in MAT082, or equivalent, or satisfactory score on District placement exam.

**MAT103AA****Mathematics for Industrial****Applications I**

2 Credits. 2 Periods.

Fundamental operations with whole numbers, common fractions, decimals, percentages, and ratio and proportion. Graphs, measurements, and measurement tools. Fundamentals of algebra to include signed numbers, algebraic operations, linear equations, graphs of linear equations, and systems of equations. Includes applied math problems. Prerequisites: Grade of "C" or better in MAT082, or equivalent, or satisfactory score on District placement exam.

**MAT103AB****Mathematics for Industrial****Applications II**

2 Credits. 2 Periods.

Fundamentals of plane geometry and angular measure. Theorems, axioms, corollaries and definitions applying to triangles, congruent and similar figures, polygons, and circles. Computed measure of geometric figures, area, volume, surface area, and weight. Fundamentals of trigonometry, trigonometric functions, right triangles, law of sines and law of Cosines. Includes applied math problems. Prerequisites: MAT103AA or permission of the instructor.

**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. Prerequisites: None. Corequisites: MAT082, or MAT090, or MAT091, or MAT092, or MAT120, or MAT121, or MAT122, or MAT140, or MAT 141, or MAT 142, or MAT150, or MAT151, or MAT152, or permission of department chair. Course Notes: MAT108 may be repeated for a total of 10 credits.

**MAT120****Intermediate Algebra**

5 Credits. 5 Periods.

Quadratic, rational, radical, exponential, and logarithmic functions and equations; graphs of quadratic, exponential, and logarithmic functions; equations quadratic in form; operations on rational expressions, radical expressions, and complex numbers; rational exponents; applications. Prerequisites: Grade of "C" or better in MAT090, MAT091, MAT092, MAT093, or equivalent, or a satisfactory score on the District placement exam. Course Note: May receive credit for only one of the following: MAT120, MAT121, or MAT122.

**MAT121****Intermediate Algebra**

4 Credits. 4 Periods.

Quadratic, rational, radical, exponential, and logarithmic functions and equations; graphs of quadratic, exponential, and logarithmic functions; equations quadratic in form; operations on rational expressions, radical expressions, and complex numbers; rational exponents; applications. Prerequisites: Grade of "C" or better in MAT090, MAT091, MAT092, MAT093, or equivalent, or a satisfactory score on the District placement exam. Course Note: May receive credit for only one of the following: MAT120, MAT121, or MAT122.

**MAT142****College Mathematics**

3 Credits. 3 Periods.

Working knowledge of college-level mathematics and its applications to real-life problems. Emphasis on understanding mathematical concepts and their applications. Topics include set theory, probability, statistics, finance, and geometry. Prerequisites: Grade of "C" or better in MAT120, or MAT121, or MAT122 or equivalent, or satisfactory score on District placement exam.

**MAT150****College Algebra / Functions**

5 Credits. 5 Periods.

Analysis and interpretation of the behavior and nature of functions including polynomial, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions; systems of equations, modeling and solving real world problems. Additional topics may include matrices, combinatorics, sequences and series, and conics. Prerequisites: Grade of "C" or better in MAT120, or MAT121, or MAT122 or

equivalent, or satisfactory score on District placement exam.

**MAT151****College Algebra/Functions**

4 Credits. 4 Periods.

Analysis and interpretation of the behavior and nature of functions including polynomial, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions; systems of equations, modeling and solving real world problems. Additional topics may include matrices, combinatorics, sequences and series, and conics. Prerequisites: Grade of "C" or better in MAT120, or MAT121, or MAT122, or equivalent, or satisfactory score on District placement exam.. Course Note: May receive credit for only one of the following: MAT150, MAT151, MAT152, or MAT187.

**MAT152****College Algebra / Functions**

3 Credits. 3 Periods.

Analysis and interpretation of the behavior and nature of functions including polynomial, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions; systems of equations, modeling and solving real world problems. Additional topics may include matrices, combinatorics, sequences and series, and conics. Prerequisites: Grade of "B" or better in MAT120, or MAT121, or MAT122, or equivalent, or satisfactory score on District placement exam. Course Note: May receive credit for only one of the following: MAT150, MAT151, MAT152, or MAT187.

**MAT156****Mathematics for Elementary****Teachers I**

3 Credits. 3 Periods.

Focuses on numbers and operations. Algebraic reasoning and problem solving integrated throughout the course. Prerequisites: Grade of "C" or better in MAT142 or MAT150 or MAT151 or MAT152 or equivalent, or satisfactory score on District placement exam.

**MAT157****Mathematics for Elementary****Teachers II**

3 Credits. 3 Periods.

Focuses on measurement, geometry, probability and data analysis. Appropriate technologies, problem solving, reasoning, and proof are integrated throughout the course. Prerequisite: MAT156 or equivalent.

**MAT172****Finite Mathematics**

3 Credits. 3 Periods.

An introduction to the mathematics required for the study of social and behavioral sciences. Includes combinatorics, probability, descriptive statistics, matrix algebra, linear programming and the mathematics of finance. Includes applications of technology in problem-solving. Prerequisites: Grade of "C" or better in MAT150, or MAT151, or MAT152, or MAT187 or equivalent, or satisfactory score on District placement exam.

**MAT182****Plane Trigonometry**

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. May receive credit for only one of the following: MAT182 or MAT187. Prerequisites: Grade of "C" or better in MAT150, or MAT151, or MAT152, or equivalent, or concurrent registration in MAT150, or MAT151, MAT152, or satisfactory score on District placement exam.

**MAT212****Brief Calculus**

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. Prerequisites: Grade of "C" or better in MAT150, or MAT151, or MAT152, or MAT187 or equivalent, or satisfactory score on District placement exam.

**MAT217****Mathematical Analysis for Business**

3 Credits. 3 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**

5 Credits. 5 Periods.

Limits, continuity, differential and integral calculus of functions of one variable. Prerequisites: Grade of "C" or better in (MAT150 or MAT151 or MAT152 and MAT182) or MAT187 or equivalent or satisfactory score on district placement exam. Course Note: Students may receive credit for only one of the following: MAT220 or MAT221.

**MAT230****Calculus with Analytic Geometry II**

5 Credits. 5 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. Prerequisites: Grade of "C" or better in MAT220 or MAT221 or equivalent. Course Note: Student may receive credit for only one of the following: MAT230 or MAT231.

**MAT241****Calculus with Analytic Geometry III**

4 Credits. 4 Periods.

Multivariate calculus including vectors, vector-valued functions, partial differentiation, multiple integration and an introduction to vector fields. Prerequisites: Grade of "C" or better in MAT230 or MAT231. Course Note: Student may receive credit for only one of the following: MAT240 or MAT241.

**MAT262****Differential Equations**

3 Credits. 3 Periods.

Ordinary differential equations with applications including LaPlace transforms with numerical methods. Prerequisites: Grade of "C" or better in MAT230, or MAT231, or equivalent.


**MICROSOFT  
TECHNOLOGY**
**MST140****Microsoft Networking Essentials**

3 Credits. 4 Periods.

Emphasis on local area network with overview of wide area networks. Includes terminology, hardware and software components, connectivity, network architecture, packet structure, topologies, communication standards and protocols, and

security issues. Preparation for Microsoft certification examination. Prerequisites: None. (BPC110 or CIS105, and BPC121AB) suggested but not required.

**MST141****Supporting Microsoft Windows Desktop Operating Systems**

3 Credits. 4 Periods.

Troubleshooting and repairing problems with Microsoft Windows desktop operating systems. Basic knowledge of system architecture and security as needed to provide skills required to support users. Preparation for Microsoft Certified Desktop Support Technician (MCDST) certification examination. Prerequisites: CIS102 and CIS105, or permission of instructor. Prerequisites or Corequisites: MST150XP.

**MST142****Supporting Applications on Microsoft Windows Desktop Operating Systems**

3 Credits. 4 Periods.

Troubleshooting and repairing end-user problems with applications running on current Windows desktop operating systems. Preparation for Microsoft Certified Desktop Support Technician (MCDST) certification examination. Prerequisites: CIS102 and CIS105, or permission of instructor. Prerequisites or Corequisites: MST150XP.

**MST145****Microsoft Client System****Administration**

3 Credits. 4 Periods.

Knowledge and skills to install, configure, customize, optimize, maintain, and troubleshoot the Microsoft Windows client operating system in a Microsoft networking environment. Preparation for Microsoft certification examination. Prerequisites or Corequisites: MST140 or permission of instructor.

**MST150****Microsoft Windows Professional Administration**

3 Credits. 4 Periods.

Knowledge and skills necessary to perform day-to-day administration tasks in a Microsoft Windows-based network. Preparation for Microsoft certification examination. Prerequisites: None. CIS190, or CNT140, or MST140 suggested but not required.



**MST150DA****Microsoft Windows 2000 Professional**

3 Credits. 5 Periods.

Knowledge and skills necessary to perform day-to-day administration tasks of Microsoft Windows 2000 Professional. Preparation for Microsoft certification examination. Prerequisites: None. CIS190, or CNT140, or MST140 suggested but not required.

**MST150XP****Microsoft Windows XP Professional**

3 Credits. 4 Periods.

Knowledge and skills necessary to perform day-to-day administration tasks of Microsoft Windows XP Professional. Preparation for Microsoft certification examination. Prerequisites: None. CIS190, or CNT140, or MST140 suggested but not required.

**MST152****Microsoft Windows Server**

4 Credits. 5 Periods.

Knowledge and skills necessary to install, configure, customize, optimize, network, integrate, and troubleshoot Windows Server. Preparation for Microsoft certification examination. Prerequisites or Corequisites: Any MST150 course or permission of instructor.

**MST152DB****Microsoft Windows 2003 Server**

4 Credits. 5 Periods.

Knowledge and skills necessary to install, configure, customize, optimize, network, integrate, and troubleshoot Microsoft Windows 2003 Server. Preparation for Microsoft certification examination. Prerequisites or Corequisites: Any MST150 course or permission of instructor.

**MST154****Microsoft Windows Network Enterprise**

3 Credits. 4 Periods.

Knowledge and skills to plan, install, configure, customize, and integrate networks with Windows server operating system in a heterogeneous, multiple-domain environment. Preparation for Microsoft certification examination. Prerequisites: MST150 or permission of instructor. Corequisites: MST152 or permission of instructor.

**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: any MST152 course or permission of instructor.

**MST157****Implementing Windows Directory Services**

3 Credits. 4 Periods.

Knowledge and skills to install, configure, and administer Microsoft Windows Active Directory services. Preparation for Microsoft certification examination. Prerequisites: Any MST152 course or permission of instructor.

**MST170****Visual Basic Desktop Application Development**

4 Credits. 5 Periods.

Use of Visual Basic programming language to create database applications using Visual Data Access tools, ActiveX Controls, Component Objects, and Structured Query Language (SQL) Server database. Prerequisites: CIS159 or permission of instructor.

**MST171****Microsoft FrontPage**

3 Credits. 4 Periods.

Knowledge and skills to analyze, design, build, and implement enterprise Web sites using Microsoft FrontPage. Includes use of ActiveX components, databases, and FrontPage server extensions. Prerequisites: (CIS233BA or CIS233DA) and MST170, or permission of instructor.

**MST172****Visual Basic .NET Web Application Development**

4 Credits. 5 Periods.

Knowledge and skills to develop and implement Web-based applications using ASP.NET, Web forms, and the Microsoft.NET framework with Visual Basic. Preparation for Microsoft Certified Applications Developer (MCAD) certification examination. Prerequisites: (BPC/CIS133DA, or BPC/CIS133AA and BPC/CIS133BA and BPC/CIS133CA) and CIS259, or permission of instructor.

**MST174****Microsoft Visual InterDev**

3 Credits. 4 Periods.

Web site programming tasks to create enterprise-level Web sites that use Component Object Model (COM) components on both the client and the server. Preparation for Microsoft Certified Solutions Developer (MCSD) examination. Prerequisites: (CIS233BA or CIS233DA) and MST170 or permission of instructor.

**MST232****Managing a Windows Network Environment**

3 Credits. 4 Periods.

Knowledge and skills necessary to administer Windows network operating systems. Preparation for Microsoft certification examination. Prerequisites: MST140, MST150, and MST152, or permission of instructor.

**MST240****Microsoft Transmission Control Protocol/Internet Protocol (TCP/IP)**

3 Credits. 4 Periods.

Knowledge and skills necessary to install, configure, use, and support TCP/IP on Microsoft Windows network. Preparation for Microsoft certification examination. Prerequisites: MST152 or permission of instructor.

**MST242****Microsoft Exchange Server**

4 Credits. 5 Periods.

Knowledge and skills required to plan, implement, and administer Microsoft Exchange Server. Preparation for Microsoft certification examination. Prerequisites: any MST152 course or permission of instructor.

**MST244****Microsoft SQL Administration**

3 Credits. 4 Periods.

Knowledge and skills required to install, configure, and administer Microsoft SQL server. Preparation for Microsoft certification examination. Prerequisites: any MST152 course or MST170 or permission of instructor.

**MST246****Implementing Microsoft Internet Explorer**

2 Credits. 3 Periods.

Strong foundation in the architecture and key features of Microsoft Internet Explorer. Set up, configure, use, and deploy Internet Explorer in a network environment, with particular emphasis on intranet use. Prerequisites: Any MST152 course or permission of instructor. Knowledge of HTML suggested but not required.

**MST247****Microsoft Proxy Server**

2 Credits. 3 Periods.

Knowledge and skills to install, configure, and administer Microsoft Proxy Server. Preparation for Microsoft certification examination. Prerequisites: MST155 or MST240 or permission of instructor.

**MST252****Microsoft Windows Network Upgrade**

3 Credits. 4 Periods.

Evaluate differences between current version of Microsoft Windows network operating system and upgraded version. Intended for Microsoft network administrators seeking upgrade training. Prerequisites: MST152 or permission of instructor.

**MST253****Designing a Microsoft Windows 2000 Directory Services Infrastructure**

3 Credits. 4 Periods.

Provides students with the knowledge and skills necessary to plan and implement Microsoft Windows 2000 Directory Services in an enterprise environment. Prerequisites: any MST152 course or permission of instructor.

**MST254****Microsoft SQL Server Design and Implementation**

3 Credits. 4 Periods.

Knowledge and skills required to design and implement databases using Microsoft SQL server. Preparation for Microsoft certification examination. Prerequisites: CIS259, or any MST152 course, or permission of instructor.

**MST255****Designing Windows Network Infrastructure**

3 Credits. 4 Periods.

Knowledge and skills to create a networking services infrastructure design that supports network applications and the needs of an organization. Preparation for Microsoft

certification examination. Prerequisites or Corequisites: MST155 or permission of instructor.

**MST259****Designing Windows Network Security**

3 Credits. 4 Periods.

Knowledge and skills to analyze business requirements and processes to design a security solution for a Microsoft Windows network. Preparation for Microsoft certification examination. Prerequisites or Corequisites: MST157 or permission of instructor.

**MST270****Microsoft Solution Architectures**

3 Credits. 4 Periods.

Knowledge and skills to analyze business requirements in a given scenario and define technical solution architectures to optimize business results using Microsoft development tools. Prerequisites: (ACC230 or GBS151) and MST170, or permission of instructor.

**MST298AC****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.

**MULTIMEDIA TECHNOLOGY****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/ART184 or ADA/ART184AC or permission of Instructor.

**MUSIC: HISTORY/ LITERATURE****MHL140****Survey of Music History**

3 Credits. 3 Periods.

Study of composers, compositions, styles, and periods in music history. Prerequisites: None.

**MHL143****Music in World Cultures**

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**

3 Credits. 3 Periods.

The study of cultural and social contributions to the evolution of American Jazz and popular music from the mid-1800's to present. Prerequisites: None.

**MHL147****Music of African-American Cultures**

3 Credits. 3 Periods.

African-American music traced from its origin in Africa to the present. Includes spirituals, blues, gospel, jazz, and classical style. Prerequisites: None.

**MHL153****Rock Music and Culture**

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**

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

**MHL156****Music in Latin America and the Caribbean**

3 Credits. 3 Periods.

To discuss the role of music in Latin and Caribbean cultures and the impact of these cultures on music. To present a historical survey to the evolution and development of musical styles from rumba to reggae.

Among the topics, and to include: origins, gender, race, ethnicity, politics, elements of music, instruments, both sacred and secular music, and significant individuals influencing the evolution of many different genres of music in Latin America and Caribbean cultures. Prerequisites: None.

**MHL194****Music and Culture**

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.

**MUSIC: PERFORMANCE****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.

**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 practicing 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.

**NURSING****NUR111****Nursing Process and Critical Thinking I**

4 Credits. 4 Periods.

Overview of nursing and critical thinking strategies focused on meeting basic human needs within the wellness/illness continuum. Theoretical concepts related to holistic care of well, geriatric, and adult clients with selected alterations in health including psychological/mental health disorders. Emphasis on use of nursing process in the role of the nurse as member of the health care team. Includes concepts of pathophysiology, nutrition, and communication. Requires application of previous knowledge of physical, biological, and social sciences. Prerequisites: Admission to the Practical Nursing or Nursing programs. Corequisites: NUR118 or permission of Nursing Department chairperson.

**NUR117****Pharmacology and Medication Administration I**

2 Credits. 4 Periods.

Introduction to pharmacology. Includes foundation knowledge and skills instruction. Emphasis on core medication prototypes and skills necessary for safe administration of selected medication categories. Concepts of medication administration by selected routes introduced. Application of previous knowledge of physical, biological and social sciences. Prerequisites: Admission to the Practical Nursing or Nursing Programs.

**NUR119****Nursing Science I**

5 Credits. 15 Periods.

Development of clinical competency in the performance of selected nursing skills and procedures. Provides for participation in the care of clients experiencing problems of alteration in health and selected mental health disorders. Provides for clinical practice experiences with individuals and families in a variety of long term care and acute settings.

Application of holistic nursing concepts and assessments related to health promotion, disease/illness prevention, and health restoration, as well as concepts of pathophysiology, nutrition, and communication. Prerequisites: Admission into the Practical Nursing or Nursing Programs. Corequisites: NUR111 or permission of Nursing Department chairperson.

**NUR121****Nursing Process and Critical Thinking II**

4 Credits. 4 Periods.

Nursing and critical thinking strategies focused on meeting basic human needs within the wellness/illness continuum. Theoretical concepts related to holistic care of adult and geriatric clients with selected alterations in health. Introduces human growth and developmental principles. Introduction to care of newborn, pediatric, well childbearing clients, and childrearing families. Continuation of the role of the nurse as member of the health care team. Includes concepts of pathophysiology, nutrition, and communication. Application of previous knowledge of physical, biologic, social, and nursing sciences. Prerequisites: NUR111, NUR117, and (NUR118 or NUR119). Corequisites: NUR128 or permission of Nursing Department chairperson.

**NUR127****Pharmacology and Medication Administration II**

2 Credits. 4 Periods.

Continues emphasis on core medication prototypes and skills. Emphasis on critical thinking skills for safe practice in medication administration. Introduces concepts of venipuncture and initiation of IV access. Requires application of previous knowledge of physical, biological, social and nursing sciences. Prerequisites: NUR111, NUR117, and (NUR118 or NUR119).

**NUR129****Nursing Science II**

5 Credits. 15 Periods.

Continuation of application of holistic nursing concepts and assessments related to health promotion, disease/illness prevention and health restoration of individuals and families. Provides continued opportunity for the development of clinical competency in the performance of selected nursing skills, participation in the care of clients with alterations in health. Provides



clinical experiences with adult, pediatric, well childbearing clients and childrearing families in a variety of acute care and community settings. Application of nursing concepts in the development of care plans as well as concepts of pathophysiology, nutrition, and communication. Includes participation in client teaching and discharge planning. Prerequisites: NUR111, NUR117, and NUR119. Corequisites: NUR121 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, 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.

### **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, psycho-social sciences, and the cultural and spiritual aspects of nursing care. Application of nursing concepts in the development of plan of care to include pathophysiology, nutrition, pharmacology, and skills in communication. Uses information technology in planning, documenting, and evaluating client care. Prerequisites: NUR151 or permission of Nursing Department Chairperson.

### **NUR231 Nursing Process and Critical Thinking III**

4 Credits. 4 Periods.  
Nursing and critical thinking strategies. Emphasis on complex human needs within the wellness/illness continuum in a variety of acute care and community settings. Theoretical concepts related to holistic care of adults with selected acute and chronic alterations in health and psychiatric/mental health disorders. Introduction to role of the professional nurse as member of the health care team. Integrates concepts of nutrition, communication, health promotion, and advanced pathophysiology. Application of previous knowledge of physical, biologic, social, and nursing sciences. Prerequisites: NUR121, NUR127, and (NUR128 or NUR129). Corequisites: NUR238 or permission of Nursing Department chairperson.

### **NUR237 Pharmacology and Medication Administration III**

1 Credits. 2 Periods.  
Knowledge and skills to safely prepare and administer intravenous medications and solutions. Emphasizes management of clients receiving complex therapies such as blood and blood products, parenteral nutrition, and advanced pain management. Application of previous knowledge of physical, biological, and social sciences. Includes an overview of parenteral medications and therapies used in selected situations. Prerequisites: NUR121, NUR127, and (NUR128 or NUR129).

### **NUR239 Nursing Science III**

5 Credits. 15 Periods.  
Application of critical thinking skills through the nursing process to clients and families with acute alterations in health and psychiatric/mental health disorders. Provides for the development of clinical and cultural competency and the continued development of selected nursing skills and procedures within the nursing scope of practice. Holistic care of clients, families, and small groups in a variety of acute and community health care settings. Application of nursing concepts related to health education/promotion for clients, families, and small groups. Integrates concepts of nutrition, communication, health promotion and advanced pathophysiology. Prerequisites: NUR121, NUR127, and NUR129. Corequisites: NUR231 or permission of Nursing Department chairperson.

### **NUR241 Nursing Process and Critical Thinking IV**

4 Credits. 4 Periods.  
Nursing and critical thinking strategies for complex holistic needs of high-risk clients with multi- system health alterations. Includes perinatal, newborn, pediatric, and adult clients in acute care settings. Continuation of role development of the professional nurse. Integrates concepts of nutrition, communication, health promotion, and advanced pathophysiology. Application of previous knowledge of physical, biologic, social, and nursing sciences. Prerequisites: NUR231, NUR237, and (NUR238 or NUR239). Corequisites: NUR248 or permission of Nursing Department chairperson.

### **NUR249 Nursing Science IV**

6 Credits. 18 Periods.  
Synthesis of nursing concepts. Provides nursing care for high-risk newborn, pediatric, perinatal, and adult clients with multi-system alterations in health. Emphasis on leadership and management roles of the nurse. Includes a preceptorship experience to facilitate role transition from student to graduate nurse. Integrates concepts of nutrition, communication, health promotion and advanced pathophysiology. Prerequisites: NUR231, NUR237, and NUR239. Corequisites: NUR241 or permission of Nursing Department chairperson.

### **NUR251 Nursing Theory and Science III**

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.

**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, psychosocial sciences, and the cultural and spiritual beliefs of clients. Development of nurse leadership and management roles. Integration of concepts of nutrition, pharmacology, communication, health promotion, and pathophysiology into nursing care.

Prerequisites: NUR251 or permission of Nursing Department Chairperson.

**NUR291****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.

**OCCUPATIONAL SAFETY AND HEALTH****OSH101****Introduction to Environmental Hazardous Materials Technology**

3 Credits. 3 Periods.

Overview of environmental hazardous materials technology. History of pollution leading to current legislation. Environmental effects of pollution. Overview of the regulatory framework. Career opportunities in handling and management of hazardous substances. Prerequisites: None.

**OSH102****Introduction to Industrial Hygiene**

3 Credits. 3 Periods.

Fundamental concepts of Industrial Hygiene, including terminology, basic toxicology, body entry routes, threshold limit values, and measurement. Control of typical occupational physical and chemical hazards, radiation and environmental concerns. Instruction and practice in basic sampling techniques. Prerequisites: None.

**OSH106****Industrial Safety**

2 Credit. 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. Cross-References: FAC106, GTC106, MIT106.

**OFFICE AUTOMATION SYSTEMS****OAS101AA****Computer Typing I: Keyboard Mastery**

1 Credit. 1.7 Periods.

Incorporates correct touch typing principles. Prerequisites: None.

**OAS101AB****Computer Typing I: Letters, Tables & Reports**

1 Credit. 1.7 Periods.

Letter, table, and report formatting. Prerequisites: OAS101AA or permission of department/division.

**OAS118****10-Key By Touch**

1 Credit. 1.7 Periods.

Touch system of numeric keys on ten-key pads. Prerequisites: None.

**OAS120****Financial Record Keeping**

3 Credits. 3 Periods.

Computerized application of concepts and procedures of office record keeping; includes finance and personnel records, inventory systems, banking procedures and cash control; decision-making process for solving financial problems. Prerequisites: None.

**OAS135DK****Word: Level I**

2 Credits. 2 Periods.

Using Word word processing software to create and name files, edit text, format, and print a variety of documents. Prerequisites: The ability to use a keyboard at a minimum of 24 wpm or permission of instructor.

**PHILOSOPHY****PHI101****Introduction to Philosophy**

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**

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.

**PHI201****History of Ancient Philosophy**

3 Credits. 3 Periods.

Historical survey of the intellectual history of the Greco-Roman world, focusing on the philosophical tradition and social/historical context. Prerequisites: None.

**PHI213****Medical and Bio-Ethics**

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. Cross-References: REL213

**PHI218****Philosophy of Sexuality**

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: None.

**PHI224****Political Philosophy**

3 Credits. 3 Periods.

Predominant figures and theories in Euroamerican political philosophy from Plato to contemporary social/political philosophers. Prerequisites: None.



**PHI243****World Religions**

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. Cross-reference: HIS243, REL243.

**PHI244****Philosophy of Religion**

3 Credits. 3 Periods.

Religious language, the existence of God, miracles, and human destiny. Prerequisites: None. Cross-References: REL244

**PHI245****Introduction to Eastern Philosophy**

3 Credits. 3 Periods.

Fundamental theories of Indian and Chinese metaphysics, epistemology, ethics and aesthetics. Prerequisites: None.

**PHYSICAL EDUCATION****HES100****Healthful Living**

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.

**HES154****First Aid/Cardiopulmonary Resuscitation**

3 Credits. 3 Periods.

Cardiopulmonary Resuscitation and first aid for the adult, child and infant patients includes Automated External Defibrillator(AED), rescue breathing, obstructed airway, and other first aid procedures. Designed to train citizen responders in skills and procedures required during emergency situation. Prerequisites: None.

**HES271****Prevention and Treatment of Athletic Injuries**

3 Credits. 3 Periods.

Prevention and care of athletic injuries, emphasizing use of modern training techniques and support materials. Utilization of preventive taping, strapping, bandaging, cardiopulmonary resuscitation, massage,

cryotherapy, hydrotherapy, and practical application of muscle reconditioning. Prerequisites: None.

**PED101BD****Ballroom Dancing**

1 Credit. 2 Periods.

Basic level instruction on ballroom dancing footwork, timing, techniques, and style. Partners rotate. May be repeated for credit. May be repeated for credit. Prerequisites: None.

**PED101GF****Group Fitness/Aerobics**

1 Credit. 2 Periods.

Group exercise incorporating a variety of equipment to increase respiration, heart rates, strength, and flexibility. May be repeated for credit. Prerequisites: None. *Effective Spring 2009.*

**PED101KB****Kickboxing**

1 Credit. 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. May be repeated for credit. Prerequisites: None. *Effective Spring 2009.*

**PED101PS****Pilates**

1 Credit. 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. Prerequisites: None. May be repeated for credit. Prerequisites: None. *Effective Spring 2009.*

**PED101RW****Physical Activities: Strength Training**

1 Credit. 2 Periods.

Individual, dual, or team sports activities as listed in the schedule of classes. May be repeated for credit. Prerequisites: None.

**PED101SA****Salsa**

1 Credit. 2 Periods.

Basic moves for the popular, hot Latin dance Salsa. Partners rotate. May be repeated for credit. Prerequisites: None.

**PED102****Physical Activities: Intermediate**

1 Credit. 2 Periods.

Individual, dual, or team sports activities at the intermediate level. May be repeated for credit. Prerequisites: None. Prior experience recommended. *Effective Spring 2009.*

**PED102AF****Physical Activities: Aerobics**

1 Credit. 2 Periods.

Individual, dual, or team sports activities as listed in the schedule of classes. Prerequisites: None.

**PED102AQ****Water Exercise**

1 Credit. 2 Periods.

Individual, dual, or team sports activities as listed in the schedule of classes. May be repeated for credit. Prerequisites: None.

**PED102BP****Backpacking**

1 Credit. 2 Periods.

Covers basic skills and techniques of backpacking and the application of these to wilderness travel. Includes outdoor survival and evacuation techniques under a variety of environmental conditions. Prerequisites: None.

**PED102JX****Physical Activities: Golf**

1 Credit. 2 Periods.

Individual, dual, or team sports activities as listed in the schedule of classes. May be repeated for credit. Prerequisites: None.

**PED102KB****Kickboxing - Intermediate**

1 Credit. 2 Periods.

Intermediate level kickboxing techniques to increase muscular endurance and strength, enhance flexibility and increase body awareness and self- confidence. Not recommended for the beginner. May be repeated for credit. Prerequisites: None. Prior experience recommended.

**PED102LK****Physical Activities: Hiking**

1 Credit. 2 Periods.

Development of safe and effective hiking skills. Essentials and requirements for safe hiking; proper hiking clothing and attire; impact of hiking on the environment. Prerequisites: None.

**PED102PS****Pilates - Intermediate**

1 Credit. 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. May be repeated for credit. Prerequisites: None. Prior experience recommended.

**PED102QR****Physical Activities: Physical Conditioning**

1 Credit. 2 Periods.

Individual, dual, or team sports activities as listed in the schedule of classes. May be repeated for credit. Prerequisites: None.

**PED102SA****Salsa - Intermediate**

1 Credit. 2 Periods.

Learn the intermediate dance moves for Salsa. Not recommended for the beginning Salsa dancer. May be repeated for credit. Prerequisites: None. Prior experience recommended.

**PED102SL****Physical Activities: Scuba Diving**

1.50 Credit. 2.50 Periods.

Individual, dual, or team sports activities as listed in the schedule of classes. May be repeated for credit. Prerequisites: None.

**PED102SP****Physical Activities: Self Defense**

1 Credit. 2 Periods.

Individual, dual, or team sports activities as listed in the schedule of classes. May be repeated for credit. Prerequisites: None.

**PED102SU****Scuba Diving: Advanced**

1 Credit. 2 Periods.

Individual, dual, or team sports activities as listed in the schedule of classes. May be repeated for credit. Prerequisites: PED102SL or equivalent (any certification card from a nationally recognized agency). A health form and/or physical may be required.

**PED102VR****Tai Chi**

1 Credit. 2 Periods.

Teaches the fundamentals of Tai Chi including the moves, rules, and traditional discipline of the sport. Prerequisites: None.

**PED102WT****Weight Training - Intermediate**

1 Credit. 2 Periods.

Increase knowledge and training with a qualified instructor on the use of Olympic and Free Weights. May be repeated for credit. Prerequisites: None. Prior experience recommended. *Effective Spring 2009.*

**PED102YJ****Physical Activities: Yoga**

1 Credit. 2 Periods.

Individual, dual, or team sports activities as listed in the schedule of classes. May be repeated for credit. Prerequisites: None.

**PED112****Professional Applications of Fitness Principles**

3 Credits 3 Periods

Basic principles of fitness for the prospective fitness professional. Planning and teaching in a fitness program. Topics include exercise risks and safety, weight control, components of fitness, fitness assessment, and exercise programming. Prerequisites: None.

**PED113****Weight Training**

1.5 Credits 3 Periods

Weight training activity and wellness study to help develop a lifetime of regular exercise, stress management, and proper nutrition. Workout includes warm-up/stretch, aerobic exercise, selected strength exercises, and cool down/stretch. Prerequisites: None.

**PED114****Fitness**

1.5 Credits 3 Periods.

Fitness activity and wellness study to help develop a lifetime of regular exercise, stress management, and proper nutrition. Workout includes warm-up/stretch, aerobic exercise, selected strength exercises, and cool down/stretch. May be repeated for credit. Prerequisites: None.

**PED115****Lifetime Fitness**

2 Credits. 4 Periods.

Fitness activity and wellness study to help develop a lifetime of regular exercise, stress management, and proper nutrition. Workout includes warm up/stretch, aerobic exercise, selected strength exercises, and cool down/stretch. May be repeated credit. Prerequisites: None.

**PED118****Aerobics for Seniors**

1.5 Credits. 3 Periods.

Formatted for older adults with music and class tempo appropriate for those over age 55. Includes flexibility exercises, cardiovascular conditioning, and strengthening and toning exercises. Prerequisites: None.

**PED125****Exercise Science**

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.

**PED130****Strength Fitness-Physiological Principles and Training Techniques**

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. Cross-References: WED130

**PED132****Cardiovascular Fitness: Physiological Principles and Training Techniques**

2 Credits 2 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

**PED139****Practical Applications of Personal Training Skills and Techniques Internship**

3 Credits 5.40 Periods

Development of personal training skills including effective communication, client assessment, fitness testing, goal setting, program design, and program implementation. Includes hands on experience with clients in a Fitness Center. Prerequisites: Current CPR certification or permission of instructor. Course Note: Students will have 240 hours of contact with clientele.

**PED145****Guidelines for Exercise Testing and Prescription**

3 Credits                      3 Periods

Follows the current ACSM guidelines for health appraisal, risk assessment, safety of exercise, exercise testing, and exercise prescription. Prerequisites: None.

**PED202KC****Physical Activities: Golf-Intermediate**

1 Credit.                      2 Periods.

Individual, dual, or team sports activities as listed in the schedule of classes. May be repeated for credit. Prerequisites: None.

**PED212CR****Instructional Competency Laboratory: Cardiorespiratory Exercises and Activities**

2 Credit.                      3 Period.

Fundamental methods of instructing and leading fitness activities including cardiorespiratory exercises and activities. Core competencies identified by professional certification agencies. Prerequisites: None.

**PED212FL****Instructional Competency Laboratory: Flexibility and Mind-Body Exercises**

2 Credit.                      3 Period.

Fundamental methods of instructing and leading fitness activities including flexibility activities. Core competencies identified by professional certification agencies. Prerequisites: None.

**PED212SC****Instructional Competency Lab: Muscular Strength and Conditioning**

2 Credit.                      3 Period.

Fundamental methods of instructing and leading fitness activities including strength and conditioning activities. Core competencies identified by professional certification agencies. Prerequisites: None.

**PED214****Fitness for Living**

1 Credit.                      1 Period.

Lifetime health and skill-related components of fitness to achieve total wellness. Topics include health and skill-related components of fitness; guidelines for health and fitness assessment; exercise safety and precautions; and exercise adherence and program planning. Prerequisites: None.

**PED215****Fitness for Life**

3 Credits.                      3 Periods.

Lifetime health and skill-related components of fitness to achieve total wellness. Topics include health and skill-related components of fitness, guidelines for health and fitness assessment, exercise safety and precautions, nutrition, weight control, cardiovascular risk reduction, psychology of fitness and wellness, consumerism, and overall self-management of personal health and lifestyle habits to achieve the highest potential for well-being. Prerequisites: None.

**PED275****Methods of Enhancing Physical Performance**

3 Credit.                      3 Period.

Theoretical and practical applications of performance enhancement methodologies and practices. Basic sport mechanics and exercise physiology. Training clients for speed, power, agility, balance, and endurance activities to enhance athletic performance. Application of training principles to specific sports and design of training programs. Prerequisites: PED125 or PED130 or permission of instructor.

**PED285****Exercise Program Design and Instruction**

3 Credits.                      3 Periods.

Business aspects of the fitness profession such as program administration, quality assurance, and effective communication skills for the professional personal trainer and/or strength and conditioning coach. Implementation of behavioral strategies, progression of program planning, and development of programs for populations with special physical/medical needs. Designing exercise programs in an internship setting. Prerequisites: PED145 or permission of instructor.

**PHYSICAL SCIENCE****PHS110****Fundamentals of Physical Science**

LEC                      4 Credits.                      3 Periods.

LAB                      0 Credits.                      3 Periods.

Survey of the principles of physics and chemistry. Prerequisites: Grade of "C" or better in MAT090, or MAT091, or MAT092, or MAT093, or equivalent, or satisfactory score on Math placement exam.

**PHYSICAL GEOGRAPHY****GPH212****Introduction to Meteorology I**

3 Credits.                      3 Periods.

Atmospheric processes and elements. General and local circulation, heat exchange and atmospheric moisture. Prerequisites: None.

**GPH214****Introduction to Meteorology Laboratory I**

1 Credits.                      3 Periods.

Basic meteorological and climatological measurements. Prerequisites: None. Corequisites: GPH212.

**PHYSICS****PHY101****Introduction to Physics**

LEC                      4 Credits.                      3 Periods.

LAB                      0 Credits.                      3 Periods.

A survey of physics emphasizing applications of physics to modern life. Prerequisites: Grade of "C" or better in MAT090, or MAT091, or MAT092, or MAT093, or equivalent, or satisfactory score on Math Placement exam. Course Note: Students may receive credit for only one of the following: PHY101 or PHY101AA.

**PHY105****Basic Physics**

LEC                      4 Credits.                      3 Periods.

LAB                      0 Credits.                      3 Periods.

Survey of Newtonian mechanics to help students acquire a problem solving ability in physics generally. Primarily for students with either no physics background or a limited physics background who intend to take PHY115 and PHY116. Prerequisites: MAT152 and MAT182, or MAT187 or permission of instructor.

**PHY111****General Physics I**

LEC                      4 Credits.                      3 Periods.

LAB                      0 Credits.                      3 Periods.

Includes motion, energy, and properties of matter. Prerequisites: MAT182, or MAT 187, or one year high school Trigonometry with a grade of C or better, or permission of Department or Division. Course Note: PHY111 is recommended for preprofessional and suggested for certain other majors. Students may receive credit for only one of the following: PHY111 or PHY111AA.

**PHY112****General Physics II**

LEC 4 Credits. 3 Periods.

LAB 0 Credits. 3 Periods.

Includes electricity, electromagnetism, and modern physics. Prerequisites: PHY105 or PHY111.

**PHY115****University Physics I**

LEC 5 Credits. 4 Periods.

LAB 0 Credits. 3 Periods.

General physics course using calculus to develop the principles of mechanics and thermodynamics. Recommended for majors in the sciences and mathematics. Required for Engineering majors. Prerequisites: MAT220 or MAT221 or permission of Department or Division. Corequisites: MAT230 or MAT231. One year High School physics or PHY111 and PHY112 is strongly recommended.

**PHY116****University Physics II**

LEC 5 Credits. 4 Periods.

LAB 0 Credits. 3 Periods.

Principles of electricity, magnetism, waves, and optics. Required for Engineering majors. Prerequisites: PHY115 and (MAT230 or MAT231). Corequisites: MAT241.

**PHY121****University Physics I: Mechanics**

LEC 4 Credits. 3 Periods.

LAB 0 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 permission of Department or Division. One year of High School physics or PHY111 and PHY112 suggested but not required.

**PHY131****University Physics II: Electricity and Magnetism**

LEC 4 Credits. 3 Periods.

LAB 0 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 permission of Department or Division, and PHY121. Corequisites: MAT241 or permission of Department or Division.

**PHY252****University Physics III:****Thermodynamics, Optics, and Wave Phenomena**

LEC 4 Credits. 3 Periods.

LAB 0 Credits. 3 Periods.

Heat, entropy, and laws of thermodynamics; wave propagation; geometrical and physical optics; introduction to special relativity. Prerequisites: PHY131.

**POLITICAL SCIENCE****POS099****United States Citizenship Preparation**

1 Credit. 1 Period.

Introduction to American history, constitution, and political institutions as required for the Naturalization (admission to US citizenship) exam. Prerequisites: None.

**POS110****American National Government**

3 Credits. 3 Periods.

Study of the historical backgrounds, governing principles, and institutions, of the national government of the United States. Prerequisites: None.

**POS115****Issues in American Politics**

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.

**POS125****Issues in World Politics**

3 Credits. 3 Periods.

Contemporary issues and factors in international relations. Stress conditions in civil order, trade, and international institutions. May be repeated for a total of six (6) credit hours. Prerequisites: None.

**POS130****State and Local Government**

3 Credits. 3 Periods.

Survey of state and local government in the United States. Special attention on Arizona State government. 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 Credit. 1 Period.

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**

3 Credits. 3 Periods.

The historic background and current status of major civil rights issues in the United States. Prerequisites: None.

**POWER PLANT TECHNOLOGY****PPT101****Hand and Power Tools**

1 Credits. 1 Periods.

Identification and use of hand and hand-held power tools used in a power plant. Tool construction and purpose. Maintenance of hand and power tools. Prerequisites: None.

**PPT102****Introduction to Electricity**

3 Credits. 3 Periods.

Basic electrical terminology and concepts. Fundamentals of electrical theory. Calculations using electrical laws. Voltage and current production. Battery construction and applications. Principles of magnetism. Operation of motors, transformers, and generators. Electrical safety. Prerequisites: None.



**PPT103****Print Reading and Plant Drawings**

1 Credits. 1 Periods.

Introduction to print reading and plant drawings. Flow diagrams and symbols on drawings. Dimension, tolerance and clearance on drawings. Amendments to drawings. Specific types of drawings. Proper procedures when using plant drawings. Prerequisites: None.

**PPT104****Properties of Materials**

1 Credits. 1 Periods.

Basic properties of solids, liquids and gases. Basic properties and classifications of metals. Hazards of mixing different materials. Causes, effects and prevention of corrosion. Correct storage and handling of materials. Prerequisites: None.

**PPT105****Air Compressor Principles**

1 Credits. 1 Periods.

Air compressor terminology. Principles of gas behavior and inter-cooling. Internal and external factors affecting compressor operation. Operating principles, components, preventive and corrective maintenance procedures. Compressor troubleshooting procedures. Prerequisites: None.

**PPT106****Diesel Engine Systems**

1 Credits. 1 Periods.

Diesel operating principles and diesel engine systems. Practical knowledge of safety precautions, inspection and maintenance of diesel engines. Prerequisites: None.

**PPT107****Lubrication**

1 Credits. 1 Periods.

Principles, properties, and safe handling requirements of lubricants. Lubrication of bearings, lubrication systems, and system components. Oil settling systems. Construction, operation, and maintenance of oil purifiers. Prerequisites: None.

**PPT108****Turbines**

1 Credits. 1 Periods.

Operations, steam properties, energy transfer, parts, and types of turbines. Components and function. Turbine maintenance for oil and hydraulic systems, inspection of casings, nozzles and rotors. Turbine alignment and the tightening of joints using appropriate tools and equipment. Prerequisites: None.

**PPT109****Pipefitting Auxiliaries I**

2 Credits. 2 Periods.

Principles of operation, maintenance procedures and inspection procedures. Basic piping systems, fittings, joints, and assorted piping materials. Prerequisites: None.

**PPT110****Valve Maintenance I**

2 Credits. 2 Periods.

Safety, terminology, components, and operating principles of valves. Inspection and rework of valves. Components of the valve packing chamber. Packing and safety procedures. Stem packing installation. Quality assurance test methods for specific valves. Prerequisites: None.

**PPT112****Principles of Machining**

3 Credits. 3 Periods.

Safety practices, machining methods, and principles of material removal. Types of cutting tools, lathe, milling, drill, and bandsaw components. Principles of operation of specific machines found in the machine shop including turning, milling, drilling and cutting machines. Prerequisites: None.

**PPT113****Pumps I**

2 Credits. 2 Periods.

Types of pumps, applications and principles of operation and safety. Pump components identification. Inspection, use and maintenance of packing and mechanical seals. Prerequisites: None.

**PPT114****Drive and Gear Components**

1 Credits. 1 Periods.

Terminology, identification and inspection of the component parts of a drive and gear system. Operation, maintenance and inspection of couplings, clutches, brakes, belt drives, chain drives, shafts and gears. Operation and configurations of variable speed drives. Prerequisites: None.

**PPT115****Hydraulics and Pneumatics**

2 Credits. 2 Periods.

Hydraulic and pneumatic safety, physical concepts, and fluid laws. Hydraulic and pneumatic system components and operation. Troubleshooting procedures of hydraulic and pneumatic systems. Prerequisites: None.

**PPT116****Introduction to Welding and Metal Fabrication**

3 Credits. 3 Periods.

Principles of metallurgy and material identification. Technical theory and basic skill training in oxyacetylene and shielded metal arc welding. Welding equipment safety and weld joints methods. Prerequisites: None.

**PPT17****Forklift Operations**

1 Credits. 1 Periods.

Safe and proper operation of forklift. Parts and function of forklift, principles of operation, and safety precautions. Inspection procedures, proper care, and industry standards. On-hands operation of a forklift. Prerequisites: None.

**PPT118****Conduct of Maintenance**

1 Credits. 1 Periods.

Safety and management expectations. Defense in Depth strategy and Conduct of Verifications. Maintenance procedures. Work control process. Performance of work standards and documentation including pre-job preparation, pre-job notification, job review, job verification and job close out specific to nuclear power plant operations. Prerequisites: None.

**PPT119****Instrument Air Compressor Maintenance**

2 Credits. 2 Periods.

Purpose, function, and identification of system drawings. Identification of major components. Instrument air compressor components and function. Air flow operations. Free air unloader components and function. Fluids and flow paths. Compressor cooling water and lubricating oil. Inspection and repair of parts. Troubleshooting. Prerequisites: None.

**PPT200****Industry Events**

1 Credits. 1 Periods.

Information distribution; methods and avenues of communication. Material and design problems in the nuclear power plant. Procedural deficiencies of motor and equipment operation. Operation of sensitive equipment. Potential plant vulnerabilities. Personnel errors including mis-positioning, flooding, testing and procedural violations. Prerequisites: None.



**PPT202****Plant Systems and Components I**

2 Credits. 2 Periods.

Plant mission, numbering and drawing systems. Components and function of reactor coolant, volume control, safety injection, and nuclear sampling systems. Function and operation of main stream and turbine systems. Main and auxiliary feedwater systems. Operation and function of steam and heater drain systems. Prerequisites: None.

**PPT203****Plant Systems and Components II**

2 Credits. 2 Periods.

Advanced course on plant systems and components. Water, electrical and cooling systems. Safe shutdown cooling water system. Waste drain system. Fuel handling and storage systems. Fuel pool cooling and cleanup. Purpose and operation of radioactive waste management. Service air and gas systems. Ventilation and fire protection systems. Prerequisites: PPT202.

**PPT204****Measuring and Test Equipment**

1 Credits. 1 Periods.

Administrative controls for precision measurement. Use of precision measuring equipment. Emphasis on proper use, accuratereading, and calculations using precision measuring devices. Prerequisites: None.

**PPT205****Rigging**

2 Credits. 2 Periods.

Safe and proper operation of lifting equipment. Weight calculations. Identification and proper location of rigging equipment. Hand signals and industry standards. Safe rigging practices. Inspection and maintenance procedures. Operation of pendant cranes. Prerequisites: None.

**PPT206****Bearings**

1 Credits. 1 Periods.

Application, inspection and maintenance of plant bearings. Design and operation of sliding and anti-friction bearings. Function, design and applications of bearing seals. Reasons for bearing failure and related preventative maintenance procedures. Prerequisites: None.

**PPT207****Heat Exchangers**

1 Credits. 1 Periods.

Heat exchanger theory including heat transfer and operating principles. Classification of heat exchangers including types, construction, and operation. Inspection of heat exchangers.

Cleaning of exchanger tubes and shells. Cleaning of component parts. Troubleshooting tubes. Maintenance of exchangers. Prerequisites: None.

**PPT208****Thermal Insulation**

0.50 Credits. 0.50 Periods.

Principles of heat transfer and insulation. Types and temperature ranges for insulation. Safe and proper handling of insulation materials. Practical experience in removing and installing insulation. Prerequisites: None.

**PPT209****Pipefitting Auxiliaries II**

2 Credits. 2 Periods.

Purpose, terminology and system stress factors related to piping systems. Principles of fluid flow, and piping inspection procedures. Fabrication and installation of tubing materials, specific joints, and flanges. Basic piping system component maintenance, rework and installation procedures. Prerequisites: PPT109.

**PPT210****Valve Maintenance II**

3 Credits. 3 Periods.

Fundamentals of hand lapping. Dexter and Unislip resurfacing tools. Valve packing: purpose, components and specifications. Valve survey data sheet. Procedure for field manufacture of die-formed packing rings. Function of the Optical Flat. Valve inspection. Gaskets and torquing techniques. Prerequisites: PPT110.

**PPT211****Couplings**

0.50 Credits. 0.50 Periods.

Types, functions, and specific applications of couplings. Coupling removal and inspection procedures. Coupling rework and installation. Prerequisites: None.

**PPT212****Control Valves and Actuators**

1 Credits. 1 Periods.

Modulating control terminology. Disassembly, inspection and assembly processes. Construction and operation of specific actuators. Maintenance of pneumatic and hydraulic valve actuators. Principles of operation, inspection and testing of control valves. Bench testing. Prerequisites: None.

**PPT213****Pumps II**

3 Credits. 3 Periods.

Rotary, reciprocating and centrifugal pump operation. Positive displacement and metering pump operation. Diaphragm pulsafeeder operation. Disassembly, inspection and

reassembly of radially and axially split centrifugal pumps. Troubleshooting and lab safety. Prerequisites: None.

**PPT214****Machine Alignment**

3 Credits. 5 Periods.

Calculations and practical lab exercises using alignment principles. Determination of indicator sag and thermal growth. Obtaining readings for alignment or misalignment. Rim-face method of alignment stressed and practiced. Prerequisites: None.

**PPT215****Relief and Safety Valves**

1 Credits. 1 Periods.

Concepts of pressure and pressure measurement. Components and operation of rupture discs, relief valves, and safety valves. Maintenance procedures. Prerequisites: None.

**PPT217****Refueling Overview**

1 Credits. 1 Periods.

Destack and restack operations of the Reactor Vessel. Purpose and location of refueling equipment. Refueling operation including spent fuel, refueling machines and fuel transfer equipment. Safety. New fuel receipt, transfer and moving of spent fuel. Prerequisites: None.

**PPT218****Lathe Operations**

2 Credits. 4 Periods.

Safe and proper operation of the lathe. Component and accessories and their functions. Cutting tools and methods. Processes of machining including mounting, aligning, knurling, grooving, turning, thread cutting, drilling, reaming boring, and tapping. Machining techniques using a chuck. Prerequisites: None.

**PPT219****Milling Machine Operations**

2 Credits. 2 Periods.

Components of horizontal and vertical milling machines. Common milling machine accessories and cutters. Cutting speeds, feeds and depths for materials and cutters. Machine set up and operations. Common cutter failure. Operation of horizontal and vertical milling machines. Milling safety. Prerequisites: None.

**PSYCHOLOGY****PSY101****Introduction to Psychology**

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.

**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**

3 Credits. 3 Periods.

Presents current knowledge about human diversity in behavior and culture using examples from a variety of contexts and nations. Highlights topics in cross-cultural psychology, such as intergroup relations, ethnocentrism, gender, personality, emotion, language, communication, work and health. Emphasis on applications of behavioral and cognitive principles to enhance interactions in a multicultural world. Prerequisites: None.

**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.

**PSY215****Introduction to Sport Psychology**

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.

**PSY218****Health Psychology**

3 Credits. 3 Periods.

Behavioral and mental foundations of health, wellness, illness, and disease, and psychological dimensions of medical

intervention. Prerequisites: PSY101 with a grade of "C" or better, or permission of instructor.

**PSY225****Psychology and Religion**

3 Credits. 3 Periods.

Provides an introduction to the history, varieties and theories of the psychology of religion from an empirical, research-based perspective. Specific areas of study include the role of gender, age, socioeconomic status, and personality on religious experience, the effects of religion and prayer on mental and physical health, the development of religious thought and behavior over the lifespan, and the social psychology of new religious movements. In addition, the role of cultural differences on religious attitudes both within the USA and around the world is also addressed. Prerequisites: PSY101 or Permission of Instructor.

**PSY230****Introduction to Statistics**

3 Credits. 3 Periods.

An introduction to the basic concepts in descriptive and inferential statistics, with emphasis upon application to psychology. Consideration given to the methods of data collection, sampling techniques, graphing of data, and the statistical evaluation of data collected through experimentation. Required of psychology majors. Prerequisites: PSY101 with a grade of "C" or better and MAT092 or equivalent, or permission of instructor.

**PSY231****Laboratory for Statistics**

1 Credit. 2 Periods. (Lab)

Applications of inferential and descriptive statistics to computers in the field of psychology. Prerequisites: None. Corequisites: PSY230.

**PSY235****Psychology of Gender**

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**

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 the instructor.

**PSY250****Social Psychology**

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 the instructor.

**PSY260****Personality Development**

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.

**PSY266****Abnormal Psychology**

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.

**PSY277****Psychology of Human Sexuality**

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.

**PSY290AB****Research Methods**

4 Credits. 3 Periods.  
0 Credits. 3 Periods. (Lab)  
Planning, execution, analysis, and written reporting of psychological research. Surveys the literature, procedures, and instruments in representative areas of psychological research. Prerequisites: ENG101 or ENG107 or equivalent. Prerequisites or Corequisites: PSY230 (or equivalent) with a grade of "C" or better, or permission of instructor.

## PUBLIC ADMINISTRATION

**PAD101****Survey of Public Administration**

3 Credits. 3 Periods.  
The history, present and future of public administration. Covers roles of public administrators, organizational relationships, intergovernmental relations and human resources as well as ethical issues, financial management, communication skills, and productivity issues. Prerequisites: None.

**PAD201****Techniques of Municipal Administration**

3 Credits. 3 Periods.  
City administration management. Covers techniques, practices and responsibilities of city staff including forces of change, administrative techniques and leadership. Prerequisites: PAD101 or PAD103 or permission of instructor.

## RADIATION PROTECTION TECHNICIAN

**RPT103****Radiation Fundamentals**

3 Credits. 3 Periods.  
Overview of physics and chemistry of radiation and radioactive materials. Basic understanding of radiation and its uses and interactions. Prerequisites: MAT092, or satisfactory score on placement exam, or permission of instructor.

**RPT113****Radiation Monitoring**

3 Credits. 3 Periods.  
Monitoring radiation with a focus on theory and operation of radiation monitors and the evaluation of radioactive hazards. Prerequisites: RPT103 or permission of instructor.

**RPT223****Radiation Dosimetry**

3 Credits. 3 Periods.  
Assessing internal and external exposure of personnel to ionizing radiation. Prerequisites or Corequisites: RPT113 or permission of instructor.

**RPT233****Radioactive Materials Handling**

3 Credits. 3 Periods.  
Presents scenarios in which Radiation Protection Technicians are required to provide safe control, movement, use, storage, transportation and disposal of radioactive materials. Prerequisites: RPT223 or permission of instructor.

**RPT243****Radiological Safety and Response**

3 Credits. 3 Periods.  
Conceptual understanding and skills for ensuring and maintaining safety in the use of radioactive materials, with an emphasis on implementing ALARA (As Low as Reasonably Achievable) principles. Concepts of time, distance and shielding, and protective clothing to minimize dose in a variety of situations (both routine and off-normal) within radiological environments. Prerequisites or Corequisites: RPT233 or permission of instructor.

**RPT253****Radiation Protection**

3 Credits. 3 Periods.  
Practical application of radiation protection principles and sources of radiation such as nuclear power plant, medical, and industrial operations. Prerequisites: RPT243 or permission of instructor.

**RPT290****Radiation Protection Internship**

5 Credits. 25 Periods.  
Provides approximately 320 hours with an industry, governmental, or educational institution that uses radioactive materials to allow students an opportunity for a hands-on practical application of radiation protection principles. Prerequisites: RPT233, or permission of instructor.

## READING ENGLISH AS A SECOND LANGUAGE

**RDG008****Phonics**

3 Credits. 3 Periods.  
Designed for students who are learning English as a second language. Includes the

study of the speech sounds used in English as represented by the written symbols of the alphabet; recognition of spelling patterns and resulting pronunciation; and diacritical markings. Prerequisites: Reading placement score (ASSET) or permission of instructor

**RDG010****Reading English as a Second Language I**

3 Credits. 3 Periods.  
Designed for students who are learning English as a second language. Provides students with skills needed to become proficient readers in English. Teaches sound symbol relationships of the English alphabet. Expands essential vocabulary for daily communication both in isolation and context. Includes development of reading comprehension skills. Prerequisites: Appropriate ESL placement test score

**RDG020****Reading English as a Second Language II**

3 Credits. 3 Periods.  
Designed for students who are learning English as a second language. Includes continued development of vocabulary and reading comprehension skills. Prerequisites: Appropriate ESL placement test score or grade of "C" or better in RDG010 or permission of instructor.

**RDG030****Reading English as a Second Language III**

3 Credits. 3 Periods.  
Designed for students who are learning English as a second language. Includes instruction for more advanced vocabulary and reading comprehension skills. Prerequisites: Appropriate ESL placement test score or grade of "C" or better in RDG020 or permission of instructor.

**RDG031****Advanced Vocabulary for ESL Speakers (Non-native Speakers)**

3 Credits. 3 Periods.  
Designed to expand and improve reading vocabulary skills. Emphasis on understanding advanced vocabulary in both context and isolation through practice and review. Vocabulary building strategies which will aid in on-going study of words. Emphasis on both learning and using more advanced vocabulary effectively. Prerequisites: RDG020 with grade of C or better, or permission of instructor. Course Note: Recommended for reading students at ESL Levels III and IV.



**RDG040****Reading English as a Second Language IV**

3 Credits. 3 Periods.

Developed for students of English as a second language. Includes development of advanced vocabulary, comprehension skills, and culture awareness. Prerequisites: Appropriate ESL placement test score or grade of "C" or better in RDG030 or permission of instructor.

**READING EDUCATION****RDG081****Reading Improvement**

3 Credits. 3 Periods.

Designed to improve basic reading skills. Includes word recognition, prediction of contents of reading selections, and development of basic vocabulary. Emphasis on identifying main ideas and related details. Reviews following directions and the understanding of graphic materials. Prerequisites: Placement test scores, or permission of instructor.

**RDG091****College Reading Skills I**

3 Credits. 3 Periods.

Designed to improve basic reading and study skills, vocabulary and comprehension skills. Recommended to all students whose placement test scores indicate a need for reading instruction. Prerequisites: Reading placement test score (ASSET), or grade of "C" or better in RDG081, or permission of instructor.

**RECREATION****REC155AA****Canyoneering**

1 Credit. 2 Periods.

Basic canyoneering skills. Includes hydrology, navigation, safety systems, climbing and hiking skills, wading/swimming techniques and flood/weather identification. Prerequisites: None.

**REC155AB****Caving**

1 Credit. 2 Periods.

Basic caving skills. Includes cave ecology, navigation, safety systems, lighting systems and equipment selection. Prerequisites: None.

**REC155AC****Outdoor Rock Climbing**

1 Credit. 2 Periods.

Basic outdoor rock climbing skills. Includes belaying, climbing techniques, rope systems and anchor systems. Prerequisites: None.

**REC155AE****Indoor Rock Climbing**

1 Credit. 2 Periods.

Basic indoor rock climbing skills. Includes belaying, climbing techniques, rope systems, anchor systems and safety. Prerequisites: None.

**RELIGIOUS STUDIES****REL101****Introduction to Religion**

3 Credits. 3 Periods.

Various religious expressions of humankind. Focuses on basic religious themes common to religions, such as encounter with the Holy, search for self and community, mystical illumination, spiritual discipline. Prerequisites: None.

**REL202****Classics of Asian Religions**

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.

**REL210****Introduction to Judaism**

3 Credits. 3 Periods.

Introduction to the history, scriptures, practices and impact of Judaism. Prerequisites: None.

**REL243****World Religions**

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. Cross-References: PHI243.

**REL270****Introduction to Christianity**

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 Religion**

3 Credits. 3 Periods.

The role of women in several organized religions and/or religious sects, including a

study of myth and symbols as they are used to establish, maintain, and enforce sex-roles within specific religions. Prerequisites: None. Cross-References: WST290.

**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/division.

**SLG103****Introduction to Deafness**

1 Credit. 1 Period.

History and development of American Sign Language (A.S.L.) and English codes. Overview of education for Deaf and Hard of Hearing children. Legal rights and common adaptive devices used by Deaf and Hard of Hearing individuals. Prerequisites: None.

**SLG201****American Sign Language III**

4 Credits. 4 Periods.

Linguistics of American Sign Language (A.S.L.) including non-manual behaviors and signing English idioms with conceptual accuracy. Emphasis on practical application of A.S.L. skills, expanded vocabulary, and cross-cultural communication. Prerequisites: SLG102, with a grade of "C" or better, or permission of department/division. Suggested but not required: (ENG101 or ENG107) and, (CRE101 or CRE111 or exemption by score on the reading placement test (ASSET)).

**SLG202****American Sign Language IV**

4 Credits. 4 Periods.

Advanced American Sign Language skills including continued vocabulary. Emphasis on conversational techniques in a cross-cultural framework. Continued work on conceptual accurate signing of English idioms and words with multiple meanings. Prerequisites: SLG103 and SLG201 with a grade of "C" or better, or permission of department/division. Suggested but not required: ENG101, SLG200, and CRE101 or CRE111 or exemption by score on the reading placement test (ASSET).

**SOCIETY AND BUSINESS****SBU200****Society and Business**

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.

**SOCIOLOGY****SOC101****Introduction to Sociology**

3 Credits. 3 Periods.

Fundamental concepts of social organization, culture, socialization, social institutions and social change. Prerequisites: None.

**SOC140****Racial & Ethnic Minorities**

3 Credits. 3 Periods.

Contemporary/Historical racial and ethnic intergroup relations emphasizing cultural origins, developments, and problems of minority groups in the United States. Prerequisites: None.

**SOC142****Sociology of the Chicano Community**

3 Credits. 3 Periods.

Survey of the socioeconomic characteristics of the Chicano Community. The interrelationships of Chicano cultural groups and society as a whole. Prerequisites: None.

**SOC157****Sociology of Marriage & Family**

3 Credits. 3 Periods.

The study of courtship, marriage, and family patterns, their historical development, their

adaptation to a changing culture, and their impact on individuals. Prerequisites: None.

**SOC212****Gender and Society**

3 Credits. 3 Periods.

A study of the way culture shapes and defines the positions and roles of both men and women in society. Major emphasis on social conditions which may lead to a broadening of gender roles and a reduction of gender role stereotypes and the implications of these changes. Open to both men and women. Prerequisites: None.

**SOC251****Social Problems**

3 Credits. 3 Periods.

A sociological exploration of selected social problems. Emphasis on current concerns. Prerequisites: SOC101.

**SMALL BUSINESS MANAGEMENT****SBS200****Small Business Operations**

2 Credits. 2 Periods.

In-depth analysis of and individual plan development for the "day-to-day" problems encountered in the operation of a small business. Includes the development of an individual business operations plan including finance, purchasing, production scheduling, maintenance, shipping/receiving, personnel management and insurance/risk management requirements. Investigation of daily problems related to inventory control and business expansion. Prerequisites: None.

**SBS202****Small Business Bookkeeping and Tax Preparation**

Introduces accounting and record-keeping with emphasis on practical use of financial data 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 preparation for small business owners. Designed for the non-financially oriented owner/manager of a small business. Prerequisites: None.

**SBS203****Financing and Cash Management For a Small Business**

1 Credit. 1 Period.

Planning for and meeting the financial needs of the small business including cash flow

planning, identification of financial needs and sources, equity and debt financing, and preparation of loan packages. Participants complete a financial plan for their individual company, with emphasis on cost controls, sales revenue projection, expense allocation, and inventory cost control. Day-to-day operational budgeting also included. Prerequisites: None.

**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.

**SBS214****Small Business Customer Relations**

2 Credits. 2 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.

**SBS220****Internet Marketing for Small Business**

2 Credits. 2 Periods.

Focuses on "e-Commerce"-doing business on the Internet and planning a website. Topics include: how the Internet can help growth and success of business; examples of successful marketing on the Internet; availability of Internet services; necessary hardware and software for marketing on the Internet; determining products/services appropriate for Internet marketing; budget constraints and on-going operations of the Internet site. Prerequisites: None.

**SOCIAL WORK****SWU102****Introduction to Social Work**

3 Credits. 3 Periods.

An introduction to the fields within the area of social work through a study of the disciplines of social case work, social group



work, and community organization. Opportunities to experience the various techniques of practice within each discipline. Required for students enrolled in the associate degree program of the social work curriculum. Prerequisites: Eligibility for ENG101 and CRE101.

**SWU171****Introduction to Social Welfare**

3 Credits. 3 Periods.

Analysis of contemporary social welfare services and professional social work. Prerequisites: None.

**SWU258****Victimology and Crisis Management**

3 Credits. 3 Periods.

Focuses on victimology and techniques of crises intervention; and the importance of multicultural perspective. Includes coverage of sexual assault, family violence, child abuse, post-traumatic stress disorder, substance abuse, coping skills, stress management, and community resources. Prerequisites: None. Cross-References: AJS/EMT/FSC258

**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 the department.

**SWU292****Effective Helping in a Diverse World**

3 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.

**SPANISH****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.

**SPA101AA****Elementary Spanish I**

4 Credits. 5 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: SPA101 or departmental approval.

**SPA102AA****Elementary Spanish II**

4 Credits. 5 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: SPA101 or departmental approval.

**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.

**SPA115AA****Beginning Spanish Conversation I**

3 Credits. 4 Periods.

Conversational Spanish. Basic sentence structure, pronunciation and vocabulary necessary to develop speaking ability in Spanish. Designed for students seeking speaking and listening abilities with little emphasis on grammar. Prerequisites: None.

**SPA116****Beginning Spanish Conversation II**

3 Credits. 3 Periods.

Continued study of basic pronunciation, vocabulary, sentence structures, and a cultural awareness necessary to develop speaking and listening skills in Spanish. Prerequisites: SPA115 or permission of department or division.

**SPA116AA****Beginning Spanish Conversation II**

3 Credits. 4 Periods.

Continued development of speaking and listening skills for effective communication in Spanish. Prerequisites: SPA115 or departmental approval.

**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.

**SPA201****Intermediate Spanish I**

4 Credits. 4 Periods.

Continued study of essential Spanish grammar and Spanish-speaking cultures. Continued practice and development of reading, writing, and speaking skills in Spanish. Emphasis on fluency and accuracy in spoken Spanish. Prerequisites: SPA102, or SPA111, or permission of department.

**SPA202****Intermediate Spanish II**

4 Credits. 4 Periods.

Review of grammar, continued development of Spanish language skills with continued study of the Spanish-speaking cultures. Prerequisites: SPA201, or permission of Department or Division.

**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: SPA116, or SPA102 or permission of department or division.

## SPEECH LANGUAGE PATHOLOGY

### SLP104

#### Speech, Language, and Hearing Development

3 Credits. 3 Periods.

Focuses on the processes involved in the normal development of human communication. Emphasis on normative processes involved in speech, language, and hearing development. Examines normal processes of bilingual speech and language development. Prerequisites: None.

### SLP205

#### Introduction to Communication Disorders

3 Credits. 3 Periods.

Provides an overview of normative aspects of human Communication including language, hearing, and speech. Focuses on causes, characteristics and implications of developmental and acquired communication disorders across the lifespan. Prerequisites: SLP104 or ENG213 or permission of instructor.

### SLP210

#### Speech and Hearing Anatomy and Physiology

3 Credits. 3 Periods.

Studies the anatomical systems that underlie human speech including the respiratory system and related nervous system processes. Examines the physical characteristics of sound and the structure and function of the human auditory system. Prerequisites: None

### SLP212

#### Language Disorders and Rehabilitation

3 Credits. 3 Periods.

Explores nature, causes and treatment of language disorders Across the lifespan, including treatments specific to bilingual populations. Prerequisite: None

### SLP214

#### Articulation and Phonological Disorders and Rehabilitation

3 Credits. 3 Periods.

Provides an overview of English phonetics. Focuses on speech sound production from a linguistic, physiologic, acoustic and clinical perspective. Transcription of normal and disordered speech at the entry-level using the International Phonetic Alphabet (IPA). Reviews characteristics and treatment procedures for a variety of speech disorders. Prerequisites: SLP210.

### SLP215

#### Speech and Hearing Disorders and Rehabilitation

3 Credits. 3 Periods.

Focuses on speech sound production from a linguistic, physiologic, acoustic and clinical perspective. Reviews characteristics and treatment procedures for a variety of speech and hearing disorders

Prerequisites: SLP210

### SLP217

#### Clinical Ethics and Documentation

3 Credits. 3 Periods.

Focuses on issues associated with clients'/ patients' rights, professional and ethical behaviors, as specified by American Speech-Language and Hearing Association (ASHA) and other resources. Includes an overview of the educational service system and the health care industry. Reviews documentation required in planning, implementing and evaluating communicative behaviors.

Prerequisites or Corequisites: SLP212, or SLP214, or permission of Instructor.

### SLP218

#### Behavior Management

2 Credits. 2 Periods.

Studies a variety of behavior management techniques including classical conditioning, operant conditioning modeling, motor learning and cognitive learning. Examines how to apply these techniques in working with speech-language disordered clients.

Prerequisites or Corequisites: SLP212 or SLP214 or permission of Instructor.

### SLP235AA

#### Speech-Language Pathology Practicum

1 Credits. 1 Periods.

Practical experience in conducting speech-language therapy. Provides opportunities to create lesson plans, implement therapy, record client performance and maintain appropriate documentation for a variety of speech-language disorders in a variety of therapeutic environments. A minimum of 50 hours in a therapeutic environment required. Prerequisites: SLP212, and SLP214.

### SLP235AB

#### Speech-Language Pathology Practicum

2 Credits. 2 Periods.

Practical experience in conducting speech-language therapy. Provides opportunities to create lesson plans, implement therapy, record client performance and maintain appropriate documentation for a variety of

speech-language disorders in a variety of therapeutic environments. A minimum of 100 hours in a therapeutic environment required.

Prerequisites: SLP212, and SLP214.

### SLP235AC

#### Speech-Language Pathology Practicum

3 Credits. 3 Periods.

Practical experience in conducting speech-language therapy. Provides opportunities to create lesson plans, implement therapy, record client performance and maintain appropriate documentation for a variety of speech-language disorders in a variety of therapeutic environments. A minimum of 150 hours in a therapeutic environment required.

Prerequisites: SLP212, and SLP214.

### SLP240

#### Assistive Technology and Augmentative Communication

3 Credits. 3 Periods.

Provides an overview about the type of client who may need AT/AAC as well as the professional team involved in that decision. Reviews use of computer hardware and software that has been adapted for disabled individuals as well as low-tech and high-tech assistive technology and augmentative/alternative communication systems.

Prerequisites: SLP205, or permission of Instructor.

### SLP242

#### Low Incidence Disabilities

3 Credits. 3 Periods.

Provides overview of disabilities with a focus on treatment techniques for low incidence disabilities, including blindness, low vision, deafness, hard-of-hearing, moderate to severe mental impairment, deaf-blindness, significant developmental delay, complex health issues, serious physical impairment, multiple disability, traumatic brain injury, genetic syndromes, and autism. Prerequisites: SLP104, or SLP205, or permission of Instructor.

### SLP298AA

#### Special Projects

1 Credit. 1 Period. (LAB)

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.

**SLP298AC****Special Projects**

3 Credits. 3 Periods. (LAB)

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.

**STORYTELLING****STO282AC****Volunteerism for Education: A Service Learning Experience**

3 Credits. 3 Periods.

Service-learning field experience within educational systems, citizen advocacy groups, and human service organizations/agency. May be repeated for a total of six (6) STO282 credit hours; may not repeat specific agency assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in catalog. Prerequisites: Permission of instructor.

**STO286****Using Storytelling in a Variety of Settings**

3 Credits. 3 Periods.

The application of storytelling and storytelling activities in the world of health care, business, parks, museums, hospitals, and education. Prerequisites: None.

**STO288****Telling Sacred Stories from Around the World**

3 Credits. 3 Periods.

Introduction to sacred stories as a genre. Researching, developing, and crafting traditional and personal sacred stories. Finding appropriate applications and venues for telling. Prerequisites: None.

**STO289AA****Using Storytelling in Educational Settings**

1 Credits. 1 Periods.

The application of storytelling and storytelling activities in educational settings. Prerequisites: None. Cross-References: EDU283AA

**STO289AB****Using Storytelling in Business Settings**

1 Credits. 1 Periods.

The application of storytelling and storytelling activities in business settings. Prerequisites: None.

**STO289AC****Using Storytelling in Healing Settings**

1 Credits. 1 Periods.

The application of storytelling and storytelling activities in healing settings. Prerequisites: None

**STO292****The Art of Storytelling**

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. Cross-References: EDU292, HUM292.

**STO293****The Art of Storytelling II**

3 Credits. 3 Periods.

Further exploration of the art of storytelling. Provide opportunities for the expansion of storytelling skills and a deeper appreciation of storytelling and its applications. Prerequisites: EDU292 or HUM292 or STO292.

**STO297****Creating and Telling Personal Stories**

3 Credits. 3 Periods.

Exploration of the art and craft of finding, developing and telling personal stories. Prerequisites: EDU292, or HUM292, or STO292.

**TELECOMMUNICATIONS****TCM255****Filmmaking: Fusing Art and Technology**

3 Credits. 3 Periods.

Study and application of the art of motion picture production from artistic conception through production, distribution, public exhibition, and critical response. Assessment of the effects of technical and non-technical cinematic elements and various social forces on the success or failure of a film. Critical analysis of film content and execution. Prerequisites: Permission of Instructor.

**THEATRE****THE111****Introduction to Theatre**

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.

**THE118****Playwriting**

3 Credits. 3 Periods.

Practice and study of theories and techniques of writing for the stage; creating characters, dialogue, and plot for monodramas, scenes, and plays. Prerequisites: None.

**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.

**THP212****Acting II**

3 Credits. 4 Periods.

Fundamental techniques of acting through script analysis, rehearsal, and performance. Prerequisites: THP112 or departmental approval.

## TOTAL QUALITY MANAGEMENT

### CSM101

#### Quality Customer Service

3 Credits. 3 Periods.

Examines the nature of quality customer service and the attitudes, knowledge, and skills needed to work effectively in a quality customer service environment. Foundation skills for quality customer service are taught, applied and practiced. Prerequisites: None. Cross-References: TQM101

### CSM202

#### Principles of Process Improvement

3 Credits. 3 Periods.

Examines the concepts and tools of quality/continuous customer service improvement. Includes mapping processes, flow charts, focus groups, customer satisfaction surveys, statistical measurement, problem-solving tools and methods of presenting findings, evaluating, and implementing changes to improve customer service. Prerequisites: None.

### CSM203

#### Teamwork Dynamics

3 Credits. 3 Periods.

Theory and practice of how team members and team leaders use listening, negotiating and interpersonal skills for the enhancement of team process to improve customer service based on employee evaluations and employee feedback. Included are concepts of team development and team problem-solving techniques. Prerequisites: None.

### TQM101

#### Quality Customer Service

3 Credits. 3 Periods.

Examines the nature of quality customer service and the attitudes, knowledge, and skills needed to work effectively in a quality customer service environment. Foundation skills for quality customer service are taught, applied and practiced. Prerequisites: None. Cross-References: CSM101

### TQM201

#### Total Quality Concepts

2 Credits. 2 Periods.

Examines the concepts of quality as they relate to service, products and the employee. Focuses on the history, rationale and basic principles of Total Quality. Recognizes the scope and requirements for a Total Quality development effort. Prerequisites: None.

### TQM204

#### Team Roles and Dynamics

3 Credits. 3 Periods.

Focuses on basic concepts and tools associated with quality improvement to help teams function effectively. Participants use theory and practice to work as a team, plan, and conduct good meetings, manage logistics and details, gather useful data, analyze the data, communicate clearly and persuasively ideas and results with confidence and impact, and implement change. Prerequisites: None.

### TQM214

#### Principles of Process Improvement

2 Credits. 2 Periods.

Examines the concepts and tools of quality/continuous improvement. Includes mapping processes, statistical measurement, problem-solving tools and methods of presenting findings, evaluating, and implementing changes. 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.

### TQM240

#### Project Management in Quality Organizations

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.

## WELDING TECHNOLOGY

### 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.

### WLD106

#### Arc Welding

5 Credits. 8 Periods.

Electric welding with emphasis on metallic arc welding in out-of-position practice and procedures. Prerequisites: None.

### WLD201

#### Welding II

3 Credits. 6 Periods.

Further study of electric arc and oxyacetylene welding with emphasis on GTAW (heliarc) and GMAW (mig) processes to weld both ferrous and nonferrous metal. Prerequisites: WLD101

### WLD206

#### Advanced Welding- Heliarc and Wire Feed

5 Credits. 8 Periods.

Instruction in theory and practice on tungsten inert gas and wire feed welding. Welding procedures on ferrous and nonferrous metals. Set up and operation of all types of machines used in tig and mig welding. Prerequisites: WLD106 or departmental permission.

### WLD208

#### Advanced Arc Welding- Certification

5 Credits. 8 Periods.

Advanced metallic arc welding emphasizing out-of-position welding in preparation for certification. Includes various test methods Provides training on machine flame cutting and gouging and arc air cutting and gouging. Prerequisites: WLD106 or permission of instructor.

## WOMEN STUDIES

### WST100

#### Women and Society

3 Credits. 3 Periods.

Introduction to critical issues in women's studies. Prerequisites: None.

### WST128

#### Law and Violence Against Women

3 Credits. 3 Periods.

Covers cases and materials on systems of oppression particularly as related to women in our society. Areas covered include battering, sexual harassment, sexual assault, prostitution, and pornography as exemplified in present-day society. Designed to give students the ability to identify problems of violence against women and participate in current societal discourse on various ways to resolve them. Prerequisites: None. Cross-References: AJS128



**WST200****Essential Feminist Writing**

3 Credits. 3 Periods.

Literary tracing of feminism from 18th century to present. Explores major issues related to women in the 20th century.

Prerequisites: ENG101 or permission of instructor.

**WST209****Women and Films**

3 Credits. 3 Periods.

Analysis of images of women in films from both historical and contemporary perspectives. Prerequisites: None.



## MCCCD Policies and Procedures

*Estrella Mountain and all Maricopa Community Colleges are governed by the same policies and procedures which include information about nondiscrimination, compliance with regulations, health concerns, admissions, residency guidelines, financial assistance, academic advising, assessment, articulation, registration, tuition and fees, refunds, attendance, grading, records, and scholastic and disciplinary standards.*

## MARICOPA COUNTY COMMUNITY COLLEGE DISTRICT

The following are a portion of the Administrative Regulations used in managing the day-to-day operations of the Maricopa County Community College District (MCCCD) and are subject to change. Administrative Regulations are amended, adopted or deleted as necessary and are subject to a formal approval process. Administrative Regulations are referenced as "AR" followed by a regulation number, which corresponds with the regulations on the MCCCD website:

[http://www.dist.maricopa.edu/gvpolicy/adminregs/adminregs\\_toc.htm](http://www.dist.maricopa.edu/gvpolicy/adminregs/adminregs_toc.htm). Some regulations include reference to Arizona Revised Statutes from the State of Arizona and are noted as "A.R.S." followed by a reference number.

### General Statement (AR 2.4.1)

The Maricopa Community Colleges are dedicated to providing a healthy, comfortable and educationally productive environment for students, employees and visitors.

### Nondiscrimination Policy (AR 2.4.2)

It is the policy of the Maricopa Community Colleges (consisting of Chandler-Gilbert Community College, the District Office, Estrella Mountain Community College, GateWay Community College, Glendale Community College, Maricopa Skill Center, Southwest Skill Center, Mesa Community College, Paradise Valley Community College, Phoenix College, Rio Salado College, Scottsdale Community College, and South Mountain Community College) to promote equal employment opportunities through a positive continuing program. This means that Maricopa will not discriminate, nor tolerate discrimination, against any applicant or employee because of race, color, religion, gender, sexual orientation, national origin, age, disability, or veteran status. Additionally, it is the policy of the Maricopa Community Colleges to provide an environment for each job applicant and employee that is free from sexual harassment, as well as harassment and intimidation on account of an individual's race, color, religion, gender, sexual orientation, national origin, age, disability, or veteran status.

This nondiscrimination policy covers all aspects of the employment relationship and admission to, access to, and treatment of students in the Maricopa Community Colleges' programs and activities including vocational education. This policy also prohibits discrimination on the basis of sexual orientation in the admission and treatment of students in the Maricopa Community Colleges' programs and activities and in the hiring, treatment, promotion, evaluation, and termination of employees.

### Equal Opportunity Statement (AR 2.4.3)

It is the policy of the Maricopa Community Colleges to promote equal employment opportunities through a positive continuing program. This means that Maricopa will not discriminate, nor tolerate discrimination, against any applicant or em-

ployee because of race, color, religion, gender, sexual orientation, national origin, age, disability, or veteran status. Additionally, it is the policy of the Maricopa Community Colleges to provide an environment for each job applicant and employee that is free from sexual harassment, as well as harassment and intimidation on account of an individual's race, color, religion, gender, sexual orientation, national origin, age, disability, or veteran status.

## Affirmative Action Statements

### Affirmative Action Policy Statement for Individuals with Disabilities

In conformance with the provisions of Section 503 of the Rehabilitation Act of 1973, as amended, and the implementing regulations, 41 CFR 60-741.5 (a), as amended, Maricopa Community College District will not discriminate, or tolerate discrimination, against any applicant or employee because of physical or mental disability in regard to any position for which the known applicant or employee is qualified. Maricopa agrees to take affirmative action to employ, advance in employment and otherwise treat known qualified individuals with disabilities without regard to their physical or mental disability in all human resources selection and decision practices, such as the following: advertising, benefits, compensation, discipline (including probation, suspension, and/or termination for cause or layoff), employee facilities, performance evaluation, recruitment, social/recreational programs, and training. Maricopa will also continue to administer these practices without regard to race, color, religion, gender, sexual orientation, national origin, age, disability, or veteran status. Additionally, all applicants and employees are protected from coercion, intimidation, interference, or discrimination for filing a complaint or assisting in an investigation under the Act.

### 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 Community College District will not discriminate, or tolerate discrimination, against any applicant or employee because he or she is a special disabled veteran or Vietnam era veteran in regard to any position for which the known applicant or employee is qualified. Maricopa agrees to take affirmative action to employ, advance in employment, and otherwise treat known qualified special disabled veterans and Vietnam era veterans without discrimination based upon their disability or veteran status in all human resources section and decision practices, such as the following: advertising, benefits, compensation, discipline (including probation, suspension, and/or termination for cause or layoff), employee facilities, performance evaluation, recruitment, social/recreational programs, and training. Maricopa will continue to administer these practices without regard to race, color, religion, gender, sexual orientation, national origin, age, disability, or veteran status. Additionally, Maricopa agrees to post all suitable job

openings at the local office of the State employment service where the job opening occurs.

This includes full-time, temporary greater than 3 days' duration, and part-time employment. Finally, all applicants, 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**

Vice President of Student Affairs ADA/504/Title IX  
Coordinator

EMCC, 3000 N. Dysart Road, Avondale, Arizona 85323  
Telephone (623) 935-8814

Under the ADA and Section 504, the District and its colleges recognize the obligation to provide overall program accessibility throughout its locations for persons with disabilities. The designated ADA/504/Title IX Coordinator at each college will provide information as to the existence and location of services, activities and facilities that are accessible to and usable by persons with disabilities. Requests for accommodation should be addressed to the coordinator. Likewise, under Title IX, there is an obligation to provide services and program accessibility in a gender-neutral manner. Students with disabilities may request catalog information in an alternative format from the college ADA/504 Coordinator.

### **Póliza de No Discriminación**

Es la póliza de los Colegios Comunitarios del Condado de Maricopa (The Maricopa Community Colleges) que consisten del Centro de Apoyo del Distrito, los colegios comunitarios de Chandler-Gilbert, Estrella Mountain, Gateway, Glendale, Mesa, Paradise Valley, Phoenix, Rio Salado, Scottsdale, South Mountain y el Centro de Capacitación de Maricopa, proveer igualdad en las oportunidades de empleo mediante un programa continuo positivo. Esto significa que Maricopa no discriminará o tolerará discriminación en contra de ningún aplicante o empleado debido a su raza, color, religión, sexo, orientación sexual, nacionalidad, edad, incapacitación o por ser veterano incapacitado. Así mismo, es la póliza de los Colegios Comunitarios proveer para cada aplicante y empleado un ambiente libre de acoso sexual como también de acoso intimidación referente a raza, color, religión, sexo, orientación sexual, nacionalidad, edad o estado de veterano de cualquier individuo.

Esta póliza de no discriminación cubre todos los aspectos de contratación del empleado, ingreso, acceso a, y tratamiento de alumnos en los Colegios Comunitarios de Maricopa los cuáles incluyen también programas de educación vocacional. Esta póliza también prohíbe discriminación en base de orientación sexual en la admisión y tratamiento de estudiantes, en sus programas y actividades y en la contratación, tratamiento, promoción/ascensos, evaluación y despido de empleados.

### **Declaración de Igualdad de Oportunidad**

Es la póliza de los Colegios Comunitarios del Condado de Maricopa proveer igualdad en las oportunidades de empleo mediante un programa continuo positivo. Esto significa que Maricopa no discriminará o tolerará discriminación en contra de ningún aplicante o empleado debido a su raza, color, religión, sexo, orientación sexual, nacionalidad, edad, incapacidad o por ser veterano incapacitado. Agregando, es la póliza de los Colegios Comunitarios proveer para cada aplicante y empleado un ambiente libre de acoso sexual como también de acoso e intimidación referente a la raza, color, religión, sexo, orientación sexual, nacionalidad, edad y condición de veterano de cualquier individuo.

### **Declaración de Acción Afirmativa**

#### **Póliza y Declaración de Acción Afirmativa para Individuos con Incapacidades**

De acuerdo a lo que provee la Sección 503 de la Ley de Rehabilitación de 1973, como enmienda, y las leyes de implementación, 41 CFR 60-741.5 (a), declara que el Distrito de Colegios Comunitarios de Maricopa no discriminarán o tolerarán discriminación en contra de ningún aplicante o empleado debido a su discapacidad/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, reclutamiento, programas sociales/recreacionales y entrenamiento. Maricopa continuará llevando a cabo éstas prácticas de no discriminar por razones de raza, color, religión, sexo, orientación sexual, nacionalidad, edad, incapacidad o estado de veterano. Así mismo, todo los aplicantes y empleados están protegidos en contra de coacción, intimidación, interferencia o discriminación por quejas o por ayudar en una investigación cubierta bajo éste Acto.

#### **Declaración de Póliza de Acción Afirmativa para Otros Veteranos Elegibles, Veteranos con Incapacitación Especial y Veteranos de la Era Vietnamita**

Conforme a la ley de Reajuste y Asistencia para los Veteranos de la Era Vietnamita de 1974, acta de Oportunidades de Empleo para Veteranos de 1998 y reglamentos de implementación, 41 CFR 60-250(k), el Distrito de Colegios Comunitarios del Condado de Maricopa no discriminará ni tolerará discriminación en contra de ningún aplicante o empleado veterano o veterano de la Era Vietnamita con discapacidad/incapacitación especial referente a cualquier posición la cual dicho aplicante o empleado califique.



Maricopa promete aplicar acción afirmativa para emplear, ascender en empleo y tratar a dichos veteranos incapacitados y de la Era Vietnamita que califiquen sin discriminar base a su discapacidad/incapacitación o condición de veterano en todas las áreas de recursos humanos y decisiones como son las siguientes: anuncios, beneficios, compensación, disciplina (incluyendo período de prueba, suspensión, y/o despido por causa o paro forzoso), facilidades para empleados, evaluación de trabajo, reclutamiento, programas sociales/recreacionales y entrenamiento. Maricopa continuará llevando a cabo estas prácticas sin discriminar por razones de raza, color, religión, sexo, orientación sexual, nacionalidad, edad, incapacidad o condición de veterano. Maricopa promete anunciar todas las oportunidades de empleo disponibles en la oficina local del servicio de empleo del Estado donde el empleo esté disponible. Esto incluye empleo de tiempo completo, temporal de más de tres días de duración y empleo de tiempo medio.

Finalmente, todos los aplicantes y empleados están protegidos en contra de coacción, intimidación, interferencia o discriminación 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**

Vice President of Student Affairs , ADA/504/Coordinador del Título IX  
EMCC, 3000 N. Dysart Road, Avondale, Arizona 85323  
Telefónico (623) 935-8814

De acuerdo a ADA y a la sección 504, el distrito y sus colegios reconocen la obligación de proveer acceso a programas en todas sus localidades a personas incapacitadas. El coordinador designado de ADA/504/Título IX proveerá información tocante a la existencia y localidad de servicios, actividades y facilidades que son accesibles y de utilidad a personas incapacitadas. Solicitudes para acomodación deben ser dirigidas al coordinador. Del mismo modo, bajo el Título IX, hay obligación de proveer acceso a servicios y programas de una manera imparcial según el género.

Estudiantes incapacitados pueden solicitar información de catálogo en una forma diferente por medio del Coordinador designado por ADA/504 en cada colegio.

## **MARICOPA COMMUNITY COLLEGES**

### **VISION**

**A Community of Colleges...Colleges for the Community**

... working collectively and responsibly to meet the life-long learning needs of our diverse students and communities.

### **MISSION**

The Maricopa Community Colleges provide access to higher education for diverse students and communities.

We focus on learning through:

- University Transfer Education
- General Education
- Developmental Education
- Workforce Development
- Student Development Services
- Continuing Education
- Community Education
- Civic Responsibility
- Global Engagement

### **VALUES**

The Maricopa Community Colleges are committed to:

#### **Community**

We value all people – our students, our employees, their families, and the communities in which they live and work. We value our global community of which we are an integral part.

#### **Excellence**

We value excellence and encourage our internal and external communities to strive for their academic, professional and personal best.

#### **Honesty and integrity**

We value academic and personal honesty and integrity and believe these elements are essential in our learning environment. We strive to treat each other with respect, civility and fairness.

#### **Inclusiveness**

We value inclusiveness and respect for one another. We believe that 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.

## COMPLIANCE WITH POLICIES, RULES, REGULATIONS

### General Regulations (AR 2.1)

#### A. Compliance with Policies, Rules, Regulations

Every student is expected to know and comply with all current published policies, rules and regulations as printed in the college catalog, class schedule, and/or student handbook. Copies are available at each college.

Policies, courses, programs, fees and requirements may be suspended, deleted, restricted, supplemented or changed through action of the Governing Board of the Maricopa Community Colleges.

The Maricopa Community Colleges reserve the right to change, without notice, any materials, information, curriculum, requirements and regulations.

Note: The regulations that comprise the student section contain language that appears in various sources such as the Catalog Common Pages and the Student Handbook. All areas became Administrative Regulations with the 1996 adoption of the Governance Model. Changes are made annually either through the Administrative Regulations approval process, or by Board approval for those items that fall under its statutory duty, such as Tuition and Fees. In an effort to prevent duplication, topics in this section may be incorporated by reference, as they are featured in other areas of the manual and are noted accordingly.

The Maricopa Community Colleges Vision, Mission and Values that are featured in the Common Pages are a part of approved Governing Board Policy and are located in the policy section of the manual. As such, the following statement related to Outcomes Assessment that appears in the Common Pages is presented here as a general statement.

#### B. Outcomes Assessment

The mission of the Maricopa Community Colleges is to create and continuously improve affordable, accessible, and effective learning environments for the lifelong educational needs of the diverse communities we serve. In order to evaluate how successfully Maricopa Community Colleges accomplish this mission, student outcomes will be assessed as part of the continuous improvement process.

Students may be asked to participate in a variety of assessment activities at each college. Assessment results will be used to improve educational programs, services and student learning.

## ADMISSION/REGISTRATION/ ENROLLMENT

### ADMISSION POLICY (AR 2.2.1)

Persons meeting the admissions criteria may attend any Maricopa Community College of their choice. Falsification of any admission materials or official college records may be cause for denial or cancellation of admission. Exceptions to the admissions policies may be requested through the Admissions and Standards Committee. Admission is determined in accordance with state law (A.R.S. § 15-1805.01, 15-1821) and

regulations of the Maricopa Community Colleges Governing Board.

## ADMISSION CLASSIFICATIONS

### A. Admission of Regular Students

Admission to the community college in Arizona may be granted to any person who meets at least one of the following criteria:

1. Is a graduate of a high school, which is accredited by a regional accrediting association as defined by the United States Office of Education or approved by a State Department of Education or other appropriate state educational agency.
2. Has a high school certificate of equivalency.
3. Is at least 18 years of age and demonstrates evidence of potential success in the community college.
4. Is a transfer student in good standing from another college or university.

### B. Admission of Students Under 18 Years of Age

1. Admission to the community colleges in Arizona shall be granted to any student who is under age 18 and who completes any one of the following requirements:
  - a. A composite score of 93 or more on the Preliminary Scholastic Aptitude Test (PSAT).
  - b. A composite score of 930 or more on the Scholastic Aptitude Test (SAT).
  - c. A composite score of twenty-two or more on the American College Test (ACT).
  - d. A passing score on the relevant portions of the Arizona Instrument to Measure Standards test (AIMS).
  - e. The completion of a college placement test designated by the community college district that indicates the student is at the appropriate college level for the course.
  - f. Is a graduate of a private or public high school or has a high school certificate of equivalency.
2. A community college may limit the number of semester hours in which the student may enroll to not more than six (6) credit hours.
3. Home schooled students are exempt from this subsection.
4. A student shall not be denied admission because of age, lack of a high school diploma or high school certificate of equivalency, grade in school, lack of permission of school officials or lack of concurrent enrollment in a public or private school, if the student has achieved at least a specified score on a college entrance examination.



5. The colleges reserve the right to enroll students in courses. The final decision for admission to any class for students admitted under section B will be determined by the designated college administrator in consultation with the department chairperson and/or faculty.

### C. Vocational Courses

Students who enroll in Vocational Courses may be admitted on an individual basis with the approval of college officials if the student meets the established requirements of the courses for which the student enrolls and the college officials determine that the student's admission is in the best interest of the student.

### D. Western Undergraduate Exchange Program

The Western Undergraduate Exchange (WUE) program is a student exchange program coordinated by the Western Interstate Commission for Higher Education (WICHE), and administered by the Arizona Board of Regents. Through WUE, students who reside in western states (Alaska, Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming) and meet the eligibility requirements, pay 150 percent of the regular resident tuition plus fees. Students must mark prominently on the Student Information Form that they seek admissions 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 Office of Admissions and Records.

### E. Admission of F-1 Nonimmigrant Students

Prospective students should contact the Office of Admissions and Records or designated office for the necessary student information form(s). When completed, the form(s) should be returned to the Office of Admissions and Records or designated office with all requested supporting documents. After the file has been reviewed, a notice will be sent 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 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 Office of Admissions and Records

or designated office. In addition, it is the applicant's responsibility to have all transcripts translated into English and evaluated by a foreign credential evaluation service if necessary.

### 1. Admission to Academic Programs

Applicants who wish to enroll in an academic program at the college must present evidence of English language proficiency. If the Test of English as a Foreign Language (TOEFL) is used to satisfy this requirement, the applicant must attain a score of at least 500 (on the traditional TOEFL) or 173 (on the computer-based test) 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 admission and records of the college may accept other proof of English language proficiency for admission purposes, such as the ASSET test, COMPASS or CELSA tests.

Questions about the TOEFL should be directed to the Educational Testing Services at the following address:

#### TOEFL Services

P.O. Box 6151

Princeton, NJ 08543-6151

### 2. Admission to the Intensive English Program

An applicant for admission to the Intensive English Program must provide evidence of at least intermediate command of English by way of one or more of the following criteria:

- a. At least six years of English language instruction as shown by the applicant's school transcript(s);
- b. A minimum TOEFL score of 400 (on the traditional TOEFL) or 97 (on the computer-based test) or 23 (on the internet-based test, known as the IBT);
- c. An original letter of recommendation from a teacher, school principal or headmaster/ headmistress, or the director of an English language institute attesting to the applicant's proficiency at the intermediate level;
- d. Other credentials, test scores, interview results, or evidence accepted by the coordinator of the intensive English program or the college's responsible designee.

Students admitted to the Intensive English Program will not be allowed to enroll in courses outside those officially designated as part of the program unless and until they have met all of the prerequisites or other course requirements.

- e. Foreign students under certain types of visas may need special permission to enroll and should contact the appropriate college official.

### 3. Financial Support

Evidence of financial support will be required prior to issuance of the I-20 form. The colleges have no scholarship or financial aid provisions for foreign students; therefore, students must be fully prepared to meet the necessary financial obligations for the full time they will be in the United States.

The colleges estimate the student's average costs for 10 months to be:

Tuition and fees:	\$ 6,800 <sup>1</sup>
Living Expenses:	8,700 <sup>2</sup>
Books:	800 <sup>3</sup>
Health Insurance:	1,000 <sup>4</sup>
Total	\$17,300 <sup>5</sup>

### 4. Dependent Financial Guarantee

Evidence of financial support for dependents of F-1 students (spouse and dependent children) is also required: \$5,000 for the first dependent and \$2,500 for each additional dependent

### 5. Health Insurance

All F-1 students who have an I-20 issued by one of the Maricopa Community Colleges are required to purchase the Maricopa Community College's international student health insurance plan. Health insurance coverage for dependents of F-1 students is highly recommended. The Maricopa Community Colleges contracts with an insurance provider annually to offer a health insurance plan for F-1 students. For more information contact the college office of admissions and records or designated international student office.

#### Footnotes:

(1) Based 2007-08 tuition and fee schedule.

(2) Based on estimated living expenses for 2 semesters (10 months).

(3) Based on average new and used textbook prices. Assumes books are sold at the end of the semester.

(4) Based on 2007-08 insurance premiums for the mandatory Maricopa Community Colleges' International Student Health Plan.

(5) Applicants must provide evidence of this minimum amount of financial support before an I-20 is issued.

## ADMISSION INFORMATION (AR 2.2.2)

Students must file a Student Information Form with the Office of Admissions and Records at the college of attendance. There is no charge for this service.

### A. Student Status

1. Freshman - A student who has completed fewer than 30 credit hours in 100-level courses and above.
2. Sophomore - A student who has completed 30 credit hours or more in 100-level courses and above.
3. Unclassified - A student who has earned an associate degree or higher.

### B. Student Identification Number

Disclosure of the social security number is voluntary (A.R.S. §15-1823). However, students must use social security numbers for reporting information pertaining to potential educational tax credits and for processing federal financial aid applications and Veterans Administration benefits.

### C. Declaration of Previous College Attendance

Students who have attended other colleges are required to give the names of those colleges when they apply for admission to one of the Maricopa Community Colleges. If this is not done, enrollment in the college may be canceled.

Transfer students who do not meet the minimum grade point averages listed under Scholastic Standards may be admitted on academic probation.

### D. Residency for Tuition Purposes (Appendix S-1)

All students are classified for tuition purposes under one of the following residency classifications:

1. Maricopa County resident
2. Out-of-County resident
3. Out-of-State resident (including F-1 non-immigrant students)
4. Unclassified, Out-of-County, Out-of-State (1-6 credit hours system-wide)

Residency for tuition purposes is determined in accordance with state law (A.R.S. §15-1801, 15-1802, 15-1802.01, 15-1803, *et. sec.*) 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 Office of Admissions and Records for clarification.

### Implementation

1. Domicile status must be established before the student registers and pays fees. It is the student's responsibility to register under the correct domicile status.
2. Enforcement of domicile requirements shall be the responsibility of the Chancellor of the Maricopa Community Colleges. The Chancellor has charged the Director of Admissions and Records or other designee at each college to make the initial domicile classification. In determining a student's classification, the college may consider all evidence, written or oral, presented by the student and any other information received from any source which is relevant to determining classification. The college may request written sworn statements or sworn testimony of the student.
3. A request for review of the initial classification may be made to a district review committee. The request must be in writing, signed by the student and accompanied by a sworn statement of all facts relevant to the matter. The request must be filed with the

admissions officer of the college within ten days of receipt of notification of classification as a non-resident. **Failure to properly file a request for review within the prescribed time limit constitutes a waiver of review for the current enrollment period.** The decision of the review committee shall be final.

### Definitions

“**Armed Forces of the United States**” means the Army, the Navy, the Air Force, the Marine Corps, the Coast Guard, the commissioned corps of the United States Public Health Services, the National Oceanographic and Atmospheric Administration, the National Guard, or any military reserve unit of any branch of the armed forces of the United States.

“**Continuous attendance**” means enrollment at one of Maricopa Community Colleges as a full-time or part-time student for a normal academic year since the beginning of the period for which continuous attendance is claimed. Students need not attend summer sessions or other such intersession beyond the normal academic year in order to maintain continuous attendance.

“**County resident**” means an individual who has lived in the county for at least fifty (50) days before the first day of classes of the semester.

“**Domicile**” means a person’s true, fixed, and permanent home and place of habitation. It is the place where he or she intends to remain and to which he or she expects to return when he or she leaves without intending to establish a new domicile elsewhere.

“**Emancipated person**” means a person who is neither under a legal duty of service to his parent nor entitled to the support of such parent under the laws of this state.

“**Full-time student**” means one who registers for at least twelve (12) credit hours per semester.

“**Part-time student**” means one who registers for fewer than twelve (12) credit hours per semester.

“**Parent**” means a person’s father, or mother, or if one parent has custody, that parent, or if there is no surviving parent or the whereabouts of the parents are unknown, then a guardian of an unemancipated person if there are not circumstances indicating that such guardianship was created primarily for the purpose of conferring the status of an in-state student on such unemancipated person.

### Criteria for Determining Residency

#### In-State Student Status

- A. Except as otherwise provided in this article, no person having a domicile elsewhere than in this state is eligible for classification as an in-state student for tuition purposes.
- B. A person is not entitled to classification as an in-state student until the person is domiciled in this state for one year preceding the official starting day of the semester, except that a person whose domicile is in this state is entitled to classification as an in-state student if the person meets one of the following requirements:

1. The person’s parent’s domicile is in this state and the parent is allowed to claim the person as an exemption for state and federal tax purposes.
  2. The person is an employee of an employer which transferred him or her the person to this state for employment purposes or the person is the spouse of such an employee.
  3. The person is an employee of a school district in this state and is under contract to teach on a full-time basis, or is employed as a full-time non-certified classroom aide, at a school within that school district. For purposes of this paragraph, the person is eligible for classification as an in-state student only for courses necessary to complete the requirements for certification by the state board of education to teach in a school district in this state. No member of the person’s family is eligible for classification as an in-state student if the person is eligible for classification as an in-state student pursuant to this paragraph, unless the family member is otherwise eligible for classification as an in-state student pursuant to this section.
  4. The person’s spouse has established domicile in this state for at least one year and has demonstrated intent and financial independence and is entitled to claim the student as exemption for state and federal tax purposes or the person’s spouse was temporarily out of state for educational purposes, but maintained a domicile in this state. If the person is a non-citizen, the person must be in an eligible visa status pursuant to federal law to classify as an in-state student for tuition purposes.
- C. The domicile of an unemancipated person is that of such person’s parent.
  - D. An unemancipated person who remains in this state when such person’s parent, who had been domiciled in this state, removes from this state is entitled to classification as an in-state student until attainment of the degree for which currently enrolled, as long as such person maintains continuous attendance.
  - E. A person who is a member of the Armed Forces of the United States and who is stationed in this state pursuant to military orders or who is the spouse or a dependent child of a person who is a member of the armed forces of the United States and who is stationed in this state pursuant to military orders is entitled to classification as an in-state student. The student does not lose in-state student classification while in continuous attendance toward the degree for which he or she is currently enrolled.
  - F. A person who is a member of the armed forces of the United States or the spouse or a dependent of a member of the armed forces of the United States is entitled to classification as an in-state student if the member of the armed forces has claimed this state as the

person's state of home record for at least twelve consecutive months before the member of the armed forces, spouse or dependent enrolls in a university under the jurisdiction of the Arizona Board of Regents or a community college under jurisdiction of a community college district governing board. For purposes of this subsection, the requirement that a person be domiciled in this state for one year before enrollment to qualify for in-state student classification does not apply.

- G A person who is honorably discharged from the armed forces of the United States shall be granted immediate classification as an in-state student on honorable discharge from the armed forces and, while in continuous attendance toward the degree for which currently enrolled, does not lose in-state student classification if the person has met all of the following requirements:
1. Declared Arizona as the person's legal residence with the person's branch of service at least one year prior to discharge from the armed forces.
  2. 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:
    - a. An Arizona driver license.
    - b. Arizona motor vehicle registration.
    - c. Employment history in Arizona.
    - d. Arizona voter registration.
    - e. Transfer of major banking services to Arizona.
    - f. Change of permanent address on all pertinent records.
    - g. Other materials of whatever kind or source relevant to domicile or residency status.
  3. Filed an Arizona income tax return with the Arizona Department of Revenue during the previous tax year.
- H. A person who is a member of an Indian tribe recognized by the United States Department of the Interior whose reservation land lies in the state and extends into another state and who is a resident of the reservation is entitled to classification as an in-state student.

#### **Alien In-State Student Status**

- A. An alien is entitled to classification as an in-state refugee student if such person has been granted refugee status in accordance with all applicable laws of the United States and has met all other requirements for domicile.
- B. In accordance with the Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (P.L. 104-208; 110 Stat. 3009), a person who was not a citizen or legal resident of the United States or who is without lawful immigration status is not entitled to classification as an in-state student pursuant to A.R.S. § 15-1802 or entitled to classification as a county resident pursuant to A.R.S. § 15-1802.01.

- C. In establishing domicile, the alien must not hold a visa that prohibits establishing domicile in this state. After meeting other domicile requirements, students holding valid, unexpired visas in the following categories may be classified as in-state students:
- A Foreign Government Official or Adopted Child of a Permanent Resident
  - E Treaty Trader
  - G Principal Resident Representative of Recognized Foreign Member Government to International Staff
  - K Spouse or Child of Spouse of U.S. Citizen, Fiancé or Child of Fiancé of U.S. Citizen
  - L Intracompany Transferee, or Spouse or Child
  - N6 Nato-6
  - V Spouses and Dependent Children of Lawful Permanent Residents
- D. Students who hold visas as listed in section C above, or who were issued a visa of a type other than those listed in section C above and have submitted an I-485 to Citizenship and Immigration Services (CIS) may establish residency if other domicile requirements have been met. In establishing domicile, the alien must be in a status that does not prohibit establishing domicile in this state for at least one year immediately preceding the official starting date of the semester.

In the event an alien student's parent is domiciled in this state and whose parent is allowed to claim him or her as an exemption for state or federal tax purposes (B.1), the student's parent, in order to establish domicile, must hold a valid, unexpired visa in one of the categories listed in paragraph C above.

#### **Presumptions Relating to Student Status**

Unless there is evidence to the contrary, the registering authority of the community college or university at which a student is registering will presume that:

- A. No emancipated person has established a domicile in this state while attending any educational institution in this state as a full-time student, as such status is defined by the community college district governing board or the Arizona Board of Regents, in the absence of a clear demonstration to the contrary.
- B. Once established, a domicile is not lost by mere absence unaccompanied by intention to establish a new domicile.
- C. A person who has been domiciled in this state immediately before becoming a member of the Armed Forces of the United States shall not lose in-state status by reason of such person's presence in any other state or country while a member of the Armed Forces of the United States.



### Proof of Residency

When a student's residency is questioned, the following proof will be required:

#### A. In-State Residency

1. An affidavit signed by the student must be filed with the person responsible for verifying residency.
2. Any of the following may be used in determining a student's domicile in Arizona:
  - a) Arizona income tax return
  - b) Arizona Voter registration
  - c) Arizona Motor Vehicle registration
  - d) Arizona Driver's license
  - e) Employment history in Arizona
  - f) Place of graduation from high school
  - g) Source of financial support
  - h) Dependency as indicated on federal income tax return
  - i) Ownership of real property
  - j) Notarized statement of landlord and/or employer
  - k) Transfer of major banking services to Arizona
  - l) Change of permanent address on all pertinent records
  - m) Other relevant information

#### B. County Residency

1. An affidavit signed by the student must be filed with the person responsible for verifying domicile to prove continuous residency in a county for fifty (50) days, and
2. Any of the following may be used to determine a student's county residency:
  - a) Notarized statements of landlord and/or employer
  - b) Source of financial support
  - c) Place of graduation from high school
  - d) Ownership of real property
  - e) Bank accounts
  - f) Arizona income tax return
  - g) Dependency as indicated on a Federal income tax return
  - h) Other relevant information

### CONCURRENT ENROLLMENT IN ARIZONA PUBLIC INSTITUTIONS OF HIGHER EDUCATION (A.R.S. §15-1807) (Appendix S-1)

It is unlawful for any non-resident student to register concurrently in two or more public institutions of higher education in this state including any university, college or community college for a combined student credit hour enrollment of more than six (6) credit hours without payment of non-resident tuition at one of such institutions.

Any non-resident student desiring to enroll concurrently in two or more public institutions of higher education in this state including any university or community college for a combined

total of more than six (6) credit hours who is not subject to non-resident tuition at any of such institutions shall pay the non-resident tuition at the institution of his choice in an amount equivalent to non-resident tuition at such institution for the combined total of credit hours for which the non-resident student is concurrently enrolled.

### OTHER ADMISSION INFORMATION (AR 2.2.3)

#### A. Veterans

By Arizona statute, any failing grades from any Arizona university or community college that were received prior to military service will not be used to determine admission to the community college for the honorably discharged veterans with two years' service in the Armed Forces of the United States. Students admitted or re-admitted to the community college under this statute are subject to progression, retention, graduation and other academic regulations and standards.

(Also see Withdrawal - Appendix S-7)

#### B. Ability to Benefit - Classifications

Federal guidelines require that students without a high school diploma or certificate of equivalency who are applying for financial aid must demonstrate the ability to benefit. Evaluation during the admission process results in the student being admitted to the college with the status of **REGULAR**, **REGULAR WITH PROVISIONAL REQUIREMENTS** or **SPECIAL**.

"REGULAR" status, for the purpose of 2.2.3 B, is granted to an individual admitted to the college who is a high school graduate or has a GED certificate. A student without a high school diploma or GED certification and beyond the age of compulsory high school attendance may be a regular status student if the student has been assessed to benefit from college instruction by receiving qualifying scores on approved assessment instruments. All regular status students must be pursuing a degree/certificate or be in an eligible program.

"REGULAR WITH PROVISIONAL REQUIREMENTS" status, for the purpose of 2.2.3 B, is granted to a student admitted to the college who is not a high school graduate, does not have a GED certificate, and is beyond the age of compulsory high school attendance but has been assessed to benefit from college instruction requiring developmental/remedial coursework and is pursuing a degree/certificate or be in an eligible program.

"SPECIAL" status, for the purpose of 2.2.3 B, is granted to a student admitted to the college for concurrent enrollment or pursuing one or more courses of special interest and who meets all the requirements for admission.

#### C. Transcripts

The Maricopa Community Colleges reserve the right to require transcripts for clarification or admission to specific programs, for verification of course requisites, for



determination of academic standing and eligibility, and for participation in official athletic events. When an official transcript is required, the transcript must be sent directly to the college Office of Admissions and Records. It is the student's responsibility to ensure that transcripts have been received and are complete. Students entering as high school graduates may be required to submit high school transcripts. Students entering as GED recipients may be required to present a copy of the high school equivalency certificate or official report of qualifying GED scores.

#### D. Educational Assessment

All students are encouraged to undergo an educational assessment to determine course placement. Prospective students who do not possess a high school diploma or GED equivalence certificate are required to complete an educational assessment to determine their ability to benefit from college instruction. See Student Course Placement Process (AR 2.2.7).

### CREDIT FOR PRIOR LEARNING (AR 2.2.4)

The Maricopa Community Colleges recognize that learning takes place in a variety of situations and circumstances. Many students have significant, demonstrable learning from experiences outside the traditional academic environment. Therefore, prior learning, not life experience, is the basis for the award of college credit.

Students may be awarded no more than 30 credit hours, unless required by a specific program of study, within the Maricopa Community Colleges using one or more of the following assessment methods recommended by the Council for Adult and Experiential Learning (CAEL) and the American Council on Education (ACE):

- Articulated Programs
- Credit By Evaluation
- College-Level Equivalency Examinations.

Credit awarded for prior learning does not count as hours in residence for graduation requirements. Exceptions may be granted at some MCCC colleges for their unique programs of study. No more than 20 semester credit hours may be applied to AGEC. Credit received through Prior Learning Assessment is transferable within the Maricopa Community Colleges but is not necessarily transferable to other colleges and universities. Therefore, students are strongly advised to meet with a program advisor or contact the college or university they plan to attend.

For further information on Prior Learning Assessment, contact the Office of Admissions and Records.

#### A. Credit by Evaluation

The Maricopa Community Colleges offer credit by evaluation. The American Council on Education (ACE) evaluates military training and experiences as well as non-colle-

giate sponsored training programs and recommends credit awards based on this evaluation.

The number of credits listed in the ACE guide are recommendations only. A college is not required to grant a student the number of credits recommended. The credits are included on a student's transcript.

#### 1. Educational Experiences in the Armed Services

The Maricopa Community Colleges may award credit for military experiences based on the ACE *Guide to the Evaluation of Educational Experiences in the Armed Services*. A student may receive college credit if:

- a. training parallels a discipline area offered through the Maricopa Community Colleges, and
- b. credit meets a program requirement or is used as elective credit.

Upon request, individuals who have successfully completed Basic Training, four (4) credit hours in Physical Education will be awarded as indicated in the ACE Guide and the Community College of the Air Force Catalog. Official documentation of military training is required.

#### 2. College Credit Recommendation Service (CREDIT)

ACE evaluates training programs offered by business, industry, and government and publishes its credit recommendations in *The National Guide to College Credit for Work Training Programs*. If a student has received training which appears in the guide, he or she may receive college credit if:

- a. training parallels a discipline area offered through the Maricopa Community Colleges, and
- b. credit meets a program requirement or is used as elective credit.

#### 3. Departmental Credit By Evaluation

Students may apply for Departmental Credit By Evaluation in certain courses by obtaining the appropriate form in the Office of Admissions and Records, and completing applicable paperwork and other requirements of the college, including payment of required fee. See fee schedule for appropriate fee. Fees are not refundable if a student fails to obtain credit.

Students may not request:

- a. the evaluation of a course a second time;
- b. the evaluation of a course while currently enrolled in the course;
- c. to establish credit in a previously completed course; and
- d. to establish credit for a lower level of a course in which credit has been received. Exceptions may be granted at some MCCC colleges for their unique programs of study.

Certain departments have additional requirements which 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. Credit awarded through Credit by Evaluation will be posted to a student’s transcript upon completion of one or more credit hours (other than by prior learning) at the college granting the credit. These credits are not used in computing the grade point average. Credit by evaluation is transferable within the Maricopa Community Colleges, but is not necessarily transferable to other colleges and universities.

### B. College-Level Equivalency Examinations

ACE has published credit recommendations for a number of national standardized examinations such as the ones listed below in the *Guide to Educational Credit By Examination*.

The Maricopa Community Colleges use these recommendations as guidelines to award credit for equivalent Maricopa Community Colleges coursework as well as elective credit. Scores must be sent directly to the Office of Admissions and Records from the specific testing company(s) before credit is awarded.

All equivalency is subject to future review and possible catalog change.

#### 1. Advanced Placement Examinations

Students who have taken an advanced placement course of the College Entrance Examination Board (CEEB) in their secondary school and who have taken an Advanced Placement Examination of the CEEB may receive course credit with a score of 3, 4 or 5. Scores must be received directly from CEEB before credit is awarded.

#### English AP Recommendation:

Exam	Score	Credit Hours/Equivalency
English-Language and Composition	4 or 5	6 credit hrs/ENG101, ENG100, AA AC, AD, eligible for Honors ENG102
English Literature and Composition	4 or 5	6 credit hrs/ENG101 ENG110 eligible for Honors ENG102

#### Math AP Recommendation:

Exam	Score	Credit for Course
Math-Calculus AB	3, 4 or 5	MAT220 or MAT221
Math-Calculus BC	3	MAT220 or MAT221
Math-Calculus BC	4 or 5	MAT220 or MAT221, and MAT230 or MAT231 upon completion of MAT241
Computer Science A and AB	4 or 5	CSC100

#### 2. College Level Examination Program

The Maricopa Community Colleges may award credit to individuals who have received a score of 500 or more for the 1986 version of the College Level Examination Program (CLEP) General Examinations (610 on the 1978 version) and who meet or exceed the American Council on Education (ACE) recommended scores for awarding credit on the CLEP subject examinations. The ACE credit-granting score recommendation

will be 50 (on the 20-80 scale) for all CLEP computer-based exams beginning July 1, 2001.

Credit received through CLEP is transferable within the Maricopa Community Colleges, but is not necessarily transferable to other colleges and universities.

Rio Salado College and Paradise Valley Community College are national CLEP test sites. For more information on registering for CLEP examinations, contact Rio Salado College or Paradise Valley Community Colleges.

#### English Composition:

Students pursuing credit for ENG 101 must take the English Composition with Essay. The Maricopa Community Colleges do not award credit for ENG 102 through CLEP examination.

#### Foreign Languages:

Credit earned through CLEP examination for French, German, and Spanish meets the language proficiency requirements of the Maricopa Community Colleges.

For CLEP examinations taken prior to July 1, 2001, the Maricopa Community Colleges will grant credit based on the scaled scores indicated below:

Course	Spanish	French	German	Credit
101	40-49	39-48	39-45	4 (101)
102	50-54	49-53	46-50	8 (101, 102)
201	55-61	54-62	51-59	12 (101, 102, 201)
202	62-80	63-80	60-80	16 (101, 102, 201, 202)

At the discretion of the individual college, an oral exam at the 202 level may be administered.

#### 3. Defense Activity for Non-traditional Education Support Examination Program

The Maricopa Community Colleges may award credit for the Defense Activity for Non-traditional Education Support (DANTES) Examination Program to individuals who meet or exceed the ACE recommended scores for awarding credit on the DANTES subject examinations. The Maricopa Community Colleges do not award credit for ENG 102 through DANTES examination. Credit received through DANTES is transferable within the Maricopa Community Colleges, but is not necessarily transferable to other colleges and universities.

The Assessment Center at Rio Salado College is a national test site. For additional information on registering for DANTES examinations, call (480) 517-8560.

#### **4. American College Testing Proficiency Examination**

##### **Program**

The Maricopa Community Colleges may award credit for the American College Testing Proficiency Examination Program (ACT-PEP) based on the scores earned.

#### **5. Departmental Credit By Examination**

Students may apply for Departmental Credit By Examination in certain courses by obtaining the appropriate form in the Office of Admissions and Records, paying the required fee, and completing the examination and other requirements of the college. See fee schedule for appropriate fees.

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;  
and
- d. to establish credit for a lower level of a course in which credit has been received. Exceptions may be granted at some MCCCDC colleges for their unique programs of study.

Certain departments may have additional requirements which 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. Credit awarded through Departmental Credit By Examination will be posted to a student's transcript upon completion of one or more credit hours (other than by prior learning) at the college granting the credit.

## COLLEGE LEVEL EXAMINATION PROGRAM (CLEP)

Examination General	Score	Sem. Hrs.	MCCCD Equivalency
English Composition	50 (July 1, 2001 or later) 600 (1986 version), 500 (1978 version)	3	With Essay qualifies for ENG101
Humanities	50 (July 1, 2001 or later) 500 (prior to July 1, 2001)	6	Elective Credit
Mathematics	50 (July 1, 2001 or later) 500 (prior to July 1, 2001)	3	MAT122
Natural Sciences	50 (July 1, 2001 or later) 500 (prior to July 1, 2001)	8	Elective Credit*
Social Sciences & History	50 (July 1, 2001 or later) 500 (prior to July 1, 2001)	5	Elective Credit
<b>Subject</b>			
Accounting, Principles of	ACE Score	6	ACC Elective Credit
American Government	ACE Score	3	POS110
American Literature	ACE Score	6	ENH241, 242
Analyzing & Interpreting Literature	ACE Score	3	Elective Credit
Biology	ACE Score	8	BIO Elective Credit*
Calculus (Calculus with Elem Functions)	ACE Score	4	MAT221
Chemistry	ACE Score	9	CHM Elective Credit*
College Algebra (1993) replaces College Algebra (1979)	ACE Score	3	MAT152
College Algebra and Trigonometry	ACE Score	3	MAT152
English Literature	ACE Score	3	Elective Credit
French Language	50-54	4	FRE101
French Language	55-61	8	FRE101, 102
French Language	62-65	12	FRE101, 102, 201
French Language	66-80	16	FRE101, 102, 201, 202
Freshman College Composition	ACE Score	3	With Essay ENG101
German Language	39-45	4	GER101
German Language	46-50	8	GER101, 102
German Language	51-59	12	GER101, 102, 201
German Language	60-80	16	GER101, 102, 201, 202
Human Growth & Development	ACE Score	0	No Credit
Information Systems & Computer Applications	ACE Score	3	CIS Elective Credit
Intro to Educational Psychology	ACE Score	3	EDU Elective
Introductory Business Law	ACE Score	3	GBS Elective Credit
Introductory Psychology	50	3	PSY101
Introductory Sociology	ACE Score	3	SOC101
Mathematics, College	ACE Score	3	MAT142
Macroeconomics, Principles of (replaces Introductory Macroeconomics)	ACE Score	3	ECN211
Management, Principles of	ACE Score	3	MGT Elective Credit
Marketing, Principles of	ACE Score	3	MKT271
Microeconomic, Principles of (replaces Introductory Microeconomics)	ACE Score	3	ECN212
Spanish Language	50-54	4	SPA101
Spanish Language	55-65	8	SPA101, 102
Spanish Language	66-67	12	SPA101, 102, 201
Spanish Language	68-80	16	SPA101, 102, 201, 202
Trigonometry	ACE Score	3	MAT182
U.S. History I - Early Colonization to 1877	ACE Score	6	HIS103
U.S. History II - 1865 to the Present	ACE Score	3	HIS104
Western Civilization I - Ancient Near East to 1648	ACE Score	6	HIS100, 101
Western Civilization II - 1648 to the Present	ACE Score	3	HIS102

\*This general studies requirement in natural sciences (SQ and SG) and Literacy and Critical Inquiry (L) are not satisfied by CLEP.

### ADVANCED PLACEMENT CREDIT

Examination	Score	Sem. Hours	MCCCD
Art-History	5 or 4	6	ARH101, 102
	3	3	ARH101 or 102
Art-Studio-Drawing	5	6	ART111, ART112
	4	3	ART111
Art - Studio- General	5	6	ART111, ART112
	4	3	ART112
Biology	5 or 4	8	BIO181, 182
	3	4	BIO100 or Equivalent
Chemistry	5 or 4	8 or 9	CHM151/151LL and CHM152/152LL or CHM154/154LL
	3	4	CHM151, 151LL
	5 or 4	3	CSC100
Computer Science AB	5 or 4	3	CSC100
Economics- Introductory Macro-economics	5 or 4	3	ECN211
Economics- Introductory Micro-economics	5 or 4	3	ECN212
English - Language & Composition	5 or 4	6	ENG100AA, AC, AD, & ENG101
English - Literature & Composition	5 or 4	6	ENG101 & ENH110
Environmental Science	5 or 4	3	No Credit
French - Language	5, 4 or 3	16	FRE101, 102, 201, 202
French - Literature	5, 4 or 3	16	FRE101, 102, 201, 202
German - Language	5, 4 or 3	16	GER101, 102, 201, 202
German - Literature	5, 4 or 3	16	GER101, 102, 201, 202
History - American	5 or 4	6	HIS103, HIS104
History - European	5, 4 or 3	6 or 3	HIS101, 102
	5	16	LAT101, 102, 201, 202
Latin Language	4	12	LAT101, 102, 201
	3	8	LAT101, 102
Mathematics - Calculus AB	5, 4 or 3	4 or 5	MAT220 or MAT221
Mathematics - Calculus BC	5 or 4	8 to 10	MAT220 or MAT221 & MAT230 or MAT231 upon completion of MAT241
	3	4 or 5	MAT220 or MAT221
Music	5 or 4	3	MTC105
Physics B	5	8	PHY111, PHY112
Physics C - Electricity & Magnetism	5	5	PHY116 - with calculus and laboratory course work or PHY112 - with laboratory course work
	5	5	PHY115 - with calculus and laboratory course work or PHY111 - with laboratory course work
Political Science - American Government	5 or 4	3	POS110
	5 or 4	3	POS140
Political Science - Comparative Government and Politics	5 or 4	3	POS140
Psychology	5 or 4	3	PSY101
Spanish - Language	5, 4 or 3	16	SPA101, 102, 201, 202
Spanish - Literature	5, 4 or 3	16	SPA101, 102, 201, 202
Statistics	5, 4 or 3	3	MAT206



## INTERNATIONAL BACCALAUREATE DIPLOMA/CERTIFICATE CREDIT

### 6. International Baccalaureate Diploma/Certificate

Students who present an International Baccalaureate Diploma/Certificate may qualify for college credit. Maricopa Colleges grant credit for college-level courses only. Credit is awarded according to the “International Baccalaureate Diploma/Certificate Credit” table.

Examination	Score	Sem. Hours	MCCCD
Art/Design	7, 6, or 5	6	ART111, 112
	4	3	ART112
Biology	7, 6, or 5	8	BIO181, 182
	4	4	BIO181
Chemistry	7, 6, or 5	9	CHM151, 152
	4	4	CHM151
Economics	7, 6, or 5	6	ECN211, 212
	4	3	ECN211
English A	7, 6, or 5	6	ENG101, ENG100AB, AC, AD
	4	3	ENG100AB, AC, AD
English B	No Credit	-	None
Foreign Language A or B*	7, 6, or 5	8	Foreign Language 101, 102
	4	4	Foreign Language 101
History - American	7, 6, or 5	6	HIS103, 104
	4	3	HIS103
History - European	7, 6, or 5	6	HIS101, 102
	4	3	HIS101
Mathematics	7, 6, 5, or 4	4	MAT221
Human Geography	5, 4, or 3	3	GCU102
Physics	7, 6, or 5	8	PHY111, 112
	4	4	PHY111

**C. Health Care Integrated Educational System (HCIES) Credit for Prior Learning National/Regional Credential Recognition**

Students who have recognized credentials related to healthcare may request an evaluation for course competency equivalence on a case-by-case basis through the Integrated Competency Assessment Network (ICAN). For more information contact the ICAN office at (480) 731-8924 or by email at [ican@domail.maricopa.edu](mailto:ican@domail.maricopa.edu). Website: <http://healthcare.maricopa.edu/healthcarecourses.php>. When national or regional credentials are determined to be equivalent to the competencies demonstrated in corresponding courses, the recognition of external credentials will fulfill graduation credit requirements for the identified courses through Credit by Evaluation.

**Credit by Examination and Credit by Skills Demonstration Assessment**

Health care students may apply for credit for prior learning in certain courses. Specific information and required forms can be found 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 (ICAN). Students may apply for HCIES Health Care Pathway/Program Advanced Placement in certain courses by obtaining the appropriate form(s) in the Office of Admissions and Records, 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 P/Z is not used in computing the grade point average. When credit is granted as outlined above, a notation of "CREDIT BY EXAMINATION," "CREDIT BY EVALUATION," or "CREDIT BY SKILLS DEMONSTRATION" and the number of credits will appear on the student's transcript. If a grade is assigned, it will be used in computing the grade point average.

**D. Transfer Credit**

Students who have had official transcripts sent directly to the Office of Admissions and Records from regionally accredited institutions of higher education may be granted credit for college-level courses in which a C (2.0 on a 4.0 scale) or higher grade has been received; but credits accepted in transfer do not necessarily apply to all certificate or degree programs. Regionally accredited institutions of higher education are those that are fully accredited by New England Association of Schools and Colleges, Middle States Association of Colleges and Schools, North Central Association of Colleges and Schools, Northwest Association of Schools and Colleges, Southern Association of Colleges and Schools, and/or the Western Association of Schools and Colleges.

Credits from institutions with candidate status from one of the above regional accrediting associations will be reviewed for transferability by a college committee.

Credits from foreign institutions will be reviewed for acceptance. It is the student's responsibility to have all such transcripts translated into English and evaluated by an International Student Evaluation Service before submitting them to the college.

**E. Servicemen's Opportunity College**

The Maricopa Community Colleges recognize the unique educational problems confronting many active duty military personnel in attaining their educational goals. The colleges have, therefore, established themselves as Servicemen's Opportunity Colleges. This means that the colleges recognize the peculiar needs of military personnel in that they provide courses on the various military bases located in Maricopa County and provide opportunities to complete courses through non-traditional means when education is interrupted by military obligations. Maricopa Community Colleges maintain liberal entrance requirements, offer maximum credit for educational experiences obtained in the Military Services, and follow residency statutes applicable to the special needs of servicemen. Maricopa Community Colleges follow the recommendations established by the American Council on Education. If, for any reason, Maricopa Community Colleges' status as a Servicemen's Opportunity College District is discontinued, it will nonetheless maintain its commitment to students previously enrolled. In addition, the option to enter into a "contract for a degree" allows the community college, as the college of record, to grant a degree upon completion of twelve (12) credit hours at the college and the satisfaction of graduation requirements.

**F. Transfer Articulation Guidelines (Appendix S-2)  
Transfer Articulation with Secondary Institutions, the Maricopa Skills Center, and the Southwest Skill Center**

Students who have participated in programs articulated with Maricopa Community Colleges District programs may be granted credit for prior learning as provided for in the respective articulation agreements. No fees will be assessed for credits for prior learning granted through articulation. Articulated program credit is transferable within MCCD, but is not necessarily transferable to other colleges or universities. For proper placement in an articulated program, students should obtain a program of study from an academic advisor. Once the course requirements are completed, students must provide the valid documentation of articulated credits to the Office of Admissions and Records to place credits on their academic record.

**Transfer Articulation from Arizona Public Community College Districts and Universities into the Maricopa Community Colleges**

Any course that meets general education requirements at any Arizona public community college district or university will be accepted in transfer to meet comparable general education requirements at any of the Maricopa Community Colleges provided the courses were completed with a grade of C or better. Acceptance of courses other than general education requirements is determined by individual Maricopa Community Colleges.

A student transcript with the completed block of courses included in the Arizona General Education Curriculum (AGEC-A, AGECE-B, or AGECE-S) will transfer as a block and fulfill the requirements for the corresponding AGECE at the Maricopa Community Colleges.

**Maricopa Community Colleges Transfer Associate Degrees**

The Maricopa Community Colleges offers three transfer Associate degrees: Associate in Arts (AA), Associate in Business (ABUS), and Associate in Science (AS). Each degree articulates with specific majors offered by Arizona's public universities. In addition, the degrees are recognized and transfer based on articulation agreements with several other baccalaureate degree-granting institutions. The three transfer Associate degrees transfer as a "block" and include groups or blocks of courses, e.g. the Arizona General Education Curriculum (AGECE), and the Common Lower-Division Courses. Completed blocks are treated as whole; the components are not examined separately to determine transferability. All credits are accepted and applied toward the designated/appropriate baccalaureate degree.

The Maricopa Community Colleges also offer Associate in Transfer Partnership (ATP) Degrees for specific majors at identified public and universities. These degrees may not be available at all of the Maricopa Community Colleges. Maricopa's Associate degrees are accessible on the web at: [http://www.maricopa.edu/academic/ccta/cirric/cphb\\_academic.php](http://www.maricopa.edu/academic/ccta/cirric/cphb_academic.php) - Select Matrix of MCCCD Courses.

**Transfer Articulation from the Maricopa Community Colleges to Baccalaureate Degree-Granting Institutions**

The Maricopa Community Colleges have transfer articulation agreements with private, public and international baccalaureate degree-granting institutions that have achieved full accreditation or candidacy status with a regional accreditation commission such as the North Central Association of Colleges and Schools. Maricopa Community Colleges transfer articulation 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 enter into an articulation agreement. Additionally, the articulation agreements require that all Associate Degrees awarded by Maricopa will transfer to participating institutions as a block. As mentioned above, these blocks transfer as a whole.

**Transfer Options for Maricopa Community Colleges Associate in Applied Science Degrees**

The Maricopa Community Colleges Associate in Applied Science (AAS) degrees are recommended for students who want to gain a depth of technical expertise leading to employment through the completion of an occupational program. Some students may want to pursue a baccalaureate degree as well. The AAS degrees transfer as a "block" to the Bachelor of Applied Science at Arizona State University (East and West), and Northern Arizona University.

**Course Acceptability and Applicability**

Transfer articulation to Arizona's public baccalaureate degree-granting institutions is communicated in terms of "acceptability" and "applicability" of community college courses and programs.

To determine "acceptability" of Maricopa Community Colleges courses, refer to the Course Equivalency Guide (CEG) on the Arizona Courses Applicability System (AZCAS). The AZCAS CEG is online at <http://www.az.transfer.org/cas/>. Effective Fall 2000, the course evaluation and/or the general education designation as listed in AZCAS is valid for the term in which credits are earned and appear on the transcript. A course evaluation and/or university general education designation may be subject to change. Given that curriculum is dynamic at both the Maricopa Community Colleges and the institutions to which Maricopa Community College students transfer, students have the option to petition for equivalencies and/or general education designations.

To determine "applicability" of Maricopa Community Colleges courses and transfer associate degrees to university-specific degree requirements, refer to the Maricopa Community Colleges' Associate in Transfer Partnership degrees, the AZCAS Transfer Planning Aids, or the university transfer guides, described on the following page.

### University Transfer Guides

Each of Arizona's public universities have developed University Transfer Guides to show how Maricopa Community College courses apply to specific baccalaureate degree requirements. The transfer guides are useful both for students pursuing Associate in Transfer Partnership Degrees, as well as for students who want to transfer to Arizona's public universities to pursue degrees for which the Maricopa Community Colleges do not have Associate in Transfer Partnership Degrees. University Transfer Guides are accessible at the following web sites:

#### Arizona State University Main or Arizona State University East

<http://www.asu.edu/provost/articulation/>

#### Arizona State University West

<http://www.west.asu.edu/tranguid/>

#### Northern Arizona University

<http://www4.nau.edu/aio/articulation/tginfo.htm>

#### University of Arizona

<http://transferguides.arizona.edu>

### Arizona Course Applicability System (AZCAS) Transfer Planning Guides

A student may enter community college or university coursework into AZCAS to create a Transfer Planning Guide. The guide evaluates progress toward completing a community college transfer certificate, transfer degree, and/or an Arizona public university degree and assists students in selecting additional course work that meets the academic program requirements. The transfer planning guides are accessible at the following web site: <http://www.az.transfer.org/cas/>

### STUDENT COURSE PLACEMENT PROCESS (AR 2.2.7)

The Maricopa Community Colleges are committed to providing students with opportunities for successful academic experiences. Student academic achievement is directly related to the proper initial course placement. Students are strongly urged to enroll in the courses indicated by their course placement tests. Initial course placement should be discussed with an advisor or counselor who is skilled in assessing the student's needs and factors that affect student success.

#### A. Testing for Course Placement

1. Students will be required to complete a course placement test under any one of the following conditions:
  - The student is taking his or her first college credit English, reading and/or math course, or any college course for which English, reading or math is a prerequisite.
  - The student is pursuing a degree and does not have current valid district approved course placement scores on file or does not have previous college credit in English, reading and math.

- The student does not have a high school diploma or GED, and is applying for federal financial aid.
  - 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.
  - College may determine additional conditions under which students would be required to complete course placement testing. Contact the college for additional conditions.
2. Students will be strongly encouraged to complete a course placement test under any one of the following conditions:
    - The student is taking a math course and has a college-level prerequisite on file that is more than five (5) years old.
    - The student is taking a college course for which English, reading or math is a prerequisite, and such credit is more than five (5) years old.
  3. Students MAY be exempt from a course placement test if at least one of the following conditions apply:
    - The student has earned an associate or higher degree.
    - The student has earned college credits from a regionally accredited college in English, reading, and math with a grade of C or higher, and such credit is no more than five (5) years old.
    - The student has currently valid district approved course placement scores on file.

**Note:** Being exempt from taking a course placement test does not exempt the student from fulfilling the minimum graduation requirements.

#### B. Course Placement

- Students will be advised for specific course enrollment based on highest test or retest scores.
- Students with test scores that fall into the range described as a "decision zone" must receive advisement to select appropriate course(s).
- Students will be permitted one re-test in English, reading or by math level after at least a 24-hour waiting period. An additional re-test is permitted one year from the date of student's original or re-test at any course placement testing site.



- 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.
- Students may request a Course Placement Waiver from the appropriate department/division chair or college designee. The signed waiver will be noted on the student's record and will be kept on file in the Office of Admissions and Records.

### C. Implementation of Policy

To ensure consistency of the course placement process within the Maricopa Community Colleges:

- All colleges shall accept the same approved course placement instruments.
- All colleges shall adhere to the same approved cut-off scores.
- Course placement scores, with the exception of the reading exemption, will be valid for two years from the date of the original or re-test.

### D. 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.

### ACADEMIC ADVISING (AR 2.2.6)

Academic advising assists students in the formation of educational plans and goals. This is an ongoing process of clarification, evaluation, re-clarification, and re-evaluation.

The ultimate responsibility for making decisions about life goals and educational plans rests with the student. The academic advisor helps to identify and assess alternatives and consequences. The academic advisor also serves as a resource for accurate information. The advisor is knowledgeable about institutional policies, procedures, programs and resources and assists students in making use of printed and online materials. Advisors are in a position to help students identify their learning-related needs. Feedback received from advisors could be beneficial and should be used in policy-making decisions at all levels of the institutional administration.

With the help of an academic advisor, students will:

- gain an understanding of their academic abilities and interests.
- be reinforced in their successes.
- be provided information regarding the nature and purpose of higher education.
- be referred to counselors and other resources to explore their interests, skills, abilities, and values.
- define and refine educational goals and objectives and understand the consequences of alternative courses of action.

- consider alternative careers through counselors, workshops, seminars, and other resources.
- make course, certificate, and/or degree selections.
- understand and utilize placement test results.
- be encouraged to be active participants in their educational planning and college life.
- be informed of support services that are available and how to make an appointment, if appropriate.
- be aware of transfer articulation arrangements.
- be informed about research results and general perceptions of student experiences at the institution.
- receive accurate printed materials on academic majors, minors, and other degree and program requirements.
- be encouraged to use the technology which supports the academic advising process.

### REGISTRATION (AR 2.2.8)

Students must register according to the dates indicated and in the manner described in the college class schedule. To be eligible for registration, students must have completed the appropriate steps listed under the Admissions section. The college may allow early or priority registration. Tuition and fees must be paid or payment arrangements made by the due date to secure class enrollment. Students may not attend a class for which they are not registered.

### EMISSIONS CONTROL COMPLIANCE (AR 2.4.6)

Pursuant to A.R.S. §15-1444 C. no vehicle shall be allowed to park in any college parking lot unless it complies with A.R.S. §49-542 (the vehicle emissions inspection program). At the time of course registration, every out-of-county and out-of-state students will be required to sign an affidavit stating that the student's vehicle meets the requirements of A.R.S. §49-542. Vehicles which are not in compliance are subject to being towed at the owner's expense.

### TRANSCRIPTS FOR TRANSFER (AR 2.3.10)

The transcript is issued upon written request only. Those students who want to transfer to other institutions of higher education, including other Maricopa Community Colleges, must request their transcripts be sent from the Office of Admissions and Records. 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 section). There is no charge for unofficial transcripts, or for official transcripts sent between Maricopa Community Colleges. See the Tuition and Fees Schedule for charges for other official transcripts.



## TUITION AND FEES (AR 2.2.9)

Tuition and fees are public monies within the jurisdiction and responsibility of the Maricopa Community Colleges Governing Board under the laws and regulations of the State of Arizona and must be administered by the Governing Board. The Governing Board reserves the right to change tuition and fee charges when necessary without notice.

All students are classified for tuition purposes under one of the following residency classifications:

1. Maricopa County resident
2. Out-of-County resident
3. Out-of-State resident (including F-1 non-immigrant students)
4. Unclassified, Out-of-County, Out-of-State (1-6 credit hours system-wide)

Residency for tuition purposes is determined in accordance with state law (A.R.S. §15-1801, 15-1802, 15-1802.01, 15-803, *et. sec.*) 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 Office of Admissions and Records for clarification.

Students attending more than one Maricopa Community College will be assessed fees for their enrollment at each of the Maricopa Community colleges/centers. (Students who are considered to be out-of-state residents for tuition and fees purposes should refer to the Concurrent Enrollment in Arizona Public Institutions of Higher Education policy under the Residency section of this publication.)

### A. Time of Payment

All tuition, fees, assessments and deposits must be paid at the time of registration or by the specified deadline date and in accordance with the fee schedule approved by the Maricopa Community Colleges Governing Board.

### B. Tuition and Fees Schedule (Appendix S-4)

(effective July 1, 2008 for Fall, Spring and Summer Sessions)

Current information can be found at [www.maricopa.edu/gvpolicy/adminregs/appendices/S-4.htm](http://www.maricopa.edu/gvpolicy/adminregs/appendices/S-4.htm)

The following is a tuition and fees schedule for 2008-2009 and is provided for reference. **These tuition and fees are subject to change.** Consult the college's Office of Admissions and Records for fees in effect at the time you intend to register.

## Student Status

1.	<b>County Resident - Resident Rate</b> - per credit hour General Tuition: \$69.00 plus fees: \$2.00	\$71.00
2.	<b>County Resident - Audit rate</b> - per credit hour Audit fee Surcharge: \$25.00 plus General Tuition: \$69.00 plus Fees: \$2.00	\$96.00
3.	<b>Out-of-County Resident</b> (7 & more credit hours system-wide) - per credit hour Out-of-County Surcharge: \$228.00 (Applies only to counties with no community college) plus General Tuition: \$69.00 plus Fees: \$2.00	\$299.00
4.	<b>Out-of-State Resident*</b> ( including F-1 Non-immigrants - 7 & more credit hours system-wide) - per credit hour Out-of-State Surcharge: \$215.00 plus General Tuition: \$69.00 plus Fees: \$2.00	\$286.00
5.	<b>Unclassified Student</b> Out-of-State, Out-of-County* (less than 7 credit hours system-wide) - per credit hour Unclassified student Surcharge: \$25.00 plus General Tuition: \$69.00 plus Fees \$2.00.	\$96.00
6.	<b>Out-of-State Students participating in Western Undergraduate Exchange Program*</b> (any number of credit hours) - per credit hour WUE Out-of-State Surcharge: (\$32.50 plus General Tuition: \$69.00 plus fees: \$2.00	\$106.50
7.	<b>Courses offered out of Arizona, including distance learning, to non-resident out-of-state student**</b> Total tuition per credit hour	\$174.00
8.	<b>Corporate Tuition Rate- Out-of-State*</b> (any number of credit hour) for out-of-state employees of companies in training contracts with Maricopa - per credit hours Out-of-State Surcharge: \$76.00 plus General Tuition: \$69.00 plus Fees: \$2.00	\$147.00
9.	<b>Corporate Contract - Out-of-State Non-Resident</b> Total Tuition per credit hours	\$125.00
10.	<b>Skill Center Tuition Rates</b> Hourly Tuition: Nursing Asst & Practical Nursing Programs:	\$4.60 \$5.60
11.	<b>Credit by Examination &amp; Credit by Evaluation</b> -per credit hours - excludes HCIES Courses Regular Rate: Contract Testing Rate:	\$69.00 \$34.50

Students from the following counties are considered out-of-county and should check with their local County Board of Supervisors about out-of-county tuition and fee payments:

Apache  
Greenlee  
Santa Cruz

Students from any other county in Arizona are considered in-county due to a reciprocal arrangement with that county.

\* According to A.R.S., 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 15-1429, community college districts are excluded from counting as FTSE those students who reside out of the state but are taking an AZ community college district distance learning course or a classroom based credit course.

**The following are fees are in addition to applicable tuition and fees:**

**Check Returned from Bank** ..... \$ 15.00

**Child Care Fees: (per clock hour)**

**GCC** ..... \$2.25

- Drop in ..... \$2.50

- For each 15 minutes of late pick-up ..... 6.00

- Registration per semester - Students ..... 15.00

**GWCC – Students** ..... 2.00

- Staff & Faculty ..... 3.00

- For each minute of late pick-up ..... 1.00

- Registration per semester ..... 10.00

**MCC – Students** ..... 2.50

- Drop in ..... 3.00

- Faculty & Staff ..... 3.00

- Registration per semester – Students ..... 20.00

- Registration per semester – Staff & Faculty ..... 25.00

- For each 15 minutes of late pick-up ..... 5.00

- For every week payment is late ..... 5.00

**PC –** ..... 2.25

- For each 15 minutes of late pick-up ..... 15.00

**PVCC –** ..... 3.00

- Registration per semester ..... 15.00

- Supply Fees ..... 10.00

- For each 15 minutes of late pick-up ..... 5.00

**SMC – Students** ..... 1.75

- From 9 am to 12 pm Preschool per week ..... 26.25

- Staff & Faculty ..... 2.25

- From 9 am to 12 pm per week ..... 33.75

- Registration per semester ..... 10.00

- For each 15 minutes of late pick-up ..... 5.00

**All other colleges** ..... 1.75

College Level Examination Program (CLEP) -Paradise Valley .

..... 15.00

**Course Materials Fee** ..... actual cost

Dental Hygiene Skills Enhancement- Rio Salado .....

..... 4 hour block: 160.00

..... 8 hour block: 320.00

Distance Learning Fees ..... actual cost

Electronic Health Record Student Access Fee ..... actual cost

Emergency Medical Technology (EMT) actual cost, not .....

to exceed ..... 400.00

Excessive Laboratory Breakage ..... actual cost

Field Studies ..... actual cost

Field Trips & Out-of-County/County Tours ..... actual cost

Fitness Center ..... 20.00

GED- First Test - ..... \$ 50.00

Test repeat (per section) ..... \$10.00

Administration Fee ..... \$15.00

**Graduation Fees:**

Application/Recording/Issuance Fee (Degrees/Certificates

- 25 or more credits) non refundable ..... 0.00

Commencement Fee (One time fee refundable up to 2 weeks

prior to graduation) ..... 25.00

**HCIES Skills Demonstration**

Assessment Fee ..... actual cost

HESI-PN (Health Educ System ..... actual cost

Library Fines - lost materials (List price) + ..... \$ 5.00

NET - Nursing Entrance Test ..... actual cost

Nursing - NUR102, 158 ..... 30.00

NUR103 ..... 40.00

NUR15, 171, 251 ..... 140.00

NUR271 ..... 100.00

**Parking Fines:**

(All fines are doubled if not paid within 15 working days.)

Fee are subject to change upon adoption of the schedule for

the new fiscal year. For current fee amounts, please contact

College Safety or visit: <http://www.dist.maricopa.edu/gv>

policy/adminregs/students/2\_10 htm) .....

-Displaying an altered or substituted permit ..... 50.00

-Failure to register a vehicle and display a parking permit .....

..... 30.00

-Falsifying information on vehicle registration application .....

..... 50.00

-Improperly displaying a parking permit (ie., not affixed to

window) ..... 15.00

-Obstructing a properly parked/moving vehicle ..... 15.00

-Parking in an unauthorized parking area ..... 25.00

-Parking by a college employee or student in a visitor area ...

..... 15.00

-Parking in a Fire Lane ..... 50.00

-Parking on or blocking a pedestrian path ..... 15.00

-Parking outside stall lines ..... 15.00

-Parking beyond posted time limit ..... 15.00

- Removing a barricade or failure to obey vehicle control .....

device ..... 25.00

- Violating disabled parking stall or access ..... 50.00

**PED Special Course Charge** ..... actual cost

**Private Music Lessons:**

Music Majors:

-First 1/2 hr per wk/per semester ..... 0.00

- Each additional 1/2 hr per wk/per semester ..... 102.00

- First 1/2 hr per wk/per semester ..... 320.00

Non-Music Majors:

- Each additional 1/2 hr per wk/per semester ..... 320.00

**Registration Processing Fee -**

( - assessed on a per student, per semester, per college

basis) Refundable only if the student drops all credit classes

at a particular college during the 100% refund period .... 15.00

\*Skill Centers Material Fee - **See Schedule** .....

- Specific clothing & headwear issued to students - prorated

for course of program less than 21 days ..... See Schedule

Student Teaching Lab (schedule change/cancellation 100.00

Transcript Fee ..... 5.00

**\*Skill Center Material Fee:**

The Skill Centers do no operate bookstores. Instead, a stan-

dard Books/Lab/Materials Fee of \$250 per section covers all

books/lab costs, materials and job-specific clothing and

headwear issued to students

The standard \$250 fee is prorated for students enrolled in a course of program less than 21 days long. The average training length of 5-7 months includes many courses in which the first \$250 fee covers all books and materials. The additional assessment of the \$250 fee for courses with high books and material costs is assessed as students pass into advance sections with new books and materials. It is also prorated when the cost are less than \$250. Due to open-entry/open exit scheduling and the changing costs of textbooks, the individual course totals for books/lab/materials are listed in campus and program-specific materials

#### College Specific Fees:

**Students may incur expenses beyond the established fees in certain courses. Please check with the Enrollment Service Area or go directly to the following website:**

[http://www.estrellamountain.edu/instructservices/CourseFeesForEMCC\\_MainPg.html](http://www.estrellamountain.edu/instructservices/CourseFeesForEMCC_MainPg.html)

**Non-Credit Courses/Seminars/Workshops/Community Services.** Fees for these courses are determined by the length and type of each course and will cover total costs.

#### C. Outstanding Debts

Any debt or returned check may revoke a student's current enrollment and the student's right to register in subsequent semesters at all Maricopa Community Colleges. Delinquent debts may require penalties, late charges, collection costs, and/or legal fees to be paid before good standing is restored to the student.

The following procedure will be used for the collection of returned checks and other outstanding debts:

1. The college fiscal agent is responsible for:
  - a. verifying the student's districtwide debt,
  - b. notifying the student of the debt,
  - c. attempting to collect the debt, and
  - d. notifying credit reporting organizations of the debt.
2. All Maricopa Community College services will be withheld pending payment of debt at college fiscal office with cash, certified check or money order. Student may be withdrawn from classes.
3. If other attempts fail, the Maricopa Community Colleges District Office will either collect or use other means available, including:
  - a) collection agency, requiring payment of collection fees by the student;
  - b) the Tax Refund Setoff Programs as stated in A.R.S. §42-133;
  - c) litigation, requiring payment of court costs and legal fees by the student.

#### D. Discounted Fees and Waivers

1. Citizens 62 years of age and older shall be issued ID cards that allow them the privilege of attending events at no cost and that allow them to use the library facilities.

2. Employees, Dependents and Mandated Groups: The Maricopa Community Colleges waives tuition and student activity fees for employees and their dependents, and for legislative mandated groups. Special fees and fees for Non-Credit/Special Interest Community Services courses are not waived.
3. Tuition and Registration Fee Waiver for members of the Pima-Maricopa Indian Community: Tuition and fee waivers shall be funded through Auxiliary Fund Monies for college credit courses for the enrolled members of the Pima-Maricopa Indian Community who live on the Pima-Maricopa Reservation. All other guidelines and procedures established for the purpose of administering waivers, affidavits and exemptions are outlines in the Maricopa Community Colleges tuition waiver manual.

### REFUND POLICY (AR 2.2.10)

#### A. Refund Policy for Credit Classes

Students who officially withdraw from credit classes (in fall, spring, or summer) within the withdrawal deadlines listed below will receive a 100% refund for tuition, class and registration processing fees. Deadlines that fall on a weekend or a college holiday will advance to the next college workday except for classes fewer than 10 calendar days in length or a specified by the college. Calendar days include weekdays and weekends. Refer to individual colleges for withdrawal and refund processes.

#### Official Withdrawal Deadlines for 100% Refund\*

Length of Class	Official Withdrawal Deadlines for 100% Refund*
1-9 calendar days	Prior to class start date
10-19 calendar days	1 calendar day including class start date
20-29 calendar days	2 calendar day including class start date
30-39 calendar days	3 calendar day including class start date
40-49 calendar days	4 calendar day including class start date
50-59 calendar days	5 calendar day including class start date
60-69 calendar days	6 calendar day including class start date
70+ calendars days	7 calendar day including class start date

\*Course fee and registration processing fees will be refunded only if the students qualifies for a 100% refund.

Debts owed to any MCCCDC college must be satisfied before any refunds are paid to student.

Refunds for students receiving federal financial assistance are subject to federal guidelines.

#### B. Refund Policy for Non-Credit Classes

Unless otherwise specified, students must drop non-credit classes prior to the course start date to be eligible for a 100% refund.

Requests for exceptions to the refund policy must be filed within one year from the semester in which the course was taken.

**C. Canceled Classes**

When a class is canceled by the college, a 100% refund will be made.

**D. Other Refunds**

Students withdrawing from a college or from courses for one of the following reasons must submit a written request for a refund to the Office of Admissions and Records or designated college official:

- A student with a serious illness, verifiable by a doctor's written statement that the illness prevents the student from attending all classes for the semester. The doctor's statement must be on file with the college before a refund can be given.
- Serious illness or death of an immediate family member that prevents the student from attending all classes for the semester. Immediate family members include spouse/partner, father, mother, grandfather, grandmother, child, foster child, grandchild, stepchild, sibling, stepsibling, stepfather, stepmother, or spouse's/partner's father, mother, grandfather, grandmother, or in-laws in any one incident. Appropriate documentation must be provided before a refund can be given.
- Death of a student. Appropriate documentation must be provided before a refund can be given.

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.

A student in the Armed Forces or the Arizona National Guard who is called to active duty and assigned to a duty station, verifiable by a copy of the orders, will be allowed to withdraw and receive a 100% refund of tuition, provided courses have not been completed.

## STUDENT FINANCIAL ASSISTANCE (AR 2.2.11 & Appendix S-5)

The Maricopa Community Colleges provide students financial assistance to enable access to higher education. Student financial assistance shall be awarded on the basis of demonstrated financial need except where funds are specified for recognition of special talents and achievements.

**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/>. Caution: Other websites may charge a fee. Each academic year, continuing students must reapply by completing a FAFSA, Renewal FAFSA, or FAFSA on the web. Scholarships require separate applications. Specific information regarding financial assistance, including application deadlines or priority dates, may be obtained from the college Office of Student Financial Aid.

**Types of Aid**

Grants, loans, student employment, and scholarship funds may be available from federal, state, and/or private sources.

The Maricopa Community Colleges Foundation offers a variety of scholarship opportunities. Scholarship opportunities are available year round. However, most scholarships are posted mid-January and most deadlines are the last week of March. Options are available at [www.maricopa.edu/resdev/scholarships/apply.php](http://www.maricopa.edu/resdev/scholarships/apply.php) or by call 480-731-8400.

**Distribution of Aid**

Criteria by which aid is distributed among eligible financial aid applicants are available on request at the college Office of Student Financial Aid.

**Rights and Responsibilities**

Students should read all information provided in the process of applying for federal financial aid in order to gain a greater knowledge of all the rights as well as responsibilities involved in receiving that assistance.

**Satisfactory Academic Progress**

Specific requirements for academic progress for financial aid recipients are applied differently than scholastic standards. In addition to scholastic standards which are explained elsewhere in this catalog, financial aid recipients are also subject to the following Standards of Satisfactory Academic Progress. Specific information is available at the college Office of Student Financial Aid.

**Standards of Satisfactory Academic Progress (SAP) for Financial Aid Eligibility**

Federal regulations (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. The student must meet the following minimum standards in order to receive financial aid.

**I. Evaluation of Financial Aid Eligibility**

- A. Standards of Satisfactory Academic Progress (SAP) are applied at least once per year, beginning on or about June 1<sup>st</sup> to determine the eligibility for the following academic year.
- B. The evaluation period will be based on attendance in the immediate prior Spring, Fall, Summer term (example: for 2008-2009 academic year, academic progress will be evaluated on Spring 2008, Fall 2007, and Summer 2007).
- C. Credits evaluated will include credits attempted at the evaluating school and courses funded through consortium agreement.



- D. Students who do not meet the SAP will be notified. The student may follow the appeal process or the reinstatement procedures as outlined in V and VI.

## II. Eligibility

- A. Students must meet the following criteria:
1. Students who have attempted at least 6 credit hours in the last evaluation period must complete with a passing grade 2/3 of all credits attempted within that evaluation period, OR
  2. Students who have **NOT** attempted at least 6 credit hours in the last evaluation period must complete with passing grades 2/3 of **ALL** credits attempted.

### AND

- B. All students must meet the following minimum credit hour/cumulative GPA requirement

Credits Attempted*	Min GPA
12-15	1.60
16-30	1.75
31-45	1.90
46 +	2.00

\*for which grade points are computed.

Note: Grades of F,I,N,W,X,Y,Z, and courses not yet graded are considered attempted but not meeting progress standards for the purposes of financial aid

## III. Maximum Time Frame Eligibility

- A. Students who have attempted more than 150% of the credits required for their program of study are not considered to be making Satisfactory Academic Progress and, therefore, are ineligible for financial aid funds.
- B. All evaluated transfer credits will be included when determining Maximum Time Frame Eligibility.
- C. A student with a Bachelor's degree or higher will be considered to have exhausted Maximum Time Frame Eligibility. An exception to this rule occurs if the student is enrolled in a state-approved teacher certification program.
- D. A student may appeal as outlined in V.
- E. Reinstatement procedures as outlined in VI are not applicable to Maximum Time Frame Eligibility.

## IV. Repeated, Audited, Consortium, Remedial Courses, Summer Sessions

- A. Financial aid may be used to cover the cost of repeated courses.
- B. Audited courses, non-credit courses, credit by examination, and any credit for prior learning option (as outlined in the catalog) are excluded when determining eligibility for financial aid.
- C. Courses funded through a consortium agreement are included in determining academic progress.

- D. All attempted remedial credits will be included when evaluating SAP. (A maximum of 30 remedial credit hours, excluding ESL courses, may be funded.)

- E. Enrollment in any or all summer sessions within the same calendar year will be considered one term.

## V. Appeal Process

A student who has lost financial aid eligibility due to extenuating circumstances may appeal.

- A. Extenuating circumstances that may be considered include: personal illness or accident, serious illness or death within immediate family, or other circumstances beyond the reasonable control of the student.
- B. All appeals must be in writing to the Financial Aid Office where the student is applying for aid and include appropriate documentation.
- C. Examples of documentation could include an obituary notice, divorce decree, or a letter from a physician, attorney, social services agency, parole officer, etc.
- D. The condition or situation must be resolved which will allow the student the ability to complete course work successfully or an appeal will not be granted.
- E. The outcome of an appeal may include approval, a probationary period, or denial.
- F. A student will be notified in writing of the results of the appeal, and of any restrictions or conditions pertaining to their appeal.

## VI. Reinstatement of Financial Aid Eligibility

- A. A student who has lost financial aid eligibility may be reinstated after the student has taken (without federal funds) at least six credit hours in a semester, passed all attempted credit hours, and meets minimum cumulative GPA requirements.
- B. If the student attempts more than six hours, the student will be evaluated on all attempted credit hours within that term.
- C. Classes taken at other colleges will not be taken into consideration for reinstatement purposes.
- D. It is the student's responsibility to notify the Office of Student Financial Aid when this condition has been met.

For more information, please contact the 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.



### Award Amount and level of Enrollment

Award amount is determined, in part, on the level of enrollment. Federal student aid recipients are advised to register at the same time for all classes they intend to take during a semester to maximize award. Some federal aid may not be awarded for classes added at a later date. Contact the college Office of Student Financial Aid for more information.

## VETERANS SERVICES (AR 2.9)

The Maricopa Community Colleges' veterans services offices act as liaisons with the Department of Veterans Affairs. Each program must be approved by the State of Arizona Department of Veterans' Services. Students may be eligible to receive educational benefits if they are registered in courses that apply to the student's approved program. Application forms, counseling, advisement and tutoring are available for students who are eligible for veteran's educational benefits. Students applying for veteran's educational benefits should allow eight to ten weeks before receiving benefits. The amount of benefits awarded is determined by the Department of Veterans Affairs, and is based on the number of credit hours or clock hours for which a student is enrolled and the length of the enrollment period for each course.

Veteran's benefits available:

- Chapter 30 - Montgomery GI Bill
- Chapter 31 - Vocational Rehabilitation (separately served through the local VA office)
- Chapter 32 - VEAP Program
- Chapter 35 - Survivors and dependents of deceased/100% disabled veterans
- Chapter 1606 - Montgomery GI Bill, Selected Reserve

It is the student's responsibility to notify the office that serves veterans at their campus regarding any change in enrollment, address, program of study, enrollment at another institution, or any other change that may impact their veteran's educational benefits.

Those students receiving benefits must follow the VA academic progress policy to continue to receive benefits.

Academic Progress Policy for Students Receiving Veteran's Educational Benefits

Credit Hours for Which Grade Points are Computed at Resident Maricopa Community College (A, B, C, D, F, and Y)	Minimum Grade Point Average Required
12-15	1.60
16-30	1.75
31-45	1.90
46+	2.00

Department of Veterans Affairs regulations require that all persons using any type of veteran educational assistance program be making satisfactory academic progress toward achievement of their educational objective (program of study). A student who does not meet the minimum standards (see above) will be placed on probation for a maximum of two (2) consecutive semesters. At this point, if satisfactory academic progress has not been demonstrated, veteran educational benefits will be terminated. **Benefits may be resumed when the student raises the cumulative grade point average to the required minimum standards or demonstrates the ability to meet these standards through the approval of a written appeal. For appeal procedures, contact the office that serves veterans at your campus.**

For additional details and information regarding veteran's educational benefits, contact the office that serves veterans at your campus.

## SCHOLASTIC STANDARDS

### ACADEMIC LOAD (AR 2.3.1)

The following guidelines are for institutional purposes. Rules regarding academic load for financial aid eligibility, veteran benefits and athletic eligibility may be defined differently.

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 Office of Admissions and Records for clarification.

Courses may vary in length, and begin and end throughout the year. A credit hour indicates the value of an academic credit. Standards for the awarding of credit hours may be time based or competency based. To obtain credit, a student must be properly registered and must pay fees for the course. The fall and spring semesters are typically sixteen (16) weeks in length. Summer sessions are typically five or eight weeks in length.

Students desiring to take more than eighteen (18) credit hours must obtain approval from the designated college official. Ordinarily, only students with a grade point average of 3.0 or higher for the preceding semester or first semester students who were in the upper quarter of their high school graduating class are permitted to carry more than eighteen (18) credit hours.

Students participating in extra-curricular or co-curricular activities or receiving financial assistance may be required to maintain a specified minimum academic load.

Students who are working, have considerable extra-curricular or co-curricular activities, or have been reinstated from academic suspension/probation should plan their academic load accordingly.

### SCHEDULE CHANGES

Students may change their schedule by following the designated procedures at their college of enrollment. It is the student's responsibility to notify the college if he/she will no longer be attending class (see Appendix S-7 for Withdrawal Procedures).

## ATTENDANCE (AR 2.3.2)

Only persons who are registered for a class at any of the Maricopa Community Colleges may attend that class.

Attendance requirements are determined by the course instructor. Students who do not meet the attendance requirement as determined by the course instructor may be withdrawn.

Students who fail to attend the first scheduled class meeting, or to contact the instructor regarding absence before the first scheduled class meeting may, at the option of the instructor, be withdrawn.

At the beginning of each course, each faculty member will provide students with written attendance requirements. It is the student's responsibility to consult with the instructor regarding official or unofficial absences. Absences begin to accumulate with the first scheduled class meeting.

Students bear the responsibility of notifying the Office of Admissions and Records when they discontinue studies in a course or at the college. Please refer to Appendix S-7 for Withdrawal Procedures.

### A. Official Absences

Official absences are those which occur when students are involved in an official activity of the college (e.g., field trips, tournaments, athletic events) and present an official absence excuse form. Absences for such events shall not count against the number of absences allowed by an instructor or department. Students who must miss a class for an official reason must obtain an official absence verification card from the appropriate vice president or designee and present it to the appropriate instructor(s) before the absence. Prior arrangements must be made with each instructor for make-up work. If prior arrangements have been made, the student will not be penalized.

Other official absences include jury duty and subpoenas. Appropriate documentation will be required. Prior arrangements must be made with each instructor for makeup work. If prior arrangements have been made, the student will not be penalized.

In the event of the death of an immediate family member, absences for periods of up to one week will not be counted against the number of absences allowed by an instructor or department. Students should contact instructor(s) as soon as possible to arrange for make-up work. Appropriate documentation will be required (for example, a copy of the obituary or funeral program). In specialized programs that require clinical rotations, this regulation may not apply.

### B. Religious Holidays

Students shall have the right to observe major religious holidays without penalty or reprisal by any administrator, faculty member or employee of the Maricopa Community Colleges. Absences for such holidays shall not count against the number of absences allowed by an instructor or department. At least one week before the holiday, students shall submit to their instructor(s) a written statement which includes both the date of the holiday and the reason why class attendance is impossible. Prior arrangements must be made with each instructor for make-up work. If prior arrangements have been made, the student will not be penalized.

## GRADING (AR 2.3.3)

### A. Policy

It is the policy of the Maricopa Community Colleges that a grade will be assigned at the conclusion of the course. Official grades are available on designated college websites.

### Grade Key:

A	Excellent	4 grade points per credit hour
B	Above Average	3 grade points per credit hour
C	Average	2 grade points per credit hour
D	Passing	1 grade point per credit hour
F	Failure	0 grade point per credit hour
I	Incomplete	Not computed in grade point average
IP	Course In Progress	Not computed in grade point average
N	Audit	Not computed in grade point average
P*	Credit	Not computed in grade point average
W	Withdrawn, passing	Not computed in grade point average
Y	Withdrawn, failing (effective Fall 2000)	0 grade point per credit hour
Z	No Credit	Not computed in grade point average

\*A "P" is judged to be equivalent to a grade of C or higher.

**B. Incomplete Grade**

Students who are doing acceptable work may request an incomplete grade "I" if they are unable to complete the course requirements by the end of the term because of illness or other extenuating circumstances. If the request is approved by the instructor, he or she shall define, in a written contract, how the course will be completed. The contract will be filed with the Office of Admissions and Records.

Students must complete the requirements within the time period agreed to - maximum time allowed is seven (7) months from the last date of class in which the grade of incomplete was assigned. Students who do not complete the requirements within seven (7) months will have their grade recorded in accordance with the written contract. Students should NOT reregister for the course to complete the contract.

**C. Repeating a Course/Improving a Grade**

To improve a previously earned grade, students may repeat the course up to three times after the initial attempt to improve a grade. (A "W" or "Y" is not considered an attempt.) Students planning to repeat a course should seek advisement prior to enrolling. The lower grade(s) for repeated courses will automatically be excluded from the grade point calculation. All enrollments in a course will appear on the transcript. Check individual courses and programs for exceptions.

**D. Credit/No Credit Courses (P/Z)**

Some courses may be taken under a credit/no credit grading system. These courses carry grades of P (credit, equivalent to a grade of C or higher) or Z (no credit) and are not computed in the student's grade point average. Credits earned with a grade of P may be counted toward graduation with the exception with the exception of AGECE (Arizona General Education Curriculum).

The prescribed time limits are for full semester classes. Time limits for classes which meet fewer than sixteen (16) weeks are adjusted accordingly. See "Important Deadlines for Students."

In courses with credit/no credit (P/Z) grading, the student may request standard grading (A,B,C,D,F), within fourteen (14) days including the date of the first class meeting. The instructor must immediately notify the Office of Admissions and Records.

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 Office of Admissions and Records within fourteen (14) days including the day of the first class meeting.

It is the student's responsibility to verify the transferability of credit/no credit courses. Some universities place a limitation on the number of credit/no credit courses that can be transferred.

**Advisory note:** Some institutions outside the Maricopa Community Colleges may translate the Z grade as failing.

**E. Audit Courses**

Auditors are those who enroll in a course for the sole purpose of obtaining information; they receive no credit, grades, homework, or tests. If an auditor wishes to earn credit, he or she must change from audit status to credit status within the first week. If a student wishes to audit a course for which he or she is enrolled for credit, the change must be made within the first five (5) weeks of a semester. Auditors are subject to the same attendance policies as other students and must meet the same prerequisite requirements or obtain approval of the instructor. See the fee schedule for charges. Financial aid is not available for audited courses.

The prescribed time limits are for full semester classes. Time limits for classes which meet fewer than sixteen (16) weeks are adjusted accordingly. See "Important Deadlines for Students."

## F. IMPORTANT DEADLINES FOR STUDENTS

<b>IMPORTANT DEADLINES FOR STUDENTS</b>						
<b>Deadlines are based on calendar days and begin with the first day of class. Deadlines that fall on a weekend or holiday advance to the next college work day.</b>						
<b>Class Length</b>	<b>Deadline for Students to Withdraw with Guaranteed Grade of W</b>	<b>Deadline for Students to Withdraw From a Course (Instructor Signature Required)</b>	<b>Deadline for Students to Request Complete Withdrawal</b>	<b>Deadline to Change Type of Grading (A-F to P/Z, or P/Z to A/F)</b>	<b>Deadline to Change from Audit Grade to Credit Grade</b>	<b>Deadline to Change from Credit Grade to Audit Grade</b>
<b>One Week or less (1 to 7 days)</b>	1 <sup>st</sup> Day of Class	1 <sup>st</sup> Day of Class or Prior to the Last Day of Class	1 <sup>st</sup> Day of Class or Prior to the Last Day of Class	1 <sup>st</sup> Day of Class	1 <sup>st</sup> Day of Class	1 <sup>st</sup> Day of Class
<b>Two Weeks (8 to 14 days)</b>	3 <sup>rd</sup> Calendar Day	6 <sup>th</sup> Calendar Day	6 <sup>th</sup> Calendar Day	1 <sup>st</sup> Day of Class	1 <sup>st</sup> Day of Class	3 <sup>rd</sup> Calendar Day
<b>Three Weeks (15 to 21 Days)</b>	6 <sup>th</sup> Calendar Day	12 <sup>th</sup> Calendar Day	12 <sup>th</sup> Calendar Day	2 <sup>nd</sup> Calendar Day	1 <sup>st</sup> Day of Class	5 <sup>th</sup> Calendar Day
<b>Four Weeks (22 to 28 days)</b>	9 <sup>th</sup> Calendar Day	17 <sup>th</sup> Calendar Day	17 <sup>th</sup> Calendar Day	3 <sup>rd</sup> Calendar Day	2 <sup>nd</sup> Calendar Day	7 <sup>th</sup> Calendar Day
<b>Five Weeks (29 to 35 days)</b>	12 <sup>th</sup> Calendar Day	23 <sup>rd</sup> Calendar Day	23 <sup>rd</sup> Calendar Day	4 <sup>th</sup> Calendar Day	2 <sup>nd</sup> Calendar Day	9 <sup>th</sup> Calendar Day
<b>Six Weeks (36 to 42 days)</b>	14 <sup>th</sup> Calendar Day	29 <sup>th</sup> Calendar Day	29 <sup>th</sup> Calendar Day	5 <sup>th</sup> Calendar Day	3 <sup>rd</sup> Calendar Day	11 <sup>th</sup> Calendar Day
<b>Seven Weeks (43 to 49 days)</b>	17 <sup>th</sup> Calendar Day	35 <sup>th</sup> Calendar Day	35 <sup>th</sup> Calendar Day	5 <sup>th</sup> Calendar Day	3 <sup>rd</sup> Calendar Day	12 <sup>th</sup> Calendar Day
<b>Eight Weeks (50 to 56 days)</b>	20 <sup>th</sup> Calendar Day	41 <sup>st</sup> Calendar Day	41 <sup>st</sup> Calendar Day	6 <sup>th</sup> Calendar Day	3 <sup>rd</sup> Calendar Day	15 <sup>th</sup> Calendar Day
<b>Nine Weeks (57 to 63 days)</b>	23 <sup>rd</sup> Calendar Day	46 <sup>th</sup> Calendar Day	46 <sup>th</sup> Calendar Day	7 <sup>th</sup> Calendar Day	4 <sup>th</sup> Calendar Day	17 <sup>th</sup> Calendar Day
<b>Ten Weeks (64 to 70 days)</b>	26 <sup>th</sup> Calendar Day	52 <sup>nd</sup> Calendar Day	52 <sup>nd</sup> Calendar Day	8 <sup>th</sup> Calendar Day	4 <sup>th</sup> Calendar Day	19 <sup>th</sup> Calendar Day
<b>Eleven Weeks (71 to 77 days)</b>	29 <sup>th</sup> Calendar Day	58 <sup>th</sup> Calendar Day	58 <sup>th</sup> Calendar Day	9 <sup>th</sup> Calendar Day	5 <sup>th</sup> Calendar Day	21 <sup>st</sup> Calendar Day
<b>Twelve Weeks (78 to 84 days)</b>	32 <sup>nd</sup> Calendar Day	63 <sup>rd</sup> Calendar Day	63 <sup>rd</sup> Calendar Day	10 <sup>th</sup> Calendar Day	5 <sup>th</sup> Calendar Day	23 <sup>rd</sup> Calendar Day
<b>Thirteen Weeks (85 to 91 days)</b>	35 <sup>th</sup> Calendar Day	70 <sup>th</sup> Calendar Day	70 <sup>th</sup> Calendar Day	10 <sup>th</sup> Calendar Day	5 <sup>th</sup> Calendar Day	25 <sup>th</sup> Calendar Day
<b>Fourteen Weeks (92 to 98 days)</b>	38 <sup>th</sup> Calendar Day	76 <sup>th</sup> Calendar Day	76 <sup>th</sup> Calendar Day	11 <sup>th</sup> Calendar Day	6 <sup>th</sup> Calendar Day	27 <sup>th</sup> Calendar Day
<b>Fifteen Weeks (99 to 105 days)</b>	41 <sup>st</sup> Calendar Day	82 <sup>nd</sup> Calendar Day	82 <sup>nd</sup> Calendar Day	12 <sup>th</sup> Calendar Day	6 <sup>th</sup> Calendar Day	28 <sup>th</sup> Calendar Day
<b>Sixteen Weeks or more (106 or more days)</b>	End of the seventh week	Two weeks before the last class period	Two weeks before the last class period	Within 14 days including the first class period	Within first week of class	Within first five weeks

Deadlines are based on calendar days and begin with the first day of class. Deadlines that fall on a weekend or holiday advance to the next college workday.



## ACADEMIC PROBATION (PROGRESS) (AR 2.3.4)

### A. Probation

A student will be placed on academic probation under the following conditions:

1. If, after completion of twelve (12) or more credit hours, the student's cumulative grade point average is less than:

Credit Hours for Which Grade Points are Computed at Resident Maricopa Community College (A, B, C, D, F, and Y)	Minimum Grade Point Average Required
12-15	1.60
16-30	1.75
31-45	1.90
46+	2.00

(Students should also be aware that graduation requires a cumulative minimum grade point average of 2.00).

2. If, in transferring from any accredited institution of higher education, the student's cumulative grade point average from other colleges and universities does not meet the requirements listed above.

Students on academic probation may take no more than twelve (12) credit hours per semester unless approved by the Admissions and Standards Committee.

### B. Continued Probation

A student on academic probation who fails to raise the cumulative grade point average to the required minimum standards (see above) will be placed on continued probation and may be limited to taking six (6) credit hours.

Regulations regarding continued probation do not apply to the summer session. Credit hours earned in summer sessions will be included in the cumulative grade point average.

### C. Admission of Suspended Students

Transfer students who do not meet the minimum grade point average listed under Scholastic Standards may be admitted on academic probation.

## INSTRUCTIONAL GRIEVANCE PROCESS (AR 2.3.5 & Appendix S-6)

A student who feels that he or she has been treated unfairly or unjustly by a faculty member with regard to academic process such as grading, testing or assignments, has the right to appeal according to the approved procedures. The appeal process for grades expires one year from the date the grade was issued.

### Steps for students to take:

1. Discuss the issue with the faculty member involved. This conference should be requested by the student within fifteen (15) working days from the time the student knew or reasonably should have known about the unfair or unjust treatment.
2. If, within ten (10) working days of the request for the conference with the faculty member, the problem is not resolved or the faculty member has been unable to meet with the student, the student may continue the process by filing a written complaint with the department/division chair person and appropriate administrative officer at the college/-center. This written complaint must be filed within ten (10) working days following the previous deadline. The written complaint will be given to the faculty member five (5) days before any official meetings are convened.
3. Upon receipt of a written complaint, the department/division chair or appropriate college administrative officer will work with the parties in an attempt to resolve the conflict. The faculty member may ask that the college faculty senate president be in attendance. Every attempt will be made to maintain confidentiality during this process.  
  
A faculty member will not be required to respond to a complaint which is not in writing and which, when appropriate, did not have specific documentation including dates, times, materials, etc. The written complaint will be made available to the faculty member.
4. If the grievance is not resolved at this level within ten working days, the student should forward to vice president of academic affairs or designee, a copy of the original written complaint with an explanation regarding action taken at each prior level. The vice president of academic affairs or designee will meet with the student, faculty member, the college faculty senate president if requested by the faculty member, and department/division chairperson and attempt to resolve the issues. This level will be the final step in any grievance process regarding grades.
5. 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 expedite a timely examination of the issues and will issue a final written determination in the grievance process.



## NON-INSTRUCTIONAL COMPLAINT RESOLUTION PROCESS (outside the classroom)

A student who feels that he or she has been treated unfairly or unjustly by any employee with regard to a non-instructional process such as a student or administrative services has the right to file a formal and written complaint according to the approved procedures.

### Steps for students to take:

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 to process by filing a written complaint with the appropriate supervisor of the employee where authority exists to take corrective action. This written complaint will be given to the employee five (5) working days before any official meeting reconvened.
3. Upon receipt of a written complaint, the appropriate supervisor will work with the parties in an attempt to resolve the conflict. Every attempt will be made to maintain confidentiality during this process. An employee will not be required to respond to a complaint which is not in writing and which, when appropriate, does not have specific documentation including dates, times, actions, supporting documents, etc. The written complaint will be made available to the employee.
4. If the complaint is not resolved at this level within ten (10) working days, the student should forward to the or the appropriate college/-center vice president or designee, a copy of the original written complaint with an explanation regarding action taken at each prior level. The vice president or designee will meet with the student, the employee, and the relevant supervisor and attempt to resolve the issues.
5. If the vice president or or designee 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 complain process.

## 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 or center, or their students or employees.

Complaints may be brought under this procedure for discrimination based on race, color, religion, national origin, sex (including pregnancy and sexual harassment), sexual orientation, age, Vietnam-era veteran status, and physical or mental disability. 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 utilize the Report process (as described below) in addition to the Informal and Formal Resolution processes.

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 at 480-731-8876.

### 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 student may choose to ask the Vice President of Student Affairs to assist in the informal resolution process. The Vice President of Student Affairs may designate an employee to provide such assistance. 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 written complaint under the formal resolution procedure of this policy.

If the complaint cannot be informally resolved to the satisfaction of the complainant, the complainant has the right to file a written complaint within 300 days of the most recent alleged discriminatory act and to proceed under formal resolution procedures.

### **Formal Resolution of Discrimination Complaints**

A student who contends that unlawful or MCCCCD-prohibited discrimination has occurred may file a formal complaint by contacting the Vice President of Student Affairs at each respective college or center. The Vice President of Student Affairs will accept complaint filings within 300 calendar days of the most recent occurrence of the alleged discriminatory act.

A complaint must be signed by the student and filed on the form prescribed by the Office of General Counsel. 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 constituted an alleged act or practice of unlawful or MCCCCD-prohibited discrimination. The complaint must also allege that the action, decision, or occurrence was taken or based on the complainant's race, color, religion, sex, sexual orientation, national origin, citizenship, age disability, Vietnam-era veteran status, or any other unlawful discriminatory grounds.

Upon receipt of a complaint, the Vice President of Student Affairs will notify the college president or provost and the Office of General Counsel. The Office of General Counsel will assign a case number to the complaint.

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.

Respondent must provide a written response to the complaint within fifteen (15) calendar days of his or her receipt of the complaint.

After accepting a complaint, the Vice President 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 Vice President 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 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 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 complainant and respondent within fifteen (15) calendar days of receiving the written findings and recommendations from the Vice President 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.

### **MCCCCD Administrative Review Process: Request for Reconsideration**

A complainant or respondent who is not satisfied with the decision of the president or provost has ten (10) working days to request, in writing, administrative review of the decision by his or her college president or provost. The request for administrative review must state specific 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 complainant 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. Every student complaint of discrimination shall be investigated under the authority of the Vice President of

Student Affairs in accordance with these Procedures. The Vice President of 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 complainant 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 MCCCCD 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 MCCCCD'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, administra-

tors, 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.

#### **Filing a Report of Sexual Harassment**

A student who believes that he or she is, or has been, the victim of sexual harassment as prohibited by MCCCCD policy may Report (either orally or in writing) the harassment to the Vice President of Student Affairs at each college or center. The Report should be made within 180 calendar days of the most recent alleged incident of sexual harassment. Upon receipt of the Report, the Vice President of Student Affairs or designee will have a meeting with the alleged harasser. The meeting shall include: identifying the behavior as described in the Report, alerting the alleged harasser to the perception of the impact of his or her behavior, providing the individual with a copy of the MCCCCD Sexual Harassment Policy, encouraging completion of the Office of General Counsel's Sexual Harassment Online Tutorial, and encouraging greater awareness of behaviors that may lead to perceptions of sexual harassment. Neither the Report nor the meeting with the alleged harasser shall in any way constitute a finding of sexual harassment. The name of the complainant shall not be identified to the respondent during the Report process; however, complainants should be aware that they may be called as witnesses in subsequent disciplinary or due process proceedings, as well as in litigation. The meeting with the alleged harasser must be conducted within ten (10) working days of receipt of the Report.

#### **External Filing of Discrimination Complaint**

MCCCCD encourages students to use the MCCCCD 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

## WITHDRAWAL (AR 2.3.6)

To withdraw from a course or courses from the college, students must follow approved procedures. 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 Office of Admissions and Records. Never attending is not an allowable refund exception or an excuse of the debt incurred through registration. Please see the refund policy.

### STUDENT WITHDRAWAL PROCEDURES (Appendix S-7)

#### A. Withdrawal from Specific Courses

A student may officially withdraw from specific courses in the following ways:

1. Through the 7th week\*, a student may initiate an official withdrawal from any course by submitting a course withdrawal form with the required signatures to the Office of Admissions and Records in accordance with the published deadlines. A grade of W (withdrawn, passing - not computed in the grade point average) will be assigned.
2. After the 7<sup>th</sup> week\*, a student may initiate a withdrawal request. After consultation with the student, the faculty member will sign the form and assign a grade of W or Y. 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. The form is then to be returned to the Office of Admissions and Records.
3. A student must withdraw by the last day\* a student-initiated withdrawal is accepted according to the academic calendar. See the academic calendar for specific dates.

#### B. Complete Withdrawal from College

Students electing to withdraw from the college must contact the Office of Admissions and Records 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) will be assigned.

\* 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.

#### C. Withdrawal of Financial Aid Students

In accordance with federal regulations (CFR 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 RENEWAL (Appendix S-7)

A faculty member has the option of withdrawing a student who has accumulated unofficial absences in excess of the number of times a class meets per week. 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 file the withdrawal form, including the last date of attendance, with the Office of Admissions and Records.

\* 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.

### ACADEMIC RENEWAL (AR 2.3.7)

Students who are returning 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 Office of Admissions and Records at the college where the grades were earned.

Academic renewal at one of the Maricopa Community Colleges does not guarantee that colleges outside the Maricopa Colleges will accept this action. Acceptance of academic renewal is at the discretion of the receiving institution.

- A. Prior to petitioning for academic renewal, the student must demonstrate renewed academic performance by earning a minimum of twelve (12) credit hours and a cumulative grade point average of 2.5 or higher within Maricopa Colleges after reenrollment.



- B. Upon approval, all courses taken prior to reenrollment with a grade of “A,” “B,” “C,” “D,” “F,” and “Y” will be annotated as academic renewal on the student’s permanent record. All course work affected by academic renewal will not be computed in the grade point average. Courses with grades “A,” “B,” or “C” will have the associated credit hours counted in the total credit hours earned. Such credit will not be computed in the grade point average.
- C. All course work will remain on the student’s permanent academic record, ensuring a true and accurate academic history.
- D. The academic renewal policy may be used only once at each college and cannot be revoked once approved.
- E. Students who have been granted Academic Renewal must also meet the Financial Aid Standards of Academic Progress if they wish to receive financial aid.

### HONORS PROGRAM (AR 2.3.8)

Each of the Maricopa Community Colleges has an honors program. Interested students should contact the college honors coordinator for information about the program and available scholarships, including the Chancellor’s, Foundation’s, and President’s Scholarships.

#### PRESIDENT’S HONORLIST

The President’s Honor List for each college consists of all students who complete twelve (12) or more credit hours in residence in courses numbered 100 or higher in a given semester with a college semester grade point average of 3.75 or higher.

### GENERAL GRADUATION REQUIREMENTS (AR 2.3.9)

**Note: Also see “Catalog Under Which a Student Graduates (AR 2.2.5) - Page 272**

All students are required to complete the degree and/or certificate requirements as approved by the Maricopa Community Colleges 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 Office of Admissions and Records 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. In cases where the certificate requires fewer than 12 credit units, a minimum of six credit unit must be completed at the college awarding the certificate.
3. have filed an application for the degree or certificate with the Office of Admissions and Records 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 MCCC college/center.
8. have paid required degree or certificate application fee. See fee schedule for charges.

#### Graduation Grade Point Average

Students must meet all requirements for graduation. Graduation requires a minimum grade point average of 2.00. Some specific programs have higher grade requirements. It is the student’s responsibility to be aware of these program requirements. For more information, see the General Graduation Requirements section.

#### 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”

#### Graduation – Honors Program

Students who meet all the requirements of the Honors Program at the district college granting the degree will be designated as Honors Program Graduates.

#### **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 Maricopa Community Colleges Governing Board.

All students are urged to meet with a faculty advisor, program advisor or counselor as soon as possible to determine which program meets their needs and to plan their course of study.

#### **GRADUATE GUARANTEE POLICY**

The Governing Board believes so strongly in the quality of its colleges' occupational training programs that it guarantees graduate competence.

1. Graduation from an Associate in Applied Science (AAS) is designed to prepare a person for entry-level employment in a specific career field. A graduate's ability to perform approved program competencies will be judged by employers. Should the employer of a graduate who has earned an AAS Degree find the employee lacking in the technical skills normally expected of an entry-level employee in the specific career field for which that graduate prepared, the District will provide the

graduate with up to the equivalent of twelve (12) credit hours of retraining for no additional tuition.

2. Because technical occupations change rapidly, initial employment in an AAS Degree-related field must occur within one year of graduation from the AAS Degree program in question.

Retraining needs to occur as cost effectively as possible. The graduate's employer must present a list of the graduate's skill deficiencies to the appropriate vice president or designee at the graduate's alma mater. All retraining will be completed in a reasonable time as agreed to by the employer, the student, and the college.

#### **LICENSURE DISCLAIMER**

Maricopa Community Colleges courses and programs prepare students for entry into a variety of professions. Many of these professions require that a person hold an occupational license or certificate in order to work in a particular field. Typically, a person must meet certain legal requirements before obtaining such a license or certificate. These requirements are established by county, state or federal agencies, and often are based on a person's character, or whether the person has been convicted of a criminal offense. It is possible for a student who has obtained a degree or certificate from a community college to be denied the right to work in a particular profession after completing the degree or certificate because of concerns over the student's character or criminal background. Any student preparing to enter a field for which a professional license or certificate is required is strongly advised to consult with the appropriate government agency that issues such credentials. That agency can provide the student complete information about any requirements the law imposes for working in a particular occupation.

#### **MCCCD GENERAL EDUCATION STATEMENT**

The general education core of the program of study for an associate degree or a certificate helps students develop a greater understanding of themselves, of their relationship with others, and of the richly diverse world in which they live. The general education experience provides students with opportunities to explore broad areas of commonly held knowledge and prepares them to contribute to society through personal, social, and professional interactions with others. General education fosters students' personal development by opening them to new directions, perspectives, and processes.

Through its general education requirements, the Maricopa County Community College District is committed to helping students develop qualities and

skills that will serve them throughout their lives. General education opportunities encourage students to:

- Build self-awareness, self-respect, and self-confidence
- Recognize and respect the beliefs, traditions, abilities, and customs of all people and all cultures
- Consider the local, global, and environmental impacts of personal, professional, and social decisions and actions
- Access, evaluate, analyze, synthesize, and use information wisely
- Communicate effectively personally, socially, and professionally
- Think critically, make informed decisions, solve problems, and implement decisions
- Consider the ethical implications of their choices
- Value the learning process throughout their lives
- Integrate and connect ideas and events in a historical perspective, and see relationships among the past, the present, and the future
- Develop a personal sense of aesthetics
- Use technological resources appropriately and productively
- Work cooperatively and respectfully with others to serve their communities

The general education experience at MCCCDC 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 MCCCDC and the institutions to which MCCCDC students transfer, students have the option to petition for general education evaluations and/or general education designations.

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

## CATALOG UNDER WHICH A STUDENT GRADUATES (AR 2.2.5)

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

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

### EXAMPLE A:

Admitted & Earned Course Credit at a Public Community College or University      Fall '93      (Active)  
Continued at a Public Community College      Spring '94, Fall '94      (Active)  
Transferred to a University      Spring '95 (1993 or Any Subsequent Catalog)

### EXAMPLE B:

Admitted & Earned Course Credit at a Public Community College or University      Fall '92      (Active)  
Enrolled But Earned All Ws, Zs, or Fs      Spring '93      (Inactive)  
Enrolled in Audit Courses Only      Fall '93      (Inactive)  
Nonattendance      Spring '94      (Inactive)  
Transferred to a University      Fall '94 (1994 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 '92      (Active)  
Nonattendance      Spring '93, Fall '93, Spring '94      (Inactive)  
Readmitted & Earned Course Credit at a Public Community College      Fall 94      (Active)  
Transferred to a University      Spring '95 (1994 or Any Subsequent Catalog)



that the individual's submission to, or rejection of, the sexual advances will in any way:

1. 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
  2. Influence his or her grades, participation in or access to academic programs, class standing or other educational opportunities;
- D. Engage in verbal or physical conduct of a sexual nature that:
1. 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
  2. Which creates an intimidating, hostile or offensive work or academic environment;
- E. Commit any act of sexual assault or public sexual indecency against any employee or student whether on Maricopa Community Colleges property or in connection with any Maricopa Community Colleges-sponsored activity;
- F. 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);
- G. 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.

#### **Additional Policy Violations (AR 5.1.10)**

Supervisors, managers, administrators and faculty who disregard or fail to report allegations of sexual harassment (whether reported by the person who is the subject of the sexual harassment or a witness) are in violation of this policy.

#### **Responsibility for Policy Enforcement (AR 5.1.11)**

Every Maricopa Community Colleges employee and student 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.

#### **Amorous Relationships (AR 5.1.12)**

An amorous relationship that might be appropriate in other circumstances may be 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 instruction, counseling, advisement or supervision. An element of power is often present in such a context and it is incumbent upon those with authority not to abuse that power.

#### **Complaints (AR 5.1.13)**

##### **A. 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(480-731-8885). 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.

##### **B. Students**

Students who experience sexual harassment in the academic environment (by a faculty member, administrator, campus visitor or other student) are urged to report such conduct to the vice president of student affairs or designee at each individual campus. A student may also contact the Maricopa Community Colleges EEO/AA Office to obtain the name and phone number of the college official designated to respond to sexual harassment complaints.

##### **C. General - Applicable to Both Employees and Students**

Complaints will be investigated according to procedures established by the Maricopa Community Colleges EEO/AA Office. Copies of these procedures may be obtained in the college president's office, vice president of student affairs and the Maricopa Community Colleges EEO/AA Office.

The college/center/MCCCD will investigate all complaints as professionally and expeditiously as possible.

Where investigation confirms the allegations, appropriate responsive action will be taken by the college/center/MCCCD.

#### **Confidentiality (AR 5.1.14)**

Records will be maintained in a confidential manner to the extent permitted by law and insofar as they do not interfere with Maricopa Community Colleges' legal obligation to investigate and resolve issues of sexual harassment.

#### **Violations of Law (AR 5.1.15)**

An employee or student may be accountable for sexual harassment under applicable local, state, and/or federal law, as well as under Maricopa Community Colleges policy. Disciplinary action by Maricopa Community Colleges may proceed while criminal proceedings are pending and will not be subject to challenge on the grounds that criminal charges involving the same incident have been dismissed or reduced.



**False Statements Prohibited (AR 5.1.16)**

Any individual who knowingly provides false information pursuant to filing a discrimination charge or during the investigation of a discrimination charge, will be subject to appropriate disciplinary action, up to and including, employment termination or academic dismissal.

**Retaliation Prohibited (AR 5.1.17)**

Retaliation against an employee or student for filing a sexual harassment complaint, or participating in the investigation of a complaint, is strictly prohibited. Maricopa Community Colleges will take appropriate disciplinary action, up to and including employment termination or academic dismissal if retaliation occurs.

### PETITION SIGNATURE SOLICITATION (AR 2.4.8)

- A. 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.
- B. 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.
- C. 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.
- D. Representatives shall notify the designated official at each college or center of their intent to be present on college premises no fewer than three working days prior to soliciting signatures. Upon obtaining authorization, representatives shall be provided a written version of this regulation.

### SOLICITATION (AR 2.4.9)

**A. Definitions**

A “solicitor” is any non-Maricopa Community Colleges-affiliated entity that would, on the premises of any Maricopa Community College or Center, purport to sell or promote any product, service, or idea, but does not include such an entity that would enter the premises for the purposes of promoting, opposing, or soliciting petition signatures in connection with any political candidate or initiative, or referendum ballot.

A “special event” is a college-sponsored event conducted on college premises for the benefit of students that is based on a particular theme, and for which the college has deemed

it essential to invite the participation of solicitors whose products, services or ideas are pertinent to the special event’s theme.

**B. Requirements**

1. A solicitor must notify the designated official at each college or center of their intent to solicit on college or center premises. A solicitor who would purport to sell any product or service is responsible for obtaining any necessary tax licenses and must submit to the designated official a certificate of commercial liability insurance and pay to the college or center, in consideration for the opportunity for solicitation, a fee in the amount of \$50 per day or \$125 per full week.
2. Campus restrictions regarding location, time, date, and use of amplification may apply. All requests for space shall be granted on a first-come, first-served basis only upon completion of the requirements contained in this regulation.
3. All solicitation must take place at tables in designated areas. Standard space will be one or two tables and chairs. Solicitors may be limited to no more than fifty (50) hours of solicitation activity per semester at each college or center.

By requesting the opportunity for solicitation on the premises of a college or center, a solicitor warrants that it may lawfully sell or promote its product, service or idea and that such activity does not violate any law, and does not violate any trademark, copyright, or similar proprietary interest. The activity of any solicitor may not violate any existing Maricopa contract.

The president of every college or center shall establish for such location restrictions governing the activities of solicitors. Such restrictions shall supplement, but shall not replace or waive, this regulation.

A college may waive the fee prescribed in this regulation for any solicitor’s participation in a special event if the college determines that such participation will be of particular educational benefit to the interests of that college’s students; the participation is sponsored by a club, organization, or academic division; and the participation is approved by the college’s Student Life and Leadership department. A college may waive both the fee and the insurance certificate requirements prescribed in this regulation for a student purporting to sell or promote a product or service at a special event, provided that:

- a. Such product or service presents low risk of harm to a potential user;
- b. The product or service is not food or food-related and;



- c. The student is soliciting solely on his or her own behalf and not pursuant to any sales agreement, commission agreement, or similar affiliation or contractual relationship with another entity.
4. Any solicitor who violates this regulation may be deemed a trespasser on college or center premises, and therefore subject to appropriate prosecution within the discretion of the College Safety department and other responsible officials at the college or center. The Maricopa County Community College District, its colleges and centers, assume no responsibility - financial or otherwise - for the acts or omissions of any vendor whose presence on college premises pursuant to this regulation is approved by any college official.

#### **CHILDREN ON CAMPUS (AR 2.4.10)**

Children (younger than 18) may not attend any class unless they are officially registered for the class.

Children will not be allowed on campus unless participating in an authorized college program or under the supervision of an adult.

#### **CRIME AWARENESS AND CAMPUS SECURITY ACT (AR 2.4.11)**

Federal legislation requires the college to maintain data on the types and number of crimes on college property as well as policies dealing with campus security. To obtain additional information on this subject, contact the college Safety and Security Department.

#### **WORKPLACE VIOLENCE PREVENTION (AR 2.4.12)**

It is the policy of the Maricopa Community Colleges to promote a safe environment for its employees, students, and visitors. The Maricopa Community Colleges are committed to working with its employees to maintain an environment free from violence, threats of violence, harassment, intimidation, and other disruptive behavior.

Violence, threats, harassment, intimidation, and other disruptive behavior in our facilities will not be tolerated, and it is the responsibility of all members of the Maricopa Community Colleges to report any occurrence of such conduct. Every employee, student and visitor on Maricopa Community College District property is encouraged to report threats or acts of physical violence of which he/she is aware. All reports will be taken seriously and will be dealt with appropriately. Such behavior can include oral or written statements, gestures, or expressions that communicate a direct or indirect threat of physical harm.

This policy applies to employees and students, as well as independent contractors and other non-employees doing business with the Maricopa Community Colleges. Individuals who commit such acts may be removed from the premises and may be subject to disciplinary action, criminal penalties, or both. The

Chancellor is hereby instructed to enact all administrative regulations necessary to implement this policy.

#### **STUDENT RIGHT TO KNOW (AR 2.4.13)**

Under the terms of the Student Right To Know Act, the college must maintain and report statistics on the number of students receiving athletically related student aid reported by race and sex, the graduation rate for athletes participating in specific sports reported by race and sex, the graduation rate for students in general, reported by race and sex and other similar statistics. To obtain copies of these reports, contact the Office of Admissions and Records.

### **STUDENT RIGHTS AND RESPONSIBILITIES**

#### **COPYRIGHT ACT COMPLIANCE (AR 2.4.5)**

Students are expected to comply with the provisions of the Copyright Act of 1976 pertaining to photocopying of printed materials, copying of computer software and videotaping. In order to assist students in complying with the Copyright Law, appropriate notices shall be placed on or near all equipment capable of duplicating copyrighted materials.

#### **Copyright Regulation (AR 3.2)**

- A. 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.
- B. 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.
- C. 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.
- D. 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.
- E. 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.
- F. 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 duplicate, show or perform a copyrighted work unless it is expressly allowed under the Copyright Act or you have the prior permission of the copyright holder.

A copyright exists in a work at the time it becomes fixed in some tangible medium of expression. Neither registration of the copyright with the federal government nor a copyright notice on the work itself is required for copyright protection.

### What is copyright infringement?

Generally, copyright infringement occurs when you copy, display, perform, distribute or create a derivative version of a copyrightable work either without the permission of the copyright holder or when such activity is not otherwise allowed under an exception provided by federal copyright law. The penalties for infringement include significant damages—potentially in excess of \$100,000 for each work infringed.

### How does copyright law affect information I obtain off the Internet?

Copyright law covers works in both traditional and new media, including digital media. Copyrightable materials are often available on the Internet without any indication of their copyrighted status. As a rule of thumb, you should assume that everything you find on the Internet is copyrighted, unless otherwise labeled. Even popular activities, such as file swapping or copying software, or pictures from the Internet, may be copyright infringement and should be avoided.

The Digital Millennium Copyright Act, which Congress enacted in 2000, affords greater protection for copyright holders of digital works. Generally, then, even if a work appears solely in a digital form, it is likely subject to copyright law protections.

New technology has made many creative works widely available through the Internet. For example, the technology known as Peer to Peer (P2P) allows for the transmission of music, videos, movies, software, video games and other materials—most of which is subject to copyright protection.

Remember that a copyright exists in a work at the time it becomes fixed in some tangible medium of expression. That means that an image you have downloaded from the Internet, as well as a video or musical performance is almost certainly subject to copyright protection.

When you download these works, transfer them to a disk or other medium, or send them to a friend, you are infringing on the rights of the copyright holder. Trafficking in such material without the permission of the copyright holder, then, violates copyright law. This includes unauthorized music file sharing over the Internet.

According to a statement recently issued by representatives of the motion picture, recording and songwriting industries, uploading and downloading copyrighted works over the Internet is theft: “It is no different from walking into the campus bookstore and in a clandestine manner walking out with a textbook without paying for it.”

### Why is it important for a student to be aware of copyright law?

Copyright infringement is expressly prohibited by the U.S. 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 a faculty member.

Even though the college does not hold the copyright to these works, or even have the express permission of the copyright holder, they may be delivered over the Internet to students in distance learning classes.

The fact that the law authorizes such use of copyrighted materials, though, does not allow a student in these classes to freely download, copy, or re-transmit the works. They are intended solely for use by the institution in connection with distance instruction; any other use would likely constitute a violation of copyright law.

To learn more about copyright, go to:

<http://www.dist.maricopa.edu/legal/> and click on “Intellectual Property.” While you’re there, you should read the Maricopa Community Colleges’ Copyright Guidelines. You should also review the complete text of the Computer Resource Standards which can be found under the “Information Technology” link. The Standards also appear in college catalogs and student handbooks.

#### **TAPING OF FACULTY LECTURES (AR 3.4)**

The Maricopa Community Colleges acknowledge that faculty members are, by law, afforded copyright protection in their classroom lectures and, therefore, may limit the circumstances under which students may tape (audio/visual) their classes.

Each faculty member shall inform his/her students within the first week of classes to his/her policy with regard to taping. Failure to do so will accord students the right to tape lectures.

Students with disabilities that render them unable to take adequate lecture notes are entitled to reasonable accommodation to remedy this inability. Accommodation may require a faculty member to exempt a student from his/her taping policy.

#### **TECHNOLOGY RESOURCE STANDARDS (AR 4.4)**

##### **Introduction**

The Maricopa County Community Colleges District (MCCCD) provides its students and employees access to information resources and technologies. Maricopa recognizes that the free exchange of opinions and ideas is essential to academic freedom, and the advancement of educational, research, service, operational and management purposes, is furthered by making these resources accessible to its employees and students.

At Maricopa, technological resources are shared by its users; misuse of these resources by some users infringes upon the opportunities of all the rest. As Maricopa is a public institution of higher education, however, the proper use of those resources is all the more important., Maricopa requires users to observe Constitutional and other legal mandates whose aims are to safeguard and appropriately utilize technology resources that are acquired and maintained with public funds.

##### **General Responsibilities**

Technology resources (including, but not limited to, desktop and laptop systems, printers, central computing facilities, District-wide or college-wide networks, local-area networks, access to the Internet, electronic mail and similar electronic information) of the Maricopa County Community Colleges District are available only to authorized users, and any use of those resources is subject to these Standards. All users of Maricopa’s technology resources are presumed to have read and understood the Standards. While the Standards govern use of technology resources District-wide, an individual community college or center may establish guidelines for technology resource usage that supplement, but do not replace or waive these Standards.

##### **Acceptable Use**

Use of Maricopa’s technology resources, including websites created by employees and students, is limited to educational, research, service, operational, and management purposes of the Maricopa County Community Colleges District and its member institutions. Likewise, images and links to external sites posted on or transmitted via Maricopa’s technology resources are limited to the same purposes.

It is not Maricopa’s practice to monitor the content of electronic mail transmissions, files, images, links or other data stored on or transmitted through Maricopa’s technology resources. The maintenance, operation and security of Maricopa’s technology resources, however, require that network administrators and

other authorized personnel have access to those resources and, on occasion, review the content of data and communications stored on or transmitted through those resources. A review may be performed exclusively by persons expressly authorized for such purpose and only for cause. To the extent possible in the electronic environment and in a public setting, a user's privacy will be honored.

Nevertheless, that privacy is subject to Arizona's public records laws and other applicable state and federal laws, as well as policies of Maricopa's Governing Board all of which may supersede a user's interests in maintaining privacy in information contained in Maricopa's technology resources.

Frequently, access to Maricopa's technology resources can be obtained only through use of a password known exclusively to the user. It is the user's responsibility to keep a password confidential. While Maricopa takes reasonable measures to ensure network security, it cannot be held accountable for unauthorized access to its technology resources by other users, both within and outside the Maricopa community. Moreover, it cannot guarantee users protection against loss due to system failure, fire, etc.

Much of the data contained in Maricopa records that are accessible through use of technology resources is confidential under state and federal law. That a user may have the technical capability to access confidential records does not necessarily mean that such access is authorized. A user of Maricopa's technology resources is prohibited from the unauthorized access to, or dissemination of, confidential records.

Violation of any provision of the Standards could result in immediate termination of a user's access to Maricopa's technology resources, as well as appropriate disciplinary action. A violation of the Standards should be reported immediately to the appropriate administrator.

### Prohibited Conduct

The following is prohibited conduct in the use of Maricopa's technology resources:

1. Posting to the network, downloading or transporting any material that would constitute a violation of Maricopa County Community College District contracts.
2. Unauthorized attempts to monitor another user's password protected data or electronic communication, or delete another user's password protected data, electronic communications or software, without that person's permission.
3. Installing or running on any system a program that is intended to or is likely to result in eventual damage to a file or computer system.
4. Performing acts that would unfairly monopolize computing resources to the exclusion of other users, in-

cluding (but not limited to) unauthorized installation of server system software.

5. Hosting a website that violates the .EDU domain request.
6. Use of technology resources for non-Maricopa commercial purposes, including to advertise personal services, whether or not for financial gain.
7. Use of software, graphics, photographs, or any other tangible form of expression that would violate or infringe any copyright or similar legally-recognized protection of intellectual property rights.
8. Activities that would constitute a violation of any policy of Maricopa's Governing Board, including, but not limited to, Maricopa's non-discrimination policy and its policy against sexual harassment.
9. Transmitting, storing, or receiving data, or otherwise using technology resources in a manner that would constitute a violation of state or federal law, or MCCCDC policy or administrative regulation including, but not limited to, obscenity, defamation, threats, harassment, and theft.
10. Attempting to gain unauthorized access to a remote network or remote computer system.
11. Exploiting any technology resources system by attempting to prevent or circumvent access, or using unauthorized data protection schemes.
12. Performing any act that would disrupt normal operations of computers, workstations, terminals, peripherals, or networks.
13. Using technology resources in such a way as to wrongfully hide the identity of the user or pose as another person.
14. Allowing any unauthorized access to Maricopa's technology resources.

### Disclaimer

The home page of a website must display, or link to, the following disclaimer in a conspicuous manner: All information published online by MCCCDC is subject to change without notice. MCCCDC 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. MCCCDC is not responsible for the content or functionality of any technology resource not owned by the institution.

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### **HAZING PREVENTION REGULATION (AR 2.6)**

The Maricopa County Community College District (MCCCD) strives to exceed the changing expectations of our many communities for effective, innovative, student-centered, flexible and lifelong educational opportunities. Our employees are committed to respecting diversity, continuous quality improvement and the efficient use of resources. We are a learning organization guided by our shared values of: education, students, employees, excellence, diversity, honesty and integrity, freedom, fairness, responsibility and public trust.

Central to the vitality and dignity of our community of learners is an environment that produces broadly educated responsible citizens, who are prepared to serve and lead in a free society. Academic instruction, co-curricular activities and community involvement come together to meet this goal. All members of the Maricopa Community Colleges' community, through the best of their abilities, must be provided the opportunity to contribute in a safe, orderly, civil and positive learning environment. One factor that inhibits the achievement of the above stated purpose is the practice of hazing.

1. Hazing by any student, employee or other person affiliated with the Maricopa Community Colleges is prohibited.
2. "Hazing" is defined as any intentional, knowing or reckless act committed by a student or other person in any MCCCD college or affiliated educational setting, whether individually or in concert with other persons, against another student, and in which both of the following apply:
  - a. The act was committed in connection with an initiation into, an affiliation with or the maintenance of membership in any club/organization that is affiliated with Maricopa Community Colleges; and,
  - b. The act contributes to a substantial risk of potential physical injury, mental harm or personal degradation, or causes physical injury, mental harm or personal degradation.
3. Any solicitation to engage in hazing is prohibited.
4. Aiding and abetting another person who is engaged in hazing is prohibited.
5. Victim consent is not a defense for violation of the Maricopa Community Colleges Hazing Prevention Regulation.
6. All students, faculty and staff must take reasonable measures within the scope of their individual authority to prevent violations of the Maricopa Community Colleges Hazing Prevention Regulation.
7. Hazing activities and situations include, but are not limited to, the following:
  - a. Pre-pledging, illegal pledging or underground activities.
  - b. Acts of mental and physical abuse, including, but not limited to: paddling, slapping, kicking, pushing, yelling, biting, duck-walking, line-ups, tuck-ins, belittling, excessive exercise, beating or physical abuse of any kind, and the potentially forced consumption of any food or beverage that contributes to or causes physical injury, mental harm or personal degradation.
  - c. Sleep deprivation (activities that deprive prospective and/or current students and/or members of the opportunity of a minimum of six hours sufficient sleep each day).
  - d. Encouraging or forcing use of alcohol or drugs.
  - e. Any type of student club/organization scavenger hunt, quest, road trip or activity that would physically or psychologically endanger prospective and/or current students and/or members or others.
  - f. Stroking or physically touching in an indecent or inappropriate manner. See Sexual Harassment policy 5.1.8
  - g. Student club/organization activities that subject prospective and/or current students and/or members or others to public nuisance or spectacle.
  - h. Aiding or abetting theft, fraud, embezzlement of funds, destruction of public, personal or private property, or academic misconduct.
  - i. Being required to wear odd or look-alike apparel that contributes to or causes physical injury, mental harm or personal degradation.
  - j. Personal services that contribute to or cause physical injury, mental harm or personal degradation.
8. Alleged violations of this regulation by students or student organizations can be reported to the vice president of student affairs' office for investigation by any member of the college community. The vice president of student affairs' office will investigate the complaint in accordance with the student disciplinary code, all other college and Maricopa Community Colleges policies, and local and state laws.



Alleged violations of the Maricopa Community Colleges hazing prevention regulation or interference with an investigation under this regulation by students or student organizations are subject to sanctions under the student disciplinary code.

The student disciplinary code shall govern all proceedings involving such a complaint. Decisions arrived at as outcomes of the proceedings shall be final, pending the normal appeal process.

9. Alleged violations of the Maricopa Community Colleges hazing prevention regulation by any faculty or staff member can be reported to the vice president of student affairs' office for investigation by any member of the college community. The vice president of student affairs' will investigate the complaint in accordance with college and Maricopa Community Colleges policies, and local and state laws.

Any Maricopa Community Colleges faculty or staff member who knowingly permitted, authorized or condoned the alleged hazing activity is subject to disciplinary action in accordance with college and Maricopa Community Colleges policies, and local and state laws.

10. If the vice president of student affairs' office receives a report or complaint of an alleged hazing activity involving physical injury, threats of physical injury, intimidation, harassment or property damage, or any other conduct that appears to violate Arizona state law, the college will report such conduct to the appropriate college safety office. The said college safety office will investigate, respond to and report on the alleged hazing activity in accordance with all college, district, local, state and federal guidelines, policies and laws.
11. Should the proceedings outlined above substantiate an occurrence of hazing activity—where students or student organizations knowingly permitted, authorized or condoned the hazing activity—the college can recommend the following sanctions against student clubs/organizations:
  - a. **Censure:** Censure can include the required completion of a program designed with the intent of eliminating the hazing activity. The programs will be devised with the cooperation of all involved parties and monitored by the vice president of student affairs' Office.

- b. **Probation:** The student club(s)/organization(s) will be placed on probation for a specified period of time. Conditions of probation will be determined by the vice president of student affairs' office and outlined in writing to the student club(s)/organization(s). The probationary term will be monitored by the vice president of student affairs' office.
- c. **Suspension:** The student club(s)/organization(s) will be suspended. The terms of the suspension can be defined in the sanction, including criteria the student club(s)/organization(s) must meet within a specified time to be considered for admission or renewal of college recognition status.
- d. **Revocation:** The student club(s)/organization(s) will have its status revoked, with the loss of all college associations, recognitions and privileges. The national or international office of an organization, if so affiliated, will be requested to revoke the charter of an organization.

12. The Maricopa Community Colleges hazing prevention regulation is not intended to prohibit or sanction the following conduct:
  - a. Customary athletic events, contests or competitions that are sponsored by any of the Maricopa Community Colleges.
  - b. Any activity or conduct that furthers the goals of a legitimate educational curriculum, a legitimate co-curricular experience or a legitimate military training program.
13. For the purposes of the Maricopa Community Colleges hazing prevention regulation: "Organization" is defined as an athletic team, association, order, society, corps, cooperative, club or other similar group that is affiliated with Maricopa Community Colleges, whose membership consists primarily of students enrolled at Maricopa Community Colleges and that may also be classroom-related or co-curricular in nature.

## **ABUSE-FREE ENVIRONMENT (AR 2.4.7)**

### **A. Substance Abuse/Misuse Statement**

Drug abuse and misuse has become a national issue and is receiving national attention, particularly in the academic community. The insidious effects of the abuse of these agents are also felt by all walks of life and economic levels. Therefore, as an education providing institution, we are responsible to provide knowledge and guidelines about prevention, control, and treatment of the abuse/misuse of alcohol, illegal and legal drug uses and misuses.

This policy statement has been constructed on the belief that higher education has a responsibility to face safety and health factors of substance abuse/misuse issues forthrightly and innovatively. We believe that the community

college needs to adapt programs applicable to their community as well as to our individual student's needs. The policy statements should be comprehensive, understood by those expected to comply, realistic and enforceable, consistently applied, and cover foreseeable dangers.

Construction of this statement has been founded on concerns of individual safety, educational quality, and legal liability. It is recognized that each individual is responsible for his/her actions and must be afforded an opportunity to develop knowledge, skills and talent, and be willing to share community responsibilities. The Maricopa Community College District has an equal "duty to care" responsibility and a commitment to substance abuse/misuse education for all students and employees.

The Maricopa Community College District shall:

1. Visibly demonstrate a performance of the Maricopa Community College District "duty to care".
2. Comply with requirements for federal funds.
3. Describe what the college does about substance abuse/misuse (alcohol, drugs, anabolic steroids).
4. Inform/educate members of the academic community of adverse effects of these substances.
5. Inform/educate the academic community about the policies concerning substance misuse and abuse.
6. Discourage illegal drug abuse and legal substance misuse.
7. Provide individual and group counseling
8. Provide assistance and guidance to obtain treatment and rehabilitation of any identified problem.

To achieve these objectives, the program must provide an environment capable of:

1. Developing and implementing substance misuse/abuse prevention programs.
2. Providing educational training and prevention programs for the college and community it serves.
3. Providing timely and accurate information dissemination.
4. Establishing supportive counseling programs as needed.
5. Establishing a strong on-going evaluation of services.
6. Providing assistance to obtain treatment and rehabilitation of substance abuse/misuse.
7. Clarifying the college regulations for control of alcohol and drug use.

8. Providing procedures that the college will follow to correct and stabilize emergency situations.

Each college will identify key people to provide emergency services and to contact and work with outside agencies.

The Maricopa Community College District is committed to establishing a preventative substance abuse program at each college designed to affect positively the problems of irresponsible use of alcohol and the use and abuse of illegal substances. A main focus of the program will be on education of the campus community and assistance to individuals.

The Maricopa Community College District fully supports disciplinary action for misconduct and the enforcement of state laws governing the use of alcohol and the use, abuse, possession or distribution of controlled substances or illegal drugs.

#### **B. Student Program to Prevent Illicit Use of Drugs and Abuse of Alcohol**

##### **1. Introduction and Purpose**

The recent adoption by Congress of the Drug-Free Schools and Communities Act amendments of 1989 (Public Law 101-226) requires federal contractors and grantees to certify that they will provide a drug-free school. As a recipient of federal grants, the District must adopt a program toward accomplishing this goal. While federal legislation has been the impetus for creation of the program, the administration and Governing Board recognize that substance abuse is a problem of national proportions that also affect students at Maricopa Community Colleges. Based upon that concern, it is intended that this program on prevention of alcohol and drug abuse on college campuses will go beyond the strict dictates of the law and will serve as a comprehensive educational and resource tool.

The Maricopa Community Colleges are committed to maintaining learning environments that enhance the full benefits of a student's educational experience. The Maricopa Community College District will make every effort to provide students with optimal conditions for learning that are free of the problems associated with the unauthorized use and abuse of alcohol and drugs. Part of the educational mission of Maricopa Community Colleges, in conjunction with this program, is to educate students about positive self-development, the benefits of a healthy lifestyle and the health risks associated with substance abuse.

The purpose of this program is to:

- a. Ensure that the Maricopa Community Colleges working and learning environment for students and the public is safe, orderly and free of illegal activity.

b. Comply with the Drug-Free School and Communities Act of 1989, and other relevant substance abuse laws.

c. Provide students with access to appropriate treatment and rehabilitation assistance for problems associated with substance use or abuse.

## 2. 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:

- a. Drinking or possession of alcoholic beverages on the college campus.
- b. Misuse of narcotics or drugs.

## 3. Sanctions for Violation of Standards of Conduct

Disciplinary actions include, but are not limited to:

- a. Warning,
- b. Loss of privileges,
- c. Suspension, or
- d. Expulsion.

## 4. Legal Consequences of Alcohol and Other Drugs

### a. Laws Governing Alcohol

The State of Arizona sets twenty-one as the "legal drinking age". An underage person who buys, receives, possesses or consumes alcoholic beverages is guilty of a misdemeanor and may be subject to a fine and imprisonment for up to six months.

The Uniform Act Regulating Traffic on Highways prohibits driving while under the influence of intoxicating liquor or drugs (DWI). Drivers charged with DWI who refuse to be tested face suspension of their licenses or permits to drive for twelve months. A driver whose test results show a blood or breath alcohol concentration of 0.08 or more will have his/her license or permit to drive suspended or denied for not less than ninety consecutive days. The punishment for DWI ranges from not less than twenty-four consecutive hours in jail and a fine of not less than \$250 for a first offense to a minimum of six months in jail and revocation of the driver's license for three years upon a third offense.

### a. Federal Penalties and Sanctions for Illegal Possession of a Controlled Substance

First conviction: Up to one year imprisonment and fined at least \$1,000 but not more than \$100,000, or both.

After one prior drug conviction: At least fifteen days in prison, not to exceed two years and fined

at least \$2,500 but not more than \$250,000, or both.

After two or more prior drug convictions: At least ninety days in prison, not to exceed three years and fined at least \$5,000 but not more than \$250,000, or both.

Special sentencing provisions for possession of crack cocaine:

Mandatory at least five years in prison, not to exceed twenty years and fined up to \$250,000, or both, if:

- 1) First conviction and the amount of crack possessed exceeds five grams.
- 2) Second conviction and the amount of crack possessed exceeds three grams.
- 3) Third or subsequent crack conviction and the amount of crack possessed exceeds one gram.

Forfeiture of personal and real property used to possess or to facilitate possession of a controlled substance if that offense is punishable by more than one year imprisonment. (See special sentencing provisions re: crack)

Forfeiture of vehicles, boats, aircraft or any other conveyance used to transport or conceal a controlled substance.

Civil fine of up to \$10,000 (pending adoption of final regulations).

Denial of Federal benefits, such as student loans, grants, contracts, and professional and commercial licenses, up to one year for first offense, up to five years for second and subsequent offenses.

Ineligible to receive or purchase a firearm.

Miscellaneous: Revocation of certain Federal licenses and benefits, e.g. pilot licenses, public housing tenancy, etc., are vested within the authorities of individual Federal agencies.

Note: These are only Federal penalties and sanctions.

### c. State Penalties and Sanctions

Title Thirteen, Chapter 34 of the Arizona Revised Statutes lists drug offenses and their penalties. Following is list of drugs that are frequently misused with a description of the potential penalties attached to a conviction.

- 1) Marijuana: A first offense for possession or use of marijuana in an amount of less than one pound constitutes a class 6 felony and carries a possible prison term of one and one-half years and a fine of not less than seven hundred fifty dollars.

The sale of marijuana in an amount of less

that one pound carries a prison sentence of four years and a fine of at least seven hundred fifty dollars.

- 2) LSD: Possession, use and sale of LSD are felonies carrying sentences from four to five years and fines of not less than one thousand dollars.
- 3) Heroin and Cocaine: Possession, use and sale of heroin are felonies carrying sentences from four to seven years and a fine of not less than two thousand dollars.

### C. Alcoholic Beverages - Usage Regulation (AR 4.13)

1. No alcoholic beverage is allowed on or in the premises owned (by the State) and/or leased/rented by the Maricopa Community Colleges for District-approved educational purposes, except as provided herein.
2. No purchase of alcoholic beverages is allowed from any funds under the jurisdiction of the Governing Board of the District.
3. 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.
4. 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.

### D. 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 docu-

mentation will be needed to support requests for accommodation through the Office of Disabled Resources and Services or the Vice President of Student Affairs.

The Maricopa Community Colleges acknowledge the importance of privacy considerations with regard to persons with AIDS. The number of people who are aware of the existence and/or identity of students who have AIDS or a positive HIV antibody test should be kept to a minimum. When a student confides in a faculty member, knowledge of the condition should be transmitted to the appropriate vice president or designee who will make the determination if the information should be further disseminated. It should be remembered that mere exposure to the person in a classroom does not constitute a need to know the diagnosis. It is, therefore, unnecessary to document in a student's file the fact that he or she has AIDS unless the information is to be used for accommodation reasons. Sharing confidential information without consent may create legal liability.

Students are encouraged to contact the Office of Disabled Resources and Services and/or the vice president of student affairs or designee for the types of services available in the district or community on matters regarding AIDS or the HIV virus.

### DISABILITY RESOURCES & SERVICES - ELIGIBILITY FOR ACCOMMODATIONS & REQUIRED DISABILITY DOCUMENTATION (AR 2.8)

**PURPOSE**— to specify the disability documentation requirements that will qualify (i.e., support current and essential needs) Maricopa County Community College District students for reasonable and appropriate accommodations through each college's disability services office or designated professional. This regulation is implemented in accordance with the American's with Disabilities Act.

#### GENERAL ELIGIBILITY REQUIREMENTS

Each applicant with a disability must meet MCCCCD admissions requirements, or be enrolled as an MCCCCD student, and must provide Disability Resource Services (DRS) with required documentation verifying the nature and extent of the disability prior to receiving any accommodation. The disability services office coordinator/program advisor is responsible for evaluating documentation and determining accommodation eligibility.

#### SPECIFIC ELIGIBILITY REQUIREMENTS PHYSICAL DISABILITIES—REQUIRED DOCUMENTATION

The student must submit a written, current diagnostic report of any physical disabilities that are based on appropriate diagnostic evaluations administered by trained and qualified (i.e., certified and/or licensed) professionals (e.g., medical doctors, ophthalmologists, neuropsychologists, audiologists). Disability diagnosis categories include:

1. Orthopedic Disability
2. Blind or Visual Impairment



3. Deaf or Hard-of-Hearing
4. Traumatic Brain Injury
5. Other Health-Related/Systemic Disabilities

**The Written Diagnostic Report Must Include:**

- a) A clear disability diagnosis, including a clinical history that establishes the date of diagnosis, last contact with the student, and any secondary conditions that might be present.
- b) The procedures used to diagnose the disability.
- c) A description of any medical and/or behavioral symptoms associated with the disability.
- d) A discussion of medications, dosage, frequency, and any adverse side effects attributable to their use that the student has experienced.
- e) A clear statement specifying functional manifestations (i.e., substantial limitations to one or more major life activities and degree of severity) due to the disability and/or medications for which the student may require accommodations.
- f) A recommendation for accommodation, including rationale. If the accommodation recommendations are specific to limitations in learning (e.g., reading, mathematics, written expression), an appropriate psycho-educational or neuropsychological evaluation must be administered to document ability/achievement discrepancies.

**Specific Learning Disabilities-Required Documentation**

The student shall submit a written diagnostic report of specific learning disabilities that is based on current appropriate, comprehensive, psycho educational evaluations using adult normed instruments.

The assessment or evaluation which leads to the diagnosis must be administered by a trained and qualified (i.e., certified and/or licensed) professional (e.g., psychologist, school psychologist, neuropsychologist, or educational diagnostician) who has had direct experience with adolescents and adults with learning disabilities.

**An Appropriate Psycho Educational Evaluation Must Include Comprehensive Measures In Each Of The Following Areas:**

1. Aptitude (the evaluation must contain a complete intellectual assessment, with all sub-tests and standard scores reported).
2. Academic achievement (the evaluation must contain a comprehensive achievement battery

with all sub-tests and standard scores reported) the test battery should include current levels of functioning in the relevant areas, such as reading (decoding and comprehension), mathematics, and oral and written expression.

3. Information processing (the evaluation should assess specific information processing areas such as short- and long-term memory, sequential memory, auditory and visual perception/processing, processing speed, executive function, and motor ability).

**Examples Of Measures**

- a) Wechsler Adult Intelligence Scale-Revised (WAIS-R)
- b) Wechsler Adult Intelligence Scale-Third Edition
- c) Stanford Binet Intelligence Scale-Fourth Edition
- d) Woodcock-Johnson Psycho-Educational Battery-Revised: Tests Of Cognitive Ability
- e) Kaufman Adolescent And Adult Intelligence Test

**Achievement**

- a) Wechsler Individual Achievement Tests (WIAT)
- b) Woodcock-Johnson Psycho-Educational Battery-Revised: Tests Of Achievement (W-Jr)
- c) Stanford Test of Academic Skills (TASK)
- d) Scholastic Abilities Test for Adults (SATA)

**Information Processing**

- a) Subtests of The Wais-R Or Wais-Third Edition
- b) Subtests on The Woodcock-Johnson Psycho-Educational Battery-Revised: Tests Of Cognitive Ability

**Diagnostic Report**

The diagnostic report must include the following information:

1. A diagnostic interview that addresses relevant historical information, past and current academic achievement, instructional foundation, past performance in areas of difficulty, age at initial diagnosis, and history of accommodations used in past educational settings and their effectiveness.
2. A list of all instruments used in the test battery.
3. Discussion of test behavior and specific test results.
4. A diagnostic summary statement with the following information:
  - a) A clear and direct statement that a learning disability does or does not exist, including a rule-out of alternative explanations for the learning problems. Terms such as “appears,” “suggests,” or “probable” used in the diagnostic summary statement do not support a conclusive diagnosis.
  - b) A clear statement specifying the substantial limitations to one or more major life activities.
  - c) A psychometric summary of scores.
  - d) A recommendation for accommodations, including rationale.

Diagnosis of specific learning disabilities that do not contain psycho-educational measures may not be used for



determining eligibility for academic accommodations. For example, school plans such as individualized education plans (IEPS) or 504 plans are not adequate documentation; however, they can be included with the required evaluation. Drs reserves the right to request reassessment when questions regarding previous assessment or previous service provision arise.

#### **Attention Deficit Hyperactivity Disorder (ADHD)/Attention Deficit Disorder (ADD) — Required Documentation**

The student shall submit a current diagnosis of attention deficit hyperactivity disorder (ADHD)/attention deficit disorder (ADD) that is based on appropriate diagnostic evaluations administered by trained and qualified (i.e., certified or licensed) professionals (e.g., psychiatrists, psychologists, or neuropsychologists).

#### **The Diagnostic Report Must Include:**

1. A diagnostic interview addressing relevant historical information, past and current academic achievement, age at initial diagnosis, discussion of medication, and history and effectiveness of accommodations in past educational settings.
2. The procedures used to diagnose the disability (including a list of all instruments used in the assessment).
3. Discussion of the testing results and behavior, including the symptoms that meet the criteria diagnosis. If the student was evaluated while on medication, the effect this may have had on performance must be noted.
4. DSM-IV diagnosis (including all five axes)
5. A diagnostic summary statement that includes the following information:
  - a) A clear statement that ADHD/ADD does or does not exist, including a rule-out of alternative explanations for behaviors. Terms such as “appears,” “suggests,” or “has problems with” used in the diagnostic summary statement do not support a conclusive diagnosis.
  - b) A clear statement specifying the substantial limitations to one or more major life activities and the degree of severity. If the limitations are in learning (e.g., reading, mathematics, and written expression), an appropriate psycho-educational evaluation must be administered to document ability/achievement discrepancies.
  - c) A recommendation regarding medications or medical evaluation(s).
  - d) A recommendation for accommodations, including rationale.
2. Discussion of medications review of past and current academic achievement, and history of disability accommodations and their effectiveness.
3. The procedures used to diagnose the disability (include a list of all instruments used in the assessment and test scores as applicable).
4. Discussion of the assessment results.
5. DSM-IV diagnosis (include all five axes).
6. A diagnostic summary statement that includes the following:
  - a) A clear statement that a disability does or does not exist. Terms such as “appears,” “probable,” and “suggests” used in the diagnostic summary statement do not support a conclusive diagnosis.
  - b) A clear statement specifying the substantial limitations to one or more major life activities. If the limitations are in learning (e.g., reading, mathematics, and written expression), an appropriate psycho-educational evaluation must be administered to document ability/achievement discrepancies.
  - c) A discussion of medications and their possible impact on academic functioning (e.g., concentration, attention, sedation)
  - d) A recommendation for essential accommodations relative to the diagnosed disability, including rationale.
  - e) The duration for which these accommodations should be provided based on the current assessment.
  - f) A recommendation regarding reevaluation to determine ongoing need for disability accommodations (e.g., one semester, one year, two years).

#### **Temporary Impairments**

Some disabilities are temporary and may require accommodations for a limited time. Each case is considered individually. The following documentation is required:

1. Written correspondence on letterhead from a qualified professional stating diagnosis, functional limitations necessitating the accommodation, and the estimated length of time services will be needed.
2. Services may be provided for ten (10) working days pending receipt of documentation. If documentation is not received by that time, services will be cancelled.

#### **Special Considerations**

A requirement for documentation prescribed in this regulation may be considered at the discretion of each college’s disability services office or designated professional if, in the professional opinion of the responsible college’s disability services office or designated professional, such consideration is in the best interest of the student and will neither undermine the integrity of any college offering nor violate any mandate under state or federal law. All situations shall be considered on an individual, case-by-case basis. Reasonable accommodation is required for students with known disabilities. MCCCCD will make every attempt to provide “preferred” accommodations, however, “the most effective and reasonable” accommodation may be determined to meet sufficient accessibility needs.

#### **Psychological Disabilities — Required Documentation**

If the diagnostic report is more than one year old, a letter from a qualified professional that provides an update of the diagnosis with a description of the individual’s current level of functioning during the past year, and a rationale for the requested accommodations must be submitted.

#### **The Diagnostic Report Must Include The Following:**

1. A clinical interview, relevant historical information, age at initial diagnosis, duration and severity of the disorder.

### 2.8.2. Eligibility fo 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, Vocation Rehabilitation funding, etc.
4. Eligibility for Federal Stafford Loans will 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 V) 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 re-submit their documentation. Continuation of this status is not automatic. Each case will be re-evaluated at the end of the semester to determine if this accommodation is still appropriate.
3. Students requesting a reduced course load should consult with their academic advisor regarding the consequences of this status for making progress toward graduation requirements and eligibility for various academic distinctions and designations.
4. Students registered in occupational and/or academic programs that have specific block formats will not be considered for reduced course loads.
5. Students who are approved for a reduced course load will be required to sign the Reduced Course Load Approval Form (see Appendix S-10), which includes a statement acknowledging that he or she has reviewed the consequences that go with reduced load status and accepts them.
6. When a reduced course load status is granted by the Disability Resources & Services professional, a copy of the Reduced Course Load Approval Form will be sent to the appropriate individuals.

### ACADEMIC MISCONDUCT (AR 2.3.11)

#### A. Definitions

1. Academic Misconduct - includes misconduct associated with the classroom, laboratory or clinical learning process. Some examples of academic misconduct are cheating, plagiarism, and excessive absences.

2. Cheating - includes, but is not limited to, (a) use of any unauthorized assistance in taking quizzes, tests, assessment tests or examinations; (b) dependence upon the aid of sources beyond those authorized by the faculty member in writing papers, preparing reports, solving problems, or carrying out other assignments; or (c) the acquisition, without permission, of tests or other academic material belonging to a member of the college faculty or staff.
3. Plagiarism - includes, but is not limited to, the use of paraphrase or direct quotation of the published or unpublished work of another person without full and clear acknowledgment. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials. Information gathered from the internet and not properly identified is also considered plagiarism.

#### B. Sanctions

Any student found by a faculty member to have committed academic misconduct maybe subject to the following sanctions: (Note: sanctions 1, 2, 3, and 4 may be imposed by a faculty member. The faculty member may recommend to the department chairperson and the vice president of academic affairs or designee that sanctions 5, 6, or 7 be imposed. College suspension or expulsion will be imposed only by the vice president of academic affairs or designee.)

1. Warning - A notice in writing to the student that the student has violated the academic code.
2. Grade Adjustment - Lowering of a score on a test, or assignment.
3. Discretionary Sanctions - Additional academic assignments determined by the faculty member.
4. Course Failure - Failure of a student in the course where academic misconduct occurs.
5. 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.
6. 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.)
7. 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.)

#### C. Appeal of Sanctions for Academic Misconduct

Students can appeal sanctions imposed for academic misconduct by following the instructional grievance process (AR 2.3.5).

### DISCIPLINARY STANDARDS

#### A. Disciplinary Probation and Suspension (AR 2.5.1)

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:

1. Cheating on an examination, assessment tests, laboratory work, written work (plagiarism); falsifying, forging or altering college records.
2. 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.
3. Violation of Arizona statutes, and/or college regulations and policies.
4. Use of college computer resources such as internet in violation of **TECHNOLOGY RESOURCE STANDARDS (AR 4.4)** which may result in notification of law enforcement authorities.

#### B. Disciplinary Removal from Class

A faculty member may remove a student from class meetings for disciplinary reasons. If faculty member 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's recommendation. If a resolution of the problem is not reached, between the faculty member and the student, the student, may be removed permanently pursuant to due process procedures.



## STUDENT CONDUCT CODE (AR 2.5.2)

### Purpose

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:

- A. "Accused student" means any student accused of violating this Student Conduct Code.
- B. "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.
- C. "College" means a Maricopa Community College or center.
- D. "College premises" means all land, buildings, facilities and other property in the possession of or owned, used or controlled by the college or District.
- E. "College official" means any person employed by the college or District, performing assigned administrative or professional responsibilities pursuant to this Student Conduct Code. The college president shall designate the college or center official to be responsible for the administration of the Student Conduct Code.
- F. "Complainant" means any person who submits a charge alleging that a student violated this Student Conduct Code. When a student believes that s/he has been a victim of another student's misconduct, the student who believes s/he has been a victim will have the same rights under this Student Conduct Code as are provided to the complainant, even if another member of the college community submitted the charge itself.
- G. "Day" means calendar day at a time when college is in session, and shall exclude weekends and holidays.
- H. "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.
- I. "District" means the Maricopa County Community College District.
- J. "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.
- K. "May" is used in the permissive sense.
- L. "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.
- M. "Organization" means any number of persons who have complied with the formal requirements for college recognition.
- N. "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.
- O. "Shall" is used in the imperative sense.
- P. "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".
- Q. "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.
- R. "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.
- S. "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

- A. 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.
- B. 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.



C. Decisions made by a Student Conduct Board and/or Student Conduct Administrator shall be final, pending the normal appeal process.

### Article III: Prohibited Conduct

#### A. 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.

#### B. Temporary Removal of Student

Disruptive behavior includes conduct that distracts or intimidates others in a manner that interferes with instructional activities, fails to adhere to a faculty member's appropriate classroom rules or instructions, or interferes with the normal operations of the college. Students who engage in disruptive behavior or threatening behavior may be directed by the faculty member to leave the classroom or by the college official responsible for administration of the Student Conduct Code to leave the college premises. If the student refuses to leave after being requested to do so, college safety may be summoned. For involuntary removal from more than one class period, the faculty member should invoke the procedures prescribed in the Student Conduct Code.

#### C. Conduct - rules and regulations

Any student found to have committed the following misconduct is subject to the disciplinary sanctions outlined in Article IV:

1. Acts of dishonesty, including but not limited to the following:
  - a. Furnishing false information to any college official, or office.
  - b. Forgery, alteration or misuse of any college document, record or instrument of identification.
  - c. Tampering with the election of any college-recognized student organization.
2. 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 disci-

plinary 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.

3. Physical abuse, verbal abuse, threats, intimidation, harassment, coercion and/or conduct which threatens or endangers the health or safety of any person and/or disruptive behavior as defined in article II.B. Above.
4. 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.
5. 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.
6. Unauthorized possession, duplication or use of keys to any college premises, or unauthorized entry to or use of college premises.
7. 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.
8. Violation of federal, state or local law.
9. Use, possession, manufacturing or distribution of illegal or other controlled substances except as expressly permitted by law.
10. Illegal use, possession, manufacturing or distribution of alcoholic beverages or public intoxication.
11. 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.
12. 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.



13. Obstruction of the free flow of pedestrian or vehicular traffic on college premises or at college sponsored or supervised functions.
14. 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.
15. Attempted or actual theft or other abuse of technology facilities or resources, including but not limited to:
  - a. Unauthorized entry into a file, to use, read or change the contents or for any other purpose
  - b. Unauthorized transfer of a file
  - c. Unauthorized use of another individual's identification and/or password
  - d. Use of technology facilities or resources to interfere with the work of another student, faculty member or college official
  - e. Use of technology facilities or resources to send obscene or abusive messages
  - f. Use of technology facilities or resources to interfere with normal operation of the college technology system or network
  - g. Use of technology facilities or resources in violation of copyright laws
  - h. Any violation of the District's technology resource standards
  - i. Use of technology facilities or resources to illegally download files
16. Abuse of the student conduct system, including but not limited to:
  - a. Falsification, distortion or misrepresentation of information before a Student Conduct Board.
  - b. Disruption or interference with the orderly conduct of a Student Conduct Board proceeding.
  - c. Invoking a Student Conduct Code proceeding with malicious intent or under false pretenses.
  - d. Attempting to discourage an individual's proper participation in, or use of, the Student Conduct system
  - e. 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
  - f. 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
  - g. Failure to comply with the sanctions imposed under this Student Conduct Code
  - h. Influence or attempting to influence another person to commit an abuse of the Student Conduct Code system
  - i. 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.
17. Engaging in irresponsible social conduct.
18. Attempt to bribe a college or District employee.
19. 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.

#### **D. Violation of Law and College Discipline**

1. 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.

2. 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**

##### **A. Charges and Student Conduct Board Hearings**

1. 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.
2. The Student Conduct Administrator may conduct an investigation to determine if the charges have merit and/or if they can be disposed of administratively by mutual consent of the parties involved on a basis acceptable to the Student Conduct Administrator. Such disposition shall be final and there shall be no subsequent proceedings. If the charges are not admitted and/or cannot be disposed of by mutual consent, the Student Conduct Administrator may later serve in the same matter as the Student Conduct Board or a member thereof.

If the student admits violating institutional rules, but sanctions are not agreed to, subsequent process, including a hearing if necessary, shall be limited to determining the appropriate sanction(s).

3. All charges shall be presented to the accused student in written form. A time shall be set for a Student Conduct Board hearing, not less than five (5) nor more than fifteen (15) days after the student has been notified. Maximum time limits for scheduling of Student Conduct Board hearings may be extended at the discretion of the Student Conduct Administrator.

4. Hearings shall be conducted by a Student Conduct Board according to the following guidelines, except as provided by Article IV A.7 below:
  - a. Student Conduct Board hearings normally shall be conducted in private.
  - b. 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.
  - c. 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.
  - d. The complainant and the accused shall have the right to be assisted by any advisor they choose, at their own expense. The advisor must be a member of the college community and may not be an attorney. Both the complainant and the accused are responsible for presenting their own information and, therefore, advisors are not permitted to speak or participate directly in any Student Conduct Board hearing before a Student Conduct Board.
  - e. The complainant, the accused student, and the Student Conduct Board may arrange for witnesses to present pertinent information to the Student Conduct Board. The college will try to arrange the attendance of possible witnesses who are members of the college community, if reasonably possible, and who are identified by the complainant and/or accused student at least two days prior to the Student Conduct Board hearing.

Witnesses will provide information to and answer questions from the Student Conduct Board. Questions may be suggested by the accused student and/or complainant to be answered by each other or by other witnesses. This will be conducted by the Student Conduct Board with such questions directed to the chairperson, rather than to the witness directly. This method is used to preserve the educational tone of the hearing and to avoid creation of an adversarial environment. Questions of whether poten-

tial information will be received shall be resolved in the discretion of the chairperson of the Student Conduct Board.

- f. Pertinent records, exhibits, and written statements may be accepted as information for consideration by a Student Conduct Board at the discretion of the chairperson.
  - g. All procedural questions are subject to the final decision of the chairperson of the Student Conduct Board.
  - h. 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.
  - i. 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.
5. 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.
  6. 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.
  7. 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.

#### B. Sanctions

1. The following sanctions may be imposed upon any student found to have violated the Student Conduct Code:
  - a. Warning - a written notice to the student that the student is violating or has violated institutional rules or regulations.

- b. Probation - a written reprimand for violation of specified rules or regulations. Probation is for a designated period of time and includes the probability of more severe disciplinary sanctions if the student is found to violate any institutional rules or regulation(s) during the probationary period.
  - c. Loss of Privileges - denial of specified privileges for a designated period of time.
  - d. Restitution - compensation for loss, damage or injury. This may take the form of appropriate service and/or monetary or material replacement.
  - e. 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).
  - f. 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 re-admission may be specified.
  - g. College Expulsion - permanent separation of the student from all the colleges in the District.
2. More than one of the sanctions listed above may be imposed for any single violation.
  3. 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.

4. The following sanctions may be imposed upon groups or organizations:
  - a. Those sanctions listed above in Section B 1. a through d.

- b. Loss of selected rights and privileges for a specified period of time.
  - c. Deactivation -loss of all privileges, including college recognition for a designated period of time.
5. In each case in which a Student Conduct Board determines that a student and/or group or organization has violated the Student Conduct Code, the sanction(s) shall be determined and imposed by the Student Conduct Administrator. In cases in which persons other than, or in addition to, the Student Conduct Administrator have been authorized to serve as the Student Conduct Board, the recommendation of the Student Conduct Board shall be considered by the Student Conduct Administrator in determining and imposing sanctions. The Student Conduct Administrator is not limited to sanctions recommended by members of the Student Conduct Board. Following the Student Conduct Board hearing, the Student Conduct Board and the Student Conduct Administrator shall advise the accused student, group and/or organization (and a complaining student who believes s/he was the victim of another student's conduct) in writing of its determination and of the sanction(s) imposed, if any.

#### C. Emergency Suspension

If a student's actions pose an immediate threat or danger to any member of the college community or the educational processes, a college official responsible for administering the Student Conduct Code may immediately suspend or alter the rights of a student pending a Student Conduct Board hearing. Scheduling the hearing shall not preclude resolution of the matter through mediation or any other dispute resolution process. The decision will be based on whether the continued presence of the student on the college campus reasonably poses a threat to the physical or emotional condition and well-being of any individual, including the student, or for reasons relating to the safety and welfare of any college property, or any college function.

In imposing an emergency suspension, the college official responsible for administration of the Student Conduct Code may direct that the student immediately leave the college premises and may further direct the student not to return until contacted by that official. An accused student shall be in violation of this policy regardless of whether the person who is the object of the threat observes or receives it, as long as a reasonable person would interpret the communication, conduct or gesture as a serious expression of intent to harm.

#### D. Appeals

1. 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.
2. 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:
  - a. 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.
  - b. 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.
  - c. 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.
  - d. 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.
3. If an appeal is upheld by the appellate board, the matter shall be returned to the original Student Conduct Board and Student Conduct Administrator for reopening of the Student Conduct Board hearing to allow reconsideration of the original determination and/or sanction(s). If an appeal is not upheld, the matter shall be considered final and binding upon all concerned.



**Article V: Interpretation and Revision**

Any question of interpretation regarding the Student Conduct Code shall be referred to the college official responsible for administration of the Student Conduct Code for final determination.

**STUDENT RECORDS (2.5.3)****A. Definitions**

For the purposes of this policy, the Maricopa County Community College District has used the following definition of terms.

1. College - includes all colleges, educational centers, skill centers and District office.
2. Educational Records - 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:
  - a. 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
  - b. An employment record of an individual whose employment is not contingent on the fact that s/he is a student, provided the record is used only in relation to the individual's employment
  - c. 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
  - d. 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

**B. Annual Notification**

Students will be notified of their further rights annually by publication in the college catalog and/or the student handbook:

**Rights of Access to Educational Records**

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. These rights are:

1. The right to inspect and review the student's education records within 45 days of the day the college receives a request for access.

Students should submit to the college admissions and records department written requests that identify the record(s) they wish to inspect. The college official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the college official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

2. The right to request the amendment of the student's education records that the student believes to be inaccurate or misleading.

Students may ask the college to amend a record that they believe is inaccurate or misleading. They should write the college official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading.

If the college decides not to amend the record as requested by the student, the college will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment.

Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent.

One exception, which permits disclosure without consent, is disclosure to school officials with legitimate educational interests. A school official is defined as a person employed by the college or District in an administrative, supervisory, academic, or support staff position (including law enforcement unit and health staff); a person or company with whom the college or District has contracted (such as an attorney, auditor, or collection agent); a person serving on the Governing Board; or a person assisting another school official in performing his or her tasks.

A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

Upon request, the college discloses education records without consent to officials of another school in which a student seeks or intends to enroll.

4. The right to file a complaint with the US Department of Education concerning alleged failures by the college to comply with the requirements of FERPA.



The name and address of the Office that administers FERPA is:

Family Policy Compliance Office  
US Department of Education  
400 Maryland Ave., S.W.  
Washington, DC 20202-4605

**C. 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.

**D. Use of Educational Records for Advisement Purposes**

All colleges within the Maricopa Community Colleges have access to the computerized degree audit program. During the advisement process, each student may have his or her academic record reviewed for coursework taken at any of the District's colleges or centers.

The institution retains the right to exercise discretion in determining the release of directory information.

**E. Disclosure to Parents**

In accordance with federal law, college officials may disclose educational records to parents of minors or to parents of a student who have established the student's status as a dependent according to the Internal Revenue Code of 1986, section 152, without the written consent of the student.



## MCCCD GOVERNING BOARD

**Donald Campbell, Ph.D., President**

Years of Service 1983-2012

**Collen Clark, Secretary**

Years of Service 2007-2012

**Scott Crowley**

Years of Service 2004-2008

**Linda Rosenthal,**

Years of Service 1980-2008

**Jerry D Walker**

Years of Service 2005-2010



## MCCCD ADMINISTRATION

**Rufus Glasper, Ph.D.**

*Chancellor*

**Albert Crusoe, M.A.**

*Vice Chancellor of Human Resources and Administration*

**Steven Helfgot, Ed.D.**

*Vice-Chancellor -Resource Development & Community Relations  
President & CEO, Maricopa Community Colleges Foundation*

**Maria Harper-Marinick, Ph.D.**

*Vice Chancellor for Academic Affairs*

**Darrel Huish, M.P.A.**

*Information Technology Services*

**Debra Thompson, M.P.A.**

*Vice Chancellor of Business Services*



## EMCC ADMINISTRATION

### SENIOR MANAGEMENT

**Lara, Ernest**

*President*

A.A., Glendale Community College; B.A., M.A., M.C., Ph.D., Arizona State University.  
*email: ernie.lara@emcmail.maricopa.edu*

**Goodman, Clay**

*Vice-President of Occupational Education*

B.S., Arizona State University; M.A., University of North Colorado.  
*email: clay.goodman@emcmail.maricopa.edu*

**Kushibab, Debbie**

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## GLOSSARY OF TERMS

### **Add/Drop Period**

A period of time before classes begin when schedule changes are made. A penalty may be charged for changes made after the start of classes.

### **Admission**

Acceptance into a college after the student has filed a completed Student Information Form with the Admissions and Records Office and has been admitted according to admissions criteria. Students who have been admitted are eligible to register for courses.

### **Advisor**

A counselor, faculty, or other designated staff member who has received training to provide students with academic information that will direct them to the appropriate classes to achieve their goals and enhance their success.

### **AGEC**

A 35-semester-credit general education program of study that fulfills lower-division general education requirements for students planning to transfer to any Arizona public community college or university and transfers as a block without loss of credit.

### **Assessment**

Also known as placement or Assessment of Skills for Successful Entry and Transfer (ASSET) testing. Assessment is a way of evaluating students' present skills in English, reading and math so students may choose courses that match their skills. Assessment is based on scores on the ASSET course placement tests. Scores are used as a guide for proper course placement, which leads to greater success.

### **Associate Degree**

Degree awarded by community colleges after a student completes a specified number of course requirements and credit hours, generally a minimum of 60 semester credits. May be an Associate in Arts (AA), Associate in Transfer Partnership (ATP), Associate in Business (ABus) or Associate in Science (AS) designed primarily for transfer to complete a baccalaureate degree; an Associate in Applied Science (AAS), designed primarily to enhance workplace skills and knowledge; or an Associate in General Studies (AGS), designed to fulfill students' goals of higher education.

### **Associate in Transfer Partnership (ATP)**

The Associate in Transfer Partnership (ATP) is designed for students transferring to public and private colleges and universities. This degree is specifically developed for students who have an identified major and have selected the baccalaureate degree granting institution to which they intend to transfer.

### **Audit**

An option for class registration in which the student pays to attend class but does not want to receive credit. Students sometimes choose to audit courses in which they do not wish to complete required assignments.

### **Bachelor's Degree**


A degree awarded by a four-year college or university. Generally requires completion of 120 semester credits. Also referred to as a baccalaureate degree (e.g., BA or BS).

### **College Orientation**

A session during which new students are introduced to academic programs, facilities, and services provided by a college.

### **Commencement**

Also known as graduation. A ceremony during which colleges award certificates of completion and degrees to graduating students.



**Continuous Enrollment**

The process of registering for and completing courses during consecutive semesters, which may include summer sessions. Determines catalog year for graduation.

**Corequisite**

Specified conditions, requirements, or courses that must be completed at the same time as another course.

**Counselor**

A professionally trained staff member who helps students with educational, career, or personal concerns.

**Course**

A specific subject studied within a limited period of time, such as a semester, and taught by a faculty member. Also called course offering or class.

**Course Fee**

A charge for services, supplies, and/or materials for a course, in addition to tuition and registration fees for the course.

**Course Number**

A three-digit code that identifies a specific course and indicates its level and sequence (e.g., 101 in ENG 101).

**Course Prefix**

A three-letter code that identifies the subject area of a course (e.g., ENG in ENG101 indicating a course in English).

**Course Title**

The name of a specific course that indicates subject and content (e.g., Freshman English, title for English 101).

**Credit Hour**

The numerical unit of college credits earned for the satisfactory completion of a specific course. Also referred to as semester hours or units (e.g., 3 credit hours).

**Curriculum**

A planned sequence of courses aimed at an academic or occupational goal; also referred to as a program of study.

**Customer**

One that purchases and/or consumes a product or service; defining and meeting customer needs drives the development of any successful product or service.

**Division**

A group of faculty who teach classes in related subjects, such as Communication, English, and Social Science in the Liberal Arts Division.

**Electives**

Non-required courses that students may select to complete their program of study.

**Extracurricular Activities**

Also known as co-curricular. Activities, clubs, or organizations students may participate in above and beyond their academic courses.

**Faculty**

Instructors.

**Final Exams**

Tests or exercises given at the end of a term that are often comprehensive; that is, they may include all material covered during the semester. The schedule of final exam dates and times for each term is included in the Schedule of Classes.

**Fiscal Office**

Also known as the Cashier's Office. Students may pay tuition and fees, course fees, and other encumbrances owed the college at the Fiscal Office.

**Grade Point**

The numerical value of grade multiplied by the credit hours for a course (A=4 points; B=3 points; C=2 points; D=1 point). If, for example, a student earns an A in English 101 (3 credit hours), then the student earns 12 points:  $A=4 \text{ points} \times 3 \text{ (credit hours)} = 12 \text{ points}$ .

**Grade Point Average**

Generally called GPA, grade point average is determined by dividing the total number of grade points earned by the total number of credit hours attempted. For example, 45 grade points divided by 15 credit hours earned = 3.0 GPA.

**Load**

Also called academic load. The total number of credit hours taken in a term. Twelve credit hours is considered a full-time load.

**Lower Division**

Normally freshman- and sophomore-level (100 and 200) courses offered by a college. Community colleges offer ONLY lower division courses. Four-year institutions offer lower division courses and upper division courses, which are junior-level and senior-level (300 and 400) courses.

**Major**

An area of concentrated study often for a specific degree or occupation, such as English, nursing, or engineering.

**Official Absence**

Absence from class approved by the Dean of Student Services for students who are participants in an official college activity. Students must present approved absence documentation to their instructors before the official absence and make arrangements to complete the work they will miss.

**Pass/Fail**

An option for class registration in which students choose to receive a grade of Pass or Fail in lieu of a letter grade (A, B, C, D, F). Students can earn credits towards graduation by passing these courses but the grades will not count in their GPAs. It is best to check with an advisor to make sure that Pass/Fail grades will transfer to another college or university.

**Period**

Time spent in class and/or lab each week. One period is equivalent to 50 minutes per week for a one-credit course that meets during a 16-week semester.

**Placement Test**

See assessment.

**Prerequisite**

Specified conditions, requirements, or classes that must be completed before enrolling in a class. For example, ENG102 has a prerequisite of ENG101.

**Probation**

A warning that a student is not in good academic standing. May be accompanied by restricted credit hour enrollment.

**Recess**

Holidays and the periods of time between academic semesters when classes are not in session.

**Registration**

Actual enrollment of a student into specific courses after the student has been admitted to the college and has received academic advisement.

**Required Course**

A course that a student must complete to meet certain goals or to complete a certain curriculum.

**Schedule of Classes**

A college publication that lists all courses offered during a semester, including dates and times of class meetings, names of instructors, buildings and rooms, credit hours, and other important registration information.

**Scholastic Suspension**

Not being allowed to enroll in the college for one semester. This is caused by not maintaining the minimum required GPA for two consecutive semesters.

**Section Number**

A four-digit code used to identify each class section of each course offered. Each class has a different section number. Section numbers are listed in the Schedule of Classes.

**Semester**

Traditionally half an academic year, 16 weeks in length. Fall semester begins in August and spring semester begins in January.

**Service Learning**

Combines community service with classroom instruction, focusing on critical thinking, value clarification and social responsibility. The key components of Service Learning are linkage to course competencies or objectives, a relevant experience and a meaningful contribution to the community.

**Service Strategy**

A distinctive formula for delivering service that clearly states a customer benefit that is valuable to the customer and that establishes an effective competitive position.

**Subject Codes**

See Course Prefix and Course Number.

**Syllabus**

One or more pages of course requirements that instructors give to students on the first day of class. The syllabus may include detailed information about a course, such as an instructor's grading system, attendance policies, and testing and assignment dates.

**Transcript**

An official record of a student's college coursework that is maintained by the college registrar. Courses taken, grades, GPA, and graduation information are included on a transcript.

**Transfer Credit**

Course credit that is accepted from or by another college or university to meet requirements in a major or as general education.

**Trial Schedule**

A form on which students list their course selections in order to determine which combination of courses and class times works best during a particular term.

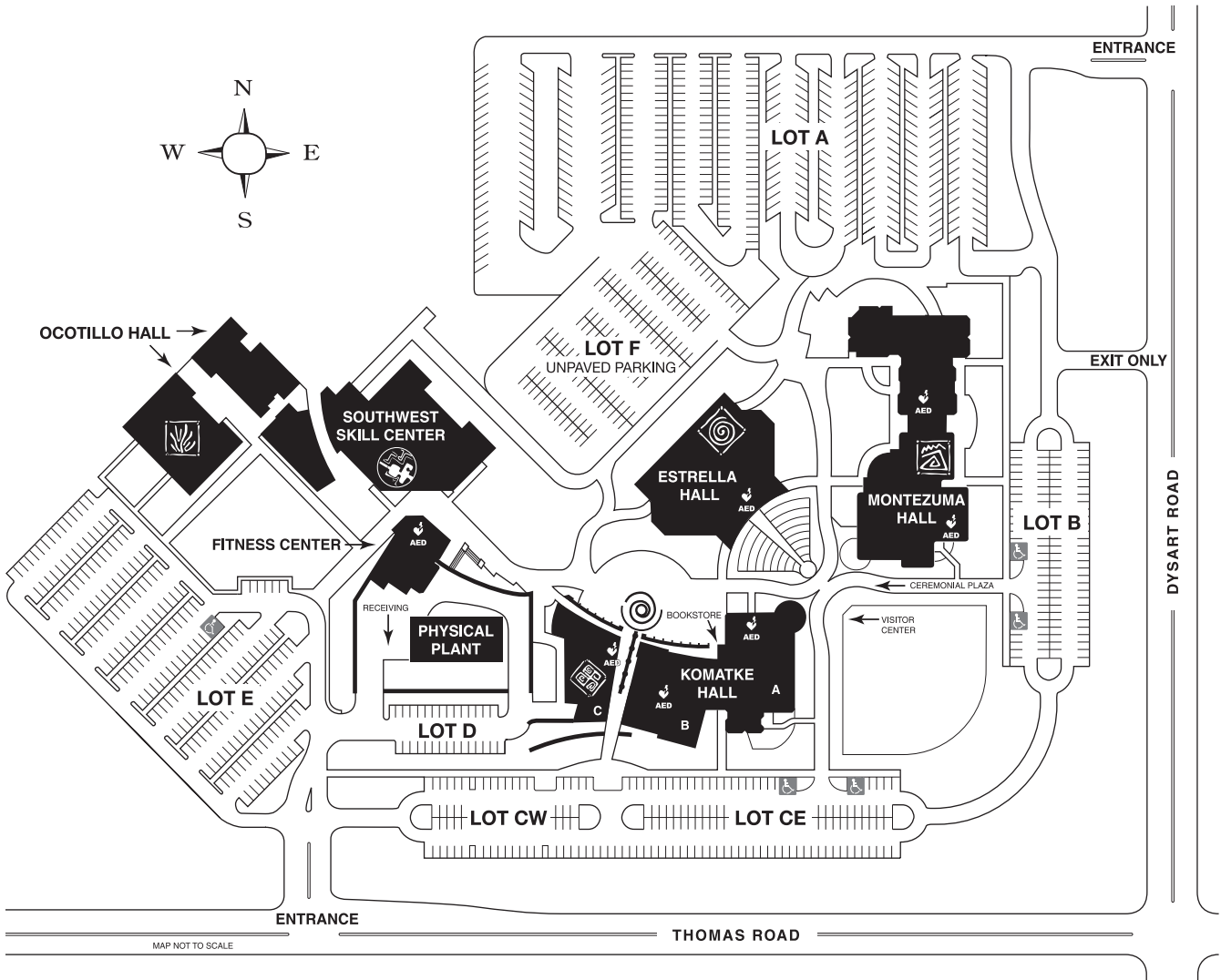
**Tuition and Fees**

The cost per semester credit unit that students must pay for their college courses. Tuition and fees are determined by the Maricopa County Community College Governing Board.

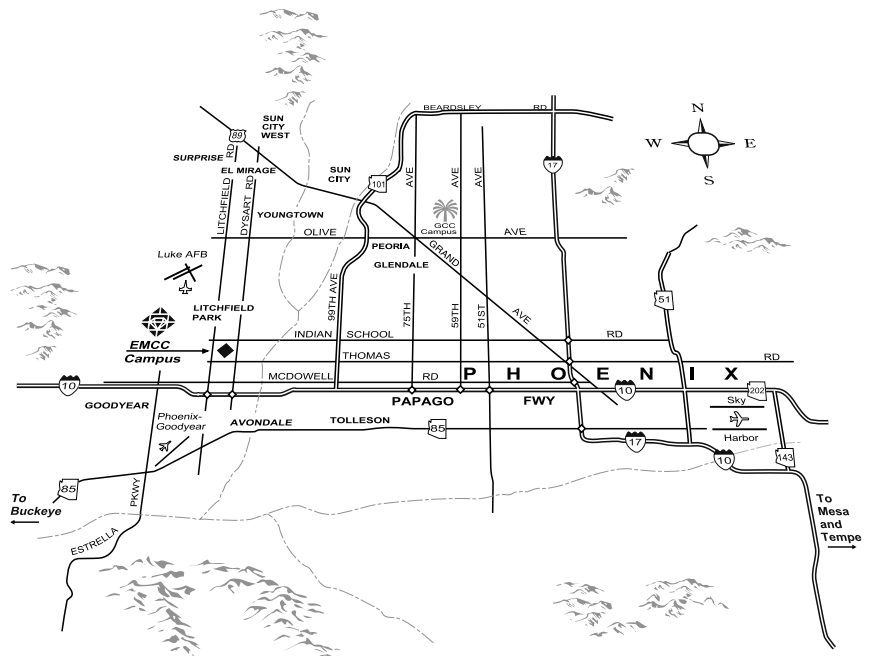
**Withdrawal**

Officially dropping any or all courses during a semester. Students withdrawing from one or more courses must notify the Admissions and Records Office in writing and request that they be officially withdrawn. Refunds are based on the refund schedule set forth in the catalog. After a specified date, students must have instructor approval before withdrawing from a course.

# THE ESTRELLA MOUNTAIN CAMPUS



*Estrella Mountain Community College is conveniently located one mile north of Interstate 10 (exit #129) on Dysart Road in Avondale. There is ample parking for day, evening and weekend sessions.*







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## ACADEMIC CALENDAR

### SUMMER 2008

First 5-Week Day and 8-Week Evening Sessions Begin .....	June 2
First 5-Week Day Session Ends .....	July 2
Second 5-Week Day Session Begins .....	July 7
Independence Day Observed .....	July 3
8-Week Evening Session Ends .....	July 24
Second 5-Week Day Session Ends .....	August 7

### FALL 2008

Registration .....	March 24 - August 22
Classes Begin .....	August 23
Late Registration .....	August 23- August 29
Labor Day Observed .....	September 1
Last Day for Withdrawal without Instructor Signature .....	October 3
Veteran's Day Observed .....	November 11
Thanksgiving Break .....	November 27-30
Last Day Withdrawal Accepted .....	December 1
Final Exams .....	December 15-18
Mid-Year Recess Begins .....	December 19

### SPRING 2009

Registration .....	To Be Announced
Classes Begin .....	January 17
Observance of M.L. King Birthday .....	January 19
Late Registration .....	To Be Announced
President's Day Observed .....	February 16
Last Day for Withdrawal without Instructor Signature .....	March 6
Spring Break .....	March 16-22
Last Day Withdrawal Accepted .....	April 27
Final Exams .....	May 11-14
Commencement .....	May 15