

CHANDLER-GILBERT COMMUNITY COLLEGE



**Catalog & Student Handbook**

2004-05

# 2004-2005 Academic Calendar

## Fall Semester - 2004

*Registration		*
Classes Begin	Saturday	August 21
Labor Day Recess	Monday	September 6
Apply for December 2004 Graduation On or Before	Friday	October 15
Last Day for Withdrawal without Instructor's Signature	Friday	October 8
Veteran's Day Recess	Thursday	November 11
Thanksgiving Recess	Thursday-Sunday	Nov. 25 - 28
Last Day Student Initiated Withdrawal Accepted	Monday	November 29
Last of Day Regular Classes	Sunday	December 12
Final Exams	Friday-Thursday	December 10 - 16
Mid-Year Recess Begins (Students)	Friday	December 17
Fall Semester Ends	Friday	December 17

## Spring Semester - 2005

*Registration		*
Classes Begin	Saturday	January 15
Martin Luther King, Jr. Birthday Recess	Monday	January 17
President's Day Recess	Monday	February 21
Apply for May 2005 Graduation On or Before	Friday	March 4
Last Day for Withdrawal without Instructor's Signature	Friday	March 4
Spring Recess	Monday-Sunday	March 14 - 20
Last Day Student Initiated Withdrawal Accepted	Monday	April 25
Last Day of Regular Classes	Sunday	May 8
Final Exams	Friday-Thursday	May 6 - 12
Commencement	Friday	May 13
Spring Semester Ends	Friday	May 13

## Summer Semester - 2005

*Note: Subject to Fall 2005 Catalog*

*Registration		*
Memorial Day Recess	Monday	May 30
First 5-Week and 8-Week Session Begins	Tuesday	May 31
First 5-Week Session Ends	Thursday	June 30
Independence Day Recess	Monday	July 4
Second 5-Week Session Begins	Tuesday	July 5
8-Week Session Ends	Thursday	July 21
Second 5-Week Session Ends	Thursday	August 4

\* For specific information concerning registration dates, class start dates, and final exam dates, consult the Class Schedule.

# Welcome to Chandler-Gilbert Community College



**President Maria L. Hesse**

Welcome to Chandler-Gilbert Community College, now serving more than 13,000 students in the southeast metro Phoenix area. We are honored that you have chosen us as the place to pursue your higher education. We're committed to do everything we can to help you succeed.

This catalog is a valuable resource for you. Use it often to familiarize yourself with programs and classes, college policies, activities and services at our three campus locations—Pecos, Williams, and Sun Lakes.

Our college continues to experience phenomenal growth, mirroring our service area. It's a challenge to keep up with the educational needs of citizens in Chandler, Gilbert, Queen Creek and other southeast valley communities, but it's a challenge we relish. No matter how fast we grow together in the southeast valley, there are elements of the college that will remain constant—our commitment to students and their success, our dedication to quality teaching and learning experiences, and our willingness to be responsive to the needs of our local communities.

I invite you to take advantage of all CGCC has to offer to you in the pursuit of your educational goals and life dreams.

Sincerely,

Maria L. Hesse

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# GENERAL INFORMATION



2004-05



# Chandler-Gilbert Community College

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Courses, programs, and requirements described in this catalog may be suspended, deleted, restricted, supplemented, or changed in any other manner at any time at the sole discretion of the college and the Maricopa Community College District Governing Board. This catalog does not establish a contractual relationship but summarizes total requirements that the student must presently meet before qualifying for a faculty recommendation to the Governing Board to award a degree or certificate.

The Maricopa Community College District reserves the right to change, without notice, any of the materials—information, requirements, regulations—published in the catalog.

Chandler-Gilbert Community College (CGCC) is accredited by The Higher Learning Commission and is a member of the North Central Association, 30 North LaSalle Street, Suite 2400, Chicago, Illinois 60602-2504; (800) 621-7440.

## CGCC Vision

Chandler-Gilbert Community College strives to be a dynamic learning community reflecting collaboration, diversity, and student success through quality, enthusiastic teaching, learning, and serving.

## CGCC Mission Statement

Chandler-Gilbert Community College serves students and its diverse communities by providing quality lifelong learning opportunities in a learner-centered environment through effective, accessible educational programs and activities.

We fulfill this mission as an institution of higher education through:

- University Transfer Education
- General Education
- Developmental Education
- Workforce Development
- Academic Support Services
- Student Support Services
- Continuing Education
- Community Education

## CGCC Strategic Goals

1. Provide quality educational programs, services and resources for the citizens of Chandler, Gilbert, Queen Creek, Higley, and the surrounding communities.
2. Offer developmental courses that will empower students to succeed in pursuing higher educational opportunities.
3. Support our community's economic development by providing educational programs to meet the specialized needs of business, industry, and the community.
4. Enable the institution to respond to the changing needs of today's educational programs, by providing technology for instruction and operations.



5. Enhance student success by providing quality student and academic support services.
6. Promote community service and student development opportunities.
7. Foster activities and programs that promote the understanding, appreciation and acceptance of diversity.
8. Serve as a community resource for social and cultural interaction.
6. To provide coordination with secondary and postsecondary schools, and business and industry;
7. To provide delivery of instructional services through alternative systems which prepare students to function in an increasingly technological and informational-based society; and
8. To develop and implement a comprehensive staff development program to educate the staff in student development philosophy and practices.

## Student Development Philosophy

The goal of Chandler-Gilbert Community College is to assure student success. Success is defined as the accomplishment of, or the continued opportunity to accomplish, students' individual goals. The success of our students will be determined not only by their acquisition of knowledge and skills, but also by their personal growth and development. This would include intellectual development, multicultural awareness, aesthetic appreciation, physical wellness, emotional well-being, community responsibility, and values clarification.

Chandler-Gilbert Community College will provide the environment in which students can identify and pursue their goals. The following general institutional practices are necessary to insure student success:

1. To provide programs that assure student competence in specified academic and skill areas;
2. To provide a full range and schedule of services to permit students to benefit from college programs;
3. To provide simplified and clearly defined processes for admitting students, monitoring their progress and maintaining accurate academic records;
4. To provide activities that encourage students to effectively interrelate with others in their college and communities;
5. To provide opportunities for the development of self-esteem, personal identity, independence and self-direction;

Chandler-Gilbert Community College will assist students in initiating their own paths to success. The college recognizes that all students are unique and capable adults, responsible for directing their own development throughout life, and that the major responsibility for a student's development rests with the student. All faculty, administrators and staff members of CGCC will support and contribute to the implementation of this student development philosophy.

## Instructional Philosophy

At Chandler-Gilbert Community College, the goal is to provide quality educational courses and programs to help students reach whatever their goals may be—transferring to a university program, entering the job market, seeking a promotion, or exploring a personal interest.

CGCC teachers use a variety of learning strategies. They use collaborative learning activities, perform classroom research, involve students in service learning experiences, and form learning communities. As often as possible, students are involved in seeing, doing, solving, discussing and reflecting, rather than just listening to an instructor lecture about a subject.

Instructors focus on development of critical thinking and other skills that will serve students well in their professional and personal lives. The student learning and outcomes assessment program helps gauge progress in regard to developing skills in these areas, as well as in writing, mathematics, speaking, computer literacy, and other areas.

Development of a sense of social responsibility and community engagement is another area of emphasis. CGCC's service learning program and learning communities have received national recognition by the League of Innovation, the American Association of Higher Education, the American Association of Community Colleges, and other prominent organizations for their effectiveness in increasing student connections to one another, to the faculty, and to their communities.

Beyond offering classes at convenient times, in a variety of formats, and at a reasonable cost to the student, CGCC has the added goal of providing an experience that will have lifelong worth. There is a serious institutional commitment to make students' college years a transforming experience by engaging them actively in the subjects they are studying.

### Collaborative Learning

In collaborative learning, faculty facilitate small groups of students who work together to optimize their own and each other's learning. When students interact with each other and become active rather than passive learners, their achievement as well as their cognitive and social development improves. The challenge for faculty is to inspire and motivate students toward the common purpose of maximizing each other's learning.

### Service Learning

Service learning combines community service with academic instruction, focusing on critical thinking and problem solving, values clarification, social and personal development, and civic and community responsibility. Classes engaged in service learning provide meaningful services to the community while making the curriculum more relevant to students' lives.

When designing a service learning component for a course, faculty are careful to include a clear connection between the service and the course objectives, a structured assignment that includes a reflection component, and a meaningful contribution to the community. The extent of the service experience will vary based upon the degree to which the service connects with the course objectives.

### Learning Communities

Sometimes called "block" courses, "linked" courses or "interdisciplinary" studies, two or more classes are connected through content, ideas, or activities. Often these courses are team-taught by college faculty.

In a learning community, students learn with the same group of peers for more than one class period. Not only does this format help students form friendships and support each other, but it also allows students to feel more comfortable contributing to each other's learning as they explore topics for longer periods of time. Actively learning together, the class can examine ideas from multiple perspectives. Seeking connections between the subjects in a learning community often carries over into other classes and into life. Additionally, assignments for the two or more courses are coordinated, which deepens learning. To further enhance learning, field trips, service learning, and guest speakers are often used, extending the classroom into the community.

### Classroom Research

Classroom research encourages college faculty to become more systematic and sensitive observers of learning as it takes place. Assessment instruments are created, administered, and analyzed by the teachers themselves. Students and teachers are involved in the continuous monitoring of student learning. This process helps students reflect on what they have learned and how they have learned it, while providing faculty with continuous feedback about their effectiveness as teachers.

### Student Learning and Outcomes Assessment

Assessment of student learning at Chandler-Gilbert Community College (CGCC) is continuously undertaken to monitor and improve the degree to which students are meeting college level competencies. The assessment process engages residential and adjunct faculty in the systematic collection and examination of student academic achievement data and in the interpretation of results, which leads to reflection and review of teaching practices and recommended changes in academic programs, staff development and strategic planning. The purpose of assessment is to improve teaching and learning. The faculty and programs at CGCC are dedicated to effective teaching and successful learning with emphasis in the following areas: reading, speaking, listening, writing, mathematics, science, computer application skills, humanities, problem-solving, information literacy, critical thinking, and personal development.

Students participate in formal and informal assessment activities that will help faculty improve instructional programs and teaching strategies. Assessments of student learning are taken at five different levels to impact learning at CGCC: 1. Individual classroom level, 2. Course level, 3. Program level, 4. Division level, and 5. College level.

## History of the College

In 1978, the Long Range Master Plan for Maricopa County Community College District, 1978-2000, recommended a new campus site for the East Valley in the Chandler-Gilbert service area. The plan designated Mesa, Phoenix, and Glendale Community Colleges as Regional Campuses to be expanded to a capacity of 5,000 day Full-Time Student Equivalents (FTSE). Mesa Community College (MCC) reached and surpassed that number. All other campuses (Scottsdale, South Mountain, Maricopa Tech) would be designated as "area" campuses. Tadlock Associates (TAI), who developed the Master Plan, recommended that new area campuses be developed in south Mesa, Litchfield/Goodyear, and north Phoenix. The District completed the south Mesa (Chandler-Gilbert) and north Phoenix (Paradise Valley) site acquisitions early in 1981.

The new campus would be opened as an extension of Mesa Community College until an application for independent accreditation would be completed. In 1984, MCC Dean of Students Arnette Scott Ward was selected as the founding provost of the new educational center.

An 80-acre Chandler site was purchased at the corner of Gilbert and Pecos Roads in 1981. In 1983, leaders in the Chandler and Gilbert communities formed the Southeast Valley Task Force to support the new campus, and a successful bond election in 1984 provided funds to begin construction of the new campus.

In May, 1985, the Chandler-Gilbert Education Center Master Plan Proposal was submitted to the MCC President and later approved by the Maricopa Community College District Governing Board. The proposal was designed by the Provost and two Assistant Provosts of the Chandler-Gilbert Education Center in consultation with the Southeast Valley Task Force. The proposal included curricular recommendations, program groupings and permanent facilities proposals. Also central to the proposal were these institutional purposes:

1. To create a caring community and student-centered educational environment;
2. To provide a challenging, creative environment through modern architecture, educational programming and technology;
3. To keep the community informed and involved in the programs and services of the educational center;
4. To recruit students not normally attracted to college and provide a developmental program and curriculum to meet the variety of needs presented;
5. To encourage student development of goals; to assist with student development of personal, academic and career plans, and to monitor and support their achievement;
6. To provide a system and an environment that encourages student success;
7. To provide students with excellence in teaching and access to learning resources, including hardware and software;
8. To provide a quality academic program leading to associate and baccalaureate degrees;
9. To provide state-of-the-art career training in vocational and technical areas, in response to community needs, and leading to certificates, associate and baccalaureate degrees;
10. To meet the training needs of the high technology industries;
11. To accommodate adult, lifelong educational needs for personal and career development through classes, flexible scheduling, and convenient means for accessing information;
12. To provide service programs of interest to community groups;
13. To provide efficient and timely information and management services for students and the community, using computer systems and telecommunications networks;
14. To provide a comprehensive program of co-curricular activities;
15. To inspire student achievement of excellence in their chosen field and vocational activities.

These purpose statements were the framework for the development of the first CGCC mission statement. These purposes are demonstrated throughout the college from the building design to the curriculum.

Chandler-Gilbert Community College Center opened in 1985 as an extension of Mesa Community College in remodeled facilities of the former Seton High School in central Chandler. This was 10 years ahead of schedule, based on projections in the 1978 Long Range Master Plan for Maricopa County Community College District. The new campus, located at the corner of Gilbert and Pecos Roads, was completed for the fall 1987 semester. In the 1991-92 academic year, the college center completed an institutional self-study required for independent accreditation status. Successful fulfillment of the self-study process resulted in the college center being granted accreditation by the North Central Association on February 28, 1992.

Funded with bond proceeds approved by Maricopa County voters in November of 1994 for Maricopa Community College District capital improvements, CGCC received \$31 million in allocations to expand the college. This phase of construction totaled more than \$18 million for new building space with another \$10 million in technology, voice, video and data connections. Two large academic buildings and an enhanced physical plant added over 141,000 square feet in facilities to the Pecos Campus's 75,000 square feet. Other funded projects in the bond were additional land on the Pecos Campus, the opening of the Sun Lakes Education Center, and improvements to the Williams Campus. The final phase of construction at the Pecos Campus included a Student Center and a new Performing Arts Center.

The closing of the Williams Air Force Base in Mesa opened new opportunities for CGCC. The Williams Air Force Base Economic Reuse Plan (August, 1992) provided initial direction for the establishment of a consortium-based campus, com-

prised of a variety of educational institutions, which would jointly develop and utilize a wide array of education, research and training facilities as well as take advantage of its close proximity to the new Williams Gateway Airport. The Williams Education, Research, and Training Campus Master Plan was initiated in May, 1994, to define and plan for a 753 acre, multi-institutional campus at the former Air Force Base. CGCC has a strong educational partnership with ASU East as well as the University of North Dakota Aerospace. Aviation flight and aviation maintenance classes began Spring 1995; general studies classes began Fall 1996.

Sun Lakes Education Center partnered with Chandler Regional Hospital to provide health and education services to the greater Sun Lakes community. Passage of the general obligation bond in November, 1994, provided \$500,000 for the development and construction of a 5,000 square feet education center in the Sun Lakes/Sun Bird communities. Sun Lakes Education Center, planned as a college extension to serve the retirement community of Sun Lakes, is located on the northeast corner of the Alma School and Riggs Roads in Chandler/Sun Lakes. Non-credit classes began in the Fall 1995 and credit classes began Fall 1997.

After 17 years of leading Chandler-Gilbert Community College, founding President Arnette Scott Ward retired in July, 2002. President Ward's retirement marks the end of the birth and development of CGCC and welcomes the new era as the college continues to grow into a full comprehensive community college. Former Dean of Instruction Maria Hesse became CGCC's second President in July, 2002.

Chandler-Gilbert Community College is part of the Maricopa County Community College District, a large, urban, college system comprised of 10 colleges, some with multiple campuses, two skill centers, and a district office.

# One College ~ Three Campuses

## Pecos Campus

2626 East Pecos Road  
Chandler, AZ 85225-2499  
(480) 732-7000

The Pecos Campus of CGCC is located on Pecos Road between Cooper and Gilbert Roads in Chandler. The more than 242,000 square feet of facilities is home to numerous associate degree, university transfer, general studies, occupational, and special interest courses and programs.

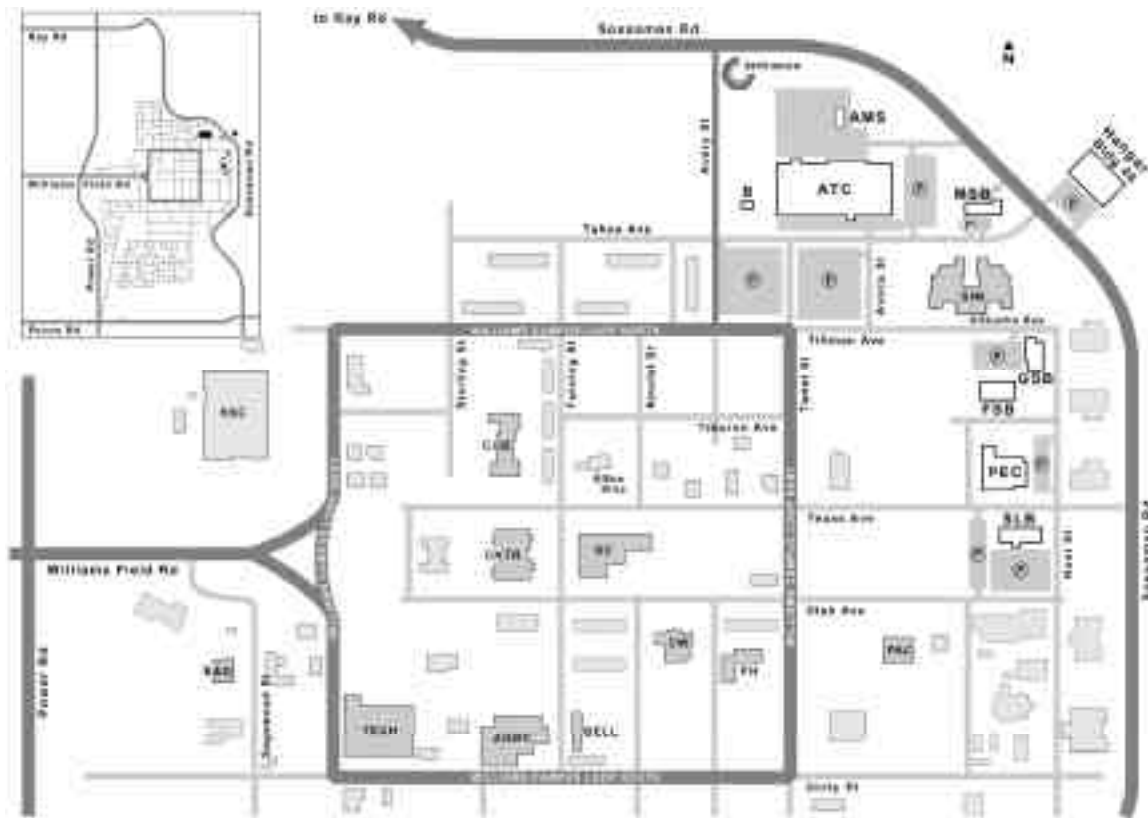
ACE Program	SC
Administration Offices	B, L, SC
Admissions, Records, and Registration	A
Advisement Center	A
Assessment/Testing Center	A
Athletic Offices	SC
Cafeteria/Food Services	A
Career & Placement Services	SC
Cashier/Fiscal Offices	A
Computer Lab	B
Classrooms	A, B, C, L, PAC, S, SC
College Safety Offices	Ms
Copy Services	B
Special Services	SC
Continuing Education Offices	B
Facilities Services	MN
Faculty Commons	C
Faculty Offices	B, C, E, PAC, W
Financial Aid/Veterans Services	A
Fitness Center	A
Information Center/Switchboard	B
International Student Services	SC
Learning Assistance Center/Tutoring	L
Library	L
Marketing & Public Relations	B
Math & Science Tutoring	L
Media Services	L
NAU Office-Undergraduate Programs	SC
Occupational Education Offices	L
San Tan Academy	H
Student Center	SC
Student Life Offices	SC
Teaching and Learning Center	L
Technical Support Services	L
Testing/Assessment Center	A
Tutoring/Learning Assistance Center	L
Veterans/Financial Aid Services	A
Writing Center	L



# Williams Campus

7360 East Tahoe Avenue  
 Mesa, AZ 85212-0908  
 (480) 988-8000

The Williams Campus of CGCC is located at Williams Gateway Airport on Power Road between Ray and Williams Field roads. Administrative offices are located in the Aviation and Technology Center (ATC), and are easily accessible by taking the Ray Road extension east of Power Road. The campus is a partnership among several institutions, anchored by CGCC and Arizona State University East. A complete Student Services office is also located at Williams, as well as student housing.



Admission & Registration	ATC	Fitness Center	PEC
Advisement Center	ATC	Gymnasium	PEC
Assessment, Orientation & Recruitment	ATC	Information	ATC
Aviation Division Offices	ATC	Learning Center	CNTR
Bookstore	SC	Library	CNTR
Campus Union Building	CUB	Mailroom	ATC
Career and Placement Services	ATC	Physical Activity Center	PAC
Classrooms	AMS, ATC, GSB, PEC, SLB	Science Division Offices	ATC
College Safety Offices	ATC	Student Services Offices	ATC
Computer Commons	CNTR	Technical Support Services	ATC
Facilities Services	ATC	Tutoring Services	CNTR
Faculty Offices	ATC, GSB, SLB, Hanger	University of North Dakota Offices	Hanger
Financial Aid/Veterans Services	ATC	Williams Campus Housing	Bell Hall
Fiscal/Cashier Office	ATC		

## Sun Lakes Education Center

25105 South Alma School Road  
Sun Lakes, AZ 85248-7158  
(480) 857-5500

The Sun Lakes Education Center of CGCC is located at the northeast corner of Alma School and Riggs roads in Sun Lakes. The Center offers a variety of credit and non-credit special interest courses, such as computer classes, and is designed to serve the life-long learning needs of a mature adult population in the Southeast Valley.



## Community Partnerships

The college and the community are interrelated in many ways. College personnel and students are very involved in the community and serve on a variety of committees and boards to plan for the future. Participation in local civic, governmental, business, professional, and service organizations and activities abounds. College representatives participate in local city and chamber of commerce planning processes, including the Chandler Tomorrow Conference and Gilbert Today. Students are involved in service-learning projects in the community. Many opportunities exist for staff and students to become more involved in community service.

Likewise, community members are involved in Chandler-Gilbert Community College (CGCC) committees and planning. College facilities and services, including the Library, classrooms, meeting space, Computer Lab, and Fitness Center, are used by community groups.

## Affiliations and Associations

### Commission on Accreditation for Dietetics Education

The Dietetic Technology Program is developmentally accredited by the Commission on Accreditation for Dietetics Education (CADE) of the American Dietetic Association. Upon successful completion of the program, the graduate will be eligible to take the CADE Registration Examination in order to become a Dietetic Technician, Registered (DTR).

### Federal Aviation Administration

The Aircraft Maintenance Technology Programs, designed to prepare students for licensure as certified airframe and powerplant (A&P) mechanics, are certified by the Federal Aviation Administration (FAA), Part 147.

The Aircraft Flight Technology Programs, designed to prepare students to apply technical knowledge and skills to prepare them for Commercial Pilot Certificate with Single Engine Airplane Land Rating and Instrument Rating, and the Multiengine Rating, through a partnership with the UND Aerospace Foundation, are certified by the FAA, Part 141.

All aviation programs are housed in the Aviation and Technology Center at the Williams Campus, 7360 East Tahoe Avenue, Mesa, AZ 85212-0908.

### Maricopa County Community College District

In 1962, the citizens of Maricopa County voted to establish a college district. Phoenix College, which was founded in 1920 as part of the Phoenix Union High School District, became the first college in the new Maricopa County Community College District in 1963.

On July 1, 1965, the Governing Board created Mesa Community College on 160 acres at Dobson Road and Southern Avenue in Mesa. At the same time, the Governing Board combined the Camelback and Glendale extensions of Phoenix College to establish Glendale Community College on 160 acres at 6000 West Olive Avenue in Glendale. By 1981, Mesa Community College had become the largest college in the District.

The Maricopa Skill Center opened in 1964 and the other community colleges soon followed: GateWay opened as Maricopa Tech in 1967; Scottsdale in 1970; Rio Salado, "the college without walls," in 1978; South Mountain in 1979; Paradise Valley and Chandler-Gilbert in 1985; and Estrella Mountain in 1990.

### Maricopa Colleges Foundation

The Maricopa Colleges Foundation is a private, non-profit Arizona corporation established in 1977 to supplement the financial needs of the Maricopa Community Colleges. The Foundation is a qualified 501 (c) (3) organization in accordance with federal regulations. A volunteer board of directors assists in the acquisition and management of funds and/or property derived from bequests, corporate contributions, foundation grants, endowments, memorials, and annual individual giving. These funds provide for needs not met by public funds and tuition revenue. For more information, contact the Maricopa Community College District Development Office at (480) 731-8400.

### Higher Learning Commission, North Central Association

Chandler-Gilbert Community College is accredited by The Higher Learning Commission and is a member of the North Central Association, 30 North LaSalle Street, Suite 2400, Chicago, Illinois 60602-2504; (800) 621-7440.



## Advisory Councils

Advisory groups have proven invaluable in directing the college's future. The President's Community Advisory Council and Occupational Program Advisory Councils have provided input into educational program development and improvement of the college.

### Occupational Program Advisory Councils

Occupational Program Advisory Councils provide assistance to several CGCC academic divisions by providing advice in the design of programs to prepare students for employment as well as transfer into four-year college degree programs. Other activities include projecting labor market demands, recommending learning activities, obtaining equipment and donations, and identifying job-specific skills and knowledge that are consistent with the needs of local business and industry.

- Administration of Justice Studies Advisory Council
- Automated Manufacturing Systems Advisory Council
- Aviation Advisory Council
- Business Advisory Council
- Computer Graphic Design Advisory Council
- Crime and Intelligence Analysis Advisory Council
- Developmental Disabilities Advisory Council
- Dietetic Technology Advisory Council
- Electric Utility Advisory Council
- Information Technology Institute Advisory Council
- Microcomputer Applications Advisory Council

Contact the Senior Associate Dean of Occupational Education at (480) 732-7016 for more information.

### Achievement in Mathematics, Engineering, and Science Student Advisory Committee

CGCC and local school districts have formed an Achievement in Mathematics, Engineering, and Science (AIMES) Student Advisory Committee "to improve the quality of, participation in and coordination of the programs and services for under-represented populations in math and science education." Acting as a steering committee for the AIMES program, the advisory committee has identified activities such as staff development, student tracking, program articulation, student recruitment, joint planning, information exchange, and coordination of programs and calendars. Call the AIMES Coordinator (480) 732-7157 for more information.

### President's Community Advisory Council

Community involvement has been a cornerstone of CGCC since before the college offered its first class. The evolution of ideas and visions that became the CGCC philosophy of education and community service are the result of continuous dialogue with business, industry, and community leaders. In 1983, leaders in Chandler and Gilbert formed the Southeast Valley Task Force to support the new campus, and a successful bond election in 1984 provided funds to begin construction of CGCC. Members of that original task force and other community, education, and business leaders formed the initial President's Community Advisory Council (PCAC).

Over 40 members of the Council continue to meet on a regular basis with CGCC administration, faculty, and staff to assist the college in identifying needs and establishing programs. Contact the President's Office at (480) 732-7010 for more information.

### Sun Lakes Advisory Council

The Sun Lakes Advisory Council was formed in February of 1995 to provide groundwork for the development of the Sun Lakes Education Center. Council membership is comprised of residents from the Sun Lakes communities and employees of CGCC including administrators, faculty, and staff. The Council meets during the academic year. Call (480) 857-5500 for more information.

## Educational Partnerships

CGCC participates in a number of special partnerships and collaborative projects to serve our students and the community.

### Achievement in Mathematics, Engineering, and Science

The Achievement in Mathematics, Engineering, and Science (AIMES) program is designed to increase opportunities for under-represented populations in math, engineering, science, and technology. Students enter the program by taking the AIMES class and science and math courses at Gilbert, Highland, Mesquite, and Hamilton high schools. Students are provided with career awareness, advisement, training, and enrichment activities designed to enable them to acquire the academic background needed to major in math, engineering, science, or technology-related fields. College scholarships to CGCC are provided for qualified students. For more information on the AIMES program, call the AIMES Coordinator at (480) 732-7157.

### Achieving a College Education Plus

The CGCC Achieving a College Education (ACE) Plus program is a scholarship-based, early-outreach college preparation program for high school students. The program reaches out to students who are members of an underrepresented group, financially disadvantaged, first-generation college students, and those who may come from a one-parent household. The Plus part of the program stands for Program for Learning Universal Skills and focuses on academic skills in the areas of English, reading, and mathematics. Call (480) 732-7205 for more information about ACE Plus.

### Arizona State University East

CGCC and Arizona State University (ASU) East have transformed the fact of co-location at the Williams Campus into the reality of co-operation through an innovative student-centered Partnership in Baccalaureate Education. The Partnership takes community college/university articulation to the next level, integrating the strengths of the two institutions and creating a wholly new option in baccalaureate education for students from Arizona and around the world. Williams Campus students may be jointly admitted to ASU East and CGCC. ASU East is offering baccalaureate degree programs in technology, agribusiness, elementary education, business administration, technical communication,

nutrition, exercise science, and applied psychology. CGCC is providing the lower division general studies, general interest, and prerequisite courses that complete and enrich the baccalaureate programs. ASU East and CGCC faculty are working together to plan and coordinate curriculum and scheduling. The cooperation in curriculum extends to virtually every other functional area of the two institutions: library, computer center, classrooms, general facilities, housing, bookstore, food service, recreation, student life, financial aid, advising, registration, class schedule, campus security, and campus maintenance. Through the Partnership, students can complete entire baccalaureate programs at the Williams Campus, either as commuter or residential students, as if it were a single institution.

The Partnership in Baccalaureate Education at the Williams Campus provides an innovative and powerful model for the development of new campuses nationwide to meet the growing need for comprehensive post secondary programs and a broader range of points of entry than universities or community colleges have been able to provide separately. For more information about the Partnership in Baccalaureate Education, call the Dean of Instruction at (480) 732-7012.

### Chandler Regional Hospital

CGCC had the opportunity to partner with Chandler Regional Hospital (East Valley Regional Health System, also known as Catholic Healthcare West) to collaborate in the development of the Sun Lakes Health Center campus, a 9.5 acre parcel located on the northeast corner of Riggs and Alma School Roads, and includes the CGCC Sun Lakes Education Center (SLEC). SLEC is a facility developed for the primary purpose of providing credit and non-credit classes to meet the needs of senior adults and became fully operational in the fall of 1997. For more information, call the Director of SLEC at (480) 857-5505.

### East Valley Think Tank

The East Valley Think Tank, a consortium of educational institutions representing students from kindergarten through the postgraduate level, was created to develop collaborative educational projects to serve students in the East Valley. Think Tank members are CGCC, Mesa Community College, Arizona State University East, and school districts in Chandler, Gilbert, Mesa, Tempe, Queen Creek, Higley, Kyrene, and Apache Junction. Contact the President's Office at (480) 732-7010 for more information.

### Intel Corporation

Intel has designated CGCC as a partner school. This partnership has resulted in CGCC receiving significant monetary donations and equipment in support of the Automated Manufacturing Systems (AMS) program. Additionally, Intel has provided scholarship and internship opportunities for AMS students. CGCC's partnership with Intel has resulted in greatly enhanced learning opportunities for students.

### San Tan Academy

In 1989 Chandler Unified School District and Chandler-Gilbert Community College created a partnership to support the needs of at-risk students in grades 9 through 12.

The San Tan Academy is an alternative high school located on the CGCC campus serving the needs of at-risk high school students. The Chandler School District provides the instructor for this program. Students can earn Chandler High School diplomas or General Equivalency Diplomas (GED). Students can also take college classes as part of their programs.

Call (480) 732-7118 for admission or general program information.

### UND Aerospace Foundation

CGCC and the UND Aerospace Foundation have partnered to establish a joint flight training program at the Williams Campus. The UND Aerospace program is an internationally recognized leader in aviation education. CGCC's partnership with UND Aerospace presents a tremendous opportunity for students desiring a career in aviation flight.

## Community Events

CGCC has established a number of annual events and activities open to students and the community. Some of these include Into the Streets, Adopt-A-Family, the Spring Noche de Fiesta Dance, Alcohol and Drug Awareness Week, Black History Month, the Generations Prom, Wellness Week, Library Week, Cultural Awareness Week, and Cinco de Mayo.

## School and Community Relations

CGCC works closely with local public, private, and charter schools as well as a variety of community agencies to provide information and presentations about CGCC.

Enrollment services are provided to all school-age students who request assistance with admissions, recruitment, advisement, assessment, and orientation. Call the CGCC Recruitment Office at (480) 732-7318 or the Dean of Students Office at (480) 732-7322 for assistance.

## Maricopa Community Colleges

### **Chandler-Gilbert Community College**

2626 East Pecos Road  
Chandler, AZ 85225-2499  
(480) 732-7000

### **Estrella Mountain Community College**

3000 North Dysart Road  
Avondale, AZ 85323-1000  
(623) 935-8000

### **Gateway Community College**

108 North 40th Street  
Phoenix, AZ 85034-1795  
(602) 286-8000

### **Glendale Community College**

6000 West Olive Avenue  
Glendale, AZ 85302-3090  
(623) 845-3000

### **Mesa Community College**

1833 West Southern Avenue  
Mesa, AZ 85202-4868  
(480) 461-7000

### **Paradise Valley Community College**

18401 North 32nd Street  
Phoenix, AZ 85032-1200  
(602) 787-6500

### **Phoenix College**

1202 West Thomas Road  
Phoenix, AZ 85013-4234  
(602) 285-7800

### **Rio Salado College**

2323 West 14th Street  
Tempe, AZ 85281-6950  
(480) 517-8000

### **Scottsdale Community College**

9000 East Chaparral Road  
Scottsdale, AZ 85256-2626  
(480) 423-6000

### **South Mountain Community College**

7050 South 24th Street  
Phoenix, AZ 85042-5806  
(602) 243-8000

### **District Support Services Center**

2411 West 14th Street  
Tempe, AZ 85281-6942  
(480) 731-8000

# MARICOPA COMMUNITY COLLEGE POLICIES

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2004-05



# Maricopa County Community College District

The following are Administrative Regulations used in managing the day-to-day operations of the Maricopa County Community College District (MCCCD). Administrative Regulations are amended, adopted or deleted as necessary and are subject to a formal approval process. Administrative Regulations are referenced as "AR" followed by a regulation number, which corresponds with the regulations on the MCCCD web site - [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 employee because of race, color, religion, gender, sexual orientation, national origin, age, disability, or veteran status. Additionally, it is the policy of the Maricopa Community Colleges to provide an environment for each job applicant and employee that is free from sexual harassment, as well as harassment and intimidation on account of an individual's race, color, religion, gender, sexual orientation, national origin, age, disability, or veteran status.

## Affirmative Action Statements

### 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, disci-

pline (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 conformation with the Vietnam Era Veterans Readjustment Assistance Act of 1974, the Veterans Employment Opportunities Act of 1998, and the implementing regulations, 41 CFR 60-250(k), Maricopa County Community College District will not discriminate, or tolerate discrimination, against any applicant or employee because he or she is a special disabled veteran or Vietnam era veteran in regard to any position for which the known applicant or employee is qualified. Maricopa agrees to take affirmative action to employ, advance in employment, and otherwise treat known qualified special disabled veterans and Vietnam era veterans without discrimination based upon their disability or veteran status in all human resources section and decision practices, such as the following: advertising, benefits, compensation, discipline (including probation, suspension, and/or termination for cause or layoff), employee facilities, performance evaluation, recruitment, social/recreational programs, and training. Maricopa will continue to administer these practices without regard to race, color, religion, gender, sexual orientation, national origin, age, disability, or veteran status. Additionally, Maricopa agrees to post all suitable job openings at the local office of the State employment service where the job opening occurs. This includes full-time, temporary greater than 3 days' duration, and part-time employment. Finally, all applicants, employees are protected from coercion, intimidation, interference, or discrimination for filing a complaint or assisting in an investigation under the Act.

## **Notice of Americans with Disabilities Act (ADA)/Section 504 of the Rehabilitation Act/Title IX Coordinator**

ADA/504/Title IX Coordinator, Disability Resources and Services, Chandler-Gilbert Community College, 2626 East Pecos Road, Chandler, AZ, 85225-2499; (480)732-7309. 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 ningún aplicante o empleado debido a su desabilidad/incapacitación física o mental referente a cualquier posición para la cuál el aplicante o empleado ha calificado. Maricopa promete tomar acción afirmativa para emplear, dar ascenso en empleo y tratar a dichos individuos con incapacidades sin hacer incapie en sus incapacidades físicas o mentales en la selección de recursos humanos y prácticas decisivas como son las siguientes: anuncios, ben-

eficios, 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 estas 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 desabilidad/incapacitación especial referente a cualquier posición la cual dicho aplicante o empleado califique. Maricopa promete aplicar acción afirmativa para emplear, ascender en empleo y tratar a dichos veteranos incapacitados y de la Era Vietnamita que califiquen sin discriminar base a su desabilidad/incapacitación o condición de veterano en todas las áreas de recursos humanos y decisiones como son las siguientes: anuncios, beneficios, compensación, disciplina (incluyendo período de prueba, suspensión, y/o despido por causa o paro forzoso), facilidades para empleados, evaluación de trabajo, reclutamiento, programas sociales/recreacionales y entrenamiento. Maricopa continuará llevando a cabo estas prácticas sin discriminar por razones de raza, color, religión, sexo, orientación sexual, 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

ADA/504/Coordinador del Título IX, Disability Resources and Services, Chandler-Gilbert Community College, 2626 East Pecos Road, Chandler, AZ, 85225-2499; (480)732-7309. 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.

## Vision

The Maricopa Community Colleges strive 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.

## Mission

The Maricopa Community Colleges create and continuously improve affordable, accessible, effective and safe learning environments for the lifelong educational needs of the diverse communities we serve.

Our colleges fulfill this mission through university transfer education, general education, developmental education, workforce development, student development services, continuing education and community education

## Values

We adhere to the philosophy that education thrives in a community bound by moral and ethical values and devotion to lifelong learning. We accept the responsibility to respond to the needs of the people in our communities who desire to fulfill their potential in life. Therefore, we operate on the basis of openness and trust, to nurture an environment where all can be heard.

We commit to living according to the following basic values which are vital to maintaining the integrity and vitality of our community of learners.

### Value Education

We value lifelong learning opportunities that respond to the needs of our communities and are accessible, affordable and of the highest quality.

### Value Students

We value students as the primary reason we exist. We respect their diverse life experiences, value their achievements, and appreciate their contributions to our learning community.

### Value Employees

We value all our residential faculty, adjunct faculty, administration, professional support staff, and crafts, and maintenance and operations personnel, respect their diverse life experiences, appreciate their contributions to our learning community, and encourage their individual professional development.

### Value Excellence

We invite innovation, support creative problem-solving, and encourage risk-taking. We value teamwork, cooperation and collaboration as part of our continuous improvement efforts.

### Value Diversity

We celebrate the diversity of our communities and pledge to promote and recognize the strengths as reflected in our employees and students. We believe no one is more important than another, each is important in a unique way, and we depend on each other to accomplish our mission.

Value Honesty and Integrity

We believe academic and personal honesty and integrity are essential elements in our learning environment. Employees and students must speak and act truthfully.

Value Freedom

To foster our learning environment, we respect individual rights and the privacy of our employees and students, and encourage dialogue and the free exchange of views.

Value Fairness

We advocate fairness and just treatment for all students and employees.

Value Responsibility

We believe employees are accountable for their personal and professional actions as they carry out their assignments. We are all responsible for making our learning experiences significant and meaningful. We are accountable to our communities for the efficient and effective use of resources.

Value Public Trust

We honor the trust placed in us by the community to prepare our students for their role as productive world citizens.

## General Regulation (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

## 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 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 18 years of age or older 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 achieves the following test scores:
  - a. Scholastic Aptitude Test (SAT) composite (verbal and math)
    - SAT I - 930 or more, or
    - SAT II - 500 or more, or an
  - b. American College Test (ACT) composite of 22 or more.
2. 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 the test scores specified in paragraph 1, subparagraphs a or b of this subsection.

3. A student admitted under this subsection is not guaranteed admission to a specific degree program or to all courses offered by the community college.
4. A community college may limit the number of credit hours in which the student may enroll to no fewer than six (6) credit hours.

### C. Admission of Students in Special Status

Students not meeting any of the provisions stated above may be admitted on an individual basis with the approval of college officials, so long as the students meet the established requirements of the courses for which they enroll and the college officials determine that such admission is in the best interest of the students.

The status of "Special Admissions" may be granted to a student who:

1. Is beyond the age of compulsory high school attendance and has met the established requirements for the courses for which he or she plans to enroll based on the college assessment examinations, or
2. Is under the age of 18 and has taken the appropriate college assessment tests in order to demonstrate the knowledge of the necessary academic skill level to benefit from the course. Departments may have additional requirements to register for a course. (Signature of parent or guardian is required for students under 18), or
3. Is a participant in a special program sponsored by the admitting college.

The colleges reserve the right to enroll students in courses. The final decision for admission to any class for students admitted under "special" status will be determined by the designated college administrator in consultation with the department chairperson.

**D. Specialized Vocational/Training Program**

If districts are granted authority for specialized curricula, local district boards shall adopt guidelines to determine admissibility of students for such programs.

**E. Western Undergraduate Exchange Program**

The Western Undergraduate Exchange (WUE) program is a student exchange program coordinated by the Western Interstate Commission for Higher Education (WICHE), and administered by the Arizona Board of Regents. Through WUE, students who reside in western states (Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming) and meet the eligibility requirements, pay 150 percent of the regular resident tuition plus fees. Students must mark prominently on the Student Information Form that they seek admission as WUE students. Students may not apply as out-of-state students and expect to receive the WUE tuition rate after admitted. Once admitted as WUE students, students may not petition for in-state residency. Further information may be obtained from the Office of Admissions and Records.

**F. 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 have the equivalent of a United States high school diploma. 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.) 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);
- 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 12 months to be:

Tuition and fees:	\$ 6,000 <sup>1</sup>
Living Expenses:	10,400 <sup>2</sup>
Books:	800 <sup>3</sup>
Health Insurance:	443 <sup>4</sup>
Total	\$17,643 <sup>5</sup>

Note: The estimates for the expenses of the dependents of F-1 students (spouse and dependent children) may vary from college to college depending on the cost of living in each community. Therefore, each college should set its own estimate for dependent's expenses. However, the cost of Maricopa health insurance (\$1382 per year for a spouse and \$782 per year for each dependent child) should be added to the general cost of living and personal expenses.

### 4. Health Insurance

All F-1 students who have an I-20 issued by one of the Maricopa Community Colleges must have an approved health insurance plan. The plan currently in use in the

Maricopa Community Colleges is administered by the Renaissance Agencies and underwritten by Guarantee Trust Life Insurance Company. For more information contact the college office of admissions and records or designated international student office.

## 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.

(1) Based on 2003-2004 tuition and fee schedule with enrollment in 28-32 credits.

(2) Based on estimated costs of apartment rental, utilities, local transportation, food, and entertainment.

(3) Based on average new and used textbook prices. Assumes books are sold at the end of the semester.

(4) Based on 2003-2004 insurance premium 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.

**D. Residency for Tuition Purposes (Appendix A)**

All students are classified for tuition purposes under one of the following residency classifications:

1. Maricopa County resident
2. Out-of-County resident
3. Out-of-State resident (including F-1 non-immigrant students)
4. Unclassified, Out-of-County, Out-of-State (1-6 credit hours system-wide)

Residency for tuition purposes is determined in accordance with state law (A.R.S. §15-1801 et. 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 association administration, the national guard, and 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 he or she 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:
1. His or her parent's domicile is in this state and his parent is allowed to claim him or her as an exemption for state and federal tax purposes.
  2. He or she is an employee of an employer which transferred him or her to this state for employment purposes or he or she is the spouse of such employee.
  3. He or she 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, he or she 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 his or her family is eligible for classification as an in-state student if he or she is eligible for classification as an in-state student pursuant to this paragraph.
- 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 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 shall be classified as an in-state student if the alien can establish that on or before the official starting date of the semester the alien meets one of the following situations:
    1. Has been domiciled in the state for at least one year immediately preceding the official starting date of the semester.
    2. Is domiciled in this state and:
      - a) The domicile of the alien's parent is in this state, and
      - b) The parent is entitled to claim the alien as an exemption for federal and state tax purposes.
    3. The alien is domiciled in this state and the alien is:
      - a) An employee of an employer which transferred the alien to this state for employment purposes, or
      - b) The spouse of such an employee.
    4. Qualifies as an in-state refugee student by virtue of having been granted refugee status in accordance with all applicable laws of the United States and having met all other requirements for domicile in this state.
- B. In establishing domicile, the alien must not hold a visa that prohibits establishing domicile in this state. After meeting other residency requirements, students holding valid, unexpired visas in the following categories may be classified as in-state students:
- A Foreign Government Official
  - E Treaty Trader
  - G Principal Resident Representative of Recognized Foreign Member Government to International Staff
  - K Fiancé or Child of Fiancé of U.S. Citizen
  - L Intracompany Transferee
  - N Parent or Child Accorded Special Immigrant Status
  - O Workers of "Extraordinary" Ability in Sciences, Arts, Education, Business, or Athletics
  - P "Internationally Recognized" Entertainers & Athletes, "Reciprocal Exchange" or "Culturally Unique" Artists & Entertainers
  - Q Cultural Exchange Visitors
  - V Spouses and Dependent Children of Lawful Permanent Residents
- I-688 Employment Authorization
- C. Students who hold visas as listed above, or who were issued a visa of a type other than those of the foregoing categories and have submitted an I-485 to Citizenship and Immigration Services (CIS) or have been out of status for at least one year, may establish domicile by complying with paragraphs A1, A2 or A3 above.
 

In the event a student who is not a United States citizen intends to establish domicile under paragraphs A.2.a. (dependent of parent — parent domiciled in Arizona), the student's parent, in order to establish domicile, must hold a valid, unexpired visa in one of the categories listed in paragraph B. above. To be eligible to establish domicile, the parent must

    1. hold a valid visa of a type as listed in paragraph B., or
    2. have never held a visa, or
    3. have been issued a visa of a type other than those of the foregoing categories but be out of status for at least one year.



- D. A person's status as an undocumented or illegal alien shall not preclude that person from being able to qualify as an in-state student on the same terms as other persons.
- E. 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.

### 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. Income tax report
    - b. Voter registration
    - c. Automobile registration
    - d. Driver's license
    - e. Place of graduation from high school
- 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. County voter registration
    - c. Source of financial support
    - d. Place of graduation from high school
    - e. Ownership of real property
    - f. Bank accounts
    - g. Other relevant information
- f. Source of financial support
- g. Dependency as indicated on federal income tax return
- h. Ownership of real property
- i. Notarized statement of landlord and/or employer
- j. Bank accounts
- k. Other relevant information

## Concurrent Enrollment in Arizona Public Institutions of Higher Education (A.R.S. §15-1807)

It is unlawful for any non-resident student to register concurrently in two or more public institutions of higher education in this state including any university, college or community college for a combined student credit hour enrollment of more than six (6) credit hours without payment of non-resident tuition at one of such institutions.

Any non-resident student desiring to enroll concurrently in two or more public institutions of higher education in this state including any university or community college for a combined total of more than six (6) credit hours who is not subject to non-resident tuition at any of such institutions shall pay the non-resident tuition at the institution of his choice in an amount equivalent to non-resident tuition at such institution for the combined total of credit hours for which the non-resident student is concurrently enrolled.

## Other Admission Information (AR 2.2.3)

### A. Veterans

By Arizona statute, any failing grades from any Arizona university or community college that were received prior to military service will not be used to determine admission to the community college for the honorably discharged veterans with two years' service in the Armed Forces of the United States. Students admitted or 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 G.)

### 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 participation in official athletic events, and for determination of academic standing and eligibility. 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 Assessment and Course Placement (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.

Students must be currently enrolled in a credit course at the college at which they apply for assessment of their prior learning. Exceptions may be granted at some MCCCDC colleges for specifically approved programs

Credit awarded for prior learning does not count as hours in residence for graduation requirements. Exceptions may be granted at some MCCCDC colleges for their unique programs of study. No more than 20 semester credit hours may be applied to AGECE. 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-collegiate sponsored training programs and recommends credit awards based on this evaluation.

The number of credits listed in the ACE guide are recommendations only. A college is not required to grant a student the number of credits recommended. The credits are included on a student's transcript.

##### 1. Educational Experiences in the Armed Services

The Maricopa Community Colleges may award credit for military experiences based on the ACE Guide to the Evaluation of Educational Experiences in the Armed Services. A student may receive college credit if:

- a. training parallels a discipline area offered through the Maricopa Community Colleges, and
- b. credit meets a program requirement or is used as elective credit.

Upon request, individuals who have successfully completed Basic Training, four (4) credit hours in Physical Education will be awarded as indicated in the ACE Guide and the Community College of the Air Force Catalog. Official documentation of military training is required.

##### 2. College Credit Recommendation Service (CREDIT)

ACE evaluates training programs offered by business, industry, and government and publishes its credit recommendations in The National Guide to Educational Credit for 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.

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. 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:**

<u>Exam</u>	<u>Score</u>
English-Language and Composition	4 or 5
<b><u>Credit Hours/Equivalency</u></b>	
6 credit hrs/ENG 101, ENG 100 AA, AC, AD eligible for Honors ENG 102	

<u>Exam</u>	<u>Score</u>
English-Literature and Composition	4 or 5
<b><u>Credit Hours/Equivalency</u></b>	
6 credit hrs/ENG 101 ENH 110 eligible for Honors ENG 102	

#### **Math AP Recommendation:**

<u>Exam</u>	<u>Score</u>
Math-Calculus AB	3, 4 or 5
<b><u>Credit for Course</u></b>	
MAT 220 or MAT 221	

<u>Exam</u>	<u>Score</u>
Math-Calculus BC	3
<b><u>Credit for Course</u></b>	
MAT 220 or MAT 221	

<u>Exam</u>	<u>Score</u>
Math-Calculus BC	4 or 5
<b><u>Credit for Course</u></b>	
MAT 220 or MAT 221, and MAT 230 or MAT 231 upon completion of MAT 241	

<u>Exam</u>	<u>Score</u>
Computer Science A and AB	4 or 5
<b><u>Credit for Course</u></b>	
CSC 100	

#### 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.

The Assessment Center at Rio Salado College is a national CLEP test site. For additional information on registering for CLEP examinations, call (480) 517-8560.

#### 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:

- to challenge a course a second time;
- to challenge a course while currently enrolled in the course;
- to establish credit in a previously completed course; and
- to establish credit for a lower level of a course in which credit has been received.

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.

## College Level Examination Program (CLEP) Table

Examination	MCCCD		
	General	Score	Sem. Hrs. / Equivalency
English Composition	500 on 1978 version	3	With essay qualifier for ENG 101
Humanities	500	6	Elective Credit
Mathematics	500	3	MAT122
Natural Sciences	500	8	Elective Credit*
Social Sciences & History	500	6	Elective Credit
Subject			
American Government	ACE Score	3	PO 110
American History - Early Colonization to 1877	ACE Score	3	HIS103
American History - 1865 to the Present	ACE Score	3	HIS104
American Literature	ACE Score	6	ENH241, 242
Analysis & Interpretation of Lit	ACE Score	3	Elective Credit
Calculus with Elem Functions	ACE Score	4	MAT221
College Algebra (1993) (replaces College Algebra (1979))	ACE Score	3	MAT152
College Algebra and Trigonometry	ACE Score	3	MAT152
College French	39-48	4	FRE101
College French	49-53	8	FRE101, 102
College French	54-62	12	FRE101, 102, 201
College French	63-80	16	FRE101, 102, 201, 202
College German	39-45	4	GER101
College German	46-50	8	GER101, 102
College German	51-59	12	GER101, 102, 201
College German	60-80	16	GER101, 102, 201, 202
College Spanish	40-49	4	SPA101
College Spanish	50-54	8	SPA101, 102
College Spanish	55-61	12	SPA101, 102, 201
College Spanish	62-80	16	SPA101, 102, 201, 202
English Literature	ACE Score	3	Elective Credit
Freshman College Composition (replaces College Composition & Freshman English)	ACE Score	3	With Essay ENG 101
General Biology	ACE Score	8	BIO Elective Credit*
General Chemistry	ACE Score	9	CHM Elective Credit*
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 Accounting	ACE Score	6	ACC Elective Credit
Introductory Business Law	ACE Score	3	GBS Elective Credit
Introductory Psychology	ACE Score	3	PSY101
Introductory Sociology	ACE Score	3	SOC101
Principles of Macroeconomics (replaces Introductory Macroeconomics)	ACE Score	3	ECN111
Principles to Management	ACE Score	3	MGT Elective Credit
Principles of Marketing	ACE Score	3	MKT271
Principles of Microeconomics (replaces Introductory Microeconomics)	ACE Score	3	ECN112
Trigonometry	ACE Score	3	MAT182
Western Civilization - Ancient Near East to 1648	ACE Score	6	HIS100, 101
Western Civilization - 1648 to the Present	ACE Score	3	HIS102

\*The general studies requirement in natural sciences (SQ & SG) and Literacy and Critical Inquiry (L) are not satisfied by CLEP.

## Advanced Placement Table

Examination	Score	MCCCD	Sem. Hrs.
Art - History	5 or 4	ARH101, 102	6
	3	ARH101 or 102	3
Art - Studio - Drawing	5	ART111, 112	6
	4	ART111	3
Art - Studio - General	5	ART111, 112	6
	4	ART112	3
Biology	5 or 4	BIO181, 182	8
	3	BIO100 or equivalent	4
Chemistry	5 or 4	CHM151/151LL & CHM152/152LL or CHM154/154LL	8 or 9
	3	CHM 151/151LL	4
Computer Science A	5 or 4	CSC100	3
Computer Science AB	5 or 4	CSC100	3
Economics - Introductory Macroeconomics	5 or 4	ECN111	3
Economics - Introductory Microeconomics	5 or 4	ECN112	3
English - Language & Composition	5 or 4	ENG100AA, AC, AD & ENG101	6
English - Literature & Composition	5 or 4	ENG101 & ENH110	6
Environmental Science	5 or 4	No credit	3
French - Language	5, 4, or 3	FRE101, 102, 201, 202	16
French - Literature	5, 4, or 3	FRE101, 102, 201, 202	16
German - Language	5, 4, or 3	GER101, 102, 201, 202	16
German - Literature	5, 4, or 3	GER101, 102, 201, 202	16
History - American	5 or 4	HIS103, 104	6
History - European	5 or 4	HIS101, 102	6
	3		3
Latin - Language	5	LAT101, 102, 201, 202	16
	4	LAT101, 102, 201	12
	3	LAT101, 102	8
Mathematics - Calculus AB	5, 4, or 3	MAT220 or MAT221	5
Mathematics - Calculus BC	5 or 4	MAT220 or MAT221 and MAT230 or MAT231 upon completion of MAT241	8 to 10
	3	MAT220 or MAT221	5
Music	5 or 4	MTC105	3
Physics B	5 or 4	PHY111, 112	8
	3	PHY111	4
Physics C - Electricity & Magnetism	5 or 4	PHY116 - with calculus and laboratory course work	5
Physics C - Electricity & Magnetism	5 or 4	PHY112 - with laboratory course work	4
Physics C - Mechanics	5	PHY115 - with calculus and laboratory course work	4
Physics C - Mechanics	5 or 4	PHY111 - with laboratory course work	4
Political Science - American Government	5 or 4	POS110	3
Political Science - Comparative Government and Politics	5 or 4	POS140	3
Psychology	5 or 4	PSY101	3
Spanish - Language	5, 4, or 3	SPA101, 102, 201, 202	16
Spanish - Literature	5, 4, or 3	SPA101, 102, 201, 202	16
Statistics	5, 4, or 3	MAT167	3

6. International Baccalaureate Diploma/Certificate

Students who present an International Baccalaureate Diploma/Certificate may qualify for college credit. Maricopa Community Colleges grant credit for college-level courses only. A grade of 5 qualifies a student to receive credit for one introductory course. No credit is awarded for English B (English as a Second Language). Credit is awarded according to the "International Baccalaureate Diploma/Certificate Credit" table.

Examination	Score	Sem. Hrs.	Equivalency
Art/Design	7, 6, or 5	6	ART111, 112
	4	3	ART112
Biology	7, 6, or 5	8	BIO181, 182
	4	4	BIO181
Chemistry	7, 6, or 5	9	CHEM151, 152
	4	4	CHEM151
Economics	7, 6, or 5	6	ECN111, 112
	4	3	ECN111
English A	7, 6, or 5	6	ENG101, ENG100&B, AC, AD
	4	3	ENG100&B, AC, AD
English B	No Credit		None
Foreign Language A or B*	7, 6, or 5	8	Foreign Lang 101, 102
	4	4	Foreign Lang 101
Histop - American	7, 6, or 5	6	HIS109, 104
	4	3	HIS109
Histop - European	7, 6, or 5	6	HIS101, 102
	4	3	HIS101
Mathematics	7, 6, 5, or 4	4	MAT221
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 health care 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. 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/ican1.htm>. 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:

- to challenge a course a second time;
- to challenge a course while currently enrolled in the course;
- to establish credit in a previously completed course; or
- 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" a grade and the number of credits will appear on the student's transcript. The grade is used in com-



puting the grade point average with the exception of courses graded P/Z.

#### 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 B)

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, AGEC-B, or AGEC-S) will transfer as a block and fulfill the requirements for the corresponding AGEC 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 (AGEC), 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. Maricopa's Associate degrees are accessible on the web at <http://www.dist.maricopa.edu/academic/curric/prginfo.html>. Click on Program/Sorting/Reporting.

#### 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 agree-

ments 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 below.

### 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://www.nau.edu/regis/transguide/info.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 Assessment and Course Placement (AR 2.2.7)

Two important concepts shape the student assessment and course placement policy. First, academic achievement is directly related to the quality and amount of academic assessment and proper course placement students receive before their enrollment and during their college experience. Second, the

Maricopa Community Colleges have a commitment to provide opportunities for a successful academic experience for students.

### A. Screening

The assessment and course placement process will begin with student screening to determine if a student should take an English, reading and math placement test (ASSET/COMPASS) or an alternate form of assessment.

In this initial screening process, all students registering for the first time will be asked to complete the college student information form. This information will be stored in the student information system.

### B. Course Placement Assessment

Students will be required to complete placement assessments under 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 placement assessments 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 is required to take a test of English proficiency.

Students will be strongly encouraged to complete placement assessments under 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.

Students MAY be exempt from the placement assessments if at least one of the following conditions apply:

- The student has earned an associate or higher degree.
- The student has earned college credits 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 demonstrates that s/he has currently valid district approved placement assessments on file.

Note: Being exempt from taking the ASSET/COMPASS for course placement does not exempt the student from fulfilling the graduation requirements.

#### C. Other Forms of Assessment

If seeking an exemption from taking the ASSET or COMPASS, other assessments will be used to determine appropriate course placement, such as:

- Evaluation of high school transcripts
- Evaluation of college transcripts
- Evaluation of course placement assessments on file at any of the Maricopa Community Colleges.

#### D. Course Placement

Students are strongly urged to enroll in the courses indicated by their placement tests. This 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 student receiving an assessment score within a designated "decision zone" must receive advisement to aid the student in selecting a course(s).

ASSET/COMPASS scores should be used only for course placement recommendations and not as an admissions criterion for any college program.

#### E. Waiver of Course Placement

If the student chooses to enroll in or remain in a course different than one recommended during assessment, the student will be asked to sign a waiver stating that he or she has received advisement and that the course selection is his or her decision, providing the student has met the pre-

requisites for the course. It will be noted on the student's records that he or she has signed a waiver and the waiver will be kept on file in the Office of Admissions and Records.

#### F. Implementation of Policy

To ensure consistency of assessment and student placement within the Maricopa Community Colleges:

- All colleges shall use the same assessment instruments.
- All colleges shall adhere to the same cut-off scores.
- The student shall be permitted no more than one re-test (after a 24-hour waiting period) per discipline each year (one year from date of student's original or re-test assessment at any ASSET/COMPASS assessment site).
- Assessment scores, with the exception of the reading exemption, will be valid for two years from the date of the original or re-test assessment.

Note: The dean of students 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.

#### G. Evaluation

The Maricopa Community Colleges will provide an ongoing evaluation of the assessment and 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, work-shops, 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 Admissions. Enrollment is not complete until tuition and fees are paid. 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 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. Enrollment is not complete until tuition and fees are paid.

### B. Tuition and Fees Schedule (Appendix D) (effective July 1, 2004 for Fall, Spring and Summer Sessions)

The following is a tuition and fees schedule for 2004-2005 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. **County Resident - Resident Rate**  
- per credit hour General Tuition: \$53.50  
plus Fees: \$1.50 . . . . . **\$55.00**
2. **County Resident - Audit Rate**  
- per credit hour Audit Fee Surcharge:  
\$25.00 plus General Tuition: \$53.50 plus  
Fees: \$1.50 . . . . . **\$80.00**
3. **Out-of-County Resident** (7 & more credit  
hours system-wide) - per credit hour Out-  
of-County Surcharge: \$165.00 (Applies  
only to counties with no community col-  
lege) plus General Tuition: \$53.50 plus  
Fees: \$1.50 . . . . . **\$220.00**
4. **Out-of-State Resident\*** (including F-1  
Non-immigrants - 7 & more credit hours  
system-wide) - per credit hour Out-of-State  
Surcharge: \$165.00 (approval pending)  
plus General Tuition: \$53.50 plus Fees:  
\$1.50 . . . . . **\$220.00**
5. **Unclassified Student - Out-of-State, Out-  
of-County\*** (less than 7 credit hours  
system-wide) - per credit hour Unclassified  
Student Surcharge: \$25.00 plus General  
Tuition: \$53.50 plus Fees: \$1.50 . . **\$80.00**
6. **Out-of-State students participating in  
Western Undergraduate Exchange  
Program\*** (any number of credit hours)  
- per credit hour WUE Out-of-State  
Surcharge: \$27.50 plus General Tuition:  
\$53.50 plus Fees: \$1.50 . . . . . **\$82.50**
7. **Courses offered out of Arizona, includ-  
ing distance learning, to non-resident  
out-of-state students\*\*** Total tuition per  
credit hour . . . . . **\$135.00**
8. **Corporate Tuition Rate - Out-of-State\***  
(any number of credit hours) for out-of-  
state employees of companies in training  
contracts with Maricopa - per credit hour  
Out-of-State Surcharge: \$76.00  
plus General Tuition: \$53.50  
plus Fees: \$1.50 . . . . . **\$131.00**
9. **Skill Center Tuition Rates**  
Hourly Tuition: . . . . . **\$4.10**
10. **Credit by Examination & Credit by  
Evaluation**  
- per credit hour - excludes HCIES  
courses  
Regular Rate: . . . . . **\$42.50**  
Contract Testing Rate: . . . . . **\$21.25**

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.

### Special Fees

**The following fees are in addition to applicable tuition and fees:**

Check Returned from Bank	.....\$15.00
Course Materials Fee	.....Actual cost
Distance Learning Fees	.....Actual cost
Excessive Laboratory Breakage	.....Actual cost
Field Studies	.....Actual cost
Field Trips & Out-of-County/ Country Tours	.....Actual cost
Fitness Center	.....20.00
GED - First Test	.....50.00
- Test repeat (per section)	.....10.00
General Laboratory & Course Fees	.....Actual to 25.00
Graduation Fees:	
Application/Recording/Issuance Fee (Degrees/Certificates - 25 or more credits) non refundable	.....5.00
Commencement Fee (One time fee refundable up to 2 weeks prior to graduation)	.....25.00
HCIES (Health Care Integrated Education System) Skills Demonstration Assessment Fee	.....Actual cost
Library Fines - lost materials	.....(List price) + 5.00

### Parking Fines:

**(All fines are doubled if not paid *within 15 working days*)**

- Displaying an altered or substituted permit	.....50.00
- Expired parking permit	.....15.00
- Failure to register a vehicle and display a parking permit	.....30.00
- Falsifying information on vehicle registration application	.....50.00
- Improperly displaying of permit (i.e., 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
- Pulling through or backing into an angled parking space	.....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	.....90.00
Non-Music Majors	
- First 1/2 hr per wk/per semester	.....280.00
- Each additional 1/2 hr per wk/per semester	.....280.00

Registration Processing Fee - credit classes only (per student/semester/college - refundable only if student qualifies for 100% refund - see refund schedule)	.....5.00
Transcript Fee	.....5.00

Students may incur expenses beyond the established fees in certain courses.

See class schedule for additional course fees.

### 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 outlined 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 1-9 calendar days in length or as specified by the college. Calendar days include weekdays and weekends. Refer to individual colleges for withdrawal and appeal processes.

**Length of Class    Official Withdrawal Deadlines for 100% Refund\***

1-9 calendar days	Prior to the class start date
10-19 calendar days	1 calendar day including the class start date
20-29 calendar days	2 calendar days including the class start date
30-39 calendar days	3 calendar days including the class start date
40-49 calendar days	4 calendar days including the class start date
50-59 calendar days	5 calendar days including the class start date
60-69 calendar days	6 calendar days including the class start date
70+ calendar days	7 calendar days including the class start date

\* Course fees and registration processing fees will be refunded only if the student qualifies for a 100% refund.



All refunds and deposits that may be due a student will first be applied to debts owed to the college.

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.

#### **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 a family member that prevents the student from attending all classes for the semester. 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 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 E)

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 web sites 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.

### 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 once per year, beginning on or about June 1st to determine the eligibility for the following academic year.
- B. The evaluation period will be based on attendance in the immediate prior Spring, Fall, Summer term (example: for 2004-2005 academic year, academic progress will be evaluated on Spring 2004, Fall 2003, and Summer 2003).
- 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

<u>Credits Attempted*</u>	<u>Min GPA</u>
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 G 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, E, and Y)**

<b>Minimum Grade Point Average Required</b>	
1.60	12-15
1.75	16-30
1.90	31-45
2.00	46 +

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 design-

nated 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 withdrawal policy).

## 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 the 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 dean or associate dean 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 web sites.

### Grade Key

A	Excellent	.....	.4 grade points per credit hour
B	Above Average	.....	.3 grade points per credit hour
C	Average	.....	.2 grade points per credit hour
D	Passing	.....	.1 grade point per credit hour
F	Failure	.....	.0 grade point per credit hour
I	Incomplete	.....	.Not computed in grade point average
IP	Course In Progress	.....	.Not computed in grade point average
N	Audit	.....	.Not computed in grade point average
P*	Credit	.....	.Not computed in grade point average
W	Withdrawn, passing	.....	.Not computed in grade point average
Y	Withdrawn, failing	.....	
	(effective Fall 2000)	.....	.0 grade point per credit hour
Z	No Credit	.....	.Not computed in grade point average

\* A "P" is judged to be equivalent to a grade of C or higher.

**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 enroll in a course for the third time should seek advisement prior to enrolling. All enrollments in a course will appear on the transcript and will be included in calculating the grade point average. The student may request in writing that the course(s) with the lower grade(s) be excluded during the grade point average calculation. The written request must be submitted to the Office of Admission and Records at the Maricopa Community College where the course with the lower grade was taken. 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.

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. 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**

Class Length	Deadline for Students to Withdraw with Guaranteed Grade of W	Deadline for Students to Withdraw From a Course (Instructor Signature Required)	Deadline for Students to Request Complete Withdrawal	Deadline to Change Type of Grading (A-F to P/Z, or P/Z to A-F)	Deadline to Change from Audit Grade to Credit Grade	Deadline to Change from Credit Grade to Audit Grade
One Week or less (1 to 7 days)	1st Day of Class	1st Day of Class or Prior to the Last Day of Class	1st Day of Class or Prior to the Last Day of Class	1st Day of Class	1st Day of Class	1st Day of Class
Two Weeks (8 to 14 days)	3rd Calendar Day	6th Calendar Day	6th Calendar Day	1st Day of Class	1st Day of Class	3rd Calendar Day
Three Weeks (15 to 21 days)	6th Calendar Day	12th Calendar Day	12th Calendar Day	2nd Calendar Day	1st Day of Class	5th Calendar Day
Four Weeks (22 to 28 days)	9th Calendar Day	17th Calendar Day	17th Calendar Day	3rd Calendar Day	2nd Calendar Day	7th Calendar Day
Five Weeks (29 to 35 days)	12th Calendar Day	23rd Calendar Day	23rd Calendar Day	4th Calendar Day	2nd Calendar Day	9th Calendar Day
Six Weeks (36 to 42 days)	14th Calendar Day	29th Calendar Day	29th Calendar Day	5th Calendar Day	3rd Calendar Day	11th Calendar Day
Seven Weeks (43 to 49 days)	17th Calendar Day	35th Calendar Day	35th Calendar Day	5th Calendar Day	3rd Calendar Day	12th Calendar Day
Eight Weeks (50 to 56 days)	20th Calendar Day	41st Calendar Day	41st Calendar Day	6th Calendar Day	3rd Calendar Day	15th Calendar Day
Nine Weeks (57 to 63 days)	23rd Calendar Day	46th Calendar Day	46th Calendar Day	7th Calendar Day	4th Calendar Day	17th Calendar Day
Ten Weeks (64 to 70 days)	26th Calendar Day	52nd Calendar Day	52nd Calendar Day	8th Calendar Day	4th Calendar Day	19th Calendar Day
Eleven Weeks (71 to 77 days)	29th Calendar Day	58th Calendar Day	58th Calendar Day	9th Calendar Day	5th Calendar Day	21st Calendar Day
Twelve Weeks (78 to 84 days)	32nd Calendar Day	63rd Calendar Day	63rd Calendar Day	10th Calendar Day	5th Calendar Day	23rd Calendar Day
Thirteen Weeks (85 to 91 days)	35th Calendar Day	70th Calendar Day	70th Calendar Day	10th Calendar Day	5th Calendar Day	25th Calendar Day
Fourteen Weeks (92 to 98 days)	38th Calendar Day	76th Calendar Day	76th Calendar Day	11th Calendar Day	6th Calendar Day	27th Calendar Day
Fifteen Weeks (99 to 105 days)	41st Calendar Day	82nd Calendar Day	82nd Calendar Day	12th Calendar Day	6th Calendar Day	28th Calendar Day
Sixteen Weeks or more (106 or more days)	End of the 7th Week	Two weeks before the last class period	Two weeks before the last class period	Within 14 days including the 1st class period	Within 1st week of class	Within 1st 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 work day.

## 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, E, 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 F)

A student who feels that he or she has been treated unfairly or unjustly by a faculty member with regard to discrimination or sexual harassment in the academic environment by a faculty member, administrator, campus visitor or other student is urged to report such conduct to the dean of student services (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.

A student who feels that he or she has been treated unfairly or unjustly by a faculty member with regard to an academic process such as grading, testing, or assignments, has the right to appeal according to the approved procedures. The appeal process for grades expires one year from the date the grade was issued.

Steps for students to follow:

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 chairperson 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.



4. 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.
5. If the grievance is not resolved at this level within ten working days, the student should forward to the dean of instruction or appropriate college/center administrative officer, a copy of the original written complaint with an explanation regarding action taken at each prior level. The dean of instruction or appropriate college/center administrative officer will meet with the student, faculty member, the college faculty senate president if requested by the faculty member, and department/division chairperson and attempt to resolve the issues. This level will be the final step in any grievance process regarding grades.
6. If the grievance, other than those concerning grades, is not resolved by the dean of instruction or the appropriate college/center administrative officer, 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

A student who feels that he or she has been treated unfairly or unjustly by any employee with regard to a non-instructional process such as a student or administrative services has the right to file a formal and written complaint according to the approved procedures.

Steps for students to follow:

1. Discuss the issue with the employee involved. The student should request this conference within fifteen (15) working days from the time the student knew or reasonably should have known about the unfair or unjust treatment.
2. If, within ten (10) working days of the request for the conference with the employee, the problem is not resolved or the employee has been unable to meet with the student, the student may continue the process by filing a written complaint with the appropriate supervisor of the employee where authority exists to take corrective action. This written complaint must be filed within ten (10) working days following the previous deadline. The written complaint will be given to the employee five (5) working days before any official meetings are convened.



3. Upon receipt of a written complaint, the appropriate supervisor will work with the parties in an attempt to resolve the conflict. Every attempt will be made to maintain confidentiality during this process. An employee will not be required to respond to a complaint which is not in writing and which, when appropriate, does not have specific documentation including dates, times, actions, supporting documents, etc. The written complaint will be made available to the employee.
4. If the complaint is not resolved at this level within ten (10) working days, the student should forward to the or appropriate college/center dean and/or associate dean, a copy of the original written complaint with an explanation regarding action taken at each prior level. The dean and/or associate dean will meet with the student, the employee, and the relevant supervisor and attempt to resolve the issues.
5. If the associate dean and/or dean do not resolve the complaint, the student may forward it in writing to the college president for final resolution. The college president or designee will issue a final written determination in the complaint process.

## Withdrawal (AR 2.3.6)

To withdraw from a course or courses from the college, students must follow approved procedures. The Office of Admissions and Records provides information about the withdrawal process.

The official date of withdrawal is the last date of attendance as determined by the student's withdrawal or as reported by the instructor. The official date of withdrawal determines refunds.

Never attending is not a guarantee for a refund or an excuse of the debt incurred through registration. Please see the refund policy.

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."

## Withdrawal Procedures (Appendix G)

### A. Withdrawal from Specific 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." Failure to file an official withdrawal form may result in failing grades and responsibility for course tuition and fees.

Students may be officially withdrawn 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" will be assigned.
2. After the 7th week, a student may initiate a withdrawal. The faculty member will sign the form and assign a grade of "W" or "Y". The form is then to be returned to the Office of Admissions and Records. (See the college academic calendar for student deadline date.)
3. 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.

Failure to file an official withdrawal form may result in failing grades.

**B. Complete Withdrawal from College**

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 withdraw officially from the college within the published deadlines may result in failing grades and responsibility for course tuition and fees.

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) or "Y" (withdrawn, failing).

**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.

**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 Honors List**

The President's Honor List for each college consists of all students who complete twelve (12) or more credit hours in residence in courses numbered 100 or higher in a given semester with a college semester grade point average of 3.75 or higher.

## 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"

## College Environment

### Sexual Harassment Policy (AR 2.4.4 & 5.1.8-17)

The policy of the Maricopa Community Colleges is to provide an educational, employment, and business environment free of unwelcome sexual advances, requests for sexual favors, and other verbal and/or physical conduct or communications constituting sexual harassment as defined and otherwise prohibited by local, state, and federal law.

Sexual harassment by and between employees, students, employees and students, and campus visitors and students or employees is prohibited by this policy.

Violations of this policy may result in disciplinary action up to and including termination of employees, sanctions up to and including suspension or expulsion of students, and appropriate sanctions against campus visitors.

This policy is subject to constitutionally protected speech rights and principles of academic freedom. Questions about this policy may be directed to the Maricopa Community Colleges Equal Employment Opportunity/ Affirmative Action (EEO/AA) Office.

### Examples of Policy Violations (AR 5.1.9)

It shall be a violation of Maricopa Community College' Sexual Harassment Policy for any employee, student or campus visitor to:

- A. Make unwelcome sexual advances to another employee, student or campus visitor;
- B. Make unwelcome requests for sexual favors, whether or not accompanied by promises or

threats with regard to the employment or academic relationship;

- C. Engage in verbal or physical conduct of a sexual nature with another employee, student or campus visitor, that may threaten or insinuate, either explicitly or implicitly, that the individual's submission to, or rejection of, the sexual advances will in any way:
  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 un-

come (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 EEO/AA Office. If the complaint involves the employee's supervisor or someone in the direct line of supervision, or if the

employee for any reason is uncomfortable in dealing with his or her immediate supervisor, the employee may go directly to the Maricopa Community Colleges EEO/AA Office.

#### 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 dean of student services (or equivalent) 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, Office of the Dean of Student Services 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.

The Maricopa Community Colleges EEO/AA Office phone number is 480-731-8885.

### 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.
4. 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.
5. 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.
6. 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.
7. 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 Protection (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.



# COLLEGE SERVICES



2004-05



## Academic Advisement

Academic advising is available in the Academic Advisement Center located in Building A on the Pecos Campus and in Student Services located in the ATC Building on the Williams Campus. Academic advising helps students to:

- Define and achieve educational goals
- Understand initial placement into English, mathematics, and reading courses
- Explore degree programs and plan a program of study
- Transfer to and from other colleges
- Schedule classes

The Center also coordinates campus visitations for representatives from local colleges and state universities throughout the year to meet with students to assist with their transition to a four-year institution or professional school. Topics covered with university and college representatives include information on admission, credit transfer, housing, and financial assistance.

It is recommended that all students meet with an **academic advisor at least once each semester**. Academic advisement is available on a walk-in basis at the Pecos Campus in Building A, Room A140R, and by appointment at the Williams Campus.

Additional Academic Advisement Center and Transfer Center information is available on-line at [www.cgc.maricopa.edu/advisement/](http://www.cgc.maricopa.edu/advisement/) or by phone at (480) 732-7317 at the Pecos Campus and (480) 988-8000 at the Williams Campus. Students can access on-line advisement tools and check sheets for CGCC certificates, degrees, and transfer programs; these tools can be printed for informational purposes and used during an advisement session. Students can submit general questions to an advisor on-line via the Advisement Center Web page or by email: [AskAdvisor@cgcmail.maricopa.edu](mailto:AskAdvisor@cgcmail.maricopa.edu).

## Admissions, Records, and Registration

The Admissions, Records, and Registration Office, located in Building A at the Pecos Campus and the Aviation and Technology Center at the Williams Campus, provides the following services:

- Processes the Student Information Form needed to register at CGCC and handles special admission requirements and forms
- Evaluates credits from prior learning such as Advanced Placement, Articulated Programs, College Level Examination Program, Transfer Credit, and Military Service
- Verifies credits for graduation
- Determines residency for tuition purposes and processes changes in residency
- Processes all class registrations and drop/adds
- Hears Admissions and Standards appeals, including refund issues (requests must be in writing)
- Maintains official college records for all students and responds to requests for transcripts and letters of verification

For additional information, visit [www.cgc.maricopa.edu/admissions/](http://www.cgc.maricopa.edu/admissions/) or call (480) 732-7320 at the Pecos Campus and (480) 988-8901 at the Williams Campus.



## Assessment

Assessment, or placement testing, is the process of evaluating students' present skills in English, reading, and mathematics to assist students in choosing courses that match their skills. Course selection is based on scores from the Assessment of Skills for Successful Entry and Transfer (ASSET) course placement tests.

New students enrolling in seven or more credit hours and students pursuing a degree or enrolling in English, mathematics, or reading courses must take a placement test.

Upon entry, new students will:

- Complete information about educational background and current college goals
- Complete the ASSET course placement tests in English, reading, and mathematics
- Obtain placement test results and course recommendations that students can then take to Advisement to work with an academic advisor for course selection

The Assessment Office at the Pecos Campus is located in Building A, Room A151R. The Assessment Office at the Williams Campus is located in the Aviation and Technology Center.

For additional information regarding the times of the assessment sessions at the Pecos Campus, visit [www.cgc.maricopa.edu/assessment/](http://www.cgc.maricopa.edu/assessment/) or call (480) 732-7159. For additional information or to schedule assessment sessions at the Williams Campus, call (480) 988-8000.

## Athletics

Chandler-Gilbert would like to welcome students to the Coyote athletic programs. CGCC is looking forward to another successful season of intercollegiate competition in the Arizona Community College Athletic Conference. CGCC student athletes not only distinguish themselves on the athletic fields, but also in the classroom, setting high standards for future CGCC athletes.

Volleyball and basketball games are played at the CGCC Williams Campus Gym. Softball and baseball games and soccer matches are played on new fields at the Pecos Campus.

For more information, visit [www.cgc.maricopa.edu/athletics/](http://www.cgc.maricopa.edu/athletics/) or call:

Volleyball . . . . .	(480) 732-7365
Baseball . . . . .	(480) 732-7364
Men's & Women's Soccer . . . . .	(480) 732-7363
Women's Basketball . . . . .	(480) 732-7357
Men's Basketball . . . . .	(480) 732-7366
Softball . . . . .	(480) 732-7367
Athletic Trainer . . . . .	(480) 988-8407
Athletic Director . . . . .	(480) 732-7177
Academic Advisement . . . . .	(480) 732-7317

## Bookstore

Students can purchase all textbooks and supplies for the Pecos campus through the Bookstore, located west of the Student Center. Students on the Williams Campus can purchase textbooks and most supplies through the Williams Campus Bookstore, located in Room 102 of the Arizona State University East Academic Center Building.

The Bookstore also carries gifts, clothing, book bags, phone cards, official school rings, and gift certificates.

The CGCC Bookstore allows students to pay with cash, check, or major credit card. Refunds are given to Bookstore customers under certain conditions. Complete payment and refund policies are posted at both Bookstore locations and are listed in the class schedule.

Because Follett Higher Education Group manages the Pecos campus Bookstore, students on that campus also have the option of prepaying for and/or shipping their current semester's textbooks on-line at [www.efollett.com](http://www.efollett.com).

Call (480) 732-7350 for additional information about the Pecos Campus Bookstore, or (480) 727-1168 for additional information about the Williams Campus Bookstore.

## Career and Placement Services

The Career and Placement Services Office has two locations in which to serve the students of Chandler-Gilbert Community College. At the Pecos Campus, the Career and Placement Services Office is located in Room 159 of the Student Center. At the Williams Campus, the office is located in the Aviation and Technology Center. Services to students and alumni include resume development, interview preparation, placement assistance, job postings and career assessment. Opportunities are also available to occupational students that allow them to participate in a structured work experience in their career field prior to graduation.

Students seeking career related information can also visit the Career Services section of the CGCC Web site at [www.cgc.maricopa.edu/careers](http://www.cgc.maricopa.edu/careers). This site will guide students in assessing their interests, personalities, and abilities as they relate to the world of work. Once assessments have been made, students can investigate career, employment, and college information. Finally, students can learn how to market themselves to employers with links to resume and interview information sites. The Web site also contains a link to the Maricopa Career Network at [www.maricopa.edu/careers](http://www.maricopa.edu/careers). This site is the Maricopa Community College District's local job board for employers in the Phoenix area.

For more information or to speak with a career advisor, contact the Career and Placement Services Office at 480-857-5211 or visit [www.cgc.maricopa.edu/careers](http://www.cgc.maricopa.edu/careers).

## Cashier/Fiscal

The Cashier/Fiscal office manages financial operations for the college, including tuition and fee collections, and provides financial accountability to funding agencies and individuals. Trained and qualified staff members also provide student assistance during both day and evening hours in Building A, Room A139, at the Pecos Campus and Room 109 at the Aviation and Technology Center at the Williams Campus. Students who have questions regarding financial matters other than financial aid should call (480) 732-7312 at the Pecos Campus or (480) 988-8123 at the Williams Campus. Students can also visit [www.cgc.maricopa.edu/fiscal/](http://www.cgc.maricopa.edu/fiscal/) for additional information.

## College Safety

The College Safety department is responsible for maintaining a safe, orderly, and peaceful atmosphere on campus to contribute to student development and success. It was formed with these objectives in mind, and is staffed by qualified security personnel, including Certified Peace Officers. The College Safety department is located in Building M, Room M105, at the Pecos Campus and in the Aviation and Technology Center at the Williams Campus.

Students are encouraged to inform the Director of College Safety about any situation that might warrant support for safety reasons (stalkers, potentially violent situations, orders of protection, etc).

Services to students, faculty, and staff include:

- Issuing CGCC student, faculty, and staff parking decals and temporary disabled parking placards
- Providing Security escorts to and from parking lots when requested
- Assisting students, faculty, and staff in case of accident or injury on campus
- Providing minor assistance to motorists with disabled cars, such as jump-starts and removing keys from locked vehicles
- Delivering emergency messages
- Enforcing traffic and parking regulations on campus
- Providing Lost and Found services
- Administering college vehicle use
- Patrolling campus
- Encouraging student, faculty, and staff participation in Campus Crime Watch and other safety and crime prevention programs

For additional information, call (480) 732-7280 at the Pecos Campus or (480) 988-8888 at the Williams Campus. Information on crime prevention programs, safety policies, reporting incidents, and CGCC crime statistics for the previous three years can be found at [www.cgc.maricopa.edu/safety/](http://www.cgc.maricopa.edu/safety/).

## Emergencies

In the event of emergencies on campus, contact the College Safety department at (480) 732-7280 at the Pecos campus or (480) 988-8888 at the Williams campus. Emergency telephones are located in the east and west parking lots of the Pecos Campus and ring directly into the College Safety department.

**Call 911 in the event of a medical emergency.**

## Computer Labs

Currently enrolled students who require computer resources to complete class assignments have access to an open computer lab environment in the Computer Lab, located in Building B, Room B123, on the Pecos Campus. All Chandler-Gilbert Community College students are assessed a \$1 per credit hour or \$1 per noncredit section Technology Resource Fee. This fee supports students' access to CGCC computer resources. The Computer Lab is similar to a library, where students have open access to a self-paced learning environment to study class materials, complete class assignments, and research information.

Computer Lab technicians and student assistants are available for general assistance. Questions regarding specific classes, assignments, or materials should be directed to class instructors.

Access to the Computer Lab equipment is on a first-come, first-served basis. Established hours of operation may vary each semester, with greatest usage occurring during early morning hours. The Computer Lab is also open on Saturdays. Students can call (480) 732-7221 or visit [www.cgc.maricopa.edu/cic/](http://www.cgc.maricopa.edu/cic/) for additional information.

CGCC students enrolled in classes on the Williams Campus also have access to the Computing Commons, located in Arizona State University East's Academic Center Building. The Computing Commons is a general-purpose computer lab providing computer resources for Williams Campus faculty, staff, and students. Students must provide proof of current enrollment in Williams Campus classes for access. Computer lab technicians are available for assistance. For further information about access and hours of operation, call (480) 727-1118.

## Computer Classrooms

In addition to the computer resources in the Computer Lab, CGCC has several computer classrooms on the Pecos Campus, the Williams Campus, and the Sun Lakes Education Center.

These facilities provide computer-based learning in a classroom setting. Although some open lab hours may be scheduled, these hours are limited and depend on the current schedule of classes. See the schedule posted in each room to identify open lab hours.

## Computer Resources

Multivendor, multiplatform computing resources provide access to a variety of network services including desktop applications, network file and print services, CD-ROM LAN materials, and Internet access. A number of computing systems are supported, including Digital Equipment, Compaq, Hewlett Packard, and Apple Computer. CGCC's network topology integrates voice, video, and data services via a campus-wide network infrastructure.

Electronic mail and computer conferencing are available to students in selected classes. Similar classroom access to electronic research and media holdings is also available from libraries located at CGCC at the Pecos Campus, ASU East at the Williams Campus, ASU Main, and community libraries located in the East Valley.

## Dean of Students' Office/Student Helpline

### Chief Student Advocate

The Dean of Students' Office serves as the chief advocate for all students at Chandler-Gilbert Community College. All students are welcome to call, come by Room SC150 in the Student Center at the Pecos Campus, or e-mail the Dean of Students with any issues related to Chandler-Gilbert Community College at:

[lois.bartholomew@cgmail.maricopa.edu](mailto:lois.bartholomew@cgmail.maricopa.edu).

The Dean of Students' Office provides information on all student services and the following MCCD policies:

- Student Rights and Responsibilities
- Student Discipline and Grievances
- ADA Accommodations
- Sexual Harassment Issues
- 504 and EEOC Issues/Discrimination Issues
- Employee Discrimination Issues
- Student Emergencies

Students can find MCCD policies related to these issues at the following Web site: [www.dist.maricopa.edu/eddev/students/genpolicies/outline.htm](http://www.dist.maricopa.edu/eddev/students/genpolicies/outline.htm).

### Student Helpline: (480) 732-7309

The 24-hour HELPLINE affords students another way to communicate any personal, social, or academic concern they may have while attending CGCC. The HELPLINE is a means for students to seek personal attention on matters that are of importance to them and affect their efforts to succeed while attending CGCC. Students who have questions or concerns about campus or classroom policies, procedures, or activities are encouraged to call this number at any time of the day or night. The Dean will promptly respond within twenty-four hours.

This call will go to the Dean of Students' voice mail; a tape-recorded message will ask students to leave their name, phone number (if students choose to provide it), and their request. Every effort will be made to contact students and answer or resolve their questions or concerns.

Reasons students or their parents may wish to use this HELPLINE are:

- Parental inquiries
- Student legal rights and code of conduct
- Complaints of any nature. Referrals will be made to appropriate resources
- Matters of campus safety of self or others
- Adjustment to college

- Underage students
- Academic probation or suspension issues
- Information about enrollment and support services on campus
- Desire to get involved in school activities or student organizations
- Student grievance procedures
- Personal concerns about:
  - Overall campus climate
  - Harassment/discrimination
  - Any campus procedure in student services
  - Thinking about withdrawing or dropping out because of
  - Concerns about a course or instructor
  - Questions about a campus rule, regulation, or policy
  - Suggestions for a workshop, activity, or program to meet a campus need
- **Any topic that students need someone to take action on at CGCC!**

By identifying students' needs, the Dean of Student Services, through the use of this HELPLINE, is willing to offer support in addressing their needs and making effective referrals to the appropriate campus service, program, or personnel. Complete confidentiality is assured.

## Facilities Services

The Facilities Services office is responsible for creating and maintaining a physical environment conducive to effective teaching and learning. To report problems associated with either buildings or grounds, stop by the office or call (480) 732-7285 at the Pecos Campus or (480) 988-8131 at the Williams Campus. The Facilities Services office is located in Building M at the Pecos Campus and in the Aviation and Technology Center at the Williams Campus. For additional information, visit [www.cgc.maricopa.edu/facilities/](http://www.cgc.maricopa.edu/facilities/).

## Financial Aid and Veterans Services

The Financial Aid Office, located in Building A at the Pecos Campus and the Aviation and Technology Center at the Williams Campus, is responsible for the following student services functions:

- Financial aid
- Veterans services
- Scholarships
- Federal Work-Study employment

Financial Aid and Veterans Services Office telephone numbers are (480) 732-7311 at the Pecos Campus, and (480) 988-8135 at the Aviation and Technology Center at the Williams Campus.

### Financial Aid

CGCC is committed to providing support to students with financial need. However, students are expected to share in the expenses of attending college. The purpose of the CGCC Financial Aid Office is to assist with this responsibility by determining students' financial need and awarding assistance to eligible students. This is accomplished by evaluating all aid applications through the use of a standard financial needs analysis system that determines how much students and/or their families can afford to contribute toward the college costs.

Several types of federal financial aid are available. These include:

- Grants
  - Pell Grant
  - Supplemental Educational Opportunity Grant (SEOG)
  - LEAP Grant (State Grant Program)
- Loans
  - Direct Stafford Loans
  - Direct Parent Loan for Undergraduate Students (PLUS)
  - Perkins Loan
- Work-Study
  - Part-time employment on campus

Students must apply and qualify for financial aid for each academic year in order to be considered for assistance by completing the Free Application for Federal Student Aid (FAFSA). The application process requires approximately two months, so it is best to apply as early as possible before the semester of attendance. Students should file an application on-line at [www.fafsa.ed.gov](http://www.fafsa.ed.gov) by **May of each year for the fall term and by October for the spring term.** Applications received after these months are processed but are considered late, and award funds may be limited.

Students must be making satisfactory academic progress in order to receive financial aid. Visit [www.cgc.maricopa.edu/financial\\_aid/](http://www.cgc.maricopa.edu/financial_aid/) or contact the office for specific details: (480) 732-7311 at the Pecos Campus, or (480) 988-8135 at the Aviation and Technology Center at the Williams Campus.

### Veterans Services

Application forms, counseling, advisement, and tutoring are available for students who are eligible for veterans educational benefits. Students applying for veterans benefits for the first time should allow eight to ten weeks before receiving benefits. The amount of benefits awarded is based on the number of credit hours for which a student is enrolled. Those students receiving benefits must be following the VA academic progress policy to continue to receive benefits.

Veterans chapters served:

- Chapter 30 - Montgomery GI Bill
- Chapter 31 - Vocational Rehabilitation (separately served through local VA Vocational Rehabilitation offices)
- Chapter 32 - VEAP Program
- Chapter 35 - Survivors and Dependents of Deceased/100% Disabled Veterans
- Chapter 1606 - Selected Reserve GI Bill

For additional details, contact the Financial Aid and Veterans Services Office at (480) 732-7311 at the Pecos Campus and (480) 988-8135 at the Williams Campus. Information is also available at [www.cgc.maricopa.edu/veterans/](http://www.cgc.maricopa.edu/veterans/).

## Scholarships

Scholarships are available for prospective students as well as currently enrolled students. Because the applications and deadlines vary for each scholarship, applying early is critical. Completion of the federal financial aid application may be required for some scholarships.

CGCC gratefully acknowledges scholarship donors for their support of our students. Please see the appendix for a list of donors.

## Federal Work-Study Employment

Federal Work-Study positions are coordinated through the Financial Aid Office and the Career and Placement Office on the Pecos Campus.

## Food Services

The CGCC food service operation is contracted through ARAMARK and the Coyote Cafe is located in Building B, Room B133, at the Pecos Campus.

Food service for the CGCC community is provided at the Pecos Campus on a daily basis Monday-Friday during the academic year and Monday-Thursday during the summer. Hours of operation may vary. All payments must be in cash or by debit card. Food Services also provides catering for special events, banquets, and meetings. The manager is glad to hear students' comments and assist with catering arrangements. Visit [www.cgc.maricopa.edu/food/](http://www.cgc.maricopa.edu/food/) or call (480) 732-7362.

## Institutional Research

The Institutional Research office, located on the Pecos Campus in Building B, Room B112, provides assistance to instructional and student support services divisions by collecting and analyzing information used to improve the quality of education and services and ensure student success. The office accomplishes this task by coordinating the development and implementation of the Institutional Effectiveness Plan, providing administrative support to the Student Learning Outcomes Assessment Committee, and providing appropriate research support to faculty and staff to improve the delivery of products and services. Call (480) 857-5118 or visit [www.cgc.maricopa.edu/institutional\\_research/](http://www.cgc.maricopa.edu/institutional_research/).

## International Student Services

International Student Services (ISS) promotes an environment that encourages global understanding, appreciation and citizenship by providing support services and programs that enhance the academic, cultural and social international efforts of Chandler-Gilbert Community College. ISS is committed to offering excellent services and support for international students and scholars and serve as a resource for campus international initiatives. Services and activities include immigration counseling, admission information, orientation, conversational friendship program, advisement, international coffee hour, and workshops (e.g., income tax, culture shock, career exploration).

ISS is also the contact point for the International Cultural Exchange club, which is a campus association for all students interested in international issues, advocating for cross-cultural understanding, and meeting students from different countries. ISS is located in the Student Center, Room SC165, at the Pecos Campus. For more information, contact:

Annie Jimenez  
 Director, International Student Services  
 (480) 732-7391  
 E-mail: [a.jimenez@cgcmail.maricopa.edu](mailto:a.jimenez@cgcmail.maricopa.edu)  
[www.cgc.edu/ss/intl](http://www.cgc.edu/ss/intl)

## Learning Center (Tutoring)

The Learning Center mission is to support students' academic learning by providing free instructional support (tutoring) and resources to reinforce and supplement classroom instruction and to assist students in achieving academic success. While the emphasis is on providing writing, mathematics, and science support, services are available for a wide range of academic courses at CGCC. Tutoring services are available on a drop-in basis for many courses and by appointment for select courses. Resources include videotapes, software, and print materials.

Students must be enrolled at CGCC in the class for which they are seeking assistance. For more information, visit [www.cgc.maricopa.edu/lc/](http://www.cgc.maricopa.edu/lc/) or call (480) 732-7231.



## Mathematics and Science Tutoring

The Math and Science tutoring program at the Pecos Campus is located on the second floor of the Library, Room L229. At the Williams Campus, tutoring takes place in the Learning Center, ASU East Academic Center, Room 160. A schedule of tutoring hours and services is posted at the beginning of each semester.

The Math and Science tutoring program offers:

- Drop-in tutoring for math, chemistry, biology, physics, and engineering
- Trained tutors, including math and science faculty
- Computers with mathematics software
- Videos of algebra lessons

## Writing Center

The Writing Center is a valuable resource to assist students with their writing needs in all of their college courses. The Center helps students address a wide range of writing concerns, from how to determine whether they have a good thesis to how to organize their work, revise more effectively, and document sources accurately. The Writing Center at the Pecos Campus is located on the second floor of the Library, Room L227. Writing tutors are also available at the Williams Campus Learning Center in the ASU East Academic Center, Room 160. A schedule of tutoring hours and services is posted at the beginning of each semester. No appointment is necessary.

The Writing Center services include:

- Tutoring
- Reference materials for help with writing assignments
- A comfortable, quiet study area for individual or small-group work
- Computers for academic use

## Library

The CGCC Library creates the connection between people and information. The library faculty and staff teach the identification, location, and critical evaluation of the dynamic information world. The full

gamut of information resources is available, including Web-based as well as traditional print and multimedia.

The Library has ten conference/study rooms, a library instruction classroom, an index/CD-ROM area, periodicals and newspaper display and storage, and carrels with telecommunications services. Currently the CGCC Library owns 24,000 books, 180 periodical subscriptions, 94,000 microfiche, and 170 maps.

In addition to CGCC's holdings, the MCCD Library and Media Centers, Internet, and a variety of CD-ROM databases are among the primary resources used by staff and students. Library staff also assist patrons through reference, interlibrary loan, database searching, and information referral services.

Students, faculty, and staff may access Library materials and selected databases, such as magazines and journals, newspapers, and Web resources, from home by going to the Library Web page at [www.cgc.edu/library/](http://www.cgc.edu/library/). In order to do this searching from home, the patron will need his/her library card number (on the back of the CGCC ID card) connected to the Library computer system.

CGCC students at the Williams Campus have access to the CGCC Library located on the Pecos Campus as well as the Arizona State University East Library located in the Academic Center Building.

For more information about the CGCC Library, call (480) 857-5100.

## Marketing and Public Relations

The college Marketing and Public Relations office is responsible for internal and external public relations, marketing, and communications programs, including publicity, promotion, media relations, college newsletters, advertising, college information, publications, and other projects. The Marketing and Public Relations office, located at the Pecos Campus in Building B, Room B118, also serves in an advisory role for student government, activities, events, and programs. Call (480) 732-7004, (480) 732-7030 or (480) 732-7114 for more information, or visit our Web site at [www.cgc.maricopa.edu/marketing/](http://www.cgc.maricopa.edu/marketing/).

## Media Services

Media Services provides telecommunication and media services and equipment at all CGCC campus locations: Pecos, Williams, and Sun Lakes. The Media Center is located on the second floor of the Library, at the Pecos Campus. Media resources and equipment can be reserved for classroom use by an instructor. The videos from the video collection are available for viewing via the campus cable system.

In order to use the Media Center resources, please have a CGCC ID card available. Visit the Web site at [www.cgc.maricopa.edu/media](http://www.cgc.maricopa.edu/media) for additional information concerning Media Center hours and services for all locations or call (480) 732-7110.

## New Student Orientation

All new students should plan to attend the New Student Orientation Session. The Orientation Session is free, and students will have the opportunity to:

- Hear a brief overview of CGCC, its policies and procedures, and course and degree offerings
- Discuss success strategies designed for students
- Learn about student support services, clubs, organizations, and student leadership opportunities

Certain students (e.g., Athletes, ESL students, Reentry students) will also attend special orientation activities designed to meet their specific needs.

The New Student Orientation Office is located in the Student Center, Room SC174. Please call (480) 732-7205 or (480) 732-7317 for the dates and times of the New Student Orientation Sessions. Additional information can also be found at [www.cgc.maricopa.edu/orientation/](http://www.cgc.maricopa.edu/orientation/).

## Recruitment Services

The Office of Recruitment Services provides information to students about various programs and the benefits of attending Chandler-Gilbert Community College. Activities such as regular high school visits, on-site ASSET testing, college campus tours, and a variety of recruitment events are customized to meet the needs of potential students. To request information or schedule a campus tour, visit our Web site at [www.cgc.maricopa.edu/prospective/](http://www.cgc.maricopa.edu/prospective/) or call (480) 857-5188.

## Special Services Department

The Special Services Department is located on the Pecos Campus in the Student Development Center, Room SC164. Special Services has three programs: Disability Resources and Services (DRS), Re-Entry Services and Student Support Services. These programs are committed to identifying students' needs and providing direct support services that will assist them in achieving their personal and academic goals. Students in need of support services who would like to schedule an appointment should call (480)726-4017, TTY (480)732-7066.

### Disability Resources and Services (DRS)

DRS provides services to students who qualify under the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973. The DRS staff supports faculty and staff to ensure the college is in compliance with all federal laws and regulations. Students must self identify to the DRS office, register, and provide proper documentation of their disability. Reasonable accommodations can be provided to qualified students on an individual basis, based upon supporting documentation and course selection. DRS staff also provides ongoing opportunities for group support and specific training to strengthen students' advocacy skills. Additional information on disabilities policies are available at the DRS office or at the MCCD web site: [www.dist.maricopa.edu](http://www.dist.maricopa.edu).

### Re-Entry Services

This support service meets the needs of those students who are 25 years of age or older. These may be students who are returning to school after a period of absence or starting school for the first time. A variety of services are available to assist the student with academic, personal, and professional goals and may include academic advising, campus and community referrals, peer and clinical support, and workshops designed to motivate and educate the re-entry student.

### Student Support Services

A diverse team of behavioral health consultants (certified master level professionals) provides direct clinical services that are available to all students enrolled at CGCC. These services may include crises intervention and management, individual and group short-term intervention, classroom presentations, and community workshops and trainings. Appointments can be scheduled during the day, evenings, and Saturdays. Consultants are bilingual in Spanish.

## Student Development Center

Students needing personal assistance with any issue are welcome to go to the student development office in the Student Center. The student development center staff assists students with appropriate on-campus referrals. The phone number for this area is (480) 857-5449.

## Student Life and Student Activities

All students are encouraged to participate in programs and activities sponsored by the Office of Student Life, located in the Student Center, at the Pecos Campus. There are many opportunities to enhance classroom experience with co-curricular activities. These include leadership development, community service programs, cultural events, and an opportunity to participate in one of the many student organizations. For additional information, visit [www.cgc.maricopa.edu/student/life/](http://www.cgc.maricopa.edu/student/life/). To participate in campus and community service programs, call the Office of Student Life at (480) 732-7150.

### Leadership Development

**GETTING INVOLVED - LEADERSHIP RETREATS AND LEADERSHIP ACTIVITIES** Leadership retreats are organized to increase students' leadership skills during the fall and spring semesters. Interested students are encouraged to call the Office of Student Life.

### Community Service and Volunteer Opportunities

Students are encouraged to serve and volunteer on campus and in the community in a variety of ways. Listed below are some of the activities that students participate in:

**SERVICE LEARNING** This is an exciting program designed to integrate community service into the classroom. This program benefits everyone involved: students, faculty members, and the community. Students interested in becoming part of the Service-Learning team as an assistant or wanting further information are encouraged to stop by or call the Office of Student Life at the Pecos Campus for more information.

**INTO THE STREETS** Each semester students are encouraged to participate in the Into the Streets program, which is designed to give students hands-on experience serving in some of CGCC's many com-

munity service agencies, such as the Boys and Girls Clubs, nursing homes, and homeless shelters.

**ADOPT-A-FAMILY PROGRAM** This program assists CGCC students with necessary food, clothing, and related resources. During the holidays, meals and gifts are provided as well. Students must complete an application or be referred by college employees.

### Student Identification Cards

Student identification (ID) cards are obtained from the Office of Student Life, Student Center Pavilion Information Desk at the Pecos Campus, or the Aviation and Technology Center at the Williams Campus.

### Student Organizations

The list of student organizations at CGCC grows each year. Listed below are the current, officially recognized groups. Student organizations may be formed for many purposes—social, service, athletic, professional, and religious. Current information is available in the Office of Student Life. For more information about student organizations, visit or contact the Student Life office.

- ALSO - Alternative Lifestyles Student Organization
- ASCGCC - Associated Students of Chandler-Gilbert Community College
- CIA - Christians in Action
- Eagle Feather
- Essence of Color
- HSO - Hispanic Student Organization
- ICE - Intercultural Exchange Club
- LDSSA - Latter-Day Saints Student Association
- PASO - Performing Arts Student Organization
- PTK - Phi Theta Kappa
- Political Science Organization

**HOW TO CREATE A STUDENT ORGANIZATION** Student organizations can be created to meet the needs of a diverse student population. Students thinking of creating a new student organization should meet with the Director of Student Life to learn the steps to take to have any group officially recognized at CGCC.

## Voter Registration

Students and community members have the opportunity to register to vote in the Office of Student Life at Chandler-Gilbert Community College. Voter registration is also available on-line at [www.sosaz.com](http://www.sosaz.com) or by calling (877) THE-VOTE [(877) 843-8683]. Contact the Office of Student Life at (480) 732-7150 or visit [www.cgc.maricopa.edu/student/life/voter\\_registration.shtml](http://www.cgc.maricopa.edu/student/life/voter_registration.shtml) for registration deadlines and election dates.

## Technical Support Services

Technical Support Services (TSS) is located on the second floor of the Library. Technical planning, design, integration, and ongoing operational support for computing and network communications for voice and data services is provided by TSS staff. This includes technical support in the following areas:

- Enterprise Network Services
- Client/Network Support
- Computer Hardware Repair
- Desktop Software
- Telephone Support
- Student Information System (SIS)
- Web-based Applications

TSS provides technical support at the Pecos Campus, Williams Campus, and Sun Lakes Education Center. CGCC's intranetwork design provides connectivity to a variety of network environments, including the Internet, and supporting cross-platform workstations such as Macintosh, Windows, and Unix.

Trained, qualified staff members are available for delivering technical services, implementation, and support for instructional and administrative systems. For technical assistance or coordination of technical support issues please call the Technical Assistance Center (TAC) at (480) 732-7025 or visit the Web site at [www.cgc.maricopa.edu/tss/employee\\_resources.shtml](http://www.cgc.maricopa.edu/tss/employee_resources.shtml).

## Williams Campus Housing

Student residential living is provided at the Williams Campus for those students who meet eligibility and priority criteria. Two-, three-, four-, and five-bedroom houses and residential hall rooms and suites are available for rent. Housing at the Williams Campus is open to any student enrolled in one of the Maricopa Community Colleges. Preference is given to students enrolled in educational programs at the Williams Campus, with priority assigned according to enrollment and program during the academic term(s).

**Verification of Continuing Students and Good Standing:** Student status and eligibility to remain in residential living will be verified each term. To remain in good standing and continue residing on the Williams Campus, students need to be enrolled throughout the term(s) in which priority is assigned. Currently enrolled CGCC students at the Williams Campus may appeal possible withdrawal from residential living based upon exceptional or extenuating circumstances.

Contact the Williams Campus Housing Office at (480) 727-1700 for specific information, or visit the Web site at [www.east.asu.edu/housing/](http://www.east.asu.edu/housing/).

# STUDENT POLICIES AND PROCEDURES



2004-05



## Important Student Information

### Sexual Harassment (Employee & Student)

Refer to Student Policies and Procedures. More information is available in the Office of the Dean of Student Services.

### Equal Opportunity Statement

More information is available in the Office of the Dean of Student Services.

### Student Insurance

More information is available in the Office of the Dean of Student Services.

### Americans with Disabilities Act

More information is available in the Office of the Dean of Student Services.

### Student Conduct & Student Grievance

Refer to Student Policies and Procedures. More information is available in the Office of the Dean of Student Services.

### Student Employment

More information is available in the Career and Placement Services office in the Student Center, Room SC159.

### Canvassing, Peddling, Soliciting

Approval must be obtained at Chandler-Gilbert Community College by contacting the Office of Student Life.

### Parking and Traffic Regulations

More information is available in the College Safety Office.

## 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 MCCCCD-prohibited discrimination by the college/center, MCCCCD, or their students or employees.

Complaints may be brought under this procedure for discrimination based on race, color, religion, national origin, sex (including pregnancy discrimination and sexual harassment), sexual orientation, age, Vietnam-era veteran status, and physical or mental disability.

## 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 be responsible for the discriminatory action, that person's supervisor or department head. The student may choose to ask the Dean, Associate Dean or Director of Student Services to assist in the informal resolution process.

Attempts to informally resolve alleged discrimination should occur **within ninety (90) calendar days** of the alleged discriminatory act.

Once the complaint is informally resolved, a summary of the allegations and the final resolution shall be forwarded to the Office of General Counsel **within five (5) working days**.

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 180 days** of the alleged discriminatory act and to proceed under formal resolution procedures.

## Formal Resolution of Discrimination Complaints

A student (part- or full-time) who contends that unlawful or MCCCCD-prohibited discrimination has occurred, may file a formal complaint by contacting the Dean, Associate Dean or Director of Student Services or his or her designee at each respective college. These officials will accept complaint filings **within 180 calendar days** of the occurrence of the alleged discriminatory event.

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 campus 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 (over 40),

disability, Vietnam-era veteran status, or any other unlawful discriminatory grounds.

Upon receipt of a complaint, the receiving official 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 (or a summary of the allegations) will be shared with the respondent **within five (5) working days** of receipt by the receiving official (Dean of Students, etc.). 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 by the Dean, Associate Dean or Director of Student Services under the guidance of the Office of General Counsel.

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 Dean, Associate Dean or Director of Student Services will 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. Upon completion of the investigation, the Dean, Associate Dean or Director of Student Services will issue a written finding to the complainant, the respondent, and the appropriate College President or Provost, and the Office of General Counsel.

The Dean, Associate Dean or Director of Student Activities will submit its findings and recommendations to the president or provost **within ninety (90) calendar days** of receipt 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 parties **within fifteen (15) calendar days** of receiving the findings from the Dean, Associate Dean, or Director of Student Services.

When the investigation confirms the allegations, appropriate corrective action will be taken. Appropriate corrective action is determined solely by MCCCDC, the college or center and, with the exception of academic suspension or dismissal, cannot be appealed.

Evidence which is collateral to the allegations of discrimination and/or sexual harassment and which was obtained during an investigation under these procedures, may be used in subsequent grievance or disciplinary procedures.

**Within ten (10) working days** of the conclusion of the investigation, the college will forward the investigatory file to the Office of General Counsel.

### MCCCDC 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 finding 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, he or she will deny the request for administrative review. At this point, the complainant has exhausted the Internal Discrimination Complaint Procedure.

### Maintenance of Documentation

Documentation resulting from each level in the Discrimination Complaint Procedure (including witness statements, investigative notes, etc.) will be forwarded to and maintained by the MCCCDC 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 Representation

A complainant or respondent may be represented by another person at any stage of a complaint filed under this Discrimination Complaint Procedure.

### Confidentiality of Proceedings

Every effort will be made by the college and MCCCDC 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 MCCCDC's legal obligation to investigate and resolve issues of discrimination.

### Retaliation Prohibited

Retaliation against a person who has filed a complaint or against any witness questioned during an investigation, is strictly prohibited. Any retaliatory action by instructors, supervisors, managers, academic professionals, administrators, or other employees who have the authority to take adverse action against a complainant or witness is prohibited and may be grounds for disciplinary action up to and including termination of employment.

### 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, up to and including, termination.

### External Filing of Discrimination Complaints

MCCCD encourages individuals to use the MCCCD Internal Complaint Procedure for resolution of discrimination concerns. Individuals also have the right to file civil rights complaints with appropriate external agencies, in addition to their internal complaint. 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  
E-mail: OCR\_Denver@ed.gov





# 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 song-writing 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 prohib-

ited 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.

## Computing Resource Standards (AR 4.4)

### Introduction

The Maricopa Community Colleges provide its students and employees wide access to information resources and technologies. With the advent of new forms of technology, Maricopa Community Colleges have recognized that the free exchange of opinions and ideas essential to academic freedom is furthered by making technological resources more accessible.

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. That Maricopa makes its technology available for educational purposes requires users to observe Constitutional and other legal mandates whose aim is to safeguard equipment, networks, data and software that are acquired and maintained with public funds.

### General Responsibilities

Computing 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 Community Colleges are available only to authorized users, and any use of those resources is subject to these Standards. All users of Maricopa's

computing resources are presumed to have read and understood the Standards. While the Standards govern use of computing resources District-wide, an individual community college or center may establish guidelines for computing resource usage which supplement (but do not replace or waive) these Standards.

Use of Maricopa's computing resources, including web sites created by employees, is limited to educational, research, service, operational, and management purposes of the Maricopa Community Colleges.

It is not Maricopa's practice to monitor the content of electronic mail transmissions, files, or other data maintained in its computing resources. The maintenance, operation and security of Maricopa's computing 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 maintained there. 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 computing resources.

Frequently, access to Maricopa's computing 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 computing resources by other users, both within and outside the Maricopa Community Colleges. 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 computing 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 computing resources is prohibited from the unauthorized access to, or dissemination of, confidential records.

Maricopa personnel are discouraged from offering advice to Maricopa employees regarding personal, non-job-related use, maintenance or repair of any computer equipment or software that belongs to such employees. Maricopa can assume no responsibility for any result from such advice.

Violation of any provision of the Standards could result in immediate termination of a user's access to Maricopa's computing 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 computing 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, including (but not limited to) unauthorized installation of server system software.
5. Hosting a web site through the use of Maricopa's computing resources without the use of "maricopa.edu" in its URL. If an institution owns additional domain names, those services should directly reroute visitors to a "maricopa.edu" domain and not host web pages directly.
6. Use of computing resources for non-Maricopa commercial purposes.
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 computing resources in a manner that would constitute a violation of state or federal law, 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 computing 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 computing resources in such a way as to wrongfully hide the identity of the user or pose as another person.

### Personal Web Site Standards

Faculty, staff and students may use Maricopa's computing resources for development of personal websites as a learning tool. Use of Maricopa's resources for this purpose is a privilege, not a right. The development and maintenance of such a website is subject to the following Faculty, Staff and Student Personal Web Site Standards, as well as the General Standards for Use of Maricopa's Computing Resources:

1. The author of a web site may not use the site to advertise personal services, whether or not for financial gain, nor for any commercial purpose.
2. A website may not be created in such a way as to allow any person unauthorized access to Maricopa's computing resources.
3. The author of a website is solely responsible for the contents of the site. The home page of a personal web site must display, or link to, the following disclaimer in a conspicuous manner:
 

"This site is authored and maintained by [name of author]. It is not an official web site of the Maricopa Community Colleges, and Maricopa is not responsible for the contents of this site."
4. Maricopa does not endorse the contents of any personal website. It is solely the author's responsibility to ensure that the personal web site comply with all relevant Standards, as well as state and federal law, and any relevant policy of Maricopa's Governing Board.

5. Upon discovery of a violation of any relevant Standard, Maricopa may unilaterally delete a personal web site from its computing resources and terminate the author's access to those resources.

## 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 dean of student services' office for investigation by any member of the college community. The dean of student services' 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 dean of student services' office for investigation by any member of the college community. The dean of student services' office will investigate the complaint in accordance with college and Maricopa Community Colleges policies, and local and state laws.
- Any Maricopa Community Colleges faculty or staff member who knowingly permitted, authorized or condoned the alleged hazing activity is subject to disciplinary action in accordance with college and Maricopa Community Colleges policies, and local and state laws.
10. If the dean of student services' 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 dean of student services' 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 dean of student services' office and outlined in writing to the student club(s)/organization(s). The probationary term will be monitored by the dean of student services' 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 0.10 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.

b. 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 than 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 documentation will be needed to support requests for accommodation through the Office of Disabled Resources and

Services or the Office of Dean of Student Services.

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 dean 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 dean of student services for the types of services available in the district or community on matters regarding AIDS or the HIV virus.

## 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 may be subject to the following sanctions: sanctions 1, 2, 3, and 4 may be imposed by a faculty member. The faculty member may recommend to the department chairperson and the appropriate dean that sanctions 5, 6, or 7 be imposed. College suspension or expulsion will be imposed only by the appropriate dean.

1. Warning - A notice in writing to the student that the student has violated the academic code.
2. Grade Adjustment - Lowering of a test, assignment or academic misconduct has occurred but is confronted with facts that rebut that belief to the extent that reasonable doubt occurs, the disciplinary due process procedures should be invoked to determine guilt or innocence.
3. Discretionary Sanctions - Additional academic assignments determined by the faculty member.
4. Course Failure - Failure of a student from a course where academic misconduct occurs.
5. Disciplinary Probation - A written reprimand in response to academic misconduct. 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 the internet in violation of COMPUTING 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 a faculty member removes a student for more than one class period, the faculty member shall notify the department/division chair and the appropriate dean in writing of the problem, action taken by the faculty member, and the faculty member's recommendation. If a resolution of the problem is not reached between the faculty member and the student, the student may be removed permanently pursuant to due process procedures.

## Student Disciplinary Code (AR 2.5.2)

**Purpose**

The purpose of this policy 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 document:

- A. "College" means Maricopa Community Colleges or a designated college or center. "College president" also refers to center provost.
- B. "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."
- C. "Faculty member" means any person hired by the college or District to conduct classroom instruction.
- D. "College official" means any person employed by the college or District, performing assigned administrative or professional responsibilities pursuant to this Student Code. The college president/provost shall designate the college official to be responsible for the administration of the Student Code.
- E. "College community" means students, faculty members, college officials or any other persons employed by the college. A person's status in a particular situation shall be determined by the college president.
- F. "College premises" means all land, buildings, facilities and other property in the possession of or owned, used or controlled by the college or District.
- G. "Organization" means a group that has complied with the formal requirements for college recognition.
- H. "Judicial body" means any person or persons authorized by the college president/provost to determine whether a student has violated this Student Code and to recommend imposition of sanctions.
- I. "Judicial advisor" means a college official authorized on a case by case basis by the college president/provost to impose sanctions upon students found to have violated this Student Code. The college president/provost may authorize a judicial advisor to serve simultaneously as a judicial advisor and the sole member or one of the members of a judicial body. Nothing shall prevent the college president/provost from authorizing the same judicial advisor to impose sanctions in all cases.
- J. "Appellate boards" means any person or persons authorized by the college president/provost to consider an appeal from a judicial body's determination that a student has violated this Student Code or from the sanctions imposed by the judicial advisor. Nothing shall prevent the college president/provost from acting as the appellate board.
- K. The term "shall" is used in the imperative sense.
- L. The term "may" is used in the permissive sense.
- M. The term "policy" is defined as the written regulations of the college and/or District as found in, but not limited to, this Student Code and Governing Board policy.

**Article II: Judicial Authority**

- A. The college president/provost shall determine the composition of judicial bodies and appellate boards and determine which judicial advisor, judicial body and appellate board shall be authorized to hear each case.
- B. The judicial advisor 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 Code.

- C. Decisions made by the judicial advisor shall be final, pending the normal appeal process.

### Article III: Prescribed Conduct

#### A. Jurisdiction of the College

Generally college jurisdiction and discipline shall be limited to conduct which occurs on college/center premises and/or during college sponsored or supervised activities, or which adversely affects the college community and/or pursuit of its objectives.

#### B. 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 official, college employee 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. Disruption or obstruction of teaching, research, administration, disciplinary proceedings or college activities, including its public service functions on or off campus, or other authorized non-college activities, when the act occurs on college premises.
 

A faculty member may remove a student from a class meeting for disciplinary reasons. If a faculty member removes a student for more than one class period, the faculty member shall notify the appropriate dean 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.

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 one's self 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 published Governing Board policy, college rules or regulations.
8. Violation of federal, state or local law on college/center premises or at college-sponsored or supervised activities.
9. Use, possession, or distribution of narcotic or other controlled substances except as expressly permitted bylaw.
10. Use, possession or distribution of alcoholic beverages or public intoxication.
11. Illegal or unauthorized possession of firearms, explosives, other weapons, or dangerous chemicals on college premises.
12. Participation in a college demonstration 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; intentional obstruction that unreasonably interferes with freedom of movement, or either pedestrian or vehicular, on campus.
13. Obstruction of the free flow of pedestrian or vehicular traffic on college premises or at college sponsored or supervised activities.
14. Conduct which 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 activities sponsored by or participated in by the college.

15. Attempted or actual theft or other abuse of computer time, 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 user's identification and password
    - d. Use of computing facilities to interfere with the work of another student, faculty member or college official
    - e. Use of computing facilities to send obscene or abusive messages
    - f. Use of computing facilities to interfere with normal operation of the college computing system
    - g. Use of computing facilities for students' personal benefit
  16. Abuse of the judicial system, including but not limited to:
    - a. Falsification, distortion or misrepresentation of information before a judicial body
    - b. Disruption or interference with judicial proceedings
    - c. Institution of a judicial proceeding knowingly without cause
    - d. Attempting to discourage an individual's proper participation in, or use of, the judicial system
    - e. Attempting to influence the impartiality of the member of a judicial body prior to, and/or during the course of, the judicial proceeding
    - f. Harassment, either verbal or physical, and/or intimidation of a member of a judicial body prior to, during and/or after a judicial proceeding
    - g. Failure to comply with the sanctions imposed under this Student Code
    - h. Influence or attempting to influence another person to commit an abuse of the judicial system
- D. Violation of Law and College Discipline
1. When a student is charged only with an off-campus violation of federal, state or local laws but not with any other violation of this Student Code, disciplinary action may be taken and sanctions imposed for grave misconduct which demonstrates flagrant disre-

gard for the college community. In such cases, no sanction may be imposed unless the student has been found guilty in a court of law or has declined to confess such charges, although not actually admitting guilt, e. g., "no contest" or "nolo contendere."

2. College disciplinary proceedings may be instituted against a student charged with violation of a law which is also a violation of this Student Code, for example, if both violations result from the same factual situation, without regard to the pendency to civil litigation in court or criminal arrest and prosecution. Proceedings under this Student Code may be carried out before, during, or after civil or criminal proceedings off campus.
3. 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 considerations for that individual because of his or her status as a student. If the alleged offense is also a subject of a proceeding before a judicial body under this Student Code, however, the college may advise off campus authorities of the existence of this Student 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 personnel capacities, remain free to interact with governmental representatives as they deem appropriate.

#### Article IV: Judicial Policies

##### A. Charges and Hearings

1. Any member of the college community may file charges against any student for his conduct under this Student Code. Charges shall be prepared in writing and directed to the judicial advisor responsible for administration of the college judicial system. Any charge should be submitted within thirty (30) days of the incident. The judicial advisor will rule on the timeliness of the charges.

2. The judicial advisor 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 judicial advisor. Such dispositions shall be final and there shall be no subsequent proceedings. If the charges cannot be disposed of by mutual consent, the judicial advisor may later serve in the same matter as the judicial body or a member thereof.
  3. All charges shall be presented to the accused student in written form. A time shall be set for a hearing, not less than five (5) nor more than fifteen (15) working days after the student has been notified. Maximum time limits for scheduling of hearings may be extended at the discretion of the judicial advisor.
  4. Hearings shall be conducted by judicial body according to the following guidelines:
    - a. Hearings normally shall be conducted in private.
    - b. Admission of any person to the closed hearing shall be at the discretion of the judicial body, and/or its judicial advisor.
    - c. In hearings involving more than one accused student, the chairperson of the judicial body, in his or her discretion, may permit the hearing concerning each student to be conducted separately.
    - d. The complainant and the accused shall have the right to be assisted by any advisor they choose, at their own expense. The advisor may be an attorney. Both the complainant and the accused are responsible for presenting their own cases and, therefore, advisors are not permitted to speak or participate directly in any hearing before a judicial body.
    - e. The complainant, the accused, and the judicial body shall have the privilege of presenting witnesses, subject to the right of cross-examination.
    - f. Pertinent records, exhibits, and written statements may be accepted as evidence for consideration by a judicial body at the discretion of the chairperson.
    - g. All procedural questions are subject to the final decision of the chairperson of the judicial body.
    - h. After the hearing, the judicial body (if consisting of multiple members) shall determine by majority vote whether the student violated the designated sections of this Student Code. The judicial body shall render written findings of fact and conclusions and forward these along with recommended sanctions as outlined in Article IV, Section B to the judicial advisor within three (3) working days of the conclusion of the hearing.
    - i. The judicial body's determination shall be made on the basis of whether it is more likely than not that the accused student violated this Student Code.
  5. There shall be a single verbatim record, such as a tape recording, of all hearings before the judicial body. The record shall be the property of the college and/or District.
  6. No student may be found to have violated this Student Code solely because student failed to appear before a judicial body. In all cases, the evidence and support of the charges shall be presented and considered.
- B. Sanctions
1. The following sanctions may be imposed upon any student found to have violated the Student Code:
    - a. Warning - a written notice to the student that the student is violating or has violated institutional regulations.
    - b. Probation - a written reprimand for violation of specified regulations. Probation is for a designated period of time and includes the probability of more severe disciplinary sanctions if the student is found to be violating any institutional 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.

- e. Discretionary Sanctions - work assignments, service to the college, or other related discretionary assignments. (Such assignments must have the prior approval of the judicial advisor).
  - f. College Suspension - separation of the student from the college for a definite period of time, after which the student is eligible to return. Conditions for readmission may be specified. (College suspension applies at all of the Maricopa Community Colleges.)
  - g. College Expulsion - permanent separation of the student from the college. (College expulsion applies at all of the Maricopa Community Colleges)
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 confidential record. Upon graduation, the student's confidential record maybe expunged of disciplinary actions upon the student's application to the judicial advisor. 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.
  4. The following sanctions may be imposed upon groups or organizations:
    - a. Those sanctions listed above in Section B 1. a through d.
    - b. Deactivation -loss of all privileges, including college recognition for a designated period of time.
  5. All sanction(s) shall be determined and imposed by the judicial advisor based upon the findings and conclusions of the judicial body. The judicial advisor will consider the recommendations for sanction(s) of the judicial body but will not be bound by its recommendations. The judicial advisor will forward the sanctions s/he determines to be appropriate along with the findings and conclusion to the accused student within two (2) working days after receipt of the judicial body's findings.
- C. Interim Suspension
- In certain circumstances, appropriate college/center officials may impose an interim

suspension prior to the hearing before a judicial body.

1. Interim suspension may be imposed only:
  - a. To insure the safety and well-being of members of the college community or preservation of college property;
  - b. To insure the student's own physical or emotional safety and well-being; or
  - c. If the student poses a definite threat of disruption of or interference with the normal operations of the college.
2. During the interim suspension, the student shall be denied access to the college including classes and/or all other activities or privileges for which the student might otherwise be eligible, as the judicial advisor deems appropriate.

#### D. Appeals

1. A decision reached by the judicial body or a sanction imposed by the judicial advisor may be appealed by accused students or complainants to an appeal board within five (5) working days of receipt of the decision. Such appeals shall be in writing and shall be delivered to the judicial advisor or his/her designee.
2. An appeal shall be limited to the review of the verbatim record of the initial hearing and supporting documents for one or more of the following purposes:
  - a. To determine whether the original hearing was conducted fairly and in accordance with this Student Code prescribed procedures
  - b. To determine whether the decision reached regarding the accused student was conformed with the standard established in Article IV section A #4 i
  - c. To determine whether the sanction(s) imposed was appropriate to the violation
  - d. To consider new evidence
3. If an appeal is upheld by the appellate board, the matter shall be remanded to the original judicial body and judicial advisor for reopening of the hearing to allow consideration of the original determination and/or sanction(s).

In cases involving appeals by students accused of violating this Student Code,



review of the sanction by the appellate board may not result in more severe sanction(s) for the accused student. Instead, following an appeal, the appropriate college official may, upon review of the case, reduce but not increase the sanctions imposed by the judicial advisor.

4. In cases involving appeals by persons other than students accused of violating this Student Code, the appropriate college official may, upon review of the case, reduce or increase the sanctions imposed by the judicial advisor or remand the case to the original judicial body and judicial advisor.

#### Article V: Interpretation and Revision

- A. Any question of interpretation regarding the Student Code shall be referred to person designated in Article I #13, or his/her designee, for final determination.
- B. The Student Code shall be reviewed every three (3) years under the direction of the Vice-Chancellor for Student Development and Community Affairs.

## Student Records (AR 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.

## Student Employment (AR 2.5.4)

### A. District Student Employees

#### 1. Introduction

Students may be employed by the college as student help. District regulations require that students be hired in essential jobs and that they be properly trained and supervised.

#### 2. Philosophy and Workload for Student Employees

- a. It shall be the philosophy of Maricopa Community College District that a

- student may work to augment college and living expenses, however, the scholastic endeavor should be foremost. Sufficient time should be allotted for classroom attendance, homework, out-of-class study and participation in activities.
- b. A workload of twenty (20) hours per week should be established as the maximum number of hours a student employee may work on campus. All student employees shall be enrolled in a minimum of three (3) semester credit hours. Any combination of day and evening hours would meet this requirement. Any student employee having special reasons to work over 20 hours per week or having dropped below three (3) credit hours should request his/her immediate supervisor to obtain approval from the college president or his/her designee.
  - c. During the summer sessions, students may be eligible for employment if they were enrolled for a minimum of three (3) semester credit hours at the end of the spring semester, or if they have been accepted for admission for the fall semester. Exceptions to the three (3) semester credit hours may be made by the president, or his/her designee. Summer shall be designated as the time from the official end of the spring semester to the beginning of classes for the fall semester.
3. **Student Employee Benefits**

As student employees, there are no entitlements to employee benefits; i.e., vacation, retirement, sick leave, health and life, or disability insurance.

Students will, however, be covered under Worker's Compensation Insurance.
  4. **Student Employment Records**

Student employee records will be maintained at the Financial Aid office, the office of the fiscal agent or the Career/Placement

Office and will be reviewed periodically by the dean of student services.

5. **Student Compensation**

The hourly rate of pay for student employees shall coincide with the policies of the District Salary Schedule.

6. **Employee Contracts and Forms**

See Appendix N.

7. **Student Employee Grievance Procedure**

Part-time student employees working for one of the Maricopa Community Colleges may wish to file a grievance relating to certain working conditions or violation of student employment regulation. Please refer to the Non-Instructional Complaint Resolution Process (AR 2.3.5).

## **B. Student Security Guards**

1. **Introduction and Philosophy**

Students may be employed by the college as student help. If student guards do not come from the ranks of Administration of Justice classes, they must undergo appropriate training to qualify them as student guards. This training program is outlined in the regulation.

2. **Workload of Student Security Guards**

- a. Student security guards shall be enrolled for a minimum of three (3) semester hours.
- b. Student security guards shall be limited to 20 hours per week when the work-week starts at 7:00 a.m. on Monday and concludes at 11:00 p.m. on Friday. Additional hours may be worked if guards are assigned special duty at games or activities held on campus during the weekend, or if guards are assigned a shift on Saturday and Sunday, between 7:00a.m. and 11:00 p.m.

3. Students not in Administration of Justice Program
  - a. Use of student other than those in Administration of Justice Program:
    - 1) Selection of the student must be personally approved by the dean of student services and chief of security.
    - 2) Selection of a student should not extend beyond one semester without the approval of the dean of student services.
    - 3) Selected student must undergo a special training program directed by the chief of security and approved by the dean of student services.
  - b. Recommended program for students other than those in Administration of Justice programs:
4. Student Security Guards Employee Benefits

Students employed by campus security who are not majors in the Administration of Justice program should be given at least twenty (20) hours of training with pay before being allowed to function independently as a campus security guard. This training should include, but not be limited to instruction in:

- 1) Wearing of the uniform, general appearance, and demeanor
- 2) The use of the various security report forms and how to properly complete them to provide requested information; general report writing methods
- 3) Public relations methods used on the campus
- 4) Crime prevention methods used on the campus; patrol methods used in buildings and grounds.
- 5) Basic techniques for interviewing students, faculty and visitors relative to the incidents
- 6) Laws and regulations governing the actions of campus security personnel concerning rendering of assistance to students, faculty and visitors on the campus
- 7) Basic first aid

As student employees there are not entitlements to employee benefits; i.e., vacation

retirement, sick leave, health and life, or disability insurance. Students will, however, be covered under Worker's Compensation Insurance.

#### 5. Student Employment Records

The student security guard's employment records will be maintained at the office of the chief of security and reviewed periodically by the dean of student services.

## Student Governance (AR 2.5.5)

Student governing bodies derive their authority from the Maricopa County Community College District Governing Board that exists in accordance with Arizona Revised Statutes. The administration of the District is vested in the Chancellor who delegates responsibility for each college to the college president who serves in a management and policy implementation capacity having the ultimate responsibility for all activities of the college. The president shall designate the administrator(s) (i.e., directors of student leadership) at each college who will be charged with the responsibility for working with the college student governing body(ies) in the development of college student activities and programs.

A representative form of student governance may exist at each college/center as well as district wide to provide an effective means of communication among students, faculty, staff and administration and to provide student input in college and District matters. Eligibility requirements are to be met and spelled out in detail in each student governance constitution, with the requirements of the district-wide student governance organization outlined in the Associated Students District Advisory Council's (ASDAC) constitution. These constitutions shall establish the minimum requirements for the elective/appointive officers. All student government constitutions shall be submitted to the Governing Board legal services to ensure compliance with federal and state laws, and the Maricopa Community Colleges Governing Board Administrative Regulations. Since Rio Salado Community College is a countywide non-campus college, the president shall ensure that opportunities exist for student involvement.

College student constitutions should be reviewed annually by student governance. The appropriate dean or designee of each college shall be responsible for submitting any changes to the president of the college for transmittal to the Governing Board General Counsel.

The ASDAC student constitution shall be reviewed annually by the newly elected officers. The members/advisors of the District student leadership executive council shall be responsible for submitting any changes to the Deans of Student Services Council for transmittal to the Governing Board General Counsel.

#### **A. Officers/Members**

All reference in this document to positions will designate whether the position is an officer position or a member position.

Each student governance constitution shall define which of its elected positions (maximum of 5) within its structure shall be designated as officers. The persons filling those positions shall be referred to, in this document, as officers. Persons filling all other positions, elected or appointed, shall be referred to as members (excluding non-voting committee members).

ASDAC will be comprised of primary leaders of the student governing bodies from MCCCC colleges specifically: Chandler-Gilbert Community College, Estrella Mountain Community College, Gateway Community College, Glendale Community College, Mesa Community College, Paradise Valley Community College, Phoenix College, Rio Salado College, Scottsdale Community College, South Mountain Community College.

Each ASDAC member college is allotted one vote. The primary leader(s) of the established student governing bodies at each MCCCC higher educational institution must be in compliance with the respective office requirements of that institution.

All positions filled by election shall be considered as elected positions, even though the person filling the position may have been appointed to fill an unexpired term of another individual.

#### **B. Designation**

Colleges with two (2) student governments shall designate the governments as "day" or "evening." Colleges with one (1) government shall be considered day students, for the purposes of this document.

#### **C. Eligibility for Office**

All student governance constitutions shall prescribe that all person selected or appointed as

officers shall be enrolled in and maintain a minimum of six (6) credit hours for day student governments, three (3) credit hours for evening student governments. Officers shall have and maintain a minimum cumulative grade point average of 2.50 and be in good standing (not on probation) according to the written district policy. Convicted felons shall be ineligible for office (ARS §13-904). The constitution may, however, set more rigid requirements, if so desired by college student governance.

#### **D. Tenure of Position**

Tenure in any student governance position shall be determined by the respective student governance constitutions. In no case shall any student be allowed to serve in any combination of officer/member positions beyond a total of ten (10) semesters.

Tenure in any combination of officer positions shall be limited to four (4) semesters.

#### **E. Removal from Office**

Provisions shall be made in all student governance constitutions for removal for cause of individuals from elected or appointed student governance positions.

#### **F. Remuneration Limitations**

1. Student body officers may receive financial support and/or a letter grade in a leadership class during their terms of office as authorized in their respective student governance constitutions.

Student body officers (maximum 5) may receive up to twenty (20) hours per week in financial support and/or up to six (6) credit hours in leadership classes per semester. Remuneration shall be for services rendered and not for merely holding the office.

2. For qualifying students, Federal Work Study (FWS) funds may be used in accordance with Federal guidelines.
3. The allowance for awarding honorariums or scholarships for executive student officers is a maximum of \$200.00.
4. Compensation may be received for both honorariums/scholarships and college employment in the same semester.

**G. Amending Student Constitutions**

College student constitutions should be reviewed annually by student governance. The appropriate dean or designee of each college shall be responsible for submitting any constitutional changes to the president of the college for transmittal to the Governing Board General Counsel.

**H. Student Governance Advisors**

College organization advisors will be provided for in each student governance constitutions. Such advisors shall be full-time or part-time employees of the Maricopa Community Colleges.

Recommendations for appointment of an advisor may be submitted to the appropriate dean or college president. Recommendations for dismissal of an advisor with just cause may be submitted to the appropriate dean or college president. One or more of the directors of student leadership will serve as advisor at all official meetings and functions of ASDAC.

**I. Legal/Fiscal/Financial Matters**

Authority and responsibility beyond the scope specifically covered in student policies, or interpretation of such matters within laws, board policies, etc. shall rest with the offices of General Counsel and Chancellor, respectively.

**J. Final Authority**

In the event of a complete breakdown of the governance body, the college president will serve as the final authority.

## Eligibility for Accommodations and 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 MCCCDC admissions requirements, or be enrolled as an MCCCDC student, and must provide disability resources 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**

Student must submit a written, current diagnostic report of any physical disabilities that are based on appropriate diagnostic evaluations administered by trained and qualified (i.e., certified and/or licensed) professionals (e.g., medical doctors, ophthalmologists, neuropsychologists, audiologists).

Disability diagnosis categories include:

1. Orthopedic disability
2. Blind or visual impairment
3. Deaf or hard-of-hearing
4. Traumatic brain injury
5. Other health-related/systemic disabilities

The written diagnostic report must include:

1. A clear disability diagnosis, including a clinical history that establishes the date of diagnosis, last contact with the student, and any secondary conditions that might be present.
2. The procedures used to diagnose the disability.
3. A description of any medical and/or behavioral symptoms associated with the disability.
4. A discussion of medications, dosage, frequency, and any adverse side effects attributable to their use that the student has experienced.
5. A clear statement specifying functional manifestations (i.e., substantial limitations to one or more major life activities and degree of severity) due to the disability and/or medications for which the student may require accommodations.
6. A recommendation for accommodation, including rationale. If the accommodation recom-

mentations 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 Tests

#### 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) Sub-tests of the WAIS-R or WAIS-Third Edition
- b) Sub-tests on the Woodcock-Johnson Psycho-educational Battery-Revised, Tests of Cognitive Ability.

#### Diagnostic Report:

The diagnostic report must include the following information:

1. A diagnostic interview that addresses relevant historical information, past and current academic achievement, instructional foundation, past performance in areas of difficulty, age at initial diagnosis, and history of accommodations used in past educational settings and their effectiveness.
2. A list of all instruments used in the test battery.
3. Discussion of test behavior and specific test results.
4. A diagnostic summary statement with the following information:
  - a) A clear and direct statement that a learning disability does or does not exist, including a rule-out of alternative explanations for the learning problems. Terms such as “appears,” “suggests,” or “probable” used in the diagnostic summary statement do not support a conclusive diagnosis.
  - b) A clear statement specifying the substantial limitations to one or more major life activities.
  - c) A psychometric summary of scores.

- d) A recommendation for accommodations, including rationale.

Diagnosis of specific learning disabilities that do not contain psycho-educational measures may not be used for determining eligibility for academic accommodations. For example, school plans such as Individualized Education Plans (IEPS) or 504 plans are not adequate documentation; however, they can be included with the required evaluation. DRS reserves the right to request reassessment when questions regarding previous assessment or previous service provision arise.

#### **Attention Deficit Hyperactivity Disorder (ADHD) / Attention Deficit Disorder (ADD) – Required Documentation**

The student shall submit a current diagnosis of attention deficit hyperactivity disorder (ADHD)/attention deficit disorder (ADD) that is based on appropriate diagnostic evaluations administered by trained and qualified (i.e., certified or licensed) professionals (e.g., psychiatrists, psychologists, or neuropsychologists).

The diagnostic report must include:

1. A diagnostic interview addressing relevant historical information, past and current academic achievement, age at initial diagnosis, discussion of medication, and history and effectiveness of accommodations in past educational settings.
2. The procedures used to diagnose the disability (including a list of all instruments used in the assessment).
3. Discussion of the testing results and behavior, including the symptoms that meet the criteria diagnosis. If the student was evaluated while on medication, the effect this may have had on performance must be noted.
4. DSM-IV diagnosis (including all five axes).
5. A diagnostic summary statement that includes the following information:
  - a) A clear statement that ADHD/ADD does or does not exist, including a rule-out of alternative explanations for behaviors. Terms such as “appears,” “suggests,” or “has problems with” used in the diagnostic summary statement do not support a conclusive diagnosis.
  - b) A clear statement specifying the substantial limitations to one or more Major Life Activities and the degree of severity. If the

limitations are in learning (e.g., reading, mathematics, and written expression), an appropriate psycho-educational evaluation must be administered to document ability/achievement discrepancies.

- c) A recommendation regarding medications or medical evaluation(s).
- d) A recommendation for accommodations, including rationale.

#### **Psychological Disabilities – Required Documentation**

If the diagnostic report is more than one year old, a letter from a qualified professional that provides an update of the diagnosis with a description of the individual's current level of functioning during the past year, and a rationale for the requested accommodations must be submitted.

The diagnostic report must include the following:

1. A clinical interview, relevant historical information, age at initial diagnosis, duration and severity of the disorder.
2. Discussion of medications review of past and current academic achievement, and history of disability accommodations and their effectiveness.
3. The procedures used to diagnose the disability (include a list of all instruments used in the assessment and test scores as applicable).
4. Discussion of the assessment results.
5. DSM-IV diagnosis (include all five axes).
6. A diagnostic summary statement that includes the following:
  - a) A clear statement that a disability does or does not exist. Terms such as “appears,” “probable,” and “suggests” used in the diagnostic summary statement do not support a conclusive diagnosis.
  - b) A clear statement specifying the substantial limitations to one or more major life activities. If the limitations are in learning (e.g., reading, mathematics, and written expression), an appropriate psycho-educational evaluation must be administered to document ability/achievement discrepancies.
  - c) A discussion of medications and their possible impact on academic functioning (e.g., concentration, attention, sedation).



- d) A recommendation for essential accommodations relative to the diagnosed disability, including rationale.
- e) The duration for which these accommodations should be provided based on the current assessment.
- f) A recommendation regarding reevaluation to determine ongoing need for disability accommodations (e.g., one semester, one year, two years).

### Temporary Impairments

Some disabilities are temporary and may require accommodations for a limited time. Each case is considered individually.

The following documentation is required:

1. Written correspondence on letterhead from a qualified professional stating diagnosis, functional limitations necessitating the accommodation, and the estimated length of time services will be needed.

2. Services may be provided for ten (10) working days pending receipt of documentation. If documentation is not received by that time, services will be cancelled.

### Special Considerations

A requirement for documentation prescribed in this regulation may be considered at the discretion of each college's disability services office or designated professional if, in the professional opinion of the responsible college's disability services office or designated professional, such consideration is in the best interest of the student and will neither undermine the integrity of any college offering nor violate any mandate under state or federal law. All situations shall be considered on an individual, case-by-case basis.

Reasonable accommodation is required for students with known disabilities. MCCCDC will make every attempt to provide "preferred" accommodations, however, "the most effective and reasonable" accommodations may be determined to meet sufficient accessibility needs.



# College Regulations and Practices

## Clubs and Organizations

Student Development is expressed in diverse experiences on campus. Student life is an important part of the collegiate experience for all students attending a Maricopa Community College.

Opportunities will be available through the development of clubs, organizations and volunteerism at every campus serving a diverse student population.

Petitions for new college organizations are obtained from the office designated by student governance or, in its absence, by the designated dean.

The petition must be signed by at least fifteen (15) students interested in organizing a club. A general outline of the proposed constitution indicating the objectives and procedures for the club shall accompany the petition. Approved constitutions of all college organizations must include the following provisions:

1. College organization advisors must be provided for in each club/organization's constitution.
2. All monies of the organization must be deposited with the college fiscal agent and be expended by requisition authorized by the designated organization officer(s), college administrator and college fiscal agent.

A recommendation for approval should be forwarded to the college president/provost.

Fund-raising projects may be held on or in college/center facilities when approved specifically within issued guidelines.

## College and Student Activities Budgets

CGCC allocates funds to a variety of college and student activities. These funds cover a host of special events, cultural celebrations, cocurricular activities, academic recognitions, service learning, and a variety of performing arts activities. Please contact the Dean of Students Office at (480) 732-7310 for more information.

## College Safety Regulations

### Emergencies

In the event of emergencies on campus, contact the College Safety department at (480) 732-7280 on the Pecos Campus or (480) 988-8888 on the Williams Campus.

**Call 911 in the event of a medical emergency.**

### Identification

College Safety personnel are authorized to ask any person on campus for proper identification, should the need arise. Students failing or refusing to identify themselves properly will be:

1. Asked to leave the campus (if conduct or behavior warrants such action), and
2. Reported to the Dean of Students.

### Weapons

All firearms, explosives, knives, or instruments that can be construed as dangerous weapons are prohibited on campus. Only certified peace officers are permitted to carry firearms at the college. All persons bringing firearms or other weapons for classroom demonstrations or any other academic reason are required to bring them to the College Safety department for examination.

### Motor Vehicles

The administration of college regulations governing motor vehicles operated by CGCC students shall be under the jurisdiction of the college administration.

### Vehicle Damage or Loss

Chandler-Gilbert Community College assumes no responsibility for damage to motor vehicles, or for any loss while vehicles are parked or operated on or near the campus.

### Vehicle Registration

Every student, faculty or staff member who owns or drives a motor vehicle on campus is required to register it and any other vehicles that may be used on

campus with the College Safety department. Persons who purchase or trade their vehicles must register new vehicles.

An out-of-state/out-of-country student or college employee who operates or parks a motor vehicle on college property must sign an affidavit at the time of registration certifying that the vehicle complies with A.R.S. 49-542 relating to vehicle emission testing. Vehicles which do not comply with A.R.S. 49-542 will not be granted a permit.

Vehicles must be registered in person at the College Safety department in Building M, Room 105, at the Pecos Campus and in the Aviation and Technology Center at the Williams Campus.

### College Traffic Regulations

The following college traffic regulations are applicable to all members of the college community, including students, faculty, staff, and visitors:

1. Maximum speed limit on campus is 15 m.p.h.
2. Students, faculty, and staff members who operate a motor vehicle on campus must register their vehicle with the College Safety Department and display the sticker in accordance with current regulations.
3. Drivers must observe and comply with stop signs, pavement arrows, right-turn-only signs, and other traffic control devices. All vehicles must stop at marked crosswalks to yield to pedestrian traffic within the crosswalks.
4. Persons driving on campus must follow directions given by College Safety officers and furnish student or other identification when so required.
5. Vehicles may be parked only in those spaces designated for a particular sticker.
6. Students may park in any parking space except those marked Visitors, Handicapped, Maintenance, Employees, No Parking, or any area with a red or yellow curb.
7. Persons having a Handicapped sticker on their vehicle may use any marked space on the campus, including those marked Handicapped, except those areas with red or yellow curbs.
8. No vehicle other than an emergency vehicle may be parked along red curbs or in striped areas. These are fire-hazard and safety zones, and violators will be towed away without warning at the owner's expense.

9. No vehicle may be parked in driveways, where signs indicate No Parking, or in areas not specifically marked for parking.
10. Visitors may use student zones on a temporary basis. Visitor permits may be obtained from the College Safety department.
11. In angled parking spaces, no vehicle may be parked in a direction opposite the normal direction of traffic.
12. Parking of motorcycles, mopeds and bicycles:
  - a. Students are urged to exercise care in securing their personal property, including motor vehicles, bicycles, mopeds, and motorcycles.
  - b. Motorcycles and mopeds may be parked only on crossbars. Bicycles must be parked in existing bike racks only. Mopeds, bicycles, and/or motorcycles that are found chained or affixed to trees, buildings, or light posts are subject to having their chains cut and being removed to the College Safety department. Owners will be responsible for the cost of the lock or cut chain.

### Traffic Violation Penalties

Violation of traffic regulations will result in a citation and a fine being issued. In the case of parking violations, repeaters' vehicles may be towed away at their owner's expense.

All monetary fines shall be paid to the college cashier in the Cashier/Fiscal office. Payment may be made in person or by mail. Failure to pay or appeal a citation **within 15 working days** of date of issue will result in the fine being doubled. In order to insure due process, fines may be appealed to the Dean of Student Services, located in the Student Center, Room SC150, on the Pecos Campus.

### Williams Campus Parking

CGCC students and employees choosing to park on Arizona State University East (ASU East) property at the Williams Campus are required to register their vehicles and purchase and display ASU parking decals. ASU parking decals can be purchased at the ASU East Cashier's office in the Academic Center. CGCC students and employees are responsible for citations and/or penalties resulting from parking violations.

## Intercollegiate Athletics

Community colleges are intended to serve the needs of the community insofar as possible within the resources available to the Governing Board. Athletic programs are considered to be within the scope of this mission. Therefore, a proportionate part of the resources shall be used to provide athletic programs.

Within the guidelines of offering substantial athletic programs, residents of the college community shall be served by these programs. Priority shall be given the residents of the college community for participation in the programs. However, no properly registered student shall be denied an equal opportunity to participate in any college activity.

Contact your campus athletic director and/or the Dean of Student Services for the regulations and procedures specific to the athletics program.

## Student Dress Code

Students are expected to dress appropriately and in good taste at all times while on campus, in the classroom, or in the Student Center. Students are required to wear some type of shirt in addition to other normal apparel. State Health Department laws and college policy require that all students wear shoes.

If, in the opinion of the faculty or staff member, any student's dress, manner, appearance, or conduct distracts, disrupts or interferes in any way with the classroom procedures or the educational processes, the violator may be asked to leave the classroom or the campus. The violator may not return until the condition is corrected or the case is reviewed by the proper authorities.

## Student Identification Cards

Student identification (ID) cards can be obtained from the Office of Student Life, Student Center Pavillion Information Desk at the Pecos Campus, or the Aviation and Technology Center at the Williams Campus. The first card is free and can be obtained after payment of tuition and fees. The card is used to access many of the services on campus including the Library and Fitness Center and should be kept from semester to semester. Replacement cards can be purchased for \$5 at the Fiscal Office, Room A139, at the

Pecos Campus, or the Aviation and Technology Center at the Williams Campus.

## Student Immunization

Students who were born after January, 1957, and who were not immunized after 1968 are urged to seek immunization for measles/rubella to safeguard their health and to prevent illness that could interrupt their educational plans.

Students transferring to one of the three state universities must have up-to-date immunization records.

All Arizona State Universities require immunization for admittance.

## Travel by Students

Official college trips should be made in vehicles provided by the college or by commercial vehicles. College vehicles may be used for official college business only. See MCCD policy on Operation and Insurance Coverage of District Owned and/or Lease Vehicles and Privately Owned Vehicular Usage for District Purposes.

The college president may require an advisor(s) for college-sponsored student trips that involve out-of-county travel. No approved college organization, association or club that is financed out of the appropriate revenue fund budget shall travel out of state more than three (3) times during one (1) school year. Exceptions may be made for student officers who hold offices in national or regional organizations and tournaments. For travel out of the country, Governing Board approval is required.

If campus financial support is requested for attending tournaments or club functions, students must obtain campus approval prior to running for national or regional organizations and/or officer positions.

# DEGREE REQUIREMENTS



2004-05



# 2004-2005 Graduation/General Education Policies

## FOR MARICOPA COMMUNITY COLLEGES

### 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)

(1993 or Any  
Subsequent

Transferred to a University .Spring '95 . . . . .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)

(1994 or Any  
Subsequent

Transferred to a University .Fall '94 . . . . .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)

(1994 or Any  
Subsequent

Transferred to a University .Spring '95 . . . . .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)

(1992 or Any  
Subsequent

Transferred to a University .Fall '94 . . . . .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)

(1994 or Any  
Subsequent

Transferred to a University .Summer '96 . . . . .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.

## General Graduation Requirements (AR 2.3.9)

All students are required to complete the degree and/or certificate requirements as approved by the MCCCDC 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, except in cases where the certificate requires fewer than 12 credit units.
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.

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.

## 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) Associate in Arts; (4) Associate in Science; (5) Associate in Business; (6) Associate in General Studies; (7) Associate in Transfer Partnership; and (8) Associate in Applied Science (Career Program Specified).

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

## 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.

## MCCCCD 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.

## 2004-2005 Arizona General Education Curriculum (AGEC) – A, B, S

### Description

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

All credits used to satisfy the MCCCD AGEC will apply to graduation requirements of the university major for which the AGEC 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 AGEC A is a component of the MCCCD Associate in Arts, the AGEC B is a component of the MCCCD Associate in Business, and the AGEC S is a component of the MCCCD Associate in Science.

### Purpose of the AGECS

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

[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  
Select Degrees and Pathways  
Scroll down to the bottom of the page  
Select the letter of the major you're interested in.

1. The AGEC A is designed to satisfy requirements in many liberal arts majors as well as other majors that articulate with the Associate in Arts (e.g., social sciences, fine arts, humanities). AGEC A requires a minimum of college mathematics or college algebra to satisfy the Mathematics [MA] requirement. AGEC A Mathematics requirement is less stringent than the AGEC B and AGEC S. AGEC A and AGEC B Natural Sciences requirements are less stringent than AGEC S.
2. The AGEC B is designed to satisfy requirements in business majors that articulate with the Associate in Business. AGEC B requires a minimum of brief calculus to satisfy the Mathematics [MA] requirement.
3. The AGEC S is designed to satisfy requirements in majors with more prescriptive mathematics and mathematics-based science requirements. AGEC S articulates with the Associate in Science. AGEC S requires a minimum of the first course in a calculus sequence to satisfy the Mathematics [MA] requirement, and a minimum of eight credits of either university chemistry, university physics or general biology to satisfy the Natural Sciences [SQ/SG] requirement.

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

- \* Requires 35 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 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.

- \* 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 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 Program Information
- Scroll down to Program Sorting/Reporting
- Select AGECE Course Matrix or
- Select the Current Academic Year
- Select the desired General Education Designation

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 AGECE A, B, or S list.

	<b>Credits</b>
<b>A. Core Areas:</b> .....	<b>.35</b>
<b>1. First-Year Composition (FYC)</b> .....	<b>.6</b>
<b>2. Literacy and Critical Inquiry [L]</b> .....	<b>.3</b>
<b>3. Mathematical Studies [MA/CS]</b> .....	<b>.6</b>
To complete the Mathematical Studies requirement select one course to satisfy Mathematics [MA], and a second course from Computer/Statistics/Quantitative Applications [CS].	
NOTE: The Mathematics [MA] requirement differs for AGECE A, AGECE B, and AGECE S.	

**AGEC A requires:**

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

**AGEC B requires:**

- a. Mathematics [MA] B (3 credits) AND  
NOTE: requires a course in brief calculus or a higher level mathematics course.
- b. Computer/Statistics/Quantitative Applications [CS] (3 credits)

**AGEC S requires:**

- a. Mathematics [MA] S (3 credits) AND  
NOTE: requires the first course in a calculus sequence or any mathematics course for which that course is a prerequisite.
- b. Computer/Statistics/Quantitative Applications [CS] (3 credits)

- 4. **Humanities and Fine Arts [HU]** ..... **.6**  
Students are encouraged to choose courses from more than one discipline for a total of six semester credits.
- 5. **Social and Behavioral Sciences [SB]** ..... **.6**  
Students are encouraged to choose courses from more than one discipline for a total of six semester credits.
- 6. **Natural Sciences [SQ/SG]** ..... **.8**  
To complete the Natural Sciences requirement:

AGEC A and AGECE B require four (4) semester credits of [SQ] and four (4) semester credits of [SG] for a total of eight (8) semester credits, OR eight (8) semester credits of [SQ]. Students cannot take eight (8) semester credits of [SG] to meet the Natural Sciences requirement.

The Natural Sciences requirement [SQ/SG] differs for AGECE S. AGECE 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.

**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 semester credits to complete any of the three MCCC CD AGECEs 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 .....Credits**

**First-Year Composition (FYC) .....6**

A total of six semester credits 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] .....3**

A total of three semester credits 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.

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 .....6**

A total of six semester credits must be completed with a grade of “C” or better in the Mathematical Studies Core Area. One course must be selected from Mathematics [MA]. 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.

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

AGEC A, B, and S [CS] option 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.

**Humanities and Fine Arts [HU] .....6**

A total of six semester credits 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 for a total of six semester credits.

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] .....6**

A total of six semester credits 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 for a total of six semester credits.

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] . . . . .8**

A total of eight semester credits 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 [SQ], [SG] 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

**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 oneself. 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.



# 2004-2005 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)
  - MCCCD Additional Requirements
- II. General Electives

## Purpose of the Degree

The Associate in Arts degree is designed for students planning to transfer to four-year colleges and universities. In general, the components of the degree meet requirements for majors in the Liberal Arts or programs of study other than business or science. 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 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 AGEC-A provides for exemption from Arizona public university admission requirements for Arizona residents who have a minimum Grade Point Average of 2.0 on a 4.0=A scale and a minimum 2.5 on a 4.0=A scale for non-residents.
- \* The graduation policies within the general catalog must be satisfied for completion of the Associate in Arts degree.
- \* A minimum of 60 semester credits in courses numbered 100 and above to be completed with a grade of "C" or better.
- \* The General Education Requirements for AGEC-A may be completed in 35 semester credits with the following stipulations:
  1. Courses can satisfy a Core Area and one or two Awareness Areas simultaneously
  2. A courses cannot be used to satisfy more than one Core Area
- \* General Education Courses can satisfy multiple areas within the degree simultaneously (AGEC-A Core Area, AGEC Awareness Area, MCCCD Additional Requirements, or lower-division courses applicable to the major).
- \* Effective Fall 2000, the course evaluation and/or general education designation as listed in the Arizona Course Equivalency Guide (CEG) within the Arizona Course Applicability System (AZCAS), is valid for the term in which the student is awarded credit on the transcript. A course evaluation and/or general education designation may be subject to change. Students do have the option to petition for general education evaluations and/or general education designations upon transfer.
- \* Courses completed at one of the Maricopa Community Colleges to meet AGEC-A requirements must be listed in the Course Equivalency Guide within the Arizona Course Applicability System as an equivalent course, departmental elective credit (XXXXDEC), or general elective credit (Elective) at all Arizona public universities. The course's evaluation and/or general education designation is valid for the term in which the student is awarded credit on the transcript. See the list titled MCCCD Courses That Can Be used to Satisfy MCCCD AGEC-A, AGEC-B, and/or AGEC-S for specific course information via the following website: <http://www.dist.maricopa.edu/academic/curric/>.

**Associate in Arts Degree Continued**

- \* 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 Credits**

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

**A. MCCCDCourses AGEC-A**

- |  |            |
|--|------------|
| <b>1. Core Areas:</b> .....  | <b>.35</b> |
| <b>a. First-Year Composition (FYC)</b> .....   | <b>.6</b>  |
| <b>b. Literacy and Critical Inquiry [L]</b> .....  | <b>.3</b>  |
| <b>c. Mathematical Studies [MA/CS]</b> .....   | <b>.6</b>  |
| 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)  |            |
| <b>d. Humanities and Fine Arts [HU]</b> .....  | <b>.6</b>  |
| Students are encouraged to choose course work from more than one discipline for a total of six semester credits.   |            |
| <b>e. Social and Behavioral Sciences [SB]</b> .....  | <b>.6</b>  |
| 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. MCCCDC 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 MCCCDC Additional Requirements because courses can satisfy a Core Area and MCCCDC 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)

**Associate in Arts Degree Continued**

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

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

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

## 2004-2005 Associate in Science (AS) Degree

**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)  
MCCCCD 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 MCCCDC 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 AGEC-S provides for exemption from Arizona public university admission requirements for Arizona residents who have a minimum Grade Point Average of 2.0 on a 4.0=A scale and a minimum 2.5 on a 4.0=A scale for non-residents.
- \* The graduation policies within the general catalog must be satisfied for completion of the Associate in Science degree.
- \* A minimum of 60 semester credits in courses numbered 100 and above to be completed with a grade of "C" or better.
- \* The General Education Requirements for AGEC-S may be completed in 35 semester credits with the following stipulations:
  1. Courses can satisfy a Core Area and one or two Awareness Areas simultaneously.
  2. A courses cannot be used to satisfy more than one Core Area.
- \* General Education Courses can satisfy multiple areas within the degree simultaneously (AGEC-S Core Area, AGEC 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-S requirements must be listed in the Course Equivalency Guide within the Arizona Course Applicability System as an equivalent course, departmental elective credit (XXXXDEC), or general elective credit (Elective) at all Arizona public universities. The course's evaluation and/or general education designation is valid for the term in which the student is awarded credit on the transcript. See the list titled MCCCDC Courses That Can Be used to Satisfy MCCCDC 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-S or Associate in Science Degree.
- \* Courses and their modular equivalents will satisfy AGEC-S and Associate in Science requirements.
- \* If a course is cross-referenced with one or more other courses, then only one of the cross-referenced courses will be accepted to meet requirements.

**Associate in Science Degree Continued****Degree Requirements**

The 60-64 semester credits required for the Associate in Science 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 alphabetical 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.

- |   |                |
|---|----------------|
| <b>I. MCCCDCourses General Education</b>  | <b>Credits</b> |
| The MCCCDCourses General Education includes two areas: MCCCDCourses AGEC-S and MCCCDCourses Additional Requirements.  |                |
| <b>A. MCCCDCourses AGEC-S</b>   |                |
| <b>1. Core Areas:</b> .....   | <b>35</b>      |
| <b>a. First-Year Composition (FYC)</b> .....  | <b>6</b>       |
| <b>b. Literacy and Critical Inquiry [L]</b> .....   | <b>3</b>       |
| <b>c. Mathematical Studies [MA/CS]</b> .....  | <b>6</b>       |
| To complete the Mathematical Studies requirement, select one course to satisfy Mathematics [MA] S and a second course from Computer/Statistics/Quantitative Applications [CS].  |                |
| 1) Mathematics [MA] S (3 credits)   |                |
| Select a calculus course MAT220 or MAT221, or any mathematics course for which MAT220 or MAT221 is a prerequisite.  |                |
| AND   |                |
| 2) Computer/Statistics/Quantitative Applications [CS] (3 credits)   |                |
| <b>d. Humanities and Fine Arts [HU]</b> .....   | <b>6</b>       |
| Students are encouraged to choose course work from more than one discipline for a total of six semester credits.  |                |
| <b>e. Social and Behavioral Sciences [SB]</b> .....   | <b>6</b>       |
| Students are encouraged to choose course work from more than one discipline for a total of six semester credits.  |                |
| <b>f. Natural Sciences [SQ/SG]</b> .....  | <b>8</b>       |
| To complete the Natural Sciences requirement:   |                |
| Select eight (8) semester credits of either general chemistry<br>CHM151 & CHM151LL, and CHM152 & CHM152LL   |                |
| OR  |                |
| Eight (8) semester credits of university physics<br>PHY115 & PHY116, or PHY121 & PHY131   |                |
| OR  |                |
| Eight (8) semester credits of general biology, BIO181 & BIO182 appropriate to the major   |                |
| <b>2. Awareness Areas:</b>  |                |
| 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. MCCCDC 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 MCCCDC Additional Requirements because courses can satisfy a Core Area and MCCCDC 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-S 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 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 MCCCDC 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.

**Associate in Science Degree Continued**

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

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

**Associate in Science Total Credits:** . . . . . **60-64**

## 2004-2005 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. MCCCDC General Education, which includes Arizona General Education Curriculum for Business (AGEC-B),
- II. Common Lower Division Program Requirements,
- III. General Electives.

**Purpose of the Degree**

The ABus GR degree is designed for students who plan to transfer to Arizona's public universities into majors that articulate with the Associate in Business General Requirements pathway and for students who plan to complete lower division 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 MCCCDC 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 AGECEC B without exceeding the 35 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.



- \* Uses the following policy to help students complete the program requirements at a minimum of 62 semester credits but not more than 63 semester credits:

Courses can satisfy multiple areas within the degree simultaneously (AGEC B Core Area, AGECE B Awareness Area, and/or Common Lower Division Program Requirements)

- \* Follows the general education policy below:

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

Effective Fall 2000 the course evaluation and/or general education designation as listed in the Arizona CEG (Course Equivalency Guide) within the Arizona Course Applicability System (AZCAS) is valid for the term in which the student is awarded credit on the transcript. A course evaluation and/or general education designation may be subject to change. Given that curriculum is dynamic at both 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 AGECE A, AGECE B and/or AGECE S for specific course information via the following website:

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

Select Program Information  
 Scroll down to Program Sorting/Reporting  
 Select AGECE Course Matrix  
 Select Current Academic Year  
 Select desired General Studies Designation

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 AGECE A, B, or S list.

<b>I. MCCCDC General Education</b>	<b>Credits</b>
<b>A. MCCCDC AGECE B</b>	
<b>1. Core Areas:</b> .....	<b>.35</b>
<b>a. First-Year Composition (FYC)</b> .....	<b>.6</b>
<b>b. Literacy and Critical Inquiry [L]</b> .....	<b>.3</b>

**Associate in Business Degree, General Requirements Continued**

- 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)  
 Note: Students are encouraged to select GBS221 or CIS105 to satisfy [CS].
  
- 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 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 & ACC230 & ACC240  
 OR  
 ACC211 & ACC212 .....6-7  
*Note: MCCC CD ACC250 or ACC211 may be taken in lieu of ACC111. MCCC CD ACC111 and ACC112 together are equivalent to ACC211.*  
 CIS105 [CS] .....3  
 ECN111 [SB] .....3  
 ECN112 [SB] .....3  
 GBS205 .....3  
 GBS220 or MAT172 [MA] .....3  
 GBS221 [CS] .....3

Business Elective: .....3  
 Select from the following options:  
 CIS158 [CS] .....COBOL Programming I  
 CIS159 [CS] .....Visual Basic Programming I  
 CIS162AA [CS] .....C: Level I  
 CIS162AB [CS] .....C++: Level I  
 CIS162AC [CS] .....Visual C++: Level I  
 CIS163AA [CS] .....Java Programming: Level I  
 GBS151 .....Introduction to Business  
 GBS233 [L] .....Business Communication  
 MGT251 .....Human Relations in Business  
 MGT253 .....Owning and Operating a Small Business  
 REA179 .....Real Estate Principles I

**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.

**Associate in Business, General Requirements Total Credits: .....62-63**



## 2004-2005 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 (ABus GR) is designed for all other business majors. Additional information on academic majors at the Arizona public universities can be accessed via the following web site:

[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:
  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.
- \* 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).
- \* 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 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 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/>

Select Program Information  
 Scroll down to Program Sorting/Reporting  
 Select AGECE Course Matrix  
 Select Current Academic Year  
 Select Desired General Studies Designation

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 AGECE A, B, or S list.

<b>I. MCCCDC General Education</b>	<b>Credits</b>
<b>A. MCCCDC AGECE B</b>	
<b>1. Core Areas:</b> .....	<b>.35</b>
<b>a. First-Year Composition (FYC)</b> .....	<b>.6</b>
<b>b. Literacy and Critical Inquiry [L]</b> .....	<b>.3</b>
<b>c. Mathematical Studies [MA/CS]</b> .....	<b>.6</b>
To complete the Mathematical Studies requirement select one course to satisfy the Mathematics [MA] B and a second course from Computer/Statistics/Quantitative Applications [CS].	
1) Mathematics [MA] B (3 credits) MAT212, Brief Calculus, or a higher level mathematics course	
AND	
2) Computer/Statistics/Quantitative Applications [CS] Note: Students are encouraged to select GBS221 or CIS105 to satisfy [CS].	

**Associate in Business Degree, Special Requirements Continued**

- 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]

**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:                                       | CIS159 [CS] Programming I (Visual Basic): . . .3 |
| ACC111 & ACC230 & ACC240                          | CIS163AA Programming II (Java): . . . . .3       |
| OR  | GBS205 . . . . .3                                |
| ACC211 & ACC212 . . . . .6-7                      | GBS220 or MAT172 [MA] . . . . .3                 |
| <i>Note: MCCCDC ACC250 or ACC211 may be taken</i> | GBS221 [CS] . . . . .3                           |
| <i>in lieu of ACC111. MCCCDC ACC111 and</i>       | ECN111 [SB] . . . . .3                           |
| <i>ACC112 together are equivalent to ACC211.</i>  | ECN112 [SB] . . . . .3                           |

**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.

**Associate in Business, Special Requirements Total Credits: . . . . .62-63**

## 2004-2005 Associate in Arts in Elementary Education (AAEE) Degree

**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 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 in Elementary Education Degree:**

- \* Requires completion of 60-63 semester credits in courses numbered 100 and above with a grade of "C" or better.
- \* Is governed by the following policies to enable students to satisfy AGEC-A requirements without exceeding the 35 semester credits:
  1. Courses can satisfy a Core Area Requirement and one or more Awareness Areas simultaneously.
  2. Courses can satisfy an Elementary Education Requirement and one or more Awareness Areas simultaneously.
  3. A course cannot satisfy more than one Core Area Requirement.
  4. A course cannot satisfy both the Elementary Education Requirement and a Core Area Requirement simultaneously.

**Associate in Arts in Elementary Education Degree Continued**

- 5. Effective Fall 2000, the course evaluation and/or general education designation listed in the CEG/AZCAS (Course Equivalency Guide/Arizona Course Applicability System) 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 general education evaluations and/or general education designations.

\*Note: The Second Summer 2000 term is the last term that the course evaluation and/or the general education designation as listed in the printed Course Equivalency Guide (CEG) is valid for the academic year in which the student completes the course. Summer session is included with the previous academic year.

- 6. All courses applied to AGEC-A must transfer as an equivalent course, a departmental elective credit, or general elective credit (E) at all Arizona public universities according to the CEG within the CAS.

- \* Follows MCCC graduation policies within the college catalog.
- \* Recognizes both courses and their modular equivalents; either a course or its modular equivalents satisfy the Associate in Arts in Elementary Education requirements.
- \* Recognizes both courses and their cross-references as equivalent courses.
- \* Provides exemption from Arizona public university admission requirements for students who complete the AAEE 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**

<b>I. MCCC General Education Requirements</b>	<b>Credits</b>
<b>A. MCCC AGEC - A</b>	
<b>1. Core Areas</b> .....	<b>.35-38</b>
<b>a. First-Year Composition [FYC]</b> .....	<b>.6</b>
ENG101/102 OR ENG107/108	
<b>b. Mathematics Studies [MA] and Computer/Statistics/Quantitative Applications [CS]</b> . . .	<b>.6</b>
1) MAT142 [MA] College Mathematics, or higher (NOTE: MAT156 and MAT157 are excluded) AND	
2) CIS105 [CS] Survey of Computer Information Systems, OR BPC110 [CS] Computer Usage and Applications	
<b>c. Literacy and Critical Inquiry [L]</b> .....	<b>.3</b>
Select 3 semester credits from the following courses:	
COM225 Public Speaking, or COM230 Small Group Communication	
<b>d. Humanities and Fine Arts [HU]</b> .....	<b>.6</b>
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
  - THE220 Modern Drama
  - DAH100 Introduction to Dance
  - DAH201 World Dance Perspectives

**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
  - ECN111 Macroeconomic Principles
  - ECN112 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.

Select SQ and SG courses from the following categories:

- 1) Life Sciences
- AND
- 2) Physical Sciences OR Earth/Space Sciences

**2. Awareness Areas . . . . .0**

The MCCCCD 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.

**Associate in Arts in Elementary Education Degree Continued**

<b>3. MCCCCD Additional Requirements</b> .....	<b>0-3</b>
<b>a. Oral Communication</b> Satisfied by COM225 or COM 230 taken for Literacy and Critical Inquiry Requirement	
<b>b. Critical Reading</b> CRE101 or exemption by testing	
<b>II. Elementary Education Requirements</b> .....	<b>25</b>
A total of 25 semester credits are required to satisfy the Elementary Education Requirements.	
<b>A. Education Foundations</b> .....	<b>15</b>
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>B. Electives for Arizona Professional Teacher Standards</b> .....	<b>10</b>
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.	
<b>1. Additional Education Course Requirement</b>	
Select any EDU course (except EDU250) to satisfy this requirement.	
<b>2. Content Area Electives</b>	
Select 7 credits from the following:	
Any ARH, ART, CIS, BPC, ENG, ENH, 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	
<b>Associate in Arts in Elementary Education Total Credits:</b> .....	<b>60-63</b>

# 2004-2005 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.

## Degree Requirements

### GENERAL EDUCATION CORE (16 credits – grade of "C" or better)

- **First-Year Composition (6 credits)**  
ENG English [101/107] & [102/108]
- **Oral Communication (3 credits)**  
COM Communication **100/100AA&100AB&100AC/110/110AA&110AB&110AC/225/230**
- **Critical Reading (3 credits)**  
CRE Critical Reading **101**/Equivalent as indicated by assessment.
- **Mathematics (3 credits)**  
MAT Mathematics **102/105/120/121/122/122AA/122AB/122AC/126/142/150/151/151AA/151AB/151AC/151AD/152/156/162/172/182/187/206/212/216/220/221/225/226/227/230/231/236/241/262/equivalent course/Satisfactory completion of a higher level Mathematics course.**

**Associate in General Studies Degree Continued**

- **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
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
BPC	Business-Personal Computers Any BPC Course(s)
CFS	Child/Family Studies 180
CIS	Computer Information Systems Any CIS Course(s)
CSC	Computer Science Any CSC Course(s)
CTR	Court Reporting 101/102
DFT	Drafting Technology 103/105/any 105 module/150/151/200/201/251/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 115/150/181/241/243/245/281
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 217/219
HRM	Hotel Restaurant Management 126
JRN	Journalism 133
LAS	Legal Assisting 229
LBT	Library Technology 106
MAT	Mathematics 206
MET	Manufacturing Technology 105AA/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
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:

AJS	Administration of Justice Studies 123
ARH	Art Humanities Any ARH Course(s)
ASB	Anthropology 211/222/223

COM	Communication 241
DAH	Dance Humanities 100/201
EDU	Education 291/292/294
ENG	English 200/260
ENH	English Humanities Any ENH Course(s)
FRE	French 265/266
HCR	Health Care Related 210
HIS	History 109/243
HUM	Humanities Any HUM course(s)
INT	Interior Design 115/120/225
LAT	Latin 201/202
MHL	Music: History/Literature 141/142/143/145/146/147/153/155
PHI	Philosophy Any PHI Course(s) (EXCEPT 113)
REL	Religious Studies Any REL Course(s)
SPA	Spanish 265/266
SPH	Spanish Humanities 150/151/245
STO	Storytelling 292/294
TCM	Telecommunication 145
THE	Theater 111/205/206/210/220/260
THP	Theater/Performance/Production 241
WST	Women's Studies 209/284/285

- **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 110/203/204
AJS	Administration of Justice Studies 101/ <b>119</b> /200/225/259/270
ASB	Anthropology 100/102/211/214//222/223/230/235/238/245
ASM	Anthropology 104
CFS	Child/Family Studies 157/159/176/205/259
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 258
FUS	Future Studies 101
GBS	General Business 280
GCU	Cultural Geography 102/121/122/141/221/253
HES	Health Science 100
HIS	History any HIS Course(s)
IBS	International Business 109
MCO	Mass Communications 120
PHI	Philosophy 243
POS	Political Science Any POS course(s)
PSY	Psychology 101/123/132/156/157/215/218/235/240/245/250/258/259/260/266/270/277/ 280/281/292
REC	Recreation 120/160
REL	Religious Studies 243
SBU	Society and Business 200
SOC	Sociology Any SOC course(s) (EXCEPT 242)
SWU	Social Work 102/258/271/292*
TEC	Textiles and Clothing 105/106
WED	Wellness Education 100/110
WST	Women's Studies 100/105/110/120/160/161
YAQ	Yaqui Indian History & Culture 100

**Associate in General Studies Degree Continued**

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

Two lecture courses and one corresponding laboratory course are to be selected. The lecture and corresponding laboratory course(s) may carry separate credit. For appropriate course selection students should consult with an advisor.

AGS	Agricultural Science 164,183
ASB	Anthropology 231
ASM	Anthropology 104, 265
AST	Astronomy 101/102/111/112/113/114
BIO	Biology 100/101/102/105/107*/108/109/110/145/149AF/149AH/149AI/149AJ/149AK/ 149AL/149AM/AN/150/156/160/181/182/201/205/241/245&246
CHM	Chemistry 107/107LL/130/130LL/151/151LL/152/152LL/154/154LL/230/230LL
GLG	Geology Any GLG course(s)
GPH	Physical Geography 111/112/113/210/211/212/214
ISS	Interdisciplinary Science Studies 111/112
PHS	Physical Science 110/120
PHY	Physics 101/111/112/115/116/121/131/252
PSY	Psychology 290AB/290AC

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

AIS	American Indian Studies 213
CCS	Chicana and Chicano Studies 101
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
FON	Food & Nutrition 206
GBS	General Business 233
GPH	Physical Geography 211/212&214*
HCR	Health Care Related 220
HUM	Humanities 250/251
IGS	Integrated Studies 290AA&290AB/291/293
JRN	Journalism 201/212
MCO	Mass Communications 220
PHI	Philosophy 103/106/225
POS	Political Science 115
PSY	Psychology 290AB/290AC
REL	Religious Studies 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.

# 2004-2005 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.dist.maricopa.edu/academic/curric/>

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**

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

**Associate in Transfer Partnership Degree Continued**

Associate in Transfer Partnership degrees are available in the following areas. Other ATP degrees may be added later depending on curricular needs:

Accountancy	K-8 Classroom Instructional Support
American Indian Studies	Kinesiology
Business	Nonprofit/Youth & Human Service Leadership & Management
Computer Information Systems	Nursing
Construction	Psychology
Elementary Education	Recreation
Exercise and Wellness	Social Work
Food & Nutrition	
Housing & Urban Development	

## 2004-2005 Associate in Applied Science (AAS) Degree, General Education Requirements

**Purpose of the Degree**

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

**Academic Policies that Govern the AAS degree:**

- \* Requires 60 or more credits numbered 100 or above and includes credits or the equivalent in the General Education Core areas and credits in the Distribution areas. AAS degree requirements follow with the use of a diagonal character (/) between course numbers to signify options. An asterisk (\*) following the course number defines requirements with an effective begin term of spring.
- \* Requires grades as listed for specific areas such as the General Education Core where a minimum grade of "C" is required. See specific AAS occupational degree for specific program grade requirements.
- \* Follows the graduation policies within the general catalog.
- \* Includes both courses and their modular equivalents, either the course or the modular equivalents will satisfy the Associate in Applied Science requirements.
- \* Requires at least 12 semester credit hours earned at the college awarding the AAS degree. The 12 hours in the AAS degree curricula may be in the Required Courses area and/or Restricted Electives courses. Courses from the General Education Core and Distribution area are excluded.

Shared Programs are programs offered at multiple colleges but not available at all colleges. The requirements are identical at all the colleges offering the program.

A shared program requires a minimum of six credit hours from the total program requirements to be completed with a grade of "C" or better at the college awarding the certificate or degree. The exception is the Nursing program. For those shared programs with less than six credit hours, the total hours for the program must be completed at the college awarding the certificate. The minimum of six credit hours in the certificate or degree curricula may be in the Required Courses area and/or the Restricted Electives. Courses from the General Education Core and Distribution areas are excluded.

Students must apply for graduation from the college where they have successfully completed Block 4 of the Associate in Applied Science in Nursing.



- \* Requires completion of General Education courses as indicated in the General Education Requirements for the Associate in Applied Science degree from the Maricopa County Community College District, or completion of a curriculum as stated in the catalog.
- \* Accepts one of the courses that is cross-referenced with other courses.
- \* Provides for exemption from Arizona university admission requirements for students who complete the Associate in Applied Science (AAS) degree from a regionally accredited post-secondary institution with a minimum 2.0 on a 4.0=A scale for Arizona residents and a minimum 2.5 on a 4.0=A scale for non-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/152/156/162/206/172/182/187/212/216/220/221/225/226/227/230/231/236/240/241/262/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//222/223
COM	Communication 241
DAH	Dance Humanities 100/201
EDU	Education 291/292/294
ENG	English 200/260
ENH	English Humanities Any ENH Course(s)
FRE	French 265/266
HCR	Health Care Related 210
HIS	History 243
HUM	Humanities Any HUM course(s)
INT	Interior Design 115/120/225
LAT	Latin 201/202
MHL	Music: History/Literature 140/143/145/146/147/153/155
PHI	Philosophy Any PHI Course(s) (EXCEPT 113)
REL	Religious Studies Any REL Course(s)
SPA	Spanish 265/266
SPH	Spanish Humanities 150/151/245
STO	Storytelling 292/294
TCM	Telecommunication 145
THE	Theater 111/205/206/210/220/260
THP	Theater/Performance/Production 241
WST	Women's Studies 209/284/285

**Associate in Applied Science Degree, General Education Requirements Continued**

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

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

AIS	American Indian Studies 101/105/141/160
AFR	African American Studies 110/203/204
AJS	Administration of Justice Studies 101/200/259/270
ASB	Anthropology 100/102/211/214/222/223/230/235/238/245
ASM	Anthropology 104
CFS	Child/Family Studies 157/159/176/205/259
COM	Communications 100/100AA & 100AB & 100AC/110/110AA & 110AB & 110AC/230/250/263
ECH	Early Childhood Education 176
ECN	Economics Any ECN course(s)
EDU	Education 221/222
EMT	Emergency Medical Technology 258
FSC	Fire Science 258
FUS	Future Studies 101
GBS	General Business 280
GCU	Cultural Geography 102/121/122/141/221/253
HES	Health Science 100
HIS	History Any HIS course(s)
IBS	International Business 109
MCO	Mass Communications 120
PHI	Philosophy 243
POS	Political Science Any POS course(s)
PSY	Psychology 101/123/125/132/156/157/215/218/235/240/245/250/258/259/260/266/270/277/280/281/292
REC	Recreation 120/160
REL	Religious Studies 243
SBU	Society and Business 200
SOC	Sociology Any SOC course(s) (EXCEPT 242)
SWU	Social Work 102/171/258/292*
TEC	Textiles and Clothing 105/106
WED	Wellness Education 100/110
WST	Women's Studies 100/105/110/120
YAQ	Yaqui Indian History & 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*/108/109/110/145/149AN/150/156/160/181/182/201/205/241/245 & 246
CHM	Chemistry 107/107LL/130/130LL/151/151LL/152/152LL/154/154LL/230/230LL
GLG	Geology Any GLG course(s) (EXCEPT 140/251MC/275)
GPH	Physical Geography 111/112/113/212/214
ISS	Interdisciplinary Science Studies 111/112
PHS	Physical Science 110/120
PHY	Physics 101/111/112/115/116/121/131/252
PSY	Psychology 290AB/290AC

## 2004-2005 Academic Certificate

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

The Maricopa Community College District Academic Certificate 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 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:**

- \* 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.



# 2004-2005 Occupational Program Matrix

College Key	
CG. . . . .	Chandler-Gilbert Community College
EM. . . . .	Estrella Mountain Community College
GC. . . . .	Glendale Community College
GW . . . . .	GateWay Community College
MC . . . . .	Mesa Community College
PC . . . . .	Phoenix Community College
PV . . . . .	Paradise Valley Community College
RS . . . . .	Rio Salado College
SM. . . . .	South Mountain Community College
SC . . . . .	Scottsdale Community College

## AGRICULTURE

### Agribusiness Sales and Service

Pest Management Aide . . . . .MC

### Agricultural Production and Management

Agribusiness . . . . .GC, 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 . . . . .GC, MC  
*(See Horticulture section for additional programs and related areas)*

### Equine Training and Management

Equine Science . . . . .SC

Veterinary Technician/Animal Health . . . . .MC

### Horticulture

Landscape Aide . . . . .MC

Landscape Design and Installation . . . . .GC

Landscape Management . . . . .GC

Landscape Specialist . . . . .MC

Nursery Operations . . . . .GC  
*(See Agricultural Production and Management section for additional programs and related areas)*

## BUSINESS

### Accounting

Accounting . . . . .PC

Accounting - Specialized Para-Professional . . . . .PV

Bookkeeping . . . . .SC

Bookkeeping/Accounting . . . . .GW

Microcomputer Accounting . . . . .GW, PC, PV

*(See Business Administration for additional programs and related areas)*

Paraprofessional Accounting . . . . .GC

## Business Administration

Business . . . . .MC, SC

Business (Fastrack) . . . . .SC

**General Business** . . . . .CG, GC, GW, PC, PV  
*(See Management section for additional programs and related areas)*

Import / Export Trade . . . . .GW, MC, PV

International Business . . . . .GW, MC, PC, PV, SC

## Computer Science

Computer Applications Technology . . . . .EM

### Computer Hardware and

**Desktop Support** . . . . .CG, EM, GW, MC, PC, SC

Computer Hardware and Network Support . . . . .SC

### Computer Information

Systems . . . . .GC, MC, PC, PV, SC, SM

Computer Programming and Analysis . . . . .SM

**Information Technology** . . . . .CG, SM

Helpdesk Specialist . . . . .GC

Linux Systems Administration . . . . .SM

Oracle Applications Developer . . . . .GC, EM

**Oracle Database Operations** . . . . .CG

Oracle Database Administration . . . . .GC, EM

Personal Computer Applications . . . . .SC

Web Design . . . . .GC, GW, PV

Web Design and Development . . . . .SC

Web Developer . . . . .GC, GW, PC, PV, EM

Computer Networking Technology . . . . .PV

Computer Systems Maintenance . . . . .PV

Computer Technology . . . . .EM, RS

Computer Usage and Applications . . . . .RS

Desktop Publishing . . . . .EM, RS

Network Professional . . . . .RS

Web Master . . . . .RS

Database Development . . . . .SC

Education Technology . . . . .GW

Geographic Information Systems . . . . .MC

Information Assurance . . . . .MC

### Internet/Intranet Web

Development Technology . . . . .MC

Internet Design and Development . . . . .SM

**Linux Associate** . . . . .CG, EM, GC, GW, MC, SM

### Linux Networking

**Administration** . . . . .CG, EM, GC, GW, MC, SM

### Linux

**Professional** . . . . .CG, EM, GC, GW, MC, PV, SM

Microcomputer Applications . . . . .GC

*(See Office Occupations section for additional programs and related areas)*

### Microcomputer Applications:

**Office Specialist/Core Level** . . . . .CG

**Microcomputer Applications:**

**Office Specialist/Expert Level** . . . . .CG  
(See *Office Occupations* section for additional programs and related areas)

**Microcomputer Business Applications** . .CG, GC  
(See *Office Occupations* section for additional programs and related areas)

**Microsoft Database Administration** . . . . .CG

**Microsoft Networking**

**Technology** . . . . .CG, EM, GC, GW, PV, SC

Computer Applications:

Microsoft Office Specialist/Advanced . . . . .MC

Computer Applications:

Microsoft Office Specialist/Basic . . . . .MC

**Microsoft Product**

**Specialist** . . . . .CG, EM, GC, GW, PC, PV, SC

**Microsoft Applications Development** . .CG, EM,  
GC, GW, MC, PC, PV, SC

**Microsoft Systems Administration** . . . .CG, GC,  
EM, GW, PC, PV, SC, SM

**Microsoft Systems**

**Engineer** . . . . .CG, EM, GC, GW, PV, SC

Network Administration . . . . .SC

Network Administration:

CISCO Network Associate . . . . .MC

Network Administration:

CISCO Network Professional . . . . .MC

Network Administration:

Microsoft Windows NT . . . . .MC

Network Administration: Novell . . . . .MC

Network Administration: UNIX-Solaris . . . . .MC

Network Administration: Microsoft Windows . .MC

Network Professional . . . . .RS

Network Security . . . . .MC

Networking . . . . .RS

**Networking Administration:**

**Cisco** . . . . .CG, EM, GC, GW, PC, SM

Networking System Administration . . . . .MC

**Networking Technology:**

**Cisco** . . . . .CG, EM, GC, GW, PC, SM

Programming . . . . .RS

Programming Methodology . . . . .MC

Programming and System

Analysis . . . . .EM, GC, GW, MC, PC, PV, SC

Software Development . . . . .SC

Technology Helpdesk Support . . . . .RS

Technology Troubleshooting and

A+ Preparation . . . . .RS

**Finance**

Banking and Finance . . . . .PC

Real Estate . . . . .GC, MC

**Management**

Business Management . . . . .SM

Credit Union Management . . . . .PC

General Business . . . . .GW, PC

Management . . . . .PC, MC, SC

Management I . . . . .PC

Management II . . . . .PC

Middle Management . . . . .GC, PV

Public Administration . . . . .RS

Public Administration: Legal Services . . . . .RS

Public Relations . . . . .GC

(See *Middle Management* section for additional programs and related areas)

**Retail Management** . . . . .CG, EM, GC, GW, MC,  
PC, PV, RS, SM

Small Business . . . . .MC

Small Business Entrepreneurship . . . . .GC, SM

Small Business Management . . . . .EM

Supervision . . . . .GC

Supervision and Management I . . . . .SM

Supervision and Management II . . . . .SM

Supply Chain and Operations Management . .GW

Tribal Development . . . . .SC

**Marketing**

Marketing . . . . .MC, PC, SC

Marketing II . . . . .PC

Salesmanship . . . . .MC

**Media Technology**

Motion Picture/Television Production . . . . .SC

Broadcast Production . . . . .SC

Digital Photography . . . . .PC

Editing . . . . .SC

Film Analysis and Criticism . . . . .SC

Film Production . . . . .SC

Screenwriting . . . . .SC

Maricopa Institute for Arts and

Entertainment, The . . . . .SC

**Media Arts:**

**Computer Art/Illustration** . . .CG, MC, PC, PV

Media Arts: Desktop Publishing . . . . .PC, MC

Media Arts: Digital Animation . . . . .PC, MC

**Media Arts: Digital Imaging** . . . . .CG, PC, MC

Media Arts: Music Technology . . . . .PC, MC

Media Arts: Web Page Design . . . . .PC, MC

Video Production Technology . . . . .GC

**Middle Management**

Public Relations . . . . .MC

(See *Management* section for additional programs and related areas)

**College Key**

CG. . . . .	Chandler-Gilbert Community College
EM. . . . .	Estrella Mountain Community College
GC. . . . .	Glendale Community College
GW . . . . .	GateWay Community College
MC . . . . .	Mesa Community College
PC . . . . .	Phoenix Community College
PV . . . . .	Paradise Valley Community College
RS . . . . .	Rio Salado College
SM. . . . .	South Mountain Community College
SC . . . . .	Scottsdale Community College

**Office Occupations**

Administrative Information	
Management Support . . . . .	PV
Administrative Office Coordinator . . . . .	GC
Office Software Application Specialist Level I . . . . .	MC
Computer Applications . . . . .	PC
Computer Software Applications . . . . .	PV
Court Reporting . . . . .	GW
Data Entry Clerk . . . . .	GC
General Office Secretary . . . . .	GC
Legal Assisting . . . . .	PC
Legal Office Support . . . . .	PC
Legal Secretarial . . . . .	PC
Medical Office Support . . . . .	PC
Medical Office Support: Basic Clerical . . . . .	PC
Medical Office Support: Basic Transcription . . . . .	PC
Office Automation Systems . . . . .	GW, PV, SC, SM
Office Coordinator . . . . .	GC
Office Fundamentals . . . . .	SC
Office Software Application Specialist Level II . . . . .	MC
Office Specialist: Computer Applications . . . . .	GW
Office Support . . . . .	GW, PC
Office Support I . . . . .	PC
Office Support II . . . . .	PC
Receptionist . . . . .	GC
Scoping . . . . .	GW
Word Processing . . . . .	SC

**Total Quality Management****Organizational**

<b>Leadership</b> . . . . .	CG, EM, GW, MC, PC, PV, RS
Pharmacy Customer Service . . . . .	RS
Quality Customer Service . . . . .	GW, MC, PC, RS
Automobile Insurance: Customer Service . . . . .	RS
Credit Counseling: Customer Service . . . . .	RS
Credit Card: Customer Service . . . . .	RS
Digital Telecommunications: Customer Service . . . . .	RS
Human Services - Assistance: Customer Service . . . . .	RS
Human Services-Long Term Care:	
Customer Service . . . . .	RS
Human Services-Specialist: Customer Service . . . . .	RS
Insurance-Customer Service . . . . .	RS

Telecommunications: Customer Service . . . . .	RS
Travel Agency: Customer Service . . . . .	RS
Utilities Customer Service . . . . .	RS
Quality Process Leadership . . . . .	GW, MC, RS
Total Quality Management . . . . .	EM

**HEALTH OCCUPATIONS****Allied Health**

Advanced Behavioral Health Sciences . . . . .	SM
Basic Behavioral Health . . . . .	SM
Community Health Advocate, Diabetes . . . . .	MC, SC
<b>Developmental Disabilities Specialist</b> . . . . .	CG, GC
Diagnostic Medical Ultrasound . . . . .	GW
Direct Care Practice . . . . .	MC
EKG/Telemetry Technician . . . . .	PC
Health Information . . . . .	PC
Health Information Technology . . . . .	PC
Health Services Management . . . . .	GW
Health Unit Coordinating . . . . .	GW
Histology Technician . . . . .	PC
Hospital Central Service Technology . . . . .	GW
Laboratory Assisting . . . . .	PC
Medical Assisting . . . . .	PC
Medical Billing . . . . .	PC
Medical Coding: Hospital-Based . . . . .	PC
Medical Coding: Physician Based . . . . .	PC
Medical Front Office . . . . .	PC
Medical Radiography . . . . .	GW
Medical Transcription . . . . .	GW
Nuclear Medicine Technology . . . . .	GW
Patient Care Technician . . . . .	PC
Perioperative Nursing . . . . .	GW
Phlebotomy . . . . .	PC
Physical Therapist Assisting . . . . .	GW
Respiratory Care . . . . .	GW
Respiratory Care Technology . . . . .	GW
Speech Language Pathology . . . . .	SC
Surgical Technician First Assistant . . . . .	GW
Surgical Technology . . . . .	GW

**Dental**

Clinical Dental Assisting . . . . .	RS
Dental Assisting . . . . .	PC
Dental Hygiene . . . . .	PC, RS
Dental Office Management . . . . .	PC

**Emergency Medical Technology**

Advanced Emergency Medical	
Technology (Paramedic) . . . . .	GC, PC, SC
Basic Emergency Medical	
Technology . . . . .	GC, MC, PC, PV, SC
Emergency Communications and Deployment . . . . .	PC

Intermediate Emergency  
 Medical Technology . . . . .MC, PC  
*(See Allied Health section for additional programs and  
 related areas)*  
 Paramedicine . . . . .MC

## Nursing

Nursing . . . . .GC, GW, MC, PC, PV, SC, RS  
 Nurse Assisting . . . . .GC, GW, MC, PC, PV, SC, RS  
 Fast Track Practical Nursing . . . . .GW  
 Practical Nursing . . . . .GC, GW, MC, PC, PV, SC, RS

## HOME ECONOMICS

### Early Childhood Education

Adolescent Studies . . . . .PC  
 Child Care . . . . .MC  
 Child Care Administration . . . . .PC  
 Child Development . . . . .MC  
 Classroom Management for Infants,  
 Toddlers and Preschool Children . . . . .PC  
 Early Childhood Development . . . . .SC, SM  
 Early Childhood Education . . . . .PV, GC  
 Early Childhood Small Business Management . . . . .SC  
 Family Resources . . . . .PC  
 Family Support . . . . .PC  
 Infant/Toddler Development . . . . .SC

### Education

Instructional Assistance . . . . .MC, PC  
 Bilingual Endorsement . . . . .MC, PC  
 English as a Second  
 Language (ESL) Endorsement . . . . .MC, PC  
 Reading Endorsement . . . . .MC, PC  
 Teacher Assisting . . . . .EM, GW

### Family and Consumer Science

Nutrition for Fitness and Wellness . . . . .GC, MC

### Food and Nutrition

Basic Culinary Studies . . . . .EM  
 Commercial Food Preparation . . . . .PC  
 Culinary Studies . . . . .EM, PC  
*(See Hospitality section for additional programs and  
 related areas)*  
**Dietetic Technology** . . . . .CG, PV  
 Food Service Administration . . . . .PC  
 Professional Food and Beverage Service . . . . .PC

### Home Economics

Fashion Design . . . . .PC  
 Apparel Construction . . . . .PC  
 Fashion Design Level I . . . . .PC  
 Fashion Design Level II . . . . .PC

Fashion Illustration Level I . . . . .PC  
 Fashion Illustration Level II . . . . .PC  
 Fashion Illustration Level III . . . . .PC  
 Pattern Design Level I . . . . .PC  
 Pattern Design Level II . . . . .PC  
 Interior Design . . . . .MC, PC, SC  
 Advanced Interior Design . . . . .MC, PC  
 Home Furnishing and Materials . . . . .GC, MC, PC  
 Interior Design: Professional Level . . . . .SC

### Merchandising

Apparel Merchandising . . . . .MC  
 Fashion Merchandising . . . . .PC

## SERVICE OCCUPATIONS

### Administration of Justice

**Administration of Justice** .CG, EM, GC, MC, PC  
 Administration of Justice Comprehensive . . . . .PC  
 Administration of Justice Fundamentals . . . . .PC  
 Administration of Justice Studies . . . . .SC  
 Adult Corrections . . . . .PC  
 Advanced Corrections . . . . .RS  
 Basic Corrections . . . . .RS  
 Corrections . . . . .RS  
 Correctional Program Officer Training . . . . .PC  
 Correctional Service Officer Training . . . . .PC  
 Corrections Supervision/Management . . . . .PC  
 Crime and Accident Scene Photography . . . . .PC  
**Crime and Intelligence Analysis** . . . . .CG  
 Crime Scene Technology . . . . .SC  
 Detention Services . . . . .RS  
**Evidence Technology** . . . . .CG, PC  
 Fingerprint Classification and Identification . . . . .PC  
**Homeland Security** . . . . .CG  
 Judicial Studies . . . . .MC  
 Justice Agencies Support . . . . .MC, PC  
 Justice Agencies Support Level I . . . . .MC, PC  
 Justice Agencies Support Level II . . . . .MC, PC  
**Justice Studies** . . . . .CG, SC  
 Law Enforcement . . . . .SC  
 Law Enforcement Investigator . . . . .GC  
 Law Enforcement Supervision . . . . .SC  
 Law Enforcement Technology . . . . .RS  
 Law Enforcement Field Training . . . . .RS  
 Parole Officer Training . . . . .PC  
 Law Enforcement Training Academy . . . . .GC  
 Police Academy Preparation Level I . . . . .SC  
 Police Science . . . . .MC, SC  
 Police Science I . . . . .MC  
 Police Science II . . . . .MC  
 Police Science III . . . . .MC, SC  
 Police Supervision . . . . .GC  
 Public Safety Technology . . . . .RS

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**Fire Science**

Basic Firefighter . . . . .	MC
Driver Operator . . . . .	MC
Fire Academy . . . . .	GC, SC
Fire Officer I . . . . .	MC
Fire Science . . . . .	GC, PC, RS
Fire Science Technology . . . . .	GC, MC, SC
Recruit Firefighters . . . . .	GC
<b>Emergency Management</b> . . . . .	<b>CG, MC</b>

**Hospitality**

Airline Operations . . . . .	RS
Airline Operations: Ground Operations . . . . .	RS
Airline Operations: Initial Flight Attendant . . . . .	RS
Airline Operations: Passenger Services . . . . .	RS
Airline Operations: Reservations . . . . .	RS
Airline Operations: Vacations . . . . .	RS
Culinary Arts . . . . .	SC
<i>(See Food &amp; Nutrition section for additional programs and related areas)</i>	
Hospitality/Hotel Management . . . . .	EM
Hospitality and Tourism/Golf Management . . . . .	SC
Hospitality and Tourism/Hotel Management . . . . .	SC
Hospitality and Tourism/Restaurant Management . . . . .	SC
Travel Industry Technology . . . . .	PC

**Library Media Technology**

Library Information Technician . . . . .	MC
Library Information Technician: Advanced . . . . .	MC
Library Information Technician: Basic . . . . .	MC

**Mortuary Science**

Mortuary Science . . . . .	MC
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**Music**

Audio Production Technology . . . . .	MC
<b>Music Business</b> . . . . .	<b>CG, MC</b>

**Parks, Recreation, Leisure and Fitness Studies**

Recreational Resources and Facilities Management . . . . .	PC
Recreational Resources and Facilities Management: Horticulture . . . . .	PC
Recreational Resources and Facilities Management: Equipment Maintenance and Repair . . . . .	PC
Recreational Resources and Facilities Management: Pesticides . . . . .	PC
Recreational Resources and Facilities Management: Pro Shop Management . . . . .	PC
Recreational Resources and Facilities Management: Turf and Irrigation . . . . .	PC

**Health and Physical Education/Fitness**

Group Fitness Instructor . . . . .	GC
Personal Trainer . . . . .	GC
Teaching, Healing, Meditation & Stress Management . . . . .	PV
<b>Therapeutic Massage</b> . . . . .	<b>CG, PC</b>

**Social Sciences**

Chemical Dependency . . . . .	RS
Chemical Dependency Level I . . . . .	RS
Chemical Dependency Level II . . . . .	RS
Clinical Research Coordinating . . . . .	GW
Interpreter Preparation . . . . .	PC
Professional Addictions Counseling . . . . .	RS
Sign Language Communication Pre-Employment . . . . .	PC

**Social Services**

Advanced Aging Services Management and Administrative Training . . . . .	PC
Aging Services Management and Administrative Training . . . . .	PC
Assisted Living: Directed Care Services . . . . .	PC
Assisted Living: Management . . . . .	PC
Assisted Living: Personal Care Services for Certified Nursing Assistants . . . . .	PC
Assisted Living: Personal Care Services . . . . .	PC
Assisted Living: Supervisory Care Services . . . . .	PC
Gerontology . . . . .	PC
Human Services . . . . .	GC



**TECHNOLOGY AND TRADE INDUSTRIAL****Air Conditioning and Refrigeration**

Air Conditioning/Refrigeration/Facilities . . . . .GW

**Apprenticeship Related Instruction**

Bricklaying . . . . .GW

Carpentry . . . . .GW

Construction Management . . . . .GW, PC

Construction Trades: Carpentry . . . . .GW

Construction Trades: Millwright . . . . .GW

Construction Trades: Painting . . . . .GW

Construction Trades: Sheet Metal . . . . .GW

Electricity . . . . .GW

Heat and Frost Insulation . . . . .GW

Ironworking . . . . .GW

Millwright . . . . .GW

Painting . . . . .GW

Pipefitter-Refrigeration . . . . .GW

Plumbing . . . . .GW

Power Plant Technology . . . . .GW, EM, GC

Roofing . . . . .GW

Sheet Metal . . . . .GW

Steamfitting . . . . .GW

**Aviation and Aeronautics****Aircraft Construction Technology . . . . .CG****Aircraft Maintenance Technology . . . . .CG****Aircraft Maintenance Technology (Part 147) .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****Powerplant Maintenance (Part 147) . . . . .CG****Sheet Metal Structures Technology . . . . .CG****Automotive Technology**

Air Conditioning . . . . .MC

Air Conditioning and Electrical Accessories . . .GW

Automotive Chassis . . . . .GC

Automotive Drive Trains . . . . .GW

Automotive Electrical Systems . . . . .MC

Automotive Engines and Drive Trains . . . . .GC

Automotive Engine Performance Diagnosis and 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

**Building and Construction**

Building Safety Technology . . . . .SC

Building Safety and Construction Technology . . .PC

Building Safety &amp; Planning Technology . . . . .SC

Home Improvement Retail Operations:

Flooring . . . . .GW

Home Improvement Retail Operations:

Kitchen . . . . .GW

Home Improvement Retail Operations:

Millworks . . . . .GW

Planning and Development Technology . . . . .SC

**Commercial Art/Advertising Art**

Computer Graphic Design . . . . .GC, PC

*(See Media Technology section for additional programs and related areas)*

Multimedia . . . . .GC

Multimedia Imaging and Animation . . . . .GC

Multimedia Web Design . . . . .GC

**Drafting Technology**

Applied Technology-Electro/Mechanical

Drafting . . . . .MC

Architectural CAD Technology . . . . .GC

Architectural Drafting . . . . .PC

Architectural Technology . . . . .SC

Architecture . . . . .MC

CAD-Based Design Documentation . . . . .GC

Civil CAD Technology . . . . .GC

Computer Aided Drafting . . . . .MC, PC

Construction . . . . .MC

Construction Drafting I . . . . .MC

Construction Drafting II . . . . .MC

Construction Drafting III . . . . .MC

Electro/Mechanical Drafting . . . . .MC

Manufacturing Design Technology . . . . .GC

Mechanical Drafting . . . . .MC

Micro Circuit Mask Design . . . . .MC

Process Technology Level I . . . . .MC

Process Technology Level II . . . . .MC

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PC . . . . .	Phoenix Community College
PV . . . . .	Paradise Valley Community College
RS . . . . .	Rio Salado College
SM. . . . .	South Mountain Community College
SC . . . . .	Scottsdale Community College

**Electronics/Electrical Technology**

Cable Telecommunications . . . . .	.SM
Computer and Networking Technology . . . . .	.GC
<b>Electric Utility Technology . . . . .</b>	<b>.CG</b>
Electrical Technology . . . . .	.GW
Electromechanical Automation Technology . . . . .	.MC
Electronic Industries Technology I . . . . .	.MC
Electronics Engineering Technology . . . . .	.MC
Electronics Manufacturing Technology . . . . .	.GC
Electronics Technology . . . . .	.MC
General Telecommunications . . . . .	.SM
Industrial Operations Technology . . . . .	.EM, GW
Local Area Networks Servicing . . . . .	.GC
Microcomputer Servicing . . . . .	.GC
Telecommunications Technology . . . . .	.SM

**Environmental Technology**

Biotechnology . . . . .	.MC
Environmental Health and Safety Technology . . . . .	.PV
Hydrologic Studies . . . . .	.GW
Occupational Safety and Health Technology . . . . .	.GW
Safety, Health and Environmental Studies . . . . .	.PV
Wastewater Treatment . . . . .	.GW
Water Distribution and Collection . . . . .	.GW
Water, Wastewater & Industrial Treatment Technology . . . . .	.GW
Water Purification Technology . . . . .	.GW
Water Treatment . . . . .	.GW
Water/Wastewater Technology . . . . .	.GW

**Engineering**

Civil Engineering Technology . . . . .	.PC
Surveying Technology . . . . .	.PC

**Manufacturing**

Aerospace Manufacturing Technology . . . . .	.GW
<b>Automated Manufacturing Systems . . . . .</b>	<b>.CG</b>
Manufacturing CNC . . . . .	.MC
Manufacturing Engineering Technology . . . . .	.MC
Manufacturing Machining . . . . .	.MC
Manufacturing Management . . . . .	.MC

Manufacturing Technology . . . . .	.GW, MC
Manufacturing Welding . . . . .	.MC
<i>(See Welding Technology section for additional programs and related areas)</i>	

**Machinist**

Machinist, Tool and Die . . . . .	.MC
Machinist, Tool and Die Level I . . . . .	.MC
Machinist, Tool and Die Level II . . . . .	.MC
Tractor-Trailer Driving . . . . .	.GC

**Welding Technology**

Welding Technology . . . . .	.MC
Welding Certification . . . . .	.MC
<i>(See Manufacturing section for additional programs and related areas)</i>	
Welding . . . . .	.PC

**Maricopa Skill Center 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 150 non-credit Maricopa Skill Center certificates are open-entry /open-exit, and self-paced (with the exception of nursing):

**Auto Body**

- Auto Body Basic Refinishing and Metal Repair
- Auto Body Metal Repair
- Auto Body Basic Refinishing
- Auto Body Repair Helper
- Auto Body Sander
- Auto Body Masker and Taper
- Auto Body Special Projects
- Industrial Spray Painter

**Banking/Retail**

Banking

- Bank Operations/Encoder
- Bank Operations/Data Entry
- Bank Operations
- Operations Clerk
- Principles of Banking
- Proof Encoder
- Ten Key/Keyboard Operator
- Ten-Key Operator
- Ten-Key Skills Builder
- Understanding and Selling Bank Products

Call Center Communication

- Incoming/Outgoing Calls

Computer Software Courses

- Microsoft Office User Specialist (MOUS) Certification

**Retail**

Retail Cashier  
Supermarket Cashier

**Computerized Office Programs****Office Assistant**

Computer Keyboard Operator  
Computer Keyboard Operator/File Clerk  
Computerized Office Procedures Special  
Projects

General Office Clerk  
General Office Clerk with Data Entry  
Office Associate

**Medical Office**

Medical Filing  
Medical Terminology  
Medical Terminology w/Transcription  
Office Associate with Medical Applications  
Office Associate with Medical Filing  
Office Associate with Medical Insurance  
Applications  
Office Associate with Medical Terminology  
Office Associate with Medical Terminology and  
Transcriptions

**Medical Insurance Office**

Medical Insurance  
Medical Insurance with Billing Codes  
Medical Procedures Coding

**Law Office**

Legal Terminology  
Legal Terminology w/Transcription  
Office Associate with Legal Applications  
Introduction to Paralegal Careers  
Introduction to Paralegal Studies  
Legal Terminology w/Intro Paralegal Studies  
Office Associate/Intro Paralegal Studies

**Receptionist**

Office Associate with Receptionist

**Call Center Representative**

Call Center & Customer Service Representative

**Short Term Custom Courses**

Alpha/Numeric Filing  
Computer Keyboarding  
Customer Service Representative  
Data Entry Keypad  
Hands on Telephone Training  
Introduction to Computers  
Introduction to Paralegal Studies  
Legal Office Simulation  
Legal Terminology  
Legal Transcription  
Machine Transcription  
Medical Procedures Coding  
Medical Insurance

**Medical Terminology**

Medical Transcription  
Microcomputer Software Operator  
Microsoft Access  
Microsoft Access Overview  
Microsoft Excel  
Microsoft Excel Overview  
Microsoft Powerpoint  
Microsoft Powerpoint Overview  
Short Term Custom Courses (continued)  
Microsoft Word  
Microsoft Word Overview  
Microsoft Word and Excel  
Ten-Key by Touch  
Travel Agent  
Windows Operations

**Facilities Maintenance**

Facilities Maintenance with Introduction to  
HVAC  
Facilities Maintenance Helper  
Facilities Maintenance Overview/City of Phoenix  
Facilities Maintenance Special Projects  
Maintenance Carpentry Helper  
Maintenance Electrician Helper  
Maintenance Electrician Helper with Introduction  
to HVAC  
Maintenance Plumbing Helper

**Food Preparation**

Baker's Helper  
Cook's Apprentice  
Cook's Helper  
Dining Room Attendant  
Food Preparation Special Projects  
Food Service Assessment DES/BEP  
Kitchen Helper  
Machine Dishwasher  
Pantry Goods (Salad) Maker

**Medical Assistant****Machine Trades**

CNC Machining Center Operator  
CNC Turning Center Operator  
CNC Turning and Machining Center Operator  
Drill Press Operator  
Manual Lathe Operator  
Manual Machine Operator  
Manual Milling Operator  
Machine Trades Special Projects  
Saw Operator  
Upgrade to CNC

**Meat Cutting**

Apprentice Meat Cutter  
 Meat and Deli Counter Person  
 Meat Cutting Special Projects  
 Meat Room Cleanup  
 Meat Room Helper  
 Portion Control Cutter  
 Poultry Processor  
 Self-Service Meat Wrapper

**Nursing**

Nursing Assistant  
 Practical Nursing

**Printing Trades**

Bindery Worker  
 Job Shop Printer  
 Offset Press Operator  
 Printing Trades Special Projects  
 Quick Print Shop Worker

**Welding**

Combination Welder (Arc, MIG, Flux Core)  
 Combination Welder with Intro to Pipe Welding  
 TIG Welder/TIG Fingertip Welder  
 Welder Fitter-Helper  
 Welding Special Projects

**SOUTHWEST SKILL CENTER**

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 at 1245 E. Buckeye Road, Phoenix. The non-credit SouthWest Skill Center certificates are open-entry /open-exit, and self-paced.

**Business Technology Programs (Certificate Programs)**

Introduction to Computers  
 Introduction to Computer Skills  
 File Clerk  
 Data Entry Clerk  
 Introduction to the Internet  
 Introduction to Windows XP  
 File Clerk with/10 Key by Touch  
 Office Clerk  
 Microsoft Office Suite  
 Receptionist  
 Receptionist with Elective  
 Office Assistant  
 Office Assistant with Microsoft Office Access  
 Office Assistant with Introduction to the Internet  
 Office Assistant with Basic Accounting Skills  
 Office Assistant with Microsoft Office Suite  
 Office Assistant with Microsoft and Basic Accounting

**Medical Assistant (Level II)**

Medical Assistant Front Office/Back Office  
 Medical Assistant Front Office  
 Medical Assistant Back Office  
 Medical Terminology/Transcription  
 Medical Terminology (Spanish)

**C-Tech**

Copper-Based Fiber Optics Cabling

**Nursing (Level II and III)**

Nursing Assistant  
 Vocational Practical Nursing

# EDUCATIONAL PROGRAMS



2004-05



The Chandler-Gilbert Community College (CGCC) mission statement calls for serving “students and its diverse communities by providing quality lifelong learning opportunities in a learner-centered environment through effective, accessible educational programs and activities.” CGCC faculty, staff, and administration are committed to providing a “dynamic learning community reflecting collaboration, diversity, and student success through quality, enthusiastic teaching, learning, and serving.”

CGCC students have several choices of educational programs to pursue:

- Degrees offered by all Maricopa Community Colleges and found in the Degree Requirements section of this catalog:
  - **Associate in Arts, Associate in Science, Associate in Business and Associate in Arts in Elementary Education degrees** offered by all Maricopa Community Colleges and designed for students who may or may not know their majors but plan to transfer to one of Arizona’s public universities.
  - **Associate in General Studies degree** for students whose educational goals require flexibility and a broader choice of courses.
- **Associate in Transfer Partnership (ATP) degree** for specific majors for transfer to Arizona State University (ASU) Main, Arizona State University West, and Arizona State University East. The following ATPs are available at CGCC:
  - Accountancy at ASU Main and ASU West
  - Computer Information Systems at ASU Main
  - Elementary Education at ASU Main and ASU West
  - Exercise and Wellness at ASU East
  - Kinesiology at ASU Main
  - Food & Nutrition at ASU East
  - General Business at ASU Main for economics, finance, management, marketing, real estate, and supply chain management majors
  - Global Business at ASU West
  - Nursing at ASU Main
  - Psychology (B.A.) at ASU Main and ASU West
  - Psychology (B.S.) at ASU Main and ASU West

- **Occupational Programs** offered at CGCC have several missions: preparing students for employment, upgrading students’ existing job skills, and assisting students in career changes.

Students can choose from several alternatives:

1. Associate in Applied Science degree programs—usually a two-year program of course work.
2. Certificate Programs—a series of courses designed for concentrated proficiency in specialized career fields.
3. Individual courses—designed to meet individual career or personal needs.

Because change is a constant factor in the employment picture, each occupational program has an advisory committee. These committees are composed of local leaders in industry and provide valuable assistance to faculty as they continually adjust the courses and programs to meet community needs. With the support of the advisory committees, highly qualified faculty, and up-to-date facilities, students are assured quality instruction in their future career field.

Students who choose to transfer to four-year institutions will find that many credits are transferable and provide a beginning foundation for completing a baccalaureate degree. The AAS degrees transfer as a “block” to the Bachelor of Applied Science at Arizona State University (East and West), and Northern Arizona University.

- **Special programs** include:
  - Training for Business, Industry and Government
  - Continuing Education
  - English as a Second Language
  - Fitness, Wellness, and Recreation
  - Honors Program
  - Performing Arts

For more information about educational programs, contact the Academic Advisement Center at (480) 732-7317.

# 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.

**Notes:**

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.

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 at EMCC (SWSC/EMCC) offer health care courses. Not all courses are offered at all sites. Please contact the specific college for more information regarding the availability of courses and course schedule information.

**LEVEL 1 - Common Competencies -2.0 Credits**

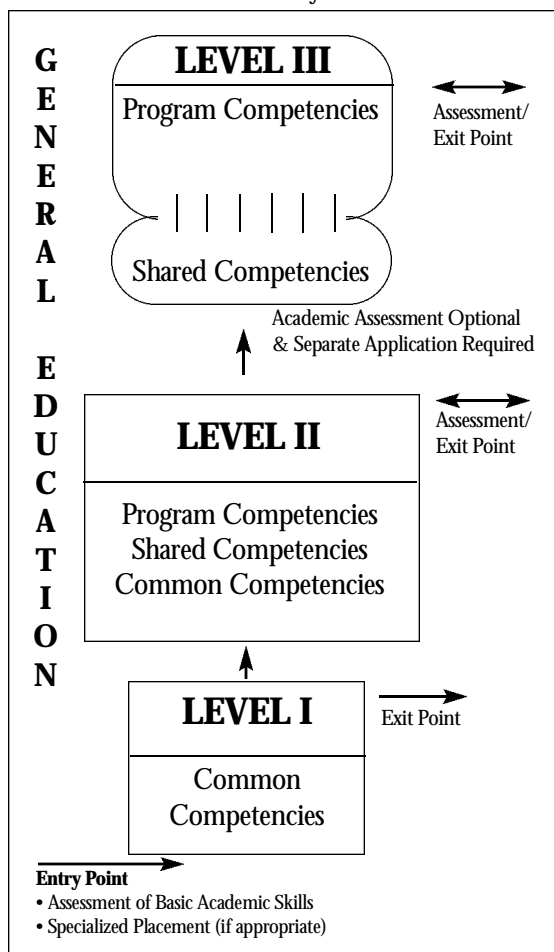
**ALL** Health Care Students must satisfactorily achieve the Level I Common Competencies found in the following courses.

HCC130AA	Health Care Today . . . . .	0.5
HCC130AB	Workplace Behavior in Health Care . . . . .	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**

**ALL** 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**

Shared 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 Services Management (GWCC)  
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, RSC, 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 (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 the HCIES will have learning experiences in a health care setting where they will have access to confidential information. Prior to beginning any clinical studies, the students will be asked to sign an agreement to adhere to the requirements of those clinical sites and applicable law, including the Health Insurance Portability and Accountability Act of 1996 (HIPAA).

**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 health care program pathways can be met through the completion of coursework taken at all the Maricopa Community Colleges and Skill Centers.



# Instructional Divisions

Most courses offered at CGCC fall under one of nine academic divisions. They include:

## Aviation Division

**Chairperson:** Harvey Stone ~ (480) 988-8115  
Aviation & Technology Center  
Williams Campus  
7360 East Tahoe Avenue  
Mesa, AZ 85212

### Courses:

ACT - Aircraft Construction Technologies  
AET - Aeronautics  
AMT - Aircraft Maintenance Technology  
AVT - Avionics Technology

### Occupational Programs:

Aircraft Construction Technologies  
Composite Technology  
Sheet Metal Structures Technology  
Aircraft Construction Technology  
Aircraft Flight Technology  
Flight Technology  
Airway Science Technology, Flight Emphasis  
Aircraft Maintenance Technology  
Airframe Maintenance (Part 147)  
Powerplant Maintenance (Part 147)  
Aircraft Maintenance Technology (Part 147)  
Aircraft Maintenance Technology  
Avionics Technology  
Avionics Technology  
Aviation Electronics Maintenance Technology

## Business and Computer Information Systems Division

**Chairperson:** Shirley Miller ~ (480) 732-7133

### Courses:

ACC - Accounting  
BPC - Business-Personal Computers  
CIS - Computer Information Systems  
CNT - Cisco Network Technology  
CSC - Computer Science  
GBS - General Business  
IND - Industry  
MGT - Management  
MKT - Marketing  
MST - Microsoft Technology  
OAS - Office Automation Systems  
SBS - Small Business Management  
TQM - Total Quality Management

### Occupational Programs:

Business  
General Business  
Organizational Leadership  
Retail Management  
Computer Applications  
Microcomputer Applications:  
Office Specialist/ Core Level  
Microcomputer Applications:  
Office Specialist/ Expert Level  
Microcomputer Business Applications  
Computer Database Administration and Development  
Microsoft Database Administration  
Oracle Database Operations  
Computer Hardware Maintenance  
Computer Hardware and Desktop Support  
Computer Information Technology  
Information Technology  
Computer Networking  
Networking Administration: Cisco  
Networking Technology: Cisco  
Linux Professional  
Linux Associate  
Linux Networking Administration  
Microsoft Product Specialist  
Microsoft Systems Administration  
Microsoft Systems Engineer  
Microsoft Networking Technology  
Computer Programming  
Microsoft Applications Development

## Communications and Fine Arts Division

**Chairperson:** Kelley Kirkpatrick ~  
(480) 732-7291

### Courses:

ARH - Art Humanities  
 ART - Art  
 COM - Communication  
 DAH - Dance Humanities  
 DAN - Dance  
 MCO - Mass Communications  
 MHL - Music: History/Literature  
 MTC - Music: Theory/Composition  
 MUC - Music: Commercial/Business  
 MUP - Music: Performance  
 SLG - Sign Language  
 TCM - Telecommunications  
 THE - Theater  
 THP - Theater Performance/Production

### Occupational Programs:

Art: Computer Illustration  
     Media Arts: Computer Art/Illustration  
 Art: Digital Photography  
     Media Arts: Digital Imaging  
 Music Business

## Languages and Humanities Division

**Chairperson:** Bill Mullaney ~  
(480) 732-7274

### Courses:

CRE - Critical Reading  
 ENG - English  
 ENH - English Humanities  
 ESL - English as a Second Language  
 FRE - French  
 HUM - Humanities  
 JRN - Journalism  
 PHI - Philosophy  
 RDG - Reading  
 REL - Religious Studies  
 SPA - Spanish  
 WAC - Writing Across Curriculum

## Library Division

**Chairperson:** Barbara Stott ~ (480) 857-5137

## Mathematics Division

**Chairperson:** Melinda Rudibaugh ~  
(480) 732-7049

### Courses:

MAT - Mathematics

## Science Division

**Chairperson:** Brad Bates ~ (480) 988-8996  
 Aviation & Technology Center  
 Williams Campus  
 7360 East Tahoe Avenue  
 Mesa, AZ 85212

### Courses:

AMS - Automated Manufacturing Systems  
 AST - Astronomy  
 BIO - Biology  
 CAD - Computer-Aided Drafting  
 CHM - Chemistry  
 CSC - Computer Science  
 ECE - Engineering Science  
 EEE - Electrical Engineering  
 ELE - Electronic  
 ELT - Electronics Technology  
 EQS - Equine Science  
 EUT - Electric Utility Technology  
 GLG - Geology  
 GPH - Physical Geography  
 NET - Networking Technology  
 PHS - Physical Science  
 PHY - Physics

### Occupational Programs:

Automated Manufacturing Systems  
 Electric Utility Technology

## Social and Behavioral Sciences Division

**Chairperson:** Pamela Petty ~ (480) 732-7006

### Courses:

- AJS - Administration of Justice Studies
- ASB - Anthropology
- CFS - Child/Family Studies
- CIA - Crime and Intelligence Analysis
- ECN - Economics
- EDU - Education
- FSC - Fire Science Technology
- HIS - History
- POS - Political Science
- PSY - Psychology
- SOC - Sociology

### Occupational Programs:

- Administration of Justice Studies
  - Crime and Intelligence Analysis
  - Emergency Management
  - Evidence Technology
  - Homeland Security
  - Justice Studies
  - Administration of Justice Studies
- Developmental Disabilities
  - Developmental Disabilities Specialist

## Wellness Division

**Chairperson:** Regina Munro ~ (480) 732-7109

### Courses:

- CPD - Counseling and Personal Development
- FON - Food and Nutrition
- FSC - Fire Science Technology
- GCO - Golf Course Operations
- HCC - Health Core Curriculum
- HCR - Health Care Related
- HES - Health Science
- PED - Physical Education
- REC - Recreation
- WED - Wellness Education

### Occupational Programs:

- Massage
  - Therapeutic Massage
- Nutrition
  - Dietetic Technology



# Occupational Programs

## Administration of Justice Studies

### Crime and Intelligence Analysis

Certificate of Completion: CCL 5056

16 Credits

Division Chairperson:  
Pamela Petty ~ (480) 732-7006

#### Program Description

The Certificate of Completion in Crime and Intelligence Analysis is designed to prepare students to apply the strategies and techniques that constitute the art and science of crime and intelligence analysis in a criminal justice environment. The certificate will also provide opportunities for law enforcement personnel to enhance their professional knowledge and skills in these areas. The program includes the three types of crime analysis: gathering and analyzing crime data for crime trend, pattern, or series detection; the intelligence cycle and the utilization of analytical tools such as telephone toll analysis, flow analysis, link analysis, visual investigative analysis, and time event charting; crime analysis statistics for forecasting and predicting crime trends and series and statistical analysis using computer software; and using ArcView Geographic Information System (GIS) software to perform crime and intelligence analysis functions and presenting information in the form of maps, bulletins, and charts.

#### Job Description

Crime and intelligence analysts perform analysis work for various criminal justice agencies. Duties may include performing statistical and analytical research involving the use of computer applications, random statistical sampling, correlation analysis, regression analysis, and probability studies; gathering and analyzing crime data for crime pattern detection, suspect-crime correlations, target-suspect profiles, and crime forecasting; preparing reports on crime data and trends for police personnel; evaluating intelligence information to determine source reliability, content validity, and potential truthfulness; collecting and compiling intelligence information requirements to recommend, plan, and implement collection plans; generating data in support of investigations; prioritizing collection of data and delegating assignments; making presentations to police personnel, members of the community, and outside agencies. The analyst

may also assist the department in monitoring crime and potential crime prevention. Work is performed under the general direction of a supervisor with allowance for independent initiative, judgment, and latitude for selection of methods and procedures.

#### Job Opportunities

This certificate program specifically addresses the skills necessary for students interested in entry-level crime and intelligence analyst positions as well as sworn officers and professionals currently employed in a criminal justice position. Job titles may include crime analyst, tactical crime analyst, intelligence analyst, intelligence research analyst, police intelligence analyst, police crime statistical analyst, statistical research aide, police planner, police planning aide, police research aide, and research and statistics analyst. Positions with criminal justice agencies are available at the municipal, county, state, and federal levels. Opportunities also exist in private industry in the areas of fraud analysis, financial crime analysis, phone fraud, loss prevention, and private investigation. The current annual salary range in Arizona is from \$24,000 to \$56,000 depending on education, experience, position, agency, and geographic location.

#### Special Requirements

Individual agencies have standardized hiring qualifications and disqualifiers. It is the responsibility of the student to contact the various agencies or other potential employers of interest to determine job eligibility. These requirements may include a comprehensive background check, drug test, and polygraph test. Disqualifiers may include felony convictions, illegal drug activity, and/or other information discovered during the background process.

#### PROGRAM NOTES:

Students must demonstrate sufficient knowledge and skills for each course with an assessment prerequisite by passing the applicable sections of the Crime and Intelligence Analysis Course Prerequisite Assessment Test prior to enrolling in each of the courses.

Students must earn a grade of "C" or better for all courses required within the program in such a manner as to meet the 2.50 overall program minimum G.P.A. requirement upon program completion.

+ indicates course has prerequisites and/or corequisites.

REQUIRED COURSES:	16 CREDITS
CIA210	Introduction to Crime and Intelligence Analysis . . . . .2
+CIA220	Link Analysis, Visual Investigative Analysis (VIA), and Time Event Charting (TEC) . . . . .3
+CIA230	Telephone Toll and Flow Analysis . . . . .3
+CIA240	Crime Analysis . . . . .3
+CIA250	Statistics for Crime Analysis . . . . .3
+CIA260	Analysis Using Geographic Information Systems (GIS) . . . . .2

## Emergency Management

### Certificate of Completion: CCL 5304

18 Credits

Division Chairperson:  
Pamela Petty ~ (480) 732-7006

#### Program Description

The Certificate of Completion in Emergency Management provides the student with knowledge and skills required to conduct a comprehensive emergency management program. The program prepares students to manage fire department operations, hazardous materials incidents, tactics, strategy, and safety of firefighting activities, and customer service in the public sector. The student will be prepared for positions such as Emergency Manager, Emergency Management Planner, Emergency Operations Coordinator, Environmental Compliance Planner, and Emergency Management Specialist, working in state, local, federal, and international governments, business and industry, military installations, and health care facilities.

#### PROGRAM NOTES:

+ indicates course has prerequisites and/or corequisites.

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

REQUIRED COURSES:	18 CREDITS
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
+FSC205	Command Strategies for Major Emergencies . . . . .3

## Evidence Technology

### Certificate of Completion: CCL 5326

18 Credits

Division Chairperson:  
Pamela Petty ~ (480) 732-7006

#### Program Description

The Certificate of Completion in Evidence Technology is designed to provide students with the technical skills and knowledge necessary to evaluate and process a crime scene for items of evidentiary value, document crime scene evidence, and collect and retain items consistent with forensic procedures.

#### 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.

REQUIRED COURSES:	18 CREDITS
AJS201	Rules of Evidence . . . . .3
AJS213	Evidence Technology/ Fingerprints . . . . .3
AJS215	Criminalistics: Physical Evidence . . . . .3
AJS216	Criminalistics: Biological Evidence . . . . .3
AJS241	Police Photography . . . . .3
AJS275	Criminal Investigation I . . . . .3

## Homeland Security

### Certificate of Completion: CCL 5322

18 Credits

Division Chairperson:  
Pamela Petty ~ (480) 732-7006

#### Program Description

The Certificate of Completion in Homeland Security is designed to provide students with the knowledge and skills needed to conduct a homeland security evaluation and to assess, investigate and respond to terrorism incidents. It also provides criminal justice practitioners with an opportunity for academic growth and the development of specialized skills in homeland security.

#### 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.

REQUIRED COURSES: 18 CREDITS

AJS109	Substantive Criminal Law . . . . .	3
AJS139	Emergency Response to Terrorism . . . . .	3
AJS195	International and Domestic Terrorism . . . . .	3
AJS230	The Police Function . . . . .	3
AJS260	Procedural Criminal Law . . . . .	3
AJS275	Criminal Investigation I . . . . .	3

## Justice Studies

### Certificate of Completion: CCL 5327

18 Credits

Division Chairperson:  
 Pamela Petty ~ (480) 732-7006

#### Program Description

The Certificate of Completion in Justice Studies is designed to provide the student with a broad understanding of the criminal justice system and its primary components: law enforcement, the courts, and corrections.

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.

REQUIRED COURSES: 18 CREDITS

AJS109	Substantive Criminal Law . . . . .	3
AJS212	Juvenile Justice Procedures . . . . .	3
AJS230	The Police Function . . . . .	3
AJS240	The Correction Function . . . . .	3
AJS260	Procedural Criminal Law . . . . .	3
AJS275	Criminal Investigation I . . . . .	3

## Administration of Justice Studies

### Associate in Applied Science: AAS 3012

62 Credits

Division Chairperson:  
 Pamela Petty ~ (480) 732-7006

#### Program Description

The Associate in Applied Science in Administration of Justice Studies is designed to prepare students for careers within the criminal justice system including law enforcement, the courts, probation, parole, corrections, and social services agencies that support the criminal justice system. The program is interdisciplinary in nature and provides students with a broad knowledge of the criminal justice system, its organizational components and processes, and its legal and public policy contexts.

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.

Overall program minimum G.P.A. = 2.00.

REQUIRED COURSES: 31-33 CREDITS  
*The required courses below comprise a group of Program Common Core courses that are required for the AAS degree in addition to completion of one of four certificate programs.*

AJS119	Computer Applications in Justice Studies . . . . .	3
AJS200	Current Issues in Criminal Justice . . . . .	3
AJS225	Criminology . . . . .	3
AJS258	Victimology and Crisis Management . . . . .	3
AJS270	Community Relations . . . . .	3

CERTIFICATE OF COMPLETION IN CRIME AND INTELLIGENCE ANALYSIS . . . . . 16 CREDITS

PROGRAM NOTES:  
 Students must demonstrate sufficient knowledge and skills for each course in the Required Courses area with an assessment prerequisite by passing the applicable sections of the Crime and Intelligence Analysis Course Prerequisite Assessment Test prior to enrolling in each of the courses.

Students must earn a grade of "C" (2.00) or better for all courses required within the program in such a manner as to meet the 2.50 overall program minimum G.P.A. requirement upon program completion.

REQUIRED COURSES: 16 CREDITS

CIA210	Introduction to Crime and Intelligence Analysis . . . . .	2
+CIA220	Link Analysis, Visual Investigative Analysis (VIA), and Time Event Charting (TEC) . . . . .	3
+CIA230	Telephone Toll and Flow Analysis . . . . .	3
+CIA240	Crime Analysis . . . . .	3
+CIA250	Statistics for Crime Analysis . . . . .	3
+CIA260	Analysis Using Geographic Information Systems (GIS) . . . . .	2

CERTIFICATE OF COMPLETION IN  
HOMELAND SECURITY . . . . .18 CREDITS

## 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.

REQUIRED COURSES: 18 CREDITS

AJS109	Substantive Criminal Law . . . . .	3
AJS139	Emergency Response to Terrorism . . . . .	3
AJS195	International and Domestic Terrorism . . . . .	3
AJS230	The Police Function . . . . .	3
AJS260	Procedural Criminal Law . . . . .	3
AJS275	Criminal Investigation I . . . . .	3

CERTIFICATE OF COMPLETION IN  
EVIDENCE TECHNOLOGY . . . . .18 CREDITS

## 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.

REQUIRED COURSES: 18 CREDITS

AJS201	Rules of Evidence . . . . .	3
AJS213	Evidence Technology/ Fingerprints . . . . .	3
AJS215	Criminalistics: Physical Evidence . . . . .	3
AJS216	Criminalistics: Biological Evidence . . . . .	3
AJS241	Police Photography . . . . .	3
AJS275	Criminal Investigation I . . . . .	3

CERTIFICATE OF COMPLETION IN JUSTICE  
STUDIES: . . . . .18 CREDITS

## 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.

REQUIRED COURSES: 18 CREDITS

AJS109	Substantive Criminal Law . . . . .	3
AJS212	Juvenile Justice Procedures . . . . .	3

AJS230	The Police Function . . . . .	3
AJS240	The Correction Function . . . . .	3
AJS260	Procedural Criminal Law . . . . .	3
AJS275	Criminal Investigation I . . . . .	3

RESTRICTED ELECTIVES: 4-6 CREDITS

*Students must select credits in the Restricted Electives area to earn a total of 62 credits required for the AAS in Justice Studies degree. Selected courses will not apply in both the Required Courses area and the Restricted Electives area.*

AJS+++	Any Administration of Justice Studies course . . . . .	4-6
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GENERAL EDUCATION: 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

**Critical Reading**

+CRE101	Critical and Evaluative Reading I (3) OR	
	Equivalent as indicated by assessment . . . . .	3

**Mathematics**

Any approved general education course in the Mathematics area . . . . .3

DISTRIBUTION: 10 CREDITS

**Humanities and Fine Arts**

AJS123	Ethics and the Administration of Justice . . . . .	3
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**Social and Behavioral Sciences**

AJS101	Introduction to Criminal Justice . . .	3
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**Natural Sciences**

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

General Education Requirements are listed on pages 138-140.

# Aircraft Construction Technologies

## Composite Technology

Certificate of Completion: CCL 5568  
34 Credits

Division Chairperson:  
Harvey Stone ~ (480) 988-8115

### Program Description

The Certificate of Completion in Composite Technology is designed for individuals who hold an FAA Airframe Certificate or who desire to specialize in areas of composite structural maintenance or repair. This program of study normally requires one semester to complete for licensed airframe mechanics.

PROGRAM PREREQUISITES: 9-10 CREDITS

- +ENG071 Fundamentals of Writing (3) OR  
Equivalent as indicated by assessment . . . . .3
- +MAT091 Introductory Algebra (4) OR
- +MAT092 Introductory Algebra (3) OR  
Equivalent as indicated by assessment . . . . .3-4
- +RDG091 College Reading Skills I (3) OR  
Equivalent as indicated by assessment . . . . .3

REQUIRED COURSES: 34 CREDITS

- +AMT124 Aircraft Forms and Regulations, Weight and Balance, Drawings, and Ground Operations (5) OR
- +AMT124AA Aircraft Forms and Regulations, Weight and Balance, Drawings, and Ground Operations: Part 65 (5) . . . . .5
- +AMT128 Fundamentals of Aviation Physics, Corrosion Control, Materials and Processes, Fluid Lines and Fittings (5) OR
- +AMT128AA Fundamentals of Aviation Physics, Corrosion Control, Materials and Processes, Fluid Lines and Fittings: Part 65 (5) . . . . .5
- +AMT220 Fundamentals of Aircraft Wood Structures, Covering and Finishing, and Bonded Structures (3) OR
- +AMT220AA Fundamentals of Aircraft Wood Structures, Covering and Finishing, and Bonded Structures: Part 65 (3) . . . . .3
- +AMT224 Aircraft Sheet Metal (5) OR

- +AMT224AA Aircraft Sheet Metal: Part 65 (5) . . . . .5
- +ACT201 Aircraft Maintenance Forms and Documents . . . . .3
- +ACT205 Introduction to Aircraft Structural Repair Technology . . . . .3
- +ACT223 Composite Structural Repairs I . . .3
- +ACT227 Composite Structural Repairs II . .3
- +ACT240 Aircraft Structural Damage Evaluation and Repair . . . . .4

Note:  
Individuals with a Federal Aviation Administration Airframe Certificate obtained on practical experience or from other Part 147 schools may obtain credit for the AMT courses through the "Department Credit By Evaluation" process.

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

+ indicates course has prerequisites and/or corequisites.

Overall program minimum G.P.A. = 2.00.

## Sheet Metal Structures Technology

Certificate of Completion: CCL 5577  
34 Credits

Division Chairperson:  
Harvey Stone ~ (480) 988-8115

### Program Description

The Certificate of Completion in Sheet Metal Structures Technology is designed for individuals who hold an FAA Airframe Certificate or who desire to specialize in areas of sheet metal structural maintenance or repair. This program of study normally requires one semester to complete for licensed airframe mechanics.

PROGRAM PREREQUISITES: 9-10 CREDITS

- +ENG071 Fundamentals of Writing (3) OR  
Equivalent as indicated by assessment . . . . .3
- +MAT091 Introductory Algebra (4) OR
- +MAT092 Introductory Algebra (3) OR  
Equivalent as indicated by assessment . . . . .3-4
- +RDG091 College Reading Skills I (3) OR  
Equivalent as indicated by assessment . . . . .3



## REQUIRED COURSES: 34 CREDITS

+AMT124	Aircraft Forms and Regulations, Weight and Balance, Drawings, and Ground Operations (5) OR	
+AMT124AA	Aircraft Forms and Regulations, Weight and Balance, Drawings, and Ground Operations: Part 65 (5) . . . . .	5
+AMT128	Fundamentals of Aviation Physics, Corrosion Control, Materials and Processes, Fluid Lines and Fittings (5) OR	
+AMT128AA	Fundamentals of Aviation Physics, Corrosion Control, Materials and Processes, Fluid Lines and Fittings: Part 65 (5) . . . . .	5
+AMT220	Fundamentals of Aircraft Wood Structures, Covering and Finishing, and Bonded Structures (3) OR	
+AMT220AA	Fundamentals of Aircraft Wood Structures, Covering and Finishing, and Bonded Structures: Part 65 (3) . . . . .	3
+AMT224	Aircraft Sheet Metal (5) OR	
+AMT224AA	Aircraft Sheet Metal: Part 65 (5) . . . . .	5
+ACT201	Aircraft Maintenance Forms and Documents . . . . .	3
+ACT205	Introduction to Aircraft Structural Repair Technology . . . . .	3
+ACT213	Transport Category Sheet Metal Repairs I . . . . .	3
+ACT217	Transport Category Sheet Metal Repairs II . . . . .	3
+ACT240	Aircraft Structural Damage Evaluation and Repair . . . . .	4

## Note:

Individuals with a Federal Aviation Administration Airframe Certificate obtained on practical experience or from other Part 147 schools may obtain credit for the AMT courses through the "Department Credit By Evaluation" process.

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

+ indicates course has prerequisites and/or corequisites.

Overall program minimum G.P.A. = 2.00.

## Aircraft Construction Technology

### Associate in Applied Science: AAS 3669

64-67 Credits

Division Chairperson:  
Harvey Stone ~ (480) 988-8115

#### Program Description

The Aircraft Construction Technology certificate and degree programs are designed to prepare individuals for employment in specialized structural repair positions in the aircraft maintenance field. These programs build on the knowledge obtained through preparation for licensure as Federal Aviation Administration (FAA) airframe mechanics, but can be completed without completing the airframe license program if necessary. These programs are not certified under FAA Part 147, but serve to extend the Part 147 curriculum into specialized skill areas. Completion of the appropriate Certificate programs may lead to an Associate in Applied Science in Aircraft Construction Technology.

**The Certificate of Completion in Composite Technology** is designed for individuals who hold an FAA Airframe Certificate or who desire to specialize in areas of composite structural maintenance or repair. This program of study normally requires one semester to complete for licensed airframe mechanics.

**The Certificate of Completion in Sheet Metal Structures Technology** is designed for individuals who hold an FAA Airframe Certificate or who desire to specialize in areas of sheet metal structural maintenance or repair. This program of study normally requires one semester to complete for licensed airframe mechanics.

**The Associate in Applied Science in Aircraft Construction Technology** combines the technical aspects of the certificate programs with selected General Education courses in the areas of English, mathematics, reading, communications, humanities, and physics.

## PROGRAM PREREQUISITES: 9-10 CREDITS

+ENG071	Fundamentals of Writing (3) OR	
Equivalent as indicated by assessment . . . . .		3
+MAT091	Introductory Algebra (4) OR	
+MAT092	Introductory Algebra (3) OR	
Equivalent as indicated by assessment . . . . .		3-4
+RDG091	College Reading Skills I (3) OR	
Equivalent as indicated by assessment . . . . .		3

REQUIRED COURSES:		40 CREDITS
+AMT124	Aircraft Forms and Regulations, Weight and Balance, Drawings, and Ground Operations (5) OR	
+AMT124AA	Aircraft Forms and Regulations, Weight and Balance, Drawings, and Ground Operations:	
	Part 65 (5) . . . . .	5
+AMT128	Fundamentals of Aviation Physics, Corrosion Control, Materials and Processes, Fluid Lines and Fittings (5) OR	
+AMT128AA	Fundamentals of Aviation Physics, Corrosion Control, Materials and Processes, Fluid Lines and Fittings:	
	Part 65 (5) . . . . .	5
+AMT220	Fundamentals of Aircraft Wood Structures, Covering and Finishing, and Bonded Structures (3) OR	
+AMT220AA	Fundamentals of Aircraft Wood Structures, Covering and Finishing, and Bonded Structures: Part 65 (3) . . . . .	3
+AMT224	Aircraft Sheet Metal (5) OR	
+AMT224AA	Aircraft Sheet Metal: Part 65 (5) . . . . .	5
+ACT201	Aircraft Maintenance Forms and Documents . . . . .	3
+ACT205	Introduction to Aircraft Structural Repair Technology . . . . .	3
+ACT213	Transport Category Sheet Metal Repairs I . . . . .	3
+ACT217	Transport Category Sheet Metal Repairs II . . . . .	3
+ACT223	Composite Structural Repairs I . . . . .	3
+ACT227	Composite Structural Repairs II . . . . .	3
+ACT240	Aircraft Structural Damage Evaluation and Repair . . . . .	4

Note:  
 Individuals with a Federal Aviation Administration Airframe Certificate obtained on practical experience or from other Part 147 schools may obtain credit for the AMT courses through the "Department Credit By Evaluation" process.

GENERAL EDUCATION: 24-27 CREDITS

CORE: 15-17 CREDITS

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

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

**Critical Reading**  
 +CRE101 Critical and Evaluative Reading I (3) OR

Equivalent as indicated by assessment . . . . . 3

**Mathematics**  
 +MAT120 Intermediate Algebra (5) OR  
 +MAT122 Intermediate Algebra (3) OR  
 Equivalent as indicated by assessment . . . . . 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 Sciences area . . . . . 3

**Natural Sciences**  
 +PHY101 Introduction to Physics . . . . . 4

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

Overall program minimum G.P.A. = 2.00.  
 General Education Requirements are listed on pages 138-140.

# Aircraft Flight Technology

## Flight Technology

Certificate of Completion: CCL 5707

29.5 Credits

Program Contact:

Bashir Khalil ~ (480) 988-8112

### Program Description

The Certificate of Completion in Flight Technology curriculum is designed to prepare students to apply technical knowledge and skills to aircraft flying and to prepare them to sit for the Federal Aviation Administration (FAA) written and practical examinations for Commercial Pilot Certificate with Single Engine Airplane, Land Rating, Instrument Rating, and Multiengine Rating. Instruction includes aircraft design, systems, flight operations and procedures, radio communication and navigation, and governmental rules and regulations pertaining to aircraft operations.

### Job Description

This program is designed to prepare students with the required Federal Aviation Administration certificates for initial employment as airplane pilots in a wide variety of entry-level, flight-related occupations such as flight instructor, banner tow pilots, jump plane pilots, etc. In some instances, additional specialized training will be required.

### Flight Policies

Flight and simulator training costs are the responsibility of the student. They are determined on an hourly basis for aircraft and flight instruction, and are in addition to tuition, fees, and other registration expenses. Once students have been accepted into the CGCC Flight Technology program, they will not receive college credit for flight instruction received at flight schools other than the school or schools with which Maricopa County Community College District has currently contracted for such instruction.

**Ground school courses must be taken concurrently with the appropriate flight courses.**

Attendance is mandatory in the aviation ground school courses in accordance with Federal Aviation Regulation Part 141, Appendices A and D. Failure to meet these attendance requirements will disqualify the student for FAA pilot certification.

### Transfer of Pilot Ratings

Students with a Private Pilot Certificate obtained without college credit must demonstrate proficiency and knowledge before enrolling in any 200-level ground or flight courses.

Students holding Commercial Pilot or Flight Instructor Certificates obtained without college credit are required to take the appropriate ground school courses, and complete the flight lessons contained in the Federal Aviation Regulations Part 141 Commercial Pilot Test Course.

Aviation and related courses from other colleges and universities will not automatically transfer to CGCC. All aviation transfer courses, flight or nonflight, are reviewed by the Aviation Division for transferability. Students with pilot certificates obtained with college credit at other institutions must demonstrate proficiency of each certificate and associated ratings before credit will be accepted to satisfy CGCC curriculum requirements.

In all cases, it is the responsibility of the student to initiate the process.

### Medical Certificates

A current medical certificate is required for all students planning to begin flight training. The physical examination must be performed by a medical doctor who is a designated FAA Medical Examiner. Students are advised to obtain their medical certificates well in advance of beginning the flight program. This will ensure that medical problems or physical limitations that may alter career plans can be addressed before entering flight courses.

There are three types of medical certificates—Class III, Class II, and Class I. Students are advised to obtain a Class I certificate if they are planning a career in professional flight. Students must have at least a Class II medical before beginning 200-level flight courses.

### Admission Criteria

Students must apply for acceptance into the Flight Technology program before enrolling in any 200-level flight courses by completing an application available from the Aviation Division.

PROGRAM NOTES

+ indicates course has prerequisites and/or corequisites.

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

Overall program minimum G.P.A. = 2.50.

PROGRAM PREREQUISITES: 13-15 CREDITS

*Students must consult with a program advisor as the program prerequisites may be waived as requirements to the program for those students who have FAA Private Pilot Certificates and/or have course equivalents as indicated by assessment.*

- +AET107 Private Pilot Ground School (5) AND
- +AET110 . . . . . Private Pilot Flight (2) OR  
FAA Private Pilot Certificate . . . . .7
- +CRE101 Critical and Evaluative Reading I (3) OR
- Equivalent as indicated by assessment . . . . .3
- +MAT120 Intermediate Algebra (5) OR
- +MAT121 Intermediate Algebra (4) OR
- +MAT122 Intermediate Algebra (3) OR
- Equivalent as indicated by assessment OR
- Satisfactory completion of a higher level mathematics course . . . . .3-5

REQUIRED COURSES: 29.5 CREDITS

- AET115 Aviation Meteorology . . . . .3
- +AET203 Basic Airplane Systems . . . . .2
- AET205 Aircraft Structures, Systems and Maintenance . . . . .4
- +AET207 Attitude Instruments and Navigation . . . . .2
- +AET210 Commercial Pilot Flight I . . . . .2
- +AET213 Aerodynamics and Performance . . .2
- +AET215 Aircraft Powerplants . . . . .4
- +AET217 Instrument Procedures . . . . .2
- +AET220 Commercial Pilot Flight II . . . . .2
- +AET225 Advanced Aircraft Systems . . . . .4
- +AET237 Multiengine Airplane Pilot Ground School . . . . .2
- +AET240 Multiengine Airplane Pilot Flight . . . . .0.5

## Airway Science Technology, Flight Emphasis

Associate in Applied Science: AAS 3707  
65.5-67.5 Credits

Program Contact:  
Bashir Khalil ~ (480) 988-8112

### Program Description

The Associate in Applied Science in Airway Science Technology, Flight Emphasis is designed to prepare students to apply technical knowledge and skills to the flying of commercial, agricultural, public service, corporate, or private airplanes, and to prepare students to sit for the Federal Aviation Administration (FAA) written and practical examinations for Commercial Pilot Certificate with Single Engine Airplane Land Rating; Instrument Rating; and the Multiengine Rating as well as the Flight Instructor Certificate with the Single Engine Airplane Land Rating. Students desiring to transfer to another institution for completion of a four-year degree should consult an advisor and the catalog of the institution to which they plan to transfer to determine specific requirements.

### Job Description

The Associate in Applied Science in Airway Science Technology, Flight Emphasis program is designed to prepare students with the required Federal Aviation Administration certificates for initial employment as airplane pilots in a wide variety of entry-level, flight-related occupations such as flight instructor, banner tow pilots, jump plane pilots, etc. In some instances, additional specialized training will be required. Students aspiring to employment with airlines can elect to use their flight instructor certificate to help build flight time in an economical manner.

### Job Opportunities

While the aviation industry is cyclic, affected by both economic and military implications, indicators point to an increase in pilot hiring from 1995 through 2010. Job mobility within the aviation industry increases as flight experience increases. The experienced pilot who demonstrates quality flight techniques, willingness to learn, organizational skills, reliability, and good communication skills will find opportunities to advance into large aircraft operations, or other positions within the industry such as management, business owner, sales, corporate jet operator, or systems trainer

## Flight Policies

Flight, altitude chamber, and simulator training costs are the responsibility of the student. They are determined on an hourly basis for aircraft and flight instruction, and are in addition to tuition, fees, and other registration expenses. Once students have been accepted into the CGCC Airway Science Technology, Flight Emphasis program, they will not receive college credit for flight instruction received at flight schools other than the school or schools with which Maricopa County Community College District has currently contracted for such instruction.

### **Ground school courses must be taken concurrently with the appropriate flight courses.**

Attendance is mandatory in the aviation ground school courses in accordance with Federal Aviation Regulation Part 141, Appendices A and D. Failure to meet these attendance requirements will disqualify the student for FAA pilot certification.

## Transfer of Pilot Ratings

Students with a Private Pilot Certificate obtained without college credit must complete the flight lessons contained in the Federal Aviation Regulations Part 141 Private Pilot Test Course before enrolling in any 200-level ground or flight courses.

Students holding Commercial Pilot or Flight Instructor Certificates obtained without college credit are required to take the appropriate ground school courses, and complete the flight lessons contained in the Federal Aviation Regulations Part 141 Commercial Pilot Test Course.

Aviation and related courses from other colleges and universities will not automatically transfer to CGCC. All aviation transfer courses, flight or nonflight, are reviewed by the Aviation Division for transferability. Students with pilot certificates obtained with college credit at other institutions must demonstrate proficiency of each certificate and associated ratings before credit will be accepted to satisfy CGCC curriculum requirements.

In all cases, it is the responsibility of the student to initiate the process.

## Medical Certificates

A current medical certificate is required for all students planning to begin flight training. The physical examination must be performed by a medical doctor who is a designated FAA Medical Examiner. Students are advised to obtain their medical certificates well in advance of beginning the flight program. This will ensure that medical problems or

physical limitations that may alter career plans can be addressed before entering flight courses.

There are three types of medical certificates—Class III, Class II, and Class I. Students are advised to obtain a Class I certificate if they are planning a career in professional flight. Students must have at least a Class II medical before beginning 200-level flight courses.

## Admission Criteria

Students must apply for acceptance into the Associate in Applied Science in Airway Science Technology, Flight Emphasis program before enrolling in any 200-level flight courses by completing an application available from the Aviation Division.

### PROGRAM NOTES:

+ indicates course has prerequisites and/or corequisites.

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

Overall program minimum G.P.A. = 2.50.

### PROGRAM PREREQUISITES: 13-15 CREDITS

*Students must consult with a program advisor as the program prerequisites may be waived as requirements to the program for those students who have FAA Private Pilot Certificates and/or have course equivalents as indicated by assessment.*

+AET107	Private Pilot Ground School (5) AND	
+AET110	Private Pilot Flight (2) OR	
FAA Private Pilot Certificate		7
+CRE101	Critical and Evaluative Reading I (3) OR	
Equivalent as indicated by assessment		3
+MAT120	Intermediate Algebra (5) OR	
+MAT121	Intermediate Algebra (4) OR	
+MAT122	Intermediate Algebra (3) OR	
Equivalent as indicated by assessment OR		
Satisfactory completion of a higher level		
mathematics course		3-5

### REQUIRED COURSES: 40.5 CREDITS

AET115	Aviation Meteorology	3
+AET203	Basic Airplane Systems	2
+AET205	Aircraft Structures, Systems, and Maintenance	4
+AET207	Attitude Instruments and Navigation	2
+AET210	Commercial Pilot Flight I	2
+AET213	Aerodynamics and Performance	2
+AET215	Aircraft Powerplants	4
+AET217	Instrument Procedures	2

+AET220	Commercial Pilot Flight II . . . . .	2
+AET225	Advanced Aircraft Systems . . . . .	4
+AET227	Certified Flight Instructor: Airplane, Single Engine Land Ground School . . . . .	4
+AET230	Certified Flight Instructor: Airplane, Single Engine Land . . . . .	1
+AET237	Multiengine Airplane Pilot Ground School . . . . .	2
+AET240	Multiengine Airplane Pilot Flight . . . . .	0.5
+AET257	Readings in Aviation . . . . .	3
CIS105	Survey of Computer Information Systems . . . . .	3

RESTRICTED ELECTIVES: 2-3 CREDITS

+AET253	Avionics for Pilots . . . . .	3
AET259	Human Factors in Aviation Flight Operations . . . . .	2
+AET290	Flight Physiology . . . . .	3

GENERAL EDUCATION: 23-24 CREDITS

CORE: 14 CREDITS

**First-Year Composition**

+ENG101	First-Year Composition (3) AND
+ENG111	Technical Writing (3) OR

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

**Oral Communication**

+COM225	Public Speaking . . . . .	3
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**Critical Reading**

Met by CRE101 in Program Prerequisites area . . . . . 0

**Mathematics**

+MAT187	Precalculus (5) OR Equivalent as indicated by assessment OR Satisfactory completion of a higher level mathematics course . . . . .	5
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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**

ECN112	Microeconomic Principles . . . . .	3
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**Natural Sciences**

+PHY111	General Physics I . . . . .	4
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General Education Requirements are listed on pages  
138-140.

# Aircraft Maintenance Technology

## Airframe Maintenance (Part 147)

Certificate of Completion: CCL 5668  
32 Credits

Division Chairperson:  
Harvey Stone ~ (480) 988-8115

### Program Description

The Certificate of Completion in Airframe Maintenance (Part 147) Program is designed for individuals who hold an FAA Powerplant Certificate or who desire to specialize in areas of structural maintenance or repair. This certificate provides the necessary knowledge to continue into areas of avionics, composites, or heavy structures specializations. This program of study normally requires two semesters to complete if the prerequisites have been met.

Students wishing to enroll in this Part 147 Certificate program must complete an application process before being officially accepted into the program.

The program prerequisites normally require one or more semesters to complete.

PROGRAM PREREQUISITES: 29 CREDITS

+ENG071	Fundamentals of Writing (3) OR Equivalent as indicated by assessment . . . . .	3
+MAT091	Introductory Algebra (4) OR	
+MAT092	Introductory Algebra (3) OR Equivalent as indicated by assessment . . . . .	3-4
+RDG091	College Reading Skills I (3) OR Equivalent as indicated by assessment . . . . .	3
AND		
+AMT124	Aircraft Forms and Regulations, Weight and Balance, Drawings, and Ground Operations . . . . .	5
+AMT126	Fundamentals of Mathematics and Electricity . . . . .	9
+AMT128	Fundamentals of Aviation Physics, Corrosion Control, Materials and Processes, Fluid Lines and Fittings . . . . .	5

OR

Hold a valid FAA Powerplant Certificate and pass an Aviation General Subject exam with a minimum score of 70 percent.

AND

Permission of the Department or Division.

## REQUIRED COURSES: 32 CREDITS

+AMT220	Fundamentals of Aircraft Wood Structures, Covering and Finishing and Bonded Structures . . . . .	3
+AMT222	Atmosphere Control, Fire Detection, Ice and Rain Protection Systems . . . . .	4
+AMT224	Aircraft Sheet Metal . . . . .	5
+AMT226	Aircraft Landing Gear, Hydraulic, Pneumatic, Fuel, Position and Warning Systems . . . . .	7
+AMT228	Aircraft Electrical Systems, Instruments, Fuel Indicating Communication and Navigation Systems . . . . .	7
+AMT230	Airframe Assembly, Inspection, and Welding . . . . .	6

## Note:

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

+ indicates course has prerequisites and/or corequisites

Overall program minimum G.P.A. = 2.00.

## Powerplant Maintenance (Part 147)

Certificate of Completion: CCL 5669

33 Credits

Division Chairperson:

Harvey Stone ~ (480) 988-8115

### Program Description

The Certificate of Completion in Powerplant Maintenance (Part 147) Program is designed for individuals who hold an FAA Airframe Certificate or who desire to specialize in areas of engine maintenance or repair. This program of study normally requires two semesters to complete if the prerequisites have been met. Students wishing to enroll in this Part 147 Certificate program must complete an application process before being officially accepted into the program.

The program prerequisites normally require one or more semesters to complete.

## PROGRAM PREREQUISITES: 19-29 CREDITS

+ENG071	Fundamentals of Writing (3) OR Equivalent as indicated by assessment . . . . .	3
+MAT091	Introductory Algebra (4) OR	
+MAT092	Introductory Algebra (3) OR Equivalent as indicated by assessment . . . . .	3-4
+RDG091	College Reading Skills I (3) OR Equivalent as indicated by assessment . . . . .	3
AND		
+AMT124	Aircraft Forms and Regulations, Weight and Balance, Drawings, and Ground Operations . . . . .	5
+AMT126	Fundamentals of Mathematics and Electricity . . . . .	9
+AMT128	Fundamentals of Aviation Physics, Corrosion Control, Materials and Processes, Fluid Lines and Fittings . . . . .	5

## OR

Hold a valid FAA Airframe Certificate and pass an Aviation General Subject exam with a minimum score of 70 percent.

## AND

Permission of the Department or Division.

## REQUIRED COURSES: 33 CREDITS

+AMT263	Aircraft Turbine Engines . . . . .	5
+AMT264	Aircraft Reciprocating Engines . . . . .	7
+AMT266	Engine Fuel System, Fuel Metering and Induction System . . . . .	6
+AMT268	Engine Electrical, Ignition and Starter Systems . . . . .	6
+AMT270	Engine Instruments, Fire Protection and Lubrication, Cooling and Exhaust Systems . . . . .	5
+AMT272	Propeller Systems and Engine Inspections . . . . .	4

## Note:

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

+ indicates course has prerequisites and/or corequisites.

Overall program minimum G.P.A. = 2.00.

## Aircraft Maintenance Technology (Part 147)

Certificate of Completion: CCL 5670  
65 Credits

Division Chairperson:  
Harvey Stone ~ (480) 988-8115

### Program Description

The Certificate of Completion in Aircraft Maintenance Technology (Part 147) Program is designed for individuals who want to prepare for the FAA Airframe and Powerplant Certificates but are limited by funding agencies to a single continuing program of study. This program of study normally requires four semesters to complete if the prerequisites have been met. Students wishing to enroll in this Part 147 Certificate program must complete an application process before being officially accepted into the program.

The program prerequisites normally require one or more semesters to complete.

PROGRAM PREREQUISITES: 19-29 CREDITS  
 +ENG071 Fundamentals of Writing (3) OR  
 Equivalent as indicated by assessment . . . . .3  
 +MAT091 Introductory Algebra (4) OR  
 +MAT092 Introductory Algebra (3) OR  
 Equivalent as indicated by assessment . . . . .3-4  
 +RDG091 College Reading Skills I (3) OR  
 Equivalent as indicated by assessment . . . . .3  
 AND

+AMT124 Aircraft Forms and Regulations,  
 Weight and Balance, Drawings,  
 and Ground Operations . . . . .5  
 +AMT126 Fundamentals of Mathematics  
 and Electricity . . . . .9  
 +AMT128 Fundamentals of Aviation  
 Physics, Corrosion Control,  
 Materials and Processes,  
 Fluid Lines and Fittings . . . . .5

AND  
 Permission of the Department or Division.

REQUIRED COURSES: 65 CREDITS  
 +AMT220 Fundamentals of Aircraft Wood  
 Structures, Covering and Finishing  
 and Bonded Structures . . . . .3  
 +AMT222 Atmosphere Control, Fire  
 Detection, Ice and Rain  
 Protection Systems . . . . .4  
 +AMT224 Aircraft Sheet Metal . . . . .5

+AMT226 Aircraft Landing Gear,  
 Hydraulic, Pneumatic, Fuel,  
 Position and Warning Systems . . . .7  
 +AMT228 Aircraft Electrical Systems,  
 Instruments, Fuel Indicating,  
 Communication and  
 Navigation Systems . . . . .7  
 +AMT230 Airframe Assembly, Inspection,  
 and Welding . . . . .6  
 +AMT263 Aircraft Turbine Engines . . . . .5  
 +AMT264 Aircraft Reciprocating Engines . . .7  
 +AMT266 Engine Fuel System, Fuel  
 Metering and Induction System . .6  
 +AMT268 Engine Electrical, Ignition and  
 Starter Systems . . . . .6  
 +AMT270 Engine Instruments, Fire  
 Protection and Lubrication,  
 Cooling and Exhaust Systems . . . .5  
 +AMT272 Propeller Systems and  
 Engine Inspections . . . . .4

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

+ indicates course has prerequisites and/or corequi-  
 sites.

Overall program minimum G.P.A. = 2.00.

## Aircraft Maintenance Technology

Associate in Applied Science: AAS 3670  
89-92 Credits

Division Chairperson:  
Harvey Stone ~ (480) 988-8115

### Program Description

The Aircraft Maintenance Technology (AMT) certificate and degree programs are designed to prepare students for licensure as certified airframe, powerplant, or airframe and powerplant (A&P) technicians and for employment in entry-level positions in the aircraft maintenance field.

PART 147: The Part 147 curriculum meets Federal Aviation Administration (FAA) requirements for the number of hours of instruction and for the level and type of competency expected of the students in general, airframe, and powerplant subject areas. Completion of the appropriate Certificate program/s may lead to an Associate in Applied Science in Aircraft Maintenance Technology degree. Students wishing to enroll in a Part 147 Certificate program



must complete an application process before being officially accepted into the program.

The **Certificate of Completion in Airframe Maintenance (Part 147)** is designed for individuals who hold an FAA Powerplant Certificate or who desire to specialize in areas of structural maintenance or repair. This Certificate provides the necessary knowledge to continue into areas of avionics, composites, or heavy structures specializations. This program of study normally requires two semesters to complete if the program prerequisites have been met.

The **Certificate of Completion in Powerplant Maintenance (Part 147)** is designed for individuals who hold an FAA Airframe Certificate or who desire to specialize in areas of engine maintenance or repair. This program of study normally requires two semesters to complete if the program prerequisites have been met.

The **Certificate of Completion in Aircraft Maintenance Technology (Part 147)** is designed for individuals who want to prepare for FAA Airframe and Powerplant Certificates but are limited by funding agencies to a single continuing program of study. This program of study normally requires four semesters to complete if the program prerequisites have been met.

The program prerequisites normally require one or more semesters to complete.

The **Associate in Applied Science in Aircraft Maintenance Technology** degree combines the technical aspects of the Certificate programs with selected general education courses in the areas of English, math, reading, communications, humanities, and physics.

**PART 65:** The Part 65 curriculum is designed for those students who wish to gain specific knowledge and skills in the aircraft maintenance field or are pursuing Federal Aviation Administration certification under Federal Aviation Regulation, Part 65.77. Students benefiting from these courses would include aircraft maintenance apprentices, pilots, kit aircraft builders, aircraft enthusiasts, and past and current military personnel who have worked in aircraft maintenance. Completion of the Part 65 courses may lead to an Associate in Applied Science in Aircraft Maintenance Technology degree. Students wishing to enroll in the Part 65 courses must have the permission of the Department or Division and will be accepted on a first-come, first-served, space-available basis only.

## Job Description

Aviation maintenance technicians inspect the engines, landing gear, instruments, pressurized sections, accessories, and other parts of the aircraft, and perform necessary maintenance. Technicians use precision instruments and non-destructive inspection equipment. They also repair sheet metal or composite surfaces and check for corrosion, distortion, and cracks in the aircraft structure. After completing repairs, mechanics must test them to ensure that they work properly.

Aviation maintenance technicians must perform careful and thorough work requiring a high degree of mechanical aptitude. Frequently, they must lift or pull as much as 50 pounds. They often stand, lie, or kneel in awkward positions and occasionally must work in precarious positions on scaffolds or ladders. Noise and vibration are common when testing engines. Aviation maintenance technicians generally work 40 hours a week on 8-hour shifts around the clock.

Aviation maintenance technicians who work on civilian aircraft are certificated by the Federal Aviation Administration (FAA) as airframe mechanic, powerplant mechanic, or combination airframe and powerplant (A&P) mechanics who can work on nearly any part of the plane. Although a few people become Aviation maintenance technicians through on-the-job training, most learn their job in one of the schools certified by the FAA under Federal Aviation Regulation Part 147. FAA standards require certificated schools offer students at least 1,900 class hours.

## Job Opportunities

According to the 1994-95 Occupational Outlook Handbook, over 60% of salaried aviation maintenance technicians work for airlines, nearly 20% for aircraft manufacturers, and nearly 15% for the federal government. Most of the rest are general aviation mechanics, the majority of whom work for independent repair shops or companies that operate their own planes to transport executives and cargo.

CGCC Aircraft Maintenance Technology students are in high demand. For example, during the 1997-98 school year, 100% of those students interested in going directly into the work force were successfully placed in industry-related positions.

Employers seek applicants who are self-motivated, hard-working, enthusiastic, and able to diagnose and solve complex mechanical problems. Employers pre-

for technicians who can perform a wide variety of tasks. Courses in mathematics, physics, chemistry, electronics, computer science, and mechanical drawing are helpful. Courses that develop writing skills are also important because aviation maintenance technicians are often required to submit written reports.

As aviation maintenance technicians gain experience, they may have opportunity for advancement, especially if they continue their training. A technician may advance to crew chief, inspector, lead inspector, or shop supervisor. Those with broad experience sometimes become inspectors with the FAA. With additional business and management training, some open their own aircraft maintenance facilities.

PROGRAM PREREQUISITES: 19-29 CREDITS

- +ENG071 Fundamentals of Writing (3) OR  
Equivalent as indicated by assessment . . . . .3
- +MAT091 Introductory Algebra (4) OR
- +MAT092 Introductory Algebra (3) OR  
Equivalent as indicated by assessment . . . . .3-4
- +RDG091 College Reading Skills I (3) OR  
Equivalent as indicated by assessment . . . . .3
- AND
- +AMT124 Aircraft Forms and Regulations,  
Weight and Balance, Drawings,  
and Ground Operations (5) AND
- +AMT126 Fundamentals of Mathematics  
and Electricity (9) AND
- +AMT128 Fundamentals of Aviation  
Physics, Corrosion Control,  
Materials and Processes,  
Fluid Lines and Fittings (5) OR
- +AMT124AA Aircraft Forms and Regulations,  
Weight and Balance, Drawings,  
and Ground Operations:  
Part 65 (5) AND
- +AMT126AA Fundamentals of Mathematics  
and Electricity: Part 65 (9) AND
- +AMT128AA Fundamentals of Aviation  
Physics, Corrosion Control,  
Materials and Processes,  
Fluid Lines and Fittings:  
Part 65 (5) . . . . .19

AND  
Permission of the Department or Division.

REQUIRED COURSES: 65 CREDITS

- Certificate of Completion in Airframe  
Maintenance (Part 147) (32) AND
- Certificate of Completion in Powerplant  
Maintenance (Part 147) (33) OR
- Certificate of Completion in Aircraft  
Maintenance Technology (Part 147) (65) . . . . .65

- OR
- +AMT220AA Fundamentals of Aircraft  
Wood Structures, Covering  
and Finishing and Bonded  
Structures: Part 65 . . . . .3
- +AMT222AA Atmosphere Control, Fire  
Detection, Ice and Rain  
Protection Systems: Part 65 . . . . .4
- +AMT224AA Aircraft Sheet Metal: Part 65 . . . . .5
- +AMT226AA Aircraft Landing Gear,  
Hydraulic, Pneumatic, Fuel,  
Position and Warning Systems:  
Part 65 . . . . .7
- +AMT228AA Aircraft Electrical Systems,  
Instruments, Fuel Indicating,  
Communication and  
Navigation Systems: Part 65 . . . . .7
- +AMT230AA Airframe Assembly, Inspection,  
and Welding: Part 65 . . . . .6
- +AMT263AA Aircraft Turbine Engines:  
Part 65 . . . . .5
- +AMT264AA Aircraft Reciprocating Engines . . .7
- +AMT266AA Engine Fuel System, Fuel  
Metering and Induction System:  
Part 65 . . . . .6
- +AMT268AA Engine Electrical, Ignition and  
Starter Systems: Part 65 . . . . .6
- +AMT270AA Engine Instruments, Fire  
Protection and Lubrication,  
Cooling and Exhaust Systems:  
Part 65 . . . . .5
- +AMT272AA Propeller Systems and Engine  
Inspections: Part 65 . . . . .4

GENERAL EDUCATION: 24-27 CREDITS

CORE: 15-17 CREDITS

**First-Year Composition**

- +ENG101 First-Year Composition (3) AND
- +ENG111 Technical Writing (3) OR
- +ENG107 First-Year Composition  
for ESL (3) AND
- +ENG111 Technical Writing (3) . . . . .6

**Oral Communication**

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

**Critical Reading**

- +CRE101 Critical and Evaluative  
Reading I (3) OR  
Equivalent as indicated by assessment . . . . .3

**Mathematics**

- +MAT120 Intermediate Algebra (5) OR
- +MAT122 Intermediate Algebra (3) OR  
Equivalent as indicated by assessment . . . . .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 Sciences area . . . . .3

**Natural Sciences**

+PHY101 Introduction to Physics . . . . .4

**Note:**

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

+ indicates course has prerequisites and/or corequisites.

Overall program minimum G.P.A. = 2.00.

General Education Requirements are listed on pages 138-140.

# Art: Computer Illustration

## Media Arts: Computer Art/Illustration

Certificate of Completion: CCL 5881

16 Credits

Program Contact:

Ted Wolter ~ (480) 732-7089

### Program Description

This program is designed for the student who wishes to develop an area of specialization in Computer Art/Illustration. The program acquaints the student with art principles and assists the students in developing their abilities to solve design and compositional problems as related to the art. It allows for the development of an individual's personal interest in this area, prepares students for employment, and upgrades skills of those already employed in this field. Employment opportunities are included in multimedia such as illustrator, artist, designer, paste-up artist, freelance artist-designer, graphic design artist, or multimedia artist.

**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.

Overall program minimum G.P.A. = 2.00.

REQUIRED COURSES: 16 CREDITS

ART100	Introduction to Computer Graphic Art . . . . .	1
ART111	Drawing I . . . . .	3
ART116	Life Drawing I . . . . .	3
+ART169	Two-Dimensional Computer Design . . . . .	3
+ART173	Computer Art (3) OR	
+ART177	Computer-Photographic Imaging (3) . . . . .	3
+ART289	Computer Illustration . . . . .	3

# Art: Digital Photography

## Media Arts: Digital Imaging

Certificate of Completion: CCL 5879

16 Credits

Program Contact:

Kelley Kirkpatrick ~ (480) 732-7291

### Program Description

This program, designed for the student who wishes to develop marketable skills in the area of photography and digital imaging, provides the student with an understanding of film, cameras, and film equipment; a knowledge of photography terminology; and digital imaging tools and processes. It prepares students for employment and upgrades the skills of persons already employed in this field. Knowledge and skills can be applied to such occupational areas as media production, marketing, graphic production, desktop publishing, multimedia, service bureau and customer service, and web page production. Sample

job titles could be artist, photographer, designer, and freelance artist-designer.

#### 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.

Overall program minimum G.P.A. = 2.00.

#### REQUIRED COURSES: 16 CREDITS

ART100	Introduction to Computer Graphic Art . . . . .	1
ART131	Photography I . . . . .	3
+ART132	Photography II . . . . .	3
+ART177	Computer-Photographic Imaging . . . . .	3
+ART270	Intermediate Computer Photographic Imaging . . . . .	3
+ART274	Advanced Computer Photographic Imaging . . . . .	3

# Automated Manufacturing

## Automated Manufacturing Systems

Certificate of Completion: CCL 5184

38.5-40.5 Credits

Program Contact:

Academic Advisement ~ (480) 988-8180

### Program Description

The Certificate of Completion in Automated Manufacturing Systems is designed to provide students with the knowledge and skills for employment as automated manufacturing technicians. The program focuses on the installation and troubleshooting of electronic and electro-mechanical systems as well as utilizing state-of-the-art tools to program and maintain automated assembly and robotic equipment.

#### PROGRAM NOTES:

+ indicates course has prerequisites and/or corequisites.

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

Overall program minimum G.P.A. = 2.00.

#### REQUIRED COURSES: 38.5-40.5 CREDITS

AMS101	Introduction to Automated Manufacturing . . . . .	2.5
AMS110	Programming Automated Equipment . . . . .	3
+AMS120	Fluid Power and Programmable Logic Controllers (PLC) . . . . .	3
+AMS130	Vacuum Technologies . . . . .	3
+AMS150	Digital Systems and Microprocessors . . . . .	4
+AMS160	Linear Circuits . . . . .	3.5
+AMS210	Electro-Mechanical Devices . . . . .	3
+AMS220	Automated Manufacturing Processes . . . . .	3
CAD103AA	Basic Print Reading for Manufacturing . . . . .	1
+ELE113	DC Circuit Analysis . . . . .	4
+ELE114	AC Circuit Analysis . . . . .	4
+MAT120	Intermediate Algebra (5) OR	
+MAT121	Intermediate Algebra (4) OR	
+MAT122	Intermediate Algebra (3) . . . . .	3-5
NET181AA	Visual BASIC for the Technologies I . . . . .	1.5

# Automated Manufacturing Systems

Associate in Applied Science: AAS 3854

60.5-62.5 Credits

Program Contact:  
Academic Advisement ~ (480) 988-8180

## Program Description

The Associate in Applied Science in Automated Manufacturing Systems is designed to provide students with the knowledge and skills for employment as automated manufacturing technicians. The program focuses on the installation and troubleshooting of electronic and electro-mechanical systems as well as utilizing state-of-the-art tools to program and maintain automated assembly and robotic equipment.

### PROGRAM NOTES:

+ indicates course has prerequisites and/or corequisites.

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

Overall program minimum G.P.A. = 2.00.

### REQUIRED COURSES: 38.5-40.5 CREDITS

AMS101	Introduction to Automated Manufacturing	2.5
AMS110	Programming Automated Equipment	3
+AMS120	Fluid Power and Programmable Logic Controllers (PLC)	3
+AMS130	Vacuum Technologies	3
+AMS150	Digital Systems and Microprocessors	4
+AMS160	Linear Circuits	3.5
+AMS210	Electro-Mechanical Devices	3
+AMS220	Automated Manufacturing Processes	3
CAD103AA	Basic Print Reading for Manufacturing	1

+ELE113	DC Circuit Analysis	4
+ELE114	AC Circuit Analysis	4
+MAT120	Intermediate Algebra (5) OR	
+MAT121	Intermediate Algebra (4) OR	
+MAT122	Intermediate Algebra (3)	3-5
NET181AA	Visual BASIC for the Technologies I	1.5

GENERAL EDUCATION: 22 CREDITS

CORE: 12 CREDITS

### First-Year Composition

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

### Oral Communication

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

### Critical Reading

+CRE101	Critical and Evaluative Reading I (3) OR	
	Equivalent as indicated by assessment	3

### Mathematics

+Met by MAT120 or MAT121 or MAT121 in the Required Courses area. . . . .0

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

+PHY101	Introduction to Physics	4
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General Education Requirements are listed on pages 138-140.

# Avionics Technology

## Avionics Technology

Certificate of Completion: CCL 5666  
48 Credits

Program Contact:  
Bashir Khalil ~ (480) 988-8112

### Program Description

The Certificate of Completion in Avionics Technology provides training for the entry-level position in line maintenance and troubleshooting of aircraft communications and navigation equipment. The program develops an understanding of electronics theory, avionics system theory, avionics equipment operation, system design analysis, and logistic support.

### Job Description

The Avionics Technician works on the flight line or in the aircraft hangar testing, troubleshooting, performing minor repairs, performing aircraft and integrated electronic system operational and functional check outs, evaluating avionic system malfunctions, removing and installing avionics equipment, and completing required aircraft documentation log book entries.

### Job Opportunities

The Avionics Technician who demonstrates analytical troubleshooting techniques, a willingness to learn, organizational skills, reliability, and good communication skills will find opportunities to advance into other positions within the industry such as management, business owner, sales, or systems trainer.

### Program Application Process

Students wishing to enroll in Certificate of Completion in Avionics Technology must complete an application process before being officially accepted into the program.

PROGRAM PREREQUISITES: 18 CREDITS

- +AMT126 Fundamentals of Mathematics and Electricity (9) OR
- +AMT126AA Fundamentals of Mathematics and Electricity: Part 65 (9) OR

Pass an exam on electrical circuit analysis, solid-state devices, and digital logic circuits with a minimum score of 70 percent OR

Provide sufficient documentation of related work experience and/or equivalent college course(s) completed . . . . .9

- +CRE101 Critical and Evaluative Reading I (3) OR

Equivalent as indicated by assessment . . . . .3

- +ENG071 Fundamentals of Writing (3) OR

Equivalent as indicated by assessment . . . . .3

- +MAT122 Intermediate Algebra (3) OR

Equivalent as indicated by assessment . . . . .3

AND  
Permission of Department or Division.

REQUIRED COURSES: 48 CREDITS

- +AVT110 Introduction to Avionics . . . . .6

- +AVT115 Communication and Navigation Basic Circuits . . . . .7

- +AVT120 Avionics: Airframe Systems Interfacing I . . . . .6

- +AVT128 Advanced Electrical and Electronics . . . . .5

- +AVT155 Avionics: Airframe and Engine Systems Interfacing II . . . . .6

- +AVT225 Navigation Systems: Basic . . . . .6

- +AVT250 Navigation Systems: Advanced . . .6

- +AVT260 Navigation Systems: Long Range . . . . .6

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

+ indicates course has prerequisites and/or corequisite.

Overall program minimum G.P.A. = 2.00.

## Aviation Electronics Maintenance Technology

Associate in Applied Science: AAS 3666  
66-73 Credits

Program Contact:  
Bashir Khalil ~ (480) 988-8112

### Program Description

The Associate in Applied Science in Aviation Electronics Maintenance Technology is designed to prepare students to apply technical knowledge and skills for employment in the specialized aviation electronic maintenance positions in the aircraft maintenance field. The program of study combines the technical aspects of the certificate program with selected general education courses in the area of English, mathematics, reading, communications, humanities, and physics. Students desiring to transfer to another institution for completion of a four-year degree should consult an advisor and the catalog for the institution to which they plan to transfer to determine specific requirements.

### Job Description

The Associate in Applied Science in Aviation Electronics Maintenance Technology is designed to prepare students for initial employment as Avionics Technicians in a wide variety of entry-level occupations associated with the Avionics Installer Technician position. In some instances, additional specialized on-the-job training will be required.

### Job Opportunities

The Avionics Technician who demonstrates analytical troubleshooting techniques, a willingness to learn, organizational skills, reliability, and good communication skills will find opportunities to advance into other positions within the industry such as management, business owner, sales, or systems trainer.

### Program Application Process

Students wishing to enroll in Associate in Applied Science in Aviation Electronics Maintenance Technology must complete an application process before being officially accepted into the program.

PROGRAM PREREQUISITES: 18 CREDITS

- +AMT126 Fundamentals of Mathematics and Electricity (9) OR  
+AMT126AA Fundamentals of Mathematics and Electricity: Part 65 (9) OR

Pass an exam on electrical circuit analysis, solid-state devices, and digital logic circuits with a minimum score of 70 percent OR

Provide sufficient documentation of related work experience and/or equivalent college course(s)

completed . . . . .9

- +CRE101 Critical and Evaluative Reading I (3) OR

Equivalent as indicated by assessment . . . . .3

- +ENG071 Fundamentals of Writing (3) OR

Equivalent as indicated by assessment . . . . .3

- +MAT122 Intermediate Algebra (3) OR

Equivalent as indicated by assessment . . . . .3

AND

Permission of Department or Division.

REQUIRED COURSES: 48 CREDITS

- +AVT110 Introduction to Avionics . . . . .6

- +AVT115 Communication and Navigation Basic Circuits . . . . .7

- +AVT120 Avionics: Airframe Systems Interfacing I . . . . .6

- +AVT128 Advanced Electrical and Electronics . . . . .5

- +AVT155 Avionics: Airframe and Engine Systems Interfacing II . . . . .6

- +AVT225 Navigation Systems: Basic . . . . .6

- +AVT250 Navigation Systems: Advanced . . .6

- +AVT260 Navigation Systems: Long Range . . . . .6

GENERAL EDUCATION: 21-22 CREDITS

CORE: 12 CREDITS

#### First-Year Composition

- +ENG101 First-Year Composition (3) AND

- +ENG111 Technical Writing (3) OR

- +ENG107 First-Year Composition for ESL (3) AND

- +ENG111 Technical Writing (3) . . . . .6

#### Oral Communication

- +COM230 Small Group Communication . . .3

#### Critical Reading

Met by CRE101 in Program Prerequisites area (3) OR

Equivalent as indicated by assessment . . . . .0

#### Mathematics

- +MAT182 Plane Trigonometry (3) OR

Equivalent as indicated by assessment . . . . .3

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 Sciences area . . . . .3

**Natural Sciences**  
+PHY101 Introduction to Physics . . . . .4

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

+ indicates course has prerequisites and/or corequisites.

Overall program minimum G.P.A. = 2.00.

General Education Requirements are listed on pages 138-140.

## Business

### General Business

Associate in Applied Science: AAS 3851

64 Credits

Division Chairperson:  
Shirley Miller ~ (480) 732-7043

#### Program Description

The Associate in Applied Science (AAS) degree in General Business is a program designed to meet the needs of students who wish to gain a broad understanding of business principles. The program is designed to acquaint the student with major subject areas of business, such as accounting, economics, marketing, management, and business law. In addition, this program could aid a student in recognizing a specific business field to be pursued in future studies. Completion of this degree can aid in obtaining entry-level employment as well as in career advancement.

**Note:** Students interested in pursuing a baccalaureate degree are strongly encouraged to meet with a academic advisor for guidance.

**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.

Overall program minimum G.P.A. = 2.00.

REQUIRED COURSES: 31 CREDITS

ACC111 Accounting Principles I . . . . .3

+ACC230 Uses of Accounting Information I . . . . .3

CIS105 Survey of Computer Information Systems . . . . .3

CIS131AA Doing Business on the Internet . . .1

GBS151 Introduction to Business . . . . .3

GBS205 Legal, Ethical, and Regulatory Issues in Business . . . . .3

+GBS233 Business Communication . . . . .3

MGT229 Management and Leadership I . . .3

MGT251 Human Relations in Business . . .3

MKT271 Principles of Marketing . . . . .3

TQM101 Quality Customer Service . . . . .3

RESTRICTED ELECTIVES: 8 CREDITS

*Students should select courses in consultation with program advisor. Minimum 6-8 credits required dependent on 3-5 credits in Mathematics area.*

+ACC115 Computerized Accounting (Quickbooks) . . . . .2

+ACC240 Uses of Accounting Information II . . . . .3

BPC111AA Computer Keyboarding I . . . . .1

BPC114DE/Excel Spreadsheet . . . . .3

BPC117AM/ Database Management: Microsoft Access – Level I . . . . .1

BPC117BM/ Database Management: Microsoft Access – Level II . . . . .1

+CIS117BM Microsoft Access – Level II . . . . .1

BPC120DA/ Micro Graphics: IBM PowerPoint . . . . .1

BPC121AB/ MS-DOS Operating System . . . . .1

CIS121AB Operating System . . . . .1

BPC121AE/ Windows Operating System: Level I . . . . .1

CIS121AE System: Level I . . . . .1

BPC135+/ Word Processing Software (Any module) . . . . .2

+OAS135++ The Internet/World Wide Web: Level I . . . . .1

CIS133AA The Internet/World Wide Web: Level II . . . . .1

+CIS133BA The Internet/World Wide Web: Level II . . . . .1

MGT253 Owning and Operating a Small Business . . . . .3



GENERAL EDUCATION: 25-27 CREDITS

CORE: 15-17 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

**Critical Reading**

- +CRE101 Critical and Evaluative Reading I (3) OR
- Equivalent as indicated by assessment .....3

**Mathematics**

- +MAT120 Intermediate Algebra (5)OR
- +MAT121 Intermediate Algebra (4) OR
- +MAT122 Intermediate Algebra (3) OR
- Equivalent as indicated by assessment OR
- Satisfactory completion of a higher-level mathematics course .....3-5

DISTRIBUTION: 10 CREDITS

**Humanities and Fine Arts**

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

**Social and Behavioral Sciences**

- ECN111 Macroeconomic Principles .....3

**Natural Sciences**

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

General Education Requirements are listed on pages 138-140.

## Organizational Leadership

Certificate of Completion: CCL 5731

17-18 Credits

Program Contact:

DJ Christian ~ (480) 732-7394  
dj.christian@cgcmail.maricopa.edu

**Program Description:**

This program is designed to provide students with knowledge and skills to meet the challenges of a changing workplace. Courses will prepare students by developing leadership and communication skills and techniques for planning, directing and evaluating business situations. This program will also present procedures for effective allocation of time, money, materials, space and personnel.

PROGRAM NOTES:

+ indicates course has prerequisite and/or corequisites.

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

Overall program minimum G.P.A. = 2.00.

REQUIRED COURSES: 17-18 CREDITS

- CIS105 Survey of Computer Information Systems (3) OR
- BPC110 Computer Usage and Applications (3) .....3
- GBS110 Human Relations in Business and Industry (3) OR
- MGT251 Human Relations in Business (3) .....3
- +GBS233 Business Communication (3) OR
- +TQM105 Writing for Quality Results (2) ...2-3
- MGT175 Business Organization and Management .....3
- GBS151 Introduction to Business .....3
- MGT101 Techniques of Supervision (3) OR
- MGT229 Management and Leadership I (3) .....3

## Organizational Leadership

Associate in Applied Science: AAS 3727

64-67 Credits

Program Contact:

DJ Christian ~ (480) 732-7394  
dj.christian@cgcmail.maricopa.edu

**Program Description:**

This program is designed to provide students with knowledge and skills to meet the challenges of a changing workplace. Courses will prepare students by developing leadership and communication skills and techniques for planning, directing and evaluating business situations. This program will also present procedures for effective allocation of time, money, materials, space and personnel.

PROGRAM NOTES:

+ indicates course has prerequisites and/or corequisites.

Overall program minimum G.P.A. = 2.00.

REQUIRED COURSES: 17-18 CREDITS

- Certificate of Completion in Quality Process Leadership (5727) (17) OR
- Certificate of Completion in Organizational Leadership (5731) (17-18) .....17-18

RESTRICTED ELECTIVES: 19-22 CREDITS  
*Students will select one of the following two tracks:*

TRACK I  
 Certificate of Completion in Quality Process Leadership (5727) (17) OR  
 Certificate of Completion in Organizational Leadership (5731) (17-18) . . . . .17-18

In addition, students must choose 2-4 industry/job-specific elective credits and have them approved by a department chair.

TRACK II  
 Student must choose 19-22 industry/job-specific elective credits and have them approved by the department chair. These industry/job-specific credits must include a minimum of 9 credits with a common prefix. These restricted electives must be chosen from the core requirements of an AAS degree program, Certificate or a specialized program of study.

GENERAL EDUCATION: 25-27 CREDITS

CORE: 15-17 CREDITS

- First-Year Composition**  
Any approved general education course in the First-Year Composition area . . . . .6
- Oral Communication**  
Any approved general education course in the Oral Communication area . . . . .3
- Critical Reading**  
Any approved general education course in the Critical Reading area . . . . .3
- Mathematics**  
Any approved general education s course in the Mathematics area . . . . .3-5

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

Note:  
 Certificates may contain additional course requirements.

## Retail Management

Certificate of Completion: CCL 5286  
 33 Credits

Division Chairperson:  
 Shirley Miller ~ (480) 732-7043

### 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.

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

+ indicates course has a prerequisite and/or corequisites.

Overall program minimum G.P.A. = 2.00.

- REQUIRED COURSES: 33 CREDITS
- ACC111 Accounting Principles I . . . . .3
  - BPC110 Computer Usage and Applications (3) OR
  - CISI05 Survey of Computer Information Systems (3) . . . . .3
  - +ENG101 First-Year Composition (3) OR
  - +ENG107 First-Year Composition for ESL (3) . . . . .3
  - GBS110 Human Relations in Business and Industry (3) OR
  - +MGT251 Human Relations in Business (3) . . . . .3
  - GBS131 Business Calculations (3) OR
  - +MAT102 Mathematical Concepts/Applications (3) . . . . .3
  - +GBS233 Business Communication . . . . .3
  - COM110 Interpersonal Communication (3) OR
  - INDI33 Speaking in Business (3) . . . . .3
  - MGT101 Techniques of Supervision (3) OR
  - MGT229 Management and Leadership I (3) . . . . .3
  - MGT179 Utilizing the Human Resources Department (3) OR
  - MGT276 Personnel/Human Resources Management (3) . . . . .3
  - +MKT268 Merchandising . . . . .3
  - MKT271 Principles of Marketing . . . . .3

# Computer Applications

## Microcomputer Applications: Office Specialist/Core Level

Certificate of Completion: CCL 5644  
12.5 Credits

### Program Contacts:

Shirley Miller ~ (480) 732-7133  
shirley.miller@cgcmail.maricopa.edu

Cathy Urbanski ~ (480) 732-7011  
cathy.urbanski@cgcmail.maricopa.edu

### Program Description

The Certificate of Completion in Microcomputer Applications: Office Specialist/Core Level program is designed to provide the basic skills needed in the use of microcomputer software applications for entry-level employment as clerks, typists, word processors, receptionists, and other administrative support positions for a wide variety of employers. Course work includes the Windows operating system, the Internet, and software applications for word processing, electronic spreadsheet, database management, electronic mail, and presentation graphics. Students who complete this certificate will be prepared for the Core examinations for certification as a Microsoft Office Specialist (MOS).

### 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.

Overall program minimum G.P.A. = 2.00.

REQUIRED COURSES:	7.5 CREDITS
BPC106AH	Microsoft Outlook: Level I . . . .0.5
BPC114AE	Excel: Level I . . . . .1
BPC117AM	Database Management: Microsoft Access – Level I . . . . .1
BPC118AB	PowerPoint: Level I . . . . .1
BPC121AE	Windows Operating System: Level I . . . . .1
BPC135DK	Word: Level I . . . . .2
CIS133AA	The Internet/World Wide Web: Level I . . . . .1

### RESTRICTED ELECTIVES: 5 CREDITS

*Students should select five (5) credits from the following courses in consultation with a program advisor:*

ACC111	Accounting Principles I . . . . .3
+ACC115	Computerized Accounting (Quicken or Quickbooks) . . . . .2
ART100	Introduction to Computer Graphic Art . . . . .1
BPC101AA	Introduction to Microcomputers I: IBM . . . . .1
+BPC101BA	Introduction to Microcomputers II: IBM . . . . .1
BPC111AA	Computer Keyboarding I . . . . .1
+BPC111AB	Computer Keyboarding II . . . . .1
BPC121AB	MS-DOS Operating System . . . . .1
+CIS133BA	The Internet/World Wide Web: Level II . . . . .1
+CIS233AA	Web Design and Publishing I . . . . .1
+CIS233BA	Web Design and Publishing II . . . . .1
OAS108	Business English . . . . .3

## Microcomputer Applications: Office Specialist/Expert Level

Certificate of Completion: CCL 5024  
25 Credits

### Program Contacts:

Shirley Miller ~ (480) 732-7133  
shirley.miller@cgcmail.maricopa.edu

Cathy Urbanski ~ (480) 732-7011  
cathy.urbanski@cgcmail.maricopa.edu

### Program Description

The Certificate of Completion in Microcomputer Applications: Office Specialist/Expert Level program is designed to provide the advanced skills needed in the use of microcomputer software applications for employment as secretaries, executive secretaries, and administrative assistants in organizations of every description. Course work includes business English, the Internet, presentation graphics, and the Windows operating system along with advanced software applications for electronic mail, word processing, electronic spreadsheet, and database management. Students who complete this certificate will be prepared for the Expert examinations for certification as a Microsoft Office Specialist (MOS).

## PROGRAM NOTES:

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

+ indicates course has prerequisites and/or corequisites.

Overall program minimum G.P.A. = 2.00.

## REQUIRED COURSES: 16 CREDITS

BPC106AH	Microsoft Outlook: Level I . . . . .	0.5
+BPC106BH	Microsoft Outlook: Level II . . . . .	0.5
BPC114AE	Excel: Level I . . . . .	1
+BPC114BE	Excel: Level II . . . . .	1
BPC117AM	Database Management: Microsoft Access – Level I . . . . .	1
+BPC117BM	Database Management: Microsoft Access – Level II . . . . .	1
BPC118AB	PowerPoint Level I . . . . .	1
BPC121AE	Windows Operating System: Level I . . . . .	1
+BPC135DK	Word: Level I . . . . .	2
+BPC235DK	Word: Level II . . . . .	2
CIS133AA	The Internet/World Wide Web: Level I . . . . .	1
+CIS133BA	The Internet/World Wide Web: Level II . . . . .	1
OAS108	Business English . . . . .	3

## RESTRICTED ELECTIVES: 9 CREDITS

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

ACC111	Accounting Principles I . . . . .	3
+ACC115	Computerized Accounting (Quicken or Quickbooks) . . . . .	2
ART100	Introduction to Computer Graphic Art . . . . .	1
BPC101AA	Introduction to Microcomputers I: IBM . . . . .	1
+BPC101BA	Introduction to Microcomputers II: IBM . . . . .	1
BPC111AA	Computer Keyboarding I . . . . .	1
+BPC111AB	Computer Keyboarding II . . . . .	1
BPC121AB	MS-DOS Operating System . . . . .	1
CIS105	Survey of Computer Information Systems . . . . .	3
+CIS233AA	Web Design and Publishing I . . . . .	1
+CIS233BA	Web Design and Publishing II . . . . .	1
GBS151	Introduction to Business . . . . .	3

## Microcomputer Business Applications

Associate in Applied Science: AAS 3548

64 Credits

## Program Contacts:

Shirley Miller ~ (480) 732-7133  
shirley.miller@cgmail.maricopa.edu

Cathy Urbanski ~ (480) 732-7011  
cathy.urbanski@cgmail.maricopa.edu

### Program Description

The Associate in Applied Science in Microcomputer Business Applications is designed to provide the skills needed for those students who are interested in becoming part of the support system in almost any office configuration in a wide variety of business areas. Course work will provide a variety of microcomputer application skills and general business knowledge. The General Education courses provide a well-rounded background that includes writing, reading, communication, mathematics, natural science, social sciences, and humanities and fine arts. Courses in the program prepare for the Core and Expert examinations for certification as a Microsoft Office Specialist (MOS).

### Job Opportunities

Administrative support positions currently account for over 17 percent of all jobs in Arizona. Job prospects are brightest for those with the best technical skills, in particular, expertise in a variety of software packages.

## 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.

Overall program minimum G.P.A. = 2.00.

## REQUIRED COURSES: 29 CREDITS

ACC111	Accounting Principles I . . . . .	3
+ACC115	Computerized Accounting (Quicken or Quickbooks) . . . . .	2
BPC106AH	Microsoft Outlook: Level I . . . . .	0.5
+BPC106BH	Microsoft Outlook: Level II . . . . .	0.5
BPC114AE	Excel: Level I . . . . .	1
+BPC114BE	Excel: Level II . . . . .	1
BPC117AM	Database Management: Microsoft Access – Level I . . . . .	1
+BPC117BM	Database Management: Microsoft Access – Level II . . . . .	1
BPC118AB	PowerPoint Level I . . . . .	1
BPC121AE	Windows Operating System: Level I . . . . .	1
+BPC135DK	Word: Level I . . . . .	2
+BPC235DK	Word: Level II . . . . .	2
CIS105	Survey of Computer Information Systems . . . . .	3
CIS133AA	The Internet/World Wide Web: Level I . . . . .	1
+CIS133BA	The Internet/World Wide Web: Level II . . . . .	1
+CIS233AA	Web Design and Publishing I . . . . .	1
+CIS233BA	Web Design and Publishing II . . . . .	1
GBS151	Introduction to Business . . . . .	3
OAS108	Business English . . . . .	3

## RESTRICTED ELECTIVES: 10 CREDITS

*Students should select ten (10) credits from the following courses in consultation with a program advisor:*

ART100	Introduction to Computer Graphic Art . . . . .	1
BPC101AA	Introduction to Microcomputers I: IBM . . . . .	1
+BPC101BA	Introduction to Microcomputers II: IBM . . . . .	1
BPC110	Computer Usage and Applications . . . . .	3
BPC111AA	Computer Keyboarding I . . . . .	1
+BPC111AB	Computer Keyboarding II . . . . .	1
BPC121AB	MS-DOS Operating System . . . . .	1
+COM259	Communication in Business and Professions . . . . .	3

GBS205	Legal, Ethical, and Regulatory Issues in Business . . . . .	3
MGT229	Management and Leadership I . . . . .	3
MKT271	Principles of Marketing . . . . .	3

## GENERAL EDUCATION: 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**

COM100	Introduction to Human 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

**Mathematics**

	Any approved general education course in the Mathematics area (3) OR	
	Equivalent as indicated by assessment OR	
	Satisfactory completion of a higher-level mathematics course . . . . .	3

## 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**

ECN111	Macroeconomic Principles (3) OR	
ECN112	Microeconomic Principles (3) . . . . .	3

**Natural Sciences**

	Any approved general education course in the Natural Sciences area . . . . .	4
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General Education Requirements are listed on pages 138-140.

# Computer Database Administration and Development

## Microsoft Database Administration

Certificate of Completion: CCL 5179  
16 Credits

Program Contact:  
Patricia Baker ~ (480) 732-7392  
patricia.baker@cgcmail.maricopa.edu

### Program Description

Chandler-Gilbert Community College prepares students for Microsoft industry-recognized certifications. The Microsoft Technology curriculum is taught by Microsoft Certified Professionals.

The Certificate of Completion in Microsoft Database Administration provides training to work in the field of Microsoft database administration. Courses in the program also prepare students for the Microsoft Certified Database Administrator (MCDBA) certification exams, which are industry-recognized certifications. The MCDBA credential is the premier certification for professionals who design, implement, and administer Microsoft SQL Server databases.

### Job Opportunities

By earning the MCDBA credential, students demonstrate they have the skills necessary to be successful in this field. The demand for skilled MCDBAs is expected to remain high.

#### PROGRAM NOTES:

Students are strongly encouraged to work closely with an academic advisor to assure proper course selection.

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

+ indicates course has prerequisites and/or corequisites.

++ indicates any module.

Overall program minimum G.P.A. = 2.00.

#### PROGRAM PREREQUISITES: 6-7 CREDITS

*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.*

CIS105	Survey of Computer Information Systems . . . . .	3
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+CIS190	Introduction to Local Area Networks (3) OR	
CNT140	Cisco Networking Basics (4) OR	
MST140	Microsoft Networking Essentials (3) . . . . .	3-4

#### REQUIRED COURSES: 16 CREDITS

+MST150++	Any MST150 course . . . . .	3
+MST152++	Any MST152 course . . . . .	4
+MST155	Implementing Windows Network Infrastructure . . . . .	3
+MST244	Microsoft SQL Server Administration . . . . .	3
+MST254	Microsoft SQL Server Design and Implementation . . . . .	3

## Microsoft Database Administration

Associate in Applied Science: AAS 3179  
60 Credits

Program Contact:  
Patricia Baker ~ (480) 732-7392  
patricia.baker@cgcmail.maricopa.edu

### Program Description

Chandler-Gilbert Community College prepares students for Microsoft industry-recognized certifications. The Microsoft Technology curriculum is taught by Microsoft Certified Professionals.

The Associate in Applied Science in Microsoft Database Administration provides training to work in the field of Microsoft database administration. Courses in the program also prepare students for the Microsoft Certified Database Administrator (MCDBA) certification exams, which are industry-recognized certifications. The general education courses provide a well-rounded background that includes writing, reading, communication, mathematics, natural science, social sciences, and humanities and fine arts. The MCDBA credential is the premier certification for professionals who design, implement, and administer Microsoft SQL Server databases.

### Job Opportunities

By earning the MCDBA credential, students demonstrate they have the skills necessary to be successful in this field. The demand for skilled MCDBAs is expected to remain high.

PROGRAM NOTES:

Students are strongly encouraged to work closely with an academic advisor to assure proper course selection.

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

+ indicates course has prerequisites and/or corequisites.

++ indicates any module.

Overall program minimum G.P.A. = 2.00.

PROGRAM PREREQUISITES: 8-9 CREDITS

*Completion of the courses listed in the Program Prerequisites area is dependent upon a student's prior experience in the information technology field and/or the courses selected for completion in the Restricted Electives area:*

1. *Students with previous experience in the information technology field may meet the CIS105 course requirement with the permission of the instructor.*
2. *Students electing to complete CIS235, MST172, and/or MST174 in the Restricted Electives area may need to complete one or more of the four Internet courses listed below or meet the course requirement(s) with the permission of the instructor.*

CIS105	Survey of Computer Information Systems . . . . .	3
BPC133AA/	The Internet/World Wide Web:	
CIS133AA	Level I (1) AND	
+BPC133BA/	The Internet/World Wide Web:	
+CIS133BA	Level II (1) OR	
BPC133DA/	The Internet/Word Wide	
CIS133DA	Web (3) . . . . .	2-3
+BPC233DA/	The Internet Web	
+CIS233DA	Publishing . . . . .	3

REQUIRED COURSES: 25 CREDITS

CIS102	Interpersonal and Customer Service Skills for IT Professionals . . . . .	1
+CIS119DO	Introduction to Oracle: SQL . . . . .	3
CIS126DA	UNIX Operating System . . . . .	3
+CIS164AG	Oracle: Data Modeling and Relational Database Design (2) OR	
+MST146	Data Modeling and Relational Database Design (2) . . . . .	2
+MST150++	Any MST150 course . . . . .	3
+MST152++	Any MST152 course . . . . .	4
+MST155	Implementing Windows Network Infrastructure . . . . .	3

+MST244	Microsoft SQL Server Administration . . . . .	3
+MST254	Microsoft SQL Server Design and Implementation . . . . .	3

RESTRICTED ELECTIVES 10 CREDITS

*Students without background or experience in the information technology field may need to complete prerequisite courses for Required Courses. Some of these prerequisites are listed in the Program Prerequisites area while others are listed in the Restricted Electives area. Students electing to complete MST172 may need to complete CIS159 and CIS259 in the Restricted Electives area, and CIS133DA in the Program Prerequisites area.*

*Additionally, students electing to complete CIS235, MST172, and/or MST174 in the Restricted Electives area may need to complete one or more of the five Internet courses listed in the Program Prerequisites area or meet the course requirement(s) with the permission of the instructor.*

*Students must select courses in the Restricted Electives area to satisfy the AAS requirement of 60 credits.*

+CIS119DP	Oracle: Database Administration . . . . .	3
+CIS150	Programming Fundamentals . . . . .	3
+CIS159	Visual Basic Programming I . . . . .	3
+CIS163AA	Java Programming: Level I . . . . .	3
+CIS164AB	Oracle: PL/SQL Programming . . . . .	3
+CIS190	Introduction to Local Area Networks (3) OR	
CNT140	Cisco Networking Basics (4) OR	
MST140	Microsoft Networking Essentials (3) . . . . .	3-4
+CIS235	e-Commerce . . . . .	3
+CIS259	Visual Basic Programming II . . . . .	3
+CIS263AA	Java Programming: Level II . . . . .	3

*Students may select no more than four (4) credits combined from CIS290AA-AC and CIS296WA-WD courses.*

+CIS290++	Computer Information Systems Internship (1-3) OR	
+CIS296++	Cooperative Education (1-4) . . . . .	1-4
GBS151	Introduction to Business . . . . .	3
+MST170	Visual Basic Desktop Application Development . . . . .	4
+MST172	Visual Basic .NET Web Application Development . . . . .	4
+MST174	Microsoft Visual InterDev . . . . .	3
+MST232	Managing a Windows Network Environment . . . . .	3
MST298++	Special Projects (Any module) . . . . .	1-3

GENERAL EDUCATION: 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

**Critical Reading**

- +CRE101 Critical and Evaluative Reading I (3) OR
- Equivalent as indicated by assessment . . . . .3

**Mathematics**

- +MAT122 Intermediate Algebra (3) OR
- Equivalent course OR
- Satisfactory completion of a higher level mathematics course . . . . .3

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

General Education Requirements are listed on pages 138-140.

## Oracle Database Operations

Certificate of Completion: CCL 5183

11 Credits

**Program Contact:**

Patricia Baker ~ (480) 732-7392  
 patricia.baker@cgcmail.maricopa.edu

**Program Description**

Chandler-Gilbert Community College, an Oracle Academic Initiative institution, prepares students for

industry-recognized certifications. The Certificate of Completion in Oracle Database Operations provides training for professionals who design, create, and maintain databases and create application code that can be shared by multiple forms, reports, and data management tools. Courses in the program also help prepare students for the Oracle Application Developer Certified Associate and Oracle Database Administrator Certified Associate industry-certified examinations (Oracle Corporation OCA certifications).

**Job Description**

The Oracle Certified Associate will be required to perform various job tasks such as enterprise database planning and design; creating and maintaining the database and its objects; and storing, retrieving, and manipulating data utilizing SQL. In addition, they will be responsible for resolving technical issues and providing application and user support. They are also responsible for creating PL/SQL application code that can be shared by multiple forms, reports, and data management applications.

**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.

Overall program minimum G.P.A. = 2.00.

PROGRAM PREREQUISITES: 3 CREDITS

*In lieu of the course listed below, students with experience in the information technology field may meet this program prerequisite requirement with the permission of the division.*

- CIS105 Survey of Computer Information Systems . . . . .3

OR

Permission of the Division.

REQUIRED COURSES: 11 CREDITS

- +CIS119DO Introduction to Oracle: SQL . . . . .3
- +CIS119DP Oracle: Database Administration . . . . .3
- +CIS164AB Oracle: PL/SQL Programming . . .3
- +CIS164AG Oracle: Data Modeling and Relational Database Design . . . . .2



# Computer Hardware Maintenance

## Computer Hardware and Desktop Support

Certificate of Completion: CCL 5026

16-20 Credits

Program Contact:

Linda Watson ~ (480) 732-7191

[linda.watson@cgcmail.maricopa.edu](mailto:linda.watson@cgcmail.maricopa.edu)

### 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.

### Job Description

Computer hardware and help-desk professionals can work in several different scenarios. They may build computers, analyze and troubleshoot hardware problems, repair and refurbish computers, install and configure software, train end-users on application usage, and assist end-users with computer hardware and software problems. In addition to being technically competent, it is important to have strong interpersonal skills.

### Job Opportunities

Career opportunities include help desk technician, computer repair technician, manufacturing, and sales. The salary range is \$20,000 to \$37,000 depending on experience and position. This area is expected to grow by 46% by the year 2005 as more computer equipment is used.

#### 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.

Overall program minimum G.P.A. = 2.00.

#### REQUIRED COURSES: 16-20 CREDITS

BPC110	Computer Usage and Applications (3) OR	
CIS105	Survey of Computer Information Systems (3) . . . . .	3
BPC121AB/ CIS121AB	MS-DOS Operating System . . . . .	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 MST140	Cisco Networking Basics (4) OR Microsoft Networking Essentials (3) . . . . .	3-4
+CIS290AA- +CIS290AC	Computer Information Systems Internship (Any Module) (1-3) OR	
+CIS296WA- +CIS296WD	Cooperative Education (Any Module) (1-4) . . . . .	1-4

# Computer Information Technology

## Information Technology

Associate in Applied Science: AAS 3023  
60 Credits

Program Contact:  
Patricia Baker ~ (480) 732-7392  
patricia.baker@cgccmail.maricopa.edu

### Program Description

The Associate in Applied Science in Information Technology program is designed to provide students with skills to meet the changing employment needs of the information technology (IT) industry. With the flexibility of elective course offerings in this degree, students are able to custom design a program that prepares them for depth of understanding in distinct IT areas or prepares them for a breadth of understanding across an IT field. A variety of opportunities also exist to complete course work that will prepare students for industry-recognized examinations and certifications. Students are encouraged to work closely with the division chair to plan their programs of study.

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

+ indicates course has prerequisites and/or corequisites.

++ indicates any module.

Overall program minimum G.P.A. = 2.00.

PROGRAM PREREQUISITES: 3 CREDITS  
+CRE101 Critical and Evaluative  
Reading I (3) OR  
Equivalent as indicated by assessment . . . . .3

REQUIRED COURSES: 11-22 CREDITS  
*Complete one of the following certificates.*

CERTIFICATE OF COMPLETION IN MICROSOFT  
DATABASE ADMINISTRATION . . . . .16 CREDITS

PROGRAM PREREQUISITES: 6-7 CREDITS  
*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:*

CIS105 Survey of Computer  
Information Systems . . . . .3

+CIS190 Introduction to Local Area  
Networks (3) OR  
+CNT140 Cisco Networking Basics (4) OR  
MST140 Microsoft Networking  
Essentials (3) . . . . .3-4

REQUIRED COURSES: 16 CREDITS  
+MST150++ Any MST150 course . . . . .3  
+MST152++ Any MST152 course . . . . .4  
+MST155 Implementing Windows  
Network Infrastructure . . . . .3  
+MST244 Microsoft SQL Server  
Administration . . . . .3  
+MST254 Microsoft SQL Server Design  
and Implementation . . . . .3

CERTIFICATE OF COMPLETION IN MICROSOFT  
PRODUCT SPECIALIST . . . . .14-15 CREDITS

PROGRAM PREREQUISITES: 3 CREDITS  
CIS105 Survey of Computer  
Information Systems OR . . . . .3  
Permission of Department or Division

REQUIRED COURSES: 14-15 CREDITS  
BPC121AB/ MS-DOS  
CIS121AB Operating System . . . . .1  
+BPC170 Computer Maintenance I:  
A+ Prep . . . . .3  
+CIS190 Introduction to Local  
Area Networks (3) OR  
CNT140 Cisco Networking Basics (4) OR  
MST140 Microsoft Networking  
Essentials (3) . . . . .3-4  
MST150++ Any MST150 course . . . . .3  
+MST152++ Any MST152 course . . . . .4

CERTIFICATE OF COMPLETION IN MICROSOFT  
APPLICATIONS DEVELOPMENT . . . . .22 CREDITS

PROGRAM PREREQUISITES: 6 CREDITS  
CIS105 Survey of Computer  
Information Systems . . . . .3  
+CRE101 Critical and Evaluative  
Reading I (3) OR  
Equivalent as indicated by assessment . . . . .3  
OR  
Permission of Department or Division.

REQUIRED COURSES: 22 CREDITS  
BPC133DA/ The Internet/World Wide  
CIS133DA Web (3) OR  
BPC133AA/ The Internet/World Wide Web:  
CIS133AA Level I (1) AND

+BPC133BA/	The Internet/World Wide Web:	
CIS133BA	Level II (1) AND	
+BPC133CA/	The Internet/World Wide Web:	
CIS133CA	Level III (1) . . . . .	3
CIS102	Interpersonal and Customer Service Skills for IT Professionals . . . . .	1
+CIS159	Visual Basic Programming I . . . . .	3
+CIS259	Visual Basic Programming II . . . . .	3
+CIS164AG	Oracle: Data Modeling and Relational Database Design (2) OR	
+MST146	Data Modeling and Relational Database Design (2) . . . . .	2
+MST172	Visual Basic .NET Web Application Development . . . . .	4
+MST176	Visual Basic .NET XML Web Services Development . . . . .	3
+MST254	Microsoft SQL Server Design and Implementation . . . . .	3

CERTIFICATE OF COMPLETION IN ORACLE DATABASE OPERATIONS . . . . . 11 CREDITS

PROGRAM PREREQUISITES: 3 CREDITS

*In lieu of the course listed below, students with experience in the information technology field may meet this program prerequisite requirement with the permission of the division.*

CIS105	Survey of Computer Information Systems . . . . .	3
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OR  
Permission of the Division

REQUIRED COURSES: 11 CREDITS

+CIS119DO	Introduction to Oracle: SQL . . . . .	3
+CIS119DP	Oracle: Database Administration . . . . .	3
+CIS164AB	Oracle: PL/SQL Programming . . . . .	3
+CIS164AG	Oracle: Data Modeling and Relational Database Design . . . . .	2

CERTIFICATE OF COMPLETION IN COMPUTER HARDWARE AND DESKTOP SUPPORT . . . . . 16-20

REQUIRED COURSES: 16-20 CREDITS

BPC110	Computer Usage and Applications (3) OR	
CIS105	Survey of Computer Information Systems (3) . . . . .	3
BPC121AB/	MS-DOS	
CIS121AB	Operating System . . . . .	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 Basics (4) OR	
MST140	Microsoft Networking Essentials (3) . . . . .	3-4
+CIS290++	Computer Information Systems Internship (1-3) OR	
+CIS296++	Cooperative Education (1-4) . . . . .	1-4

RESTRICTED ELECTIVES: 16-27 CREDITS

*Students must choose 16-27 specific IT elective credits approved by the division chair. Selected courses will not apply in both Required Courses and Restricted Electives area.*

GENERAL EDUCATION: 22 CREDITS

CORE: 12 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

**Critical Reading**

Met by CRE101 in the Program Prerequisites area . . . 0

**Mathematics**

Any approved general education course in the Mathematics area . . . . . 3

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

General Education Requirements are listed on pages 138-140.

# Computer Networking

## Networking Administration: Cisco

Certificate of Completion: CCL 5969  
14 Credits

Program Contact:  
Linda Watson ~ (480) 732-7191  
linda.watson@cgcmail.maricopa.edu

### Program Description

Chandler-Gilbert 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). The courses in the program also prepare students for the Cisco Certified Networking Associate examination.

### Job Description

A Cisco Certified Networking Associate will be required to perform various tasks such as designing, installing, maintaining and troubleshooting Cisco routers and components, Local Area Networks (LANs), and Wide Area Networks (WANs).

### Job Opportunities

Cisco Systems is the world's largest manufacturer of networking and Internet hardware and has seen tremendous growth of market share. The employment opportunities for trained Networking Associates are outstanding.

#### PROGRAM NOTES:

Students must earn a grade of "C" or better in all courses in the Required Area.

+ indicates course has prerequisites and/or corequisites.

Overall program minimum G.P.A. = 2.00.

REQUIRED COURSES:	14 CREDITS
CNT140	Cisco Networking Basics . . . . .4
+CNT150	Cisco Networking Router Technologies . . . . .4

+CNT160	Cisco Switching Basics and Intermediate Routing . . . . .3
+CNT170	Cisco Wide Area Network (WAN) Technologies . . . . .3

## Networking Technology: Cisco

Certificate of Completion: CCL 5967  
21 Credits

Program Contact:  
Linda Watson ~ (480) 732-7191  
linda.watson@cgcmail.maricopa.edu

### Program Description

Chandler-Gilbert 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. The courses in the program also prepare students for the Cisco Certified Networking Associate examination.

### Job Description

A Networking Technology Associate will be required to perform various tasks such as designing, installing, maintaining and troubleshooting Cisco routers and components, Local Area Networks (LANs), and Wide Area Networks (WANs). Additional skills that are necessary include using the MS-DOS operating systems, troubleshooting problems with various common hardware and software configurations, and performing administrative tasks in a network.

### Job Opportunities

Cisco Systems is the world's largest manufacturer of networking and Internet hardware and has seen tremendous growth of market share. The employment opportunities for trained Networking Technology Associates are outstanding.

## PROGRAM NOTES:

Students must earn a grade of "C" or better in all courses in the Required Area.

+ indicates course has prerequisites and/or corequisites.

Overall program minimum G.P.A. = 2.00.

## REQUIRED COURSES: 21 CREDITS

BPC121AB/ MS-DOS	
CIS121AB	Operating System . . . . .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
CNT140	Cisco Networking Basics . . . . .4
+CNT150	Cisco Networking Router Technologies . . . . .4
+CNT160	Cisco Switching Basics and Intermediate Routing . . . . .3
+CNT170	Cisco Wide Area Network (WAN) Technologies . . . . .3

## Networking Technology: Cisco

### Associate in Applied Science: AAS 3816

65 Credits

## Program Contact:

Linda Watson ~ (480) 732-7191

[linda.watson@cgcmail.maricopa.edu](mailto:linda.watson@cgcmail.maricopa.edu)

### Program Description

Chandler-Gilbert 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 Associate in 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.

### Job Description

A Cisco Networking Administrator will be required to perform various tasks such as designing, installing, maintaining and troubleshooting Cisco routers and components, Local Area Networks (LANs), and Wide Area Networks (WANs). Additional skills that are necessary include using the MS-DOS operating systems, troubleshooting problems with various common hardware and software configurations, performing administrative tasks in a network, developing methods for customer service, and utilizing electronic systems.

### Job Opportunities

Cisco Systems is the world's largest manufacturer of networking and Internet hardware and has seen tremendous growth of market share. The employment opportunities for trained Networking Administrators are outstanding.

## PROGRAM NOTES:

Students must earn a grade of "C" or better in all courses in the Required Area.

+ indicates course has prerequisites and/or corequisites.

Overall program minimum G.P.A. = 2.00.

## REQUIRED COURSES: 25 CREDITS

BPC121AB/ MS-DOS	
CIS121AB	Operating System . . . . .1
+BPC170	Computer Maintenance I: A+ Prep . . . . .3
CIS102	Interpersonal and Customer Service Skills for IT Professionals . . . . .1
<i>A course cannot be used to satisfy both Required Courses and Restricted Electives area.</i>	
+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
CNT140	Cisco Networking Basics . . . . .4

+CNT150	Cisco Networking Router Technologies . . . . .	4
+CNT160	Cisco Switching Basics and Intermediate Routing . . . . .	3
+CNT170	Cisco Wide Area Network (WAN) Technologies . . . . .	3
ELT100	Survey of Electronics . . . . .	3

RESTRICTED ELECTIVES: 15 CREDITS

BPC110	Computer Usage and Application (3) OR	
CIS105	Survey of Computer Information Systems (3) . . . . .	3

*A course cannot be used to satisfy both Required Courses and Restricted Electives area.*

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
+CIS270	Essentials of Network and Information Security . . . . .	3
+CIS296WA-	Cooperative Education	
+CIS296WD	(Any Modules) . . . . .	1-4
CIS298AA-	Special Projects	
CIS298AC	(Any Modules) . . . . .	1-3
+MST145	Microsoft Client System Administration . . . . .	3
+MST240	Microsoft Transmission Control Protocol/Internet Protocol (TCP/IP) . . . . .	3

GENERAL EDUCATION: 25 CREDITS

CORE: 15 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	
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

**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

General Education Requirements are listed on pages 138-140.

## Linux Professional

### Certificate of Completion: CCL 5204

12 Credits

Division Chairperson:  
Shirley Miller ~ (480)-732-7043

### 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.

PROGRAM NOTES:

+ indicates course has prerequisites and/or corequisites.

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

Overall program minimum G.P.A. = 2.00.

REQUIRED COURSES: 6 CREDITS

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
BPC121AB/ MS-DOS	
CIS121AB Operating System . . . . .	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) OR	
CNT140 Cisco Networking Basics (4) OR	
MST140 Microsoft Networking Essentials (3) . . . . .	3-4
+CIS240DL Linux Network Administration . . .	3
+CIS270 Essentials of Network and Information Security . . . . .	3
+CIS271DL Linux Security . . . . .	3
+CNT150 Cisco Networking Router Technologies . . . . .	4
MST150 Microsoft Windows Professional (Any Module) . . . . .	3

## Linux Associate

### Certificate of Completion: CCL 5219

24 Credits

Division Chairperson:  
Shirley Miller ~ (480) 732-7043

#### 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.

#### PROGRAM NOTES:

+ indicates course has prerequisites and/or corequisites.

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

Overall program minimum G.P.A. = 2.00.

REQUIRED COURSES:	12 CREDITS
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
BPC121AB/ MS-DOS	
CIS121AB Operating System . . . . .	1
BPC133DA/ The Internet/World	
CIS133DA Wide Web (3) OR	
+CNT120 Adobe Web Design (3) . . . . .	3
+BPC170 Computer Maintenance I: A+ Prep . . . . .	3
BPC224/ Project Management Microsoft	
CIS224 Project for Windows . . . . .	3
+BPC273 Advanced Server Computer Maintenance: Server+ Prep . . . . .	3
CIS105 Survey of Computer Information Systems . . . . .	3
+CIS190 Introduction to Local Area Networks (3) OR	
CNT140 Cisco Networking Basics (4) OR	
MST140 Microsoft Networking Essentials (3) . . . . .	3-4
+CIS233DA Web Design and Publishing . . . . .	3
+CIS239DL Linux Shell Scripting . . . . .	3
+CIS270 Essentials of Network and Information Security . . . . .	3
+CNT150 Cisco Networking Router Technologies . . . . .	4
MST150 Microsoft Windows Professional (any module) . . . . .	3

## Linux Networking Administration

### Certificate of Completion: CCL 5225

36 Credits

Division Chairperson:  
Shirley Miller ~ (480) 732-7043

#### 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.

PROGRAM NOTES:

+ indicates course has prerequisites and/or corequisites.

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

Overall program minimum G.P.A. = 2.00.

REQUIRED COURSES: 24 CREDITS

+BPC170	Computer Maintenance I: A+ Prep (3) OR	
+BPC273	Advanced Server Computer Maintenance: Server+ Prep (3) . . .	3
CIS126DL	Linux Operating System (3) OR	
CIS126AL	Linux Operating System I (1) AND	
+CIS126BL	Linux Operating System II (1) AND	
+CIS126CL	Linux Operating System III (1) . . .	3
+CIS190	Introduction to Local Area Networks (3) OR	
CNT140	Cisco Networking Basics (4) OR	
MST140	Microsoft Networking Essentials (3) . . . . .	3-4
+CIS238DL	Linux System Administration . . . . .	3
+CIS239DL	Linux Shell Scripting . . . . .	3
+CIS240DL	Linux Network Administration . . . . .	3
+CIS271DL	Linux Security . . . . .	3
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
BPC120DF/ CIS120DF	Computer Graphics: Adobe Photoshop . . . . .	3
BPC121AB/ CIS121AB	MS-DOS Operating System . . . . .	1
BPC133DA/ CIS133DA	The Internet/World Wide Web . . . . .	3
+BPC170	Computer Maintenance I: A+ Prep . . . . .	3
BPC224/ CIS224	Project Management Microsoft Project for Windows . . . . .	3
+BPC270	Microcomputer Maintenance II . . .	3
+BPC273	Advanced Server Computer Maintenance: Server+ Prep . . . . .	3

CIS120DC	Computer Graphics: Macromedia Flash . . . . .	3
+CIS190	Introduction to Local Area Networks (3) OR	
CNT140 MST140	Cisco Networking Basics (4) OR Microsoft Networking Essentials (3) . . . . .	3-4
+CIS233DA +CIS270	Web Design and Publishing . . . . . Essentials of Network and Information Security . . . . .	3 3
+CIS296WC CIS298AC	Cooperative Education . . . . . Special Projects . . . . .	3 3
+CNT120 +CNT150	Adobe Web Design . . . . . Cisco Network Router Technologies . . . . .	3 4
+CNT160	Cisco Switching Basics and Intermediate Routing . . . . .	3
+CNT170	Cisco Wide Area Network (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

## Linux Networking Administration

### Associate in Applied Science: AAS 3013

61 Credits

Division Chairperson:  
Shirley Miller ~ (480) 732-7043

#### 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.



## PROGRAM NOTES:

+ indicates course has prerequisites and/or corequisites.

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

Overall program minimum G.P.A. = 2.00.

## REQUIRED COURSES: 24 CREDITS

+BPC170	Computer Maintenance I: A+ Prep (3) OR	
+BPC273	Advanced Server Maintenance: Server+ Prep (3)	3
CIS126DL	Linux Operating System (3) OR	
CIS126AL	Linux Operating System I (1) AND	
+CIS126BL	Linux Operating System II (1) AND	
+CIS126CL	Linux Operating System III (1)	3
+CIS190	Introduction to Local Area Networks (3) OR	
CNT140	Cisco Networking Basics (4) OR	
MST140	Microsoft Networking Essentials (3)	3-4
+CIS238DL	Linux System Administration	3
+CIS239DL	Linux Shell Scripting	3
+CIS240DL	Linux Network Administration	3
+CIS271DL	Linux Security	3
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
BPC120DF/ CIS120DF	Computer Graphics: Adobe Photoshop	3
BPC121AB/ CIS121AB	MS-DOS Operating System	1
BPC133DA/ CIS133DA	The Internet/World Wide Web	3
+BPC170	Computer Maintenance I: A+ Prep (3) OR	
+BPC270	Microcomputer Maintenance II (3)	3
BPC224/ CIS224	Project Management Microsoft Project for Windows	3
+BPC273	Advanced Server Computer Maintenance: Server+ Prep	3
CIS120DC	Computer Graphics: Macromedia Flash	3
+CIS 190	Introduction to Local Area Networks (3) OR	
CNT140	Cisco Networking Basics (4) OR	
MST140	Microsoft Networking Essentials (3)	3-4

+CIS233DA	Web Design and Publishing	3
+CIS270	Essentials of Network and Information Security	3
+CIS296WC	Cooperative Education	3
CIS298AC	Special Projects	3
+CNT120	Adobe Web Design	3
+CNT150	Cisco Network Router Technologies	4
+CNT160	Cisco Switching Basics and Intermediate Routing	3
+CNT170	Cisco Wide Area Network (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

## GENERAL EDUCATION: 25 CREDITS

## CORE: 15 CREDITS

**First-Year Composition**

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

**Oral Communication**

Any approved general education course in the Oral Communications area . . . . . 3

**Critical Reading**

+CRE101	Critical and Evaluative Reading I (3) OR	
	Equivalent as indicated by assessment	3

**Mathematics**

+MAT102	Mathematical Concepts/ Applications (3) OR	
	Higher	3

## DISTRIBUTION CREDITS: 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

General Education Requirements are listed on pages 138-140.

## Microsoft Product Specialist

Certificate of Completion: CCL 5841

14-15 Credits

Program Contact:  
Deidre Grafel ~ (480) 857-5207  
deidre.grafel@cgcmail.maricopa.edu

### 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. The 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.

### Job Description

A Microsoft Product Specialist will be required to perform various tasks such as installing and configuring software, creating and managing user and group accounts, analyzing and optimizing system performance, troubleshooting system and printing problems, and working with system administrators and end users.

#### PROGRAM NOTES:

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

+ indicates course has prerequisites and/or corequisites.

++ indicates any module

Overall program minimum G.P.A. = 2.00.

PROGRAM PREREQUISITES: 3 CREDITS  
CIS105 Survey of Computer Information Systems (3) OR  
Permission of Department or Division . . . . .3

REQUIRED COURSES: 14-15 CREDITS  
BPC121AB/ MS-DOS  
CIS121AB Operating System . . . . .1  
+BPC170 Computer Maintenance I:  
A+ Prep . . . . .3  
+CIS190 Introduction to Local Area Networks (3) OR  
CNT140 Cisco Networking Basics (4) OR  
MST140 Microsoft Networking Essentials (3) . . . . .3-4  
MST150++ Any MST150 course . . . . .3  
+MST152++ Any MST152 course . . . . .4

## Microsoft Systems Administration

Certificate of Completion: CCL 5852

20-21 Credits

Program Contact:  
Deidre Grafel ~ (480) 857-5207  
deidre.grafel@cgcmail.maricopa.edu

### 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.

### Job Description

The Microsoft Certified Systems Administrator (MCSA) will be required to implement, to manage, and to troubleshoot networks containing messaging services, file and print servers, and firewalls in addition to configuring Internet access, to enabling remote access for users, and to managing client computers.

#### 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

REQUIRED COURSES: 20-21 CREDITS  
BPC121AB/ MS-DOS  
CIS121AB Operating System . . . . .1  
+BPC170 Computer Maintenance I:  
A+ Prep . . . . .3  
+CIS190 Introduction to Local Area Networks (3) OR  
CNT140 Cisco Networking Basics (4) OR  
MST140 Microsoft Networking Essentials (3) . . . . .3-4  
MST150++ Any MST150 course . . . . .3

+MST152++	Any MST152 course . . . . .	4
+MST155	Implementing Windows Network Infrastructure . . . . .	3
+MST232	Managing a Windows Network Environment . . . . .	3

## Microsoft Systems Engineer

Certificate of Completion: CCL 5843

32-33 Credits

Program Contact:

Deidre Grafel ~ (480) 857-5207

deidre.grafel@cgcmail.maricopa.edu

### 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. The 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.

### Job Description

A Microsoft Systems Engineer will be required to perform various tasks such as developing a local area network, installing and configuring software, creating and managing user and group accounts, analyzing and optimizing system performance, troubleshooting system and printing problems, training end users, and working as a system administrator.

#### PROGRAM NOTES:

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

+ indicates course has prerequisites and/or corequisites.

++ indicates any module.

Overall program minimum G.P.A. = 2.00.

PROGRAM PREREQUISITES:	3 CREDITS
CIS105	Survey of Computer Information Systems (3) OR Permission of Department or Division . . . . .
	3

REQUIRED COURSES:	32-33 CREDITS
BPC121AB/	MS-DOS Operating System . . . . .
CIS121AB	Computer Maintenance I: A+ Prep . . . . .
+BPC170	3
+CIS190	Introduction to Local Area Networks (3) OR Cisco Networking Basics (4) OR Microsoft Networking Essentials (3) . . . . .
CNT140	3-4
MST140	3
MST150++	Any MST150 course . . . . .
+MST152++	Any MST152 course . . . . .
+MST155	Implementing Windows Network Infrastructure . . . . .
+MST157	Implementing Windows Directory Services . . . . .
+MST232	Managing a Windows Network Environment . . . . .
+MST244	Microsoft SQL Server Administration . . . . .
+MST253	Designing a Microsoft Windows 2000 Directory Services Infrastructure (3) OR Designing Windows Network Security (3) . . . . .
+MST259	3
+MST255	Designing Windows Network Infrastructure . . . . .
	3

## Microsoft Networking Technology

Associate in Applied Science: AAS 3778

62 Credits

Program Contact:

Deidre Grafel ~ (480) 857-5207

deidre.grafel@cgcmail.maricopa.edu

### Program Description

The Associate in Applied Science in Microsoft Networking Technology provides training for a supervisory-level position working with Windows networks. The 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.

**Job Description**

A Microsoft Networking administrator will be required to perform various tasks such as developing a local area network, installing and configuring software, creating and managing user and group accounts, analyzing and optimizing system performance, troubleshooting system and printing problems, interoperating with various operating systems, working with local area networks as well as metropolitan area networks and wide area networks, training end users, and working as a system administrator.

**PROGRAM NOTES:**

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

+ indicates course has prerequisites and/or corequisites.

++ indicates any module.

Overall program minimum G.P.A. = 2.00.

**PROGRAM PREREQUISITES: 3 CREDITS**

CIS105 Survey of Computer Information Systems (3) OR  
 Permission of Department or Division . . . . .3

**REQUIRED COURSES: 24-25 CREDITS**

*Selected courses will not apply in both Required Courses and Restricted Electives area.*

BPC121AB/ MS-DOS  
 CIS121AB Operating System . . . . .1  
 +BPC170 Computer Maintenance I:  
 A+ Prep . . . . .3  
 CIS102 Interpersonal and CustomerService 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) . . . . .3  
 +CIS190 Introduction to Local Area Networks (3) OR  
 CNT140 Cisco Networking Basics (4) OR  
 MST140 Microsoft Networking Essentials (3) . . . . .3-4  
 MST150++ Any MST150 course . . . . .3

*Selected course will not apply in both required courses and restricted electives area.*

MST152++ Any MST152 course . . . . .4  
*Selected course will not apply in both required courses and restricted electives area.*

+MST155 Implementing Windows Network Infrastructure . . . . .3

+MST232 Managing a Windows Network Environment . . . . .3

**RESTRICTED ELECTIVES: 13 CREDITS**

*Selected courses will not apply in both Required Courses and Restricted Electives area.*

*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  
 +CIS191 Novell NetWare System Administration . . . . .3

*Students may select no more than four (4) credits combined from CIS290AA-AC and CIS296WA-WD courses.*

+CIS290++ Computer Information Systems Internship (Any module) (1-3) OR  
 +CIS296++ Cooperative Education (Any module) (1-4) . . . . .1-4  
 +CNT150 Cisco Networking Router Technologies . . . . .4  
 MST150++ Any MST150 course . . . . .3

*Selected course will not apply in both Required Courses and Restricted Electives area.*

+MST152++ Any MST152 course . . . . .4  
*Selected course will not apply in both Required Courses and Restricted Electives area.*

+MST157 Implementing Windows Directory Services . . . . .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 and Implementation . . . . .3  
 +MST255 Designing Windows Network Infrastructure . . . . .3  
 +MST259 Designing Windows Network Security . . . . .3  
 MST298++ Special Projects (Any module) . .1-3

GENERAL EDUCATION: 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

**Critical Reading**

- +CRE101 Critical and Evaluative Reading I (3) OR
- Equivalent as indicated by assessment . . . . .3

**Mathematics**

Any approved general education course in the Mathematics area . . . . .3

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

General Education Requirements are listed on pages 138-140.

# Computer Programming

## Microsoft Applications Development

Certificate of Completion: CCL 5838  
22 Credits

Program Contact:  
DJ Christian ~ (480) 732-7394  
dj.christian@cgcmail.maricopa.edu

**Program Description**

The Certificate of Completion in Microsoft Applications Development is designed to provide training for developers who develop, deploy, and maintain applications and components using Visual Studio: Visual Basic (VB), C++, and Structured Query Language (SQL). It also provides training for Microsoft Certified Application Developer (MCAD) certification examinations. The Microsoft Certified Application Developer (MCAD) credential is appropriate for professionals who use Microsoft technologies to develop and maintain department-level applications, components, Web or desktop clients, or back-end data services or work in teams developing enterprise applications.

**Job Description**

Microsoft Certified Application Developers are professionals who use Microsoft technologies to develop and maintain department-level applications, components, Web or desktop clients, or back-end data services or work in teams developing enterprise applications.

**Job Opportunities**

Career opportunities include programmer, programmer analyst, and software developer.

PROGRAM NOTES:

Students entering the Microsoft Applications Development program often come with background or experience in the computer programming area. Students must consult with a program advisor as the program prerequisites may not be necessary and may be waived as requirements to the program.

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

+ indicates course has prerequisites and/or corequisites.

Overall program minimum G.P.A. = 2.00.

PROGRAM PREREQUISITES: 6 CREDITS

- CIS105 Survey of Computer Information Systems (3) . . . . .3
- +CRE101 Critical and Evaluative Reading I (3) OR
- Equivalent as indicated by assessment . . . . .3
- OR
- Permission of Department or Division . . . . .6

REQUIRED COURSES: . . . . .22 CREDITS

- BPC133DA/ The Internet/World Wide Web (3) OR
- BPC133AA/ The Internet/World Wide Web: Level I (1) AND
- +BPC133BA/ The Internet/World Wide Web: Level II (1) AND
- +CIS133BA

+BPC133CA/	The Internet/World Wide	
+CIS133CA	Web: Level III (1) . . . . .	3
CIS102	Interpersonal and Customer Service Skills for IT Professionals . . . . .	1
+CIS159	Visual Basic Programming I . . . . .	3
+CIS259	Visual Basic Programming II . . . . .	3
+CIS164AG	Oracle: Data Modeling and Relational Database Design (2) OR Data Modeling and Relational Database Design (2) . . . . .	2
+MST146	Visual Basic .NET Web Application Development . . . . .	3
+MST172	Visual Basic .NET XML Web Services Development . . . . .	3
+MST176	Microsoft SQL Server Design and Implementation . . . . .	3

## Microsoft Applications Development

Associate in Applied Science: AAS 3838  
60-62 Credits

Program Contact:  
DJ Christian ~ (480) 732-7394  
dj.christian@cgcmail.maricopa.edu

### Program Description

The Associate in Applied Science in Microsoft Applications Development is designed to provide training for developers who develop, deploy, and maintain applications and components using Visual Studio: Visual Basic (VB), C++, and Structured Query Language (SQL). It also provides training for Microsoft Certified Application Developer (MCAD) certification examinations. The MCAD credential is appropriate for professionals who use Microsoft technologies to develop and maintain department-level applications, components, Web or desktop clients, or back-end data services or work in teams developing enterprise applications. The program of study combines the technical aspects of the certificate program with selected general education courses in the area of English, communications, mathematics, humanities, social and behavioral sciences, and the natural sciences.

### Job Description

Microsoft Certified Application Developers are professionals who use Microsoft technologies to develop and maintain department-level applications, components, Web or desktop clients, or back-end data services or work in teams developing enterprise applications.

### Job Opportunities

Career opportunities include programmer, programmer analyst, and software developer.

#### PROGRAM NOTES:

Students entering the Microsoft Applications Development program often come with background or experience in the computer programming area. Students must consult with a program advisor as the program prerequisites may not be necessary and may be waived as requirements to the program.

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

+ indicates course has prerequisites and/or corequisites.

++ indicates any module.

Overall program minimum G.P.A. = 2.00.

#### PROGRAM PREREQUISITES: 6 CREDITS

CIS105	Survey of Computer Information Systems . . . . .	3
+CRE101	Critical and Evaluative Reading I (3) OR Equivalent as indicated by assessment . . . . .	3
	OR	
	Permission of Department or Division . . . . .	6

#### REQUIRED COURSES: 22 CREDITS

BPC133DA/	The Internet/World Wide	
CIS133DA	Web (3) OR	
BPC133AA/	The Internet/World Wide	
CIS133AA	Web: Level I (1) AND	
+BPC133BA/	The Internet/World Wide	
+CIS133BA	Web: Level II (1) AND	
+BPC133CA/	The Internet/World Wide	
+CIS133CA	Web: Level III (1) . . . . .	3
CIS102	Interpersonal and Customer Service Skills for IT Professionals . . . . .	1
+CIS159	Visual Basic Programming I . . . . .	3
+CIS259	Visual Basic Programming II . . . . .	3
+CIS164AG	Oracle: Data Modeling and Relational Database Design (2) OR Data Modeling and Relational Database Design (2) . . . . .	2
+MST146	Visual Basic .NET Web Application Development . . . . .	4
+MST172	Visual Basic .NET XML Web Services Development . . . . .	3
+MST176	Microsoft SQL Server Design and Implementation . . . . .	3

## RESTRICTED ELECTIVES: 16 CREDITS

+CIS119DO	Introduction to Oracle: SQL . . . . .	3
+CIS150	Programming Fundamentals . . . . .	3
+CIS162++	Any CIS162 course . . . . .	3
+CIS163AA	Java Programming: Level I . . . . .	3
+CIS190	Introduction to Local Area Networks (3) OR	
CNT140	Cisco Networking Basics (4) OR	
MST140	Microsoft Networking Essentials (3) . . . . .	3-4
+CIS225AB	Object-Oriented Analysis and Design . . . . .	3
+CIS235	e-Commerce . . . . .	3
<i>Students may select no more than four (4) credits combined from CIS290AA-AC and CIS296WA-WD courses.</i>		
+CIS290++	Computer Information Systems Internship (Any module) (1-3) OR	
+CIS296++	Cooperative Education (Any module) (1-4) . . . . .	1-4
+MST150++	Any MST150 course . . . . .	3
+MST152++	Any MST152 course . . . . .	3-4
+MST244	Microsoft SQL Server Administration . . . . .	3
MST298++	Special Projects (Any module) . . . . .	1-3

## GENERAL EDUCATION: 22-24 CREDITS

## CORE 12-14 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

**Critical Reading**

Met by CRE101 in the Program

Prerequisites area . . . . . 0

**Mathematics**

+MAT120	Intermediate Algebra (5) OR	
+MAT121	Intermediate Algebra (4) OR	
+MAT122	Intermediate Algebra (3) OR Equivalent OR Satisfactory completion of a higher level mathematics course . . . . .	3-5

## 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

# Developmental Disabilities

## Developmental Disabilities Specialist

Certificate of Completion: CCL 5034

14 Credits

Program Contact:

Scott Silberman ~ (480) 732-7078

### Program Description

This program prepares students for employment in residential settings serving clients with developmental disabilities. The coursework combines theory and application. Academic preparation focuses on the physical and emotional correlates of developmental disability. The students also gain experience working in residential settings with persons with developmental disability.

## PROGRAM NOTES:

Students must earn a grade of "C" or better in all Required Courses.

+ indicates course has prerequisites and/or corequisites.

Overall program minimum G.P.A. = 2.00.

## REQUIRED COURSES: 11 CREDITS

PSY101	Introduction to Psychology . . . . .	3
+PSY241	Understanding and Changing Behavior . . . . .	3
+PSY242	Understanding and Changing Behavior Lab . . . . .	1
+PSY243	The Psychology of Developmental Disabilities . . . . .	3
+PSY244	Developmental Disabilities Internship . . . . .	1

RESTRICTED ELECTIVES:		3 CREDITS	
CFS114	Working with the Hyperactive Child . . . . .	1	COM110 Interpersonal Communication . . . . .3
CFS176	Child Development . . . . .	3	+COM259 Communication in Business and Professions . . . . .3
+CFS185	Developing IEPs for Children with Disabilities . . . . .	1	FON100 Introductory Nutrition . . . . .3
+CFS257	Working with Families with Diverse Needs . . . . .	3	GBS132 Personal and Family Financial Security . . . . .3
+CFS280	Children with Special Needs in Early Childhood Education . . . . .	3	HES154 First Aid/Cardiopulmonary Resuscitation . . . . .3
CFS290AA	Child Abuse: Identification and Reporting in Child Care Settings . . . . .	1	+PSY240 Developmental Psychology . . . . .3
CPD102AA	Assertiveness Training . . . . .	2	+PSY266 Abnormal Psychology . . . . .3
CPD102AD	Eliminating Self-Defeating Behavior . . . . .	2	+PSY270 Personal & Social Adjustment . . . . .3
CPD102AH	Stress Management . . . . .	2	REC250 Recreation Leadership . . . . .3
CPD102AS	Conflict Resolution . . . . .	2	SLG101 American Sign Language I . . . . .4
			SPA115 Beginning Spanish Conversation I . . . . .3
			+SWU102 Introduction to Social Work . . . . .3
			+SWU280 Working with Juvenile Delinquents . . . . .3

# Electric Utility Technology

## Electric Utility Technology

Certificate of Completion: CCL 5055  
33 Credits

Program Contact:  
Academic Advisement ~ (480) 988-8180

### Program Description

The Certificate of Completion in Electric Utility Technology program is designed to prepare the student for the position of an apprentice-level line worker who is familiar with the use of tools, materials, and the equipment of the electric utility industry. Students will be trained in power line installation and maintenance, pole climbing and use of tools, truck and equipment operation, and overhead and underground distribution, construction, and maintenance of electrical lines.

PROGRAM NOTES:  
A grade of "C" or better is required for all courses within the program.

Students must obtain a Commercial Drivers' License from the State of Arizona prior to completion of the Required Courses.

Students must obtain First Aid/Cardiopulmonary Resuscitation (CPR) certification by the completion of EUT215.

Overall program minimum G.P.A. = 2.00

ADMISSION CRITERIA:  
Application and acceptance into the Electric Utility Technology Program.

PROGRAM PREREQUISITES:  
Passing a physical examination in the twelve-month period prior to acceptance into the program.

REQUIRED COURSES:		33 CREDITS
+ENG101	First-Year Composition . . . . .	3
+ENG111	Technical Writing (3) OR	
+ENG102	First-Year Composition (3) . . . . .	3
+EUT110	Line Work I . . . . .	2
+EUT112	Basic Electricity: AC and DC . . . . .	4
+EUT115	Field Training I . . . . .	6
+EUT210	Line Work II . . . . .	2
+EUT211	Electrical Apparatus . . . . .	4
+EUT215	Field Training II . . . . .	6
+MAT102	Mathematical Concepts/ Applications . . . . .	3



## Electric Utility Technology

Associate in Applied Science: AAS 3855

64 Credits

Program Contact:

Academic Advisement ~ (480) 988-8180

### Program Description

The Associate in Applied Science in Electric Utility Technology program is designed to prepare the student for the position of an apprentice-level line worker who is familiar with the use of tools, materials, and the equipment of the electric utility industry. Students will be trained in power line installation and maintenance, pole climbing and use of tools, truck and equipment operation, and overhead and underground distribution, construction, and maintenance of electrical lines. The general education courses provide a well-rounded background that includes writing, reading, communication, mathematics, natural science, social sciences, and humanities and fine arts.

#### PROGRAM NOTES:

A grade of "C" or better is required for all courses within the program.

Students must obtain a Commercial Drivers' License from the State of Arizona prior to completion of the Required Courses.

Students must obtain First Aid/Cardiopulmonary Resuscitation (CPR) certification by the completion of EUT215.

Overall program minimum G.P.A. = 2.00.

#### ADMISSION CRITERIA:

Application and acceptance into the Electric Utility Technology Program.

#### PROGRAM PREREQUISITES:

Passing a physical examination in the twelve-month period prior to acceptance into the program.

#### REQUIRED COURSES: 33 CREDITS

+ENG101	First-Year Composition . . . . .	3
+ENG111	Technical Writing (3) OR	
+ENG102	First-Year Composition (3) . . . . .	3
+EUT110	Line Work I . . . . .	2
+EUT112	Basic Electricity: AC and DC . . . .	4

+EUT115	Field Training I . . . . .	6
+EUT210	Line Work II . . . . .	2
+EUT211	Electrical Apparatus . . . . .	4
+EUT215	Field Training II . . . . .	6
+MAT102	Mathematical Concepts/ Applications . . . . .	3

#### RESTRICTED ELECTIVES: 15 CREDITS

BPC110	Computer Usage and Applications . . . . .	3
CIS105	Survey of Computer Information Systems . . . . .	3
+GBS233	Business Communication . . . . .	3
PED115	Lifetime Fitness (2-8) OR	
PED117	Weight Training for Wellness (2-8) . . . . .	2-8
SPA115	Beginning Spanish Conversation I . . . . .	3
+SPA116	Beginning Spanish Conversation II . . . . .	3

#### GENERAL EDUCATION: 16 CREDITS

#### CORE: 6 CREDITS

##### First-Year Composition

Met by ENG101 and ENG111 or ENG102 in  
Required Courses area . . . . .

##### Oral Communication

Any approved general education course in the  
Oral Communication area. . . . .

##### Critical Reading

+CRE101	Critical and Evaluative Reading I (3) OR	
	Equivalent as indicated by assessment . . . . .	3

##### Mathematics

Met by MAT102 in Required Courses area . . . . .

#### DISTRIBUTION: 10 CREDITS

##### Humanities and Fine Arts

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

##### Social and Behavioral Sciences

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

##### Natural Sciences

Any approved general education course in the  
Natural Sciences area. . . . .

General Education Requirements are listed on pages  
138-140.

# Massage

## Therapeutic Massage

Certificate of Completion: CCL 5144

41-45 Credits

Program Contact:  
Ed Loughlin ~ (480) 732-7302

### Program Description

This certificate program is designed to provide students with the philosophical foundation and technical skills required to perform therapeutic massage. Students are prepared to manage a private massage practice and/or work in collaboration with other health field professionals. Completers of this certificate program will be qualified to apply for licensure as massage therapists in the Phoenix metropolitan area.

PROGRAM NOTES:  
+ indicates course has prerequisites and/or corequisites.

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

Students must attend an orientation prior to making an application to the program and receive advisement from the Program Director.

A special application must be completed to be officially accepted in the program. Contact the Advisement Center to obtain the Therapeutic Massage Program packet.

Overall program minimum G.P.A. = 2.00.

ADMISSION CRITERIA:  
High school diploma or GED.

Completion of Program Prerequisites.

Proof of current immunization: MMR (Measles, Mumps, and Rubella), TB (tuberculosis skin test), varicella, and HEB (Hepatitis vaccine).

CPR Certification at the Health Care Provider level.

Completion of the Fitness Declaration Form.

Pass a drug screening.

Successfully complete an interview process.

Acceptance into the Therapeutic Massage Program.

PROGRAM PREREQUISITES: 11-15 CREDITS  
*The credit hour range is subject to change depending on the student's educational experiences.*

OPTION 1: 11 CREDITS  
*HCC courses are waived for students who have completed an Associate in Applied Science degree or higher degree in a health science discipline from a regionally accredited institution of higher education recognized by Maricopa County Community College District.*

BIO160	Introduction to Human Anatomy and Physiology . . . . .	4
WED151	Introduction to Alternative Medicine . . . . .	3
WED165	Overview of Massage Therapy . . . . .	2
WED215	Self-Care for Health Care Providers . . . . .	2

OPTION 2: 15 CREDITS

BIO160	Introduction to Human Anatomy and Physiology . . . . .	4
HCC130	Fundamentals in Health Care Delivery . . . . .	3
HCC145AA	Medical Terminology for Health Care Workers I . . . . .	1
WED151	Introduction to Alternative Medicine . . . . .	3
WED165	Overview of Massage Therapy . . . . .	2
WED215	Self-Care for Health Care Providers . . . . .	2

REQUIRED COURSES: 24 CREDITS

MGT253	Owning and Operating a Small Business . . . . .	3
+WED230	Therapeutic Massage Practices I . . . . .	6
+WED231	Therapeutic Massage Practices II . . . . .	6
+WED232	Therapeutic Massage Practices III . . . . .	6
+WED250	Clinical Practicum . . . . .	3

RESTRICTED ELECTIVES: 6 CREDITS  
*Students must select a minimum of one (1) course from each category.*

CATEGORY I:  
*Select a minimum of one (1) course from Category I.*

HES100	Healthful Living . . . . .	3
HES271	Prevention and Treatment of Athletic Injuries . . . . .	3
WED297AC	Special Topics: Therapeutic Massage . . . . .	3

CATEGORY II:

Select a minimum of one (1) course from Category II. Permission of Program Director is required.

+WED210	Sports Massage	.....2
+WED262	Acupressure/Shiatsu I	.....2
+WED264	Acupressure/Shiatsu II	.....2
WED297AB	Special Topics: Therapeutic Massage	.....2

CATEGORY III:

Select a minimum of one (1) course from Category III.

PED101AO	Aikido (1) OR	
PED102AO	Aikido (1) OR	
PED201AO	Aikido (1) OR	
PED202AO	Aikido (1)	.....1
PED101VR	Tai Chi (1) OR	
PED102VR	Tai Chi (1) OR	
PED201VR	Tai Chi (1) OR	
PED202VR	Tai Chi (1)	.....1
PED101YJ	Yoga (1) OR	
PED102YJ	Yoga (1) OR	
PED201YJ	Yoga (1) OR	
PED202YJ	Yoga (1)	.....1
WED121/	Physical Conditioning for	
PED121	Massage Therapists	.....1
WED156	Humor and Play	.....1
WED162	Meditation and Wellness	.....1
WED170	Principles of Homeopathy	.....1
WED172	Overview of Herbal Remedies	.....1
WED176	Flower Essences	.....1
WED218	Aromatherapy	.....1
WED297AA	Special Topics: Therapeutic Massage	.....1

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

Students must attend an orientation prior to making an application to the program and receive advisement from the Program Director.

A special application must be completed to be officially accepted in the program. Contact the Program Director or Advisement to obtain the Therapeutic Massage Program packet.

Overall program minimum G.P.A. = 2.00.

ADMISSION CRITERIA:

High school diploma or GED.

Completion of Program Prerequisites.

Proof of current immunization: MMR (Measles, Mumps, and Rubella), TB (tuberculosis skin test), varicella, and HEB (Hepatitis vaccine).

CPR Certification at the Health Care Provider level.

Completion of the Fitness Declaration Form.

Pass a drug screening.

Successfully complete an interview process.

Acceptance into the Therapeutic Massage Program.

PROGRAM PREREQUISITES: 11-15 CREDITS

The credit hour range is subject to change depending on the student's educational experiences.

OPTION 1: 11 CREDITS

HCC courses are waived for students who have completed an Associate in Applied Science degree or higher degree in a health science discipline from a regionally accredited institution of higher education recognized by Maricopa County Community College District.

BIO160	Introduction to Human Anatomy and Physiology	.....4
WED151	Introduction to Alternative Medicine	.....3
WED165	Overview of Massage Therapy	.....2
WED215	Self-Care for Health Care Providers	.....2

OPTION 2: 15 CREDITS

BIO160	Introduction to Human Anatomy and Physiology	.....4
HCC130	Fundamentals in Health Care Delivery	.....3
HCC145AA	Medical Terminology for Health Care Workers I	.....1
WED151	Introduction to Alternative Medicine	.....3

# Therapeutic Massage

## Associate in Applied Science: AAS 3144

66-70 Credits

Program Contact:  
Ed Loughlin ~ (480) 732-7302

### Program Description

This degree program is designed to provide students with the philosophical foundation and technical skills required to perform therapeutic massage. Students are prepared to manage a private massage practice and/or work in collaboration with other health field professionals. Completers of this degree program will be qualified to apply for licensure as massage therapists in the Phoenix metropolitan area.

PROGRAM NOTES:

+ indicates course has prerequisites and/or corequisites.

++ indicates any course.

WED165	Overview of Massage Therapy . . . .	2
WED215	Self-Care for Health Care Providers . . . . .	2
REQUIRED COURSES: 24 CREDITS		
MGT253	Owning and Operating a Small Business . . . . .	3
+WED230	Therapeutic Massage Practices I . . . . .	6
+WED231	Therapeutic Massage Practices II . . . . .	6
+WED232	Therapeutic Massage Practices III . . . . .	6
+WED250	Clinical Practicum . . . . .	3
RESTRICTED ELECTIVES: 10 CREDITS		
<i>Students must select a minimum of one (1) course from each category.</i>		
CATEGORY I:		
<i>Select a minimum of one (1) course from Category I.</i>		
HES100	Healthful Living . . . . .	3
HES271	Prevention and Treatment of Athletic Injuries . . . . .	3
WED297AC	Special Topics: Therapeutic Massage . . . . .	3
CATEGORY II:		
<i>Select a minimum of one (1) course from Category II. Permission of Program Director is required.</i>		
+WED210	Sports Massage . . . . .	2
+WED262	Acupressure/Shiatsu I . . . . .	2
+WED264	Acupressure/Shiatsu II . . . . .	2
WED297AB	Special Topics: Therapeutic Massage . . . . .	2
CATEGORY III:		
<i>Select a minimum of one (1) course from Category III.</i>		
WED156	Humor and Play . . . . .	1
WED162	Meditation and Wellness . . . . .	1
WED170	Principles of Homeopathy . . . . .	1
WED172	Overview of Herbal Remedies . . . .	1
WED176	Flower Essences . . . . .	1
WED218	Aromatherapy . . . . .	1
WED297AA	Special Topics: Therapeutic Massage . . . . .	1

CATEGORY IV:		
<i>Select a minimum of one (1) course from Category IV.</i>		
PED101AO	Aikido (1) OR	
PED102AO	Aikido (1) OR	
PED201AO	Aikido (1) OR	
PED202AO	Aikido (1) . . . . .	1
PED101VR	Tai Chi (1) OR	
PED102VR	Tai Chi (1) OR	
PED201VR	Tai Chi (1) OR	
PED202VR	Tai Chi (1) . . . . .	1
PED101YJ	Yoga (1) OR	
PED102YJ	Yoga (1) OR	
PED201YJ	Yoga (1) OR	
PED202YJ	Yoga (1) . . . . .	1
WED121/ PED121	Physical Conditioning for Massage Therapists . . . . .	1
GENERAL EDUCATION: 21 CREDITS		
CORE: 15 CREDITS		
<b>First-Year Composition</b>		
Any approved general education course in the First-Year Composition area . . . . .		6
<b>Oral Communication</b>		
COM110	Interpersonal Communication (3) OR	
+COM230	Small Group Communication (3) . . . . .	3
<b>Critical Reading</b>		
+Any approved general education course in the Critical Reading area . . . . .		3
<b>Mathematics</b>		
+Any approved general education course in the Mathematics area . . . . .		3
DISTRIBUTION: 6 CREDITS		
<b>Humanities &amp; Fine Arts</b>		
Any approved general education course in the Humanities and Fine Arts area. . . . .		3
<b>Social and Behavioral Sciences</b>		
REC120	Leisure and the Quality of Life . . .	3
<b>Natural Sciences</b>		
Met by BIO160 in Program Prerequisites area . . . .		0
General Education Requirements are listed on pages 138-140.		

# Music Business

## Music Business

Certificate of Completion: CCL 5258

37 Credits

Program Contact:  
Marc Denton ~ (480) 732-7144

### Program Description

The Certificate of Completion in Music Business program is an innovative curriculum designed to prepare students for today's music industry. The certificate and degree with a music business emphasis are designed for both the performing musician and the business student with limited performing experience. This program combines a flexible curriculum with an emphasis in business and marketing, along with music industry related courses and experiences.

**PROGRAM NOTES:**

+indicates course has prerequisites and/or corequisites.

++ indicates any module.

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

Overall program minimum G.P.A. = 2.00.

**REQUIRED COURSES: 37 CREDITS**

ACC109	Accounting Concepts (3) OR	
ACC111	Accounting Principles I (3)	.....3
BPC128	Introduction to Desktop Publishing	.....1
CIS131AA	Doing Business on the Internet	...1
+COM259	Communication in Business and Professions	.....3
GBS151	Introduction to Business	.....3
MGT253	Owning and Operating a Small Business	.....3
MKT271	Principles of Marketing	.....3
MTC101	Introduction to Music Theory (3) OR	
Higher Level		.....3
MUC109	Music Business: Merchandising and the Law	.....3
MUC110	Music Business: Recording and Mass Media	.....3
+MUC111	Digital Audio Workstation I (DAW I)	.....3
MUC195	Studio Music Recording I	.....3
MUC295AA	Self Promotion for Music	.....1

+MUC297AB	Music Internship	.....2
SBS230	Financial and Tax Management for Small Business	.....2

**RESTRICTED ELECTIVES: 3 CREDITS**

MHL++	Any approved MHL prefixed course	.....3
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## Music Business

Associate in Applied Science: AAS 3017

65 Credits

Program Contact:  
Marc Denton ~ (480) 732-7144

### Program Description

The Associate in Applied Science in Music Business program is an innovative curriculum designed to prepare students for today's music industry. The certificate and degree with a music business emphasis are designed for both the performing musician and the business student with limited performing experience. This program combines a flexible curriculum with an emphasis in business and marketing, along with music industry related courses and experiences.

**PROGRAM NOTES:**

+indicates course has prerequisites and/or corequisites.

++ indicates any module.

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

Overall program minimum G.P.A. = 2.00.

**REQUIRED COURSES: 37 CREDITS**

ACC109	Accounting Concepts (3) OR	
ACC111	Accounting Principles I (3)	.....3
BPC128	Introduction to Desktop Publishing	.....1
CIS131AA	Doing Business on the Internet	...1
+COM259	Communication in Business and Professions	.....3
GBS151	Introduction to Business	.....3
MGT253	Owning and Operating a Small Business	.....3
MKT271	Principles of Marketing	.....3
MTC101	Introduction to Music Theory (3) OR	
Higher Level		.....3

MUC109	Music Business: Merchandising and the Law . . . . .	3
MUC110	Music Business: Recording and Mass Media . . . . .	3
+MUC111	Digital Audio Workstation I (DAW I) . . . . .	3
MUC195	Studio Music Recording I . . . . .	3
MUC295AA	Self Promotion for Music . . . . .	1
+MUC297AB	Music Internship . . . . .	2
SBS230	Financial and Tax Management for Small Business . . . . .	2
RESTRICTED ELECTIVES:		3 CREDITS
MHL+++	Any approved MHL prefixed course . . . . .	3
GENERAL EDUCATION:		25 CREDITS
CORE:		15 CREDITS
<b>First-Year Composition</b>		
+ENG101	First-Year Composition (3) AND	
+ENG102	First-Year Composition (3) . . . . .	6

**Oral Communication**

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

**Critical Reading**

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

**Mathematics**

Any approved general education s course in Mathematics area . . . . . 3

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

General Education Requirements are listed on pages 138-140.

# Nutrition

## Dietetic Technology

Associate in Applied Science: AAS 3840  
65-71 Credits

Program Contact:  
Sue Gaumont ~ (480) 732-7142

### Program Description

The Dietetic Technology program is an Associate in Applied Science degree emphasizing medical nutrition therapy and food service management. Students acquire the knowledge and skills foundation to work in dietetics through the integration of classroom learning and 466 hours of supervised practice. Emphasis is placed on the development of communication and human relations techniques that prepare the graduate for professional success.

Upon successful completion of the program, the graduate will be eligible to take the Dietetic Technician Registration Examination of the Commission on Dietetic Registration (CDR).

### Job Description and Opportunities

The Dietetic Technician, Registered is prepared to play a key role in providing quality, cost-effective

client care and food service management in a variety of employment settings. Job responsibilities may include patient counseling and education in basic and therapeutic nutrition, medical record documentation, health promotion and disease prevention, menu development, and supervisory and administrative skills related to nutrition services and institutional food production.

Dietetic Technicians are an integral part of health care and food service management teams. They work independently or in partnership with Registered Dietitians in a variety of settings:

- **Clinical**  
Hospitals, clinics, nursing homes, retirement centers, home health care programs, and research facilities.
- **Food Service**  
Schools, daycare centers, correctional facilities, restaurants, hospitals, and long-term care facilities.
- **Community and Public Health**  
WIC programs, public health agencies, and community health programs.
- **Wellness**  
Health clubs, weight management clinics, and community wellness centers.

- **Business**

Food companies, food vendors, and food distributors.

## PROGRAM NOTES:

+ indicates course has prerequisites and/or corequisites.

++ indicates any module

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

Overall program minimum G.P.A. = 2.00.

## PROGRAM PREREQUISITES: 4 CREDITS

*Students selecting BIO201 in Required Courses area must complete BIO156 or BIO181 in consultation with a program advisor.*

BIO156	Introductory Biology for Allied Health (4) OR	
BIO181	General Biology (Majors) I (4) . . . .	4

## PROGRAM COREQUISITES:

CPR Certification for Health Care Providers through the American Red Cross or the American Heart Association.

## REQUIRED COURSES: 40-44 CREDITS

*Students selecting BIO201 in Required Courses area must complete BIO156 or BIO181 in the Program Prerequisites area.*

BIO160	Introduction to Human Anatomy and Physiology (4) OR	
+BIO201	Human Anatomy and Physiology I (4) AND	
+BIO202	Human Anatomy and Physiology II (4) . . . . .	4-8
BPC110	Computer Usage and Applications (3) OR	
BPC101AA	Introduction to Microcomputers I: IBM (1) AND	
+BPC101BA	Introduction to Microcomputers II: IBM (1) AND	
+BPC101CA	Introduction to Microcomputers III: IBM (1) OR	
BPC114++/	Spreadsheet	
CIS114++	Level I (Any module) (1) AND	
BPC117++/	Database Management	
CIS117++	Level I (Any module) (1) AND	
+BPC130++/	Beginning Word	
+OAS130++	Processing (Any module) (1) . . . .	3
FON104	Certification in Food Service Safety and Sanitation . . . . .	1
FON125	Introduction to Professions in Nutrition and Dietetics . . . . .	1
FON142AB	Applied Food Principles . . . . .	3

+FON207	Introduction to Nutrition Services Management . . . . .	3
+FON225	Research in Complementary and Alternative Nutrition Therapies . . .	3
+FON241	Principles of Human Nutrition . . .	3
+FON242	Introduction to Medical Nutrition Therapy . . . . .	3
+FON244AA	Practicum I: Food Service Management Lecture . . . . .	2
+FON244AB	Practicum I: Food Service Management Lab . . . . .	3
+FON245AA	Practicum II: Medical Nutrition Therapy Lecture . . . . .	2
+FON245AB	Practicum II: Medical Nutrition Therapy Lab . . . . .	2
+FON246AA	Practicum III: Community Nutrition Lecture . . . . .	2
+FON246AB	Practicum III: Community Nutrition Lab . . . . .	2
HCC145AA	Medical Terminology for Health Care Workers I . . . . .	1
PED115	Lifetime Fitness . . . . .	2

GENERAL EDUCATION: 25-27 CREDITS

CORE: 15-17 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

**Oral Communication**

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

**Critical Reading**

+CRE101	Critical and Evaluative Reading I (3) OR	
+CRE111	Critical Reading for Business and Industry (3) OR	
	Equivalent as indicated by assessment . . . . .	3

**Mathematics**

+MAT120	Intermediate Algebra (5) OR	
+MAT121	Intermediate Algebra (4) OR	
+MAT122	Intermediate Algebra (3) OR	
	Equivalent as indicated by assessment OR Satisfactory completion of a higher-level mathematics course. . . . .	3-5

DISTRIBUTION: 10 CREDITS

**Humanities and Fine Arts**

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

**Social and Behavioral Sciences**

PSY101 Introduction to Psychology (3) OR  
SOC101 Introduction to Sociology (3) . . . . .3

**Natural Sciences**

+CHM130 Fundamental Chemistry (3) AND  
+CHM130LL Fundamental Chemistry Laboratory (1) OR  
+CHM151 General Chemistry I (3) AND  
+CHM151LL General Chemistry I Laboratory (1) . . . . .4

General Education Requirements are listed on pages 138-140.





# Special Programs

## Training for Business, Industry and Government

CGCC customizes curriculum and designs specialized classes to respond to the varied training needs of local businesses, industries, and governments. Call the Senior Associate Dean of Occupational Education at (480) 732-7016 for more information.

## Continuing Education

The Continuing Education Department at Chandler-Gilbert Community College offers a number of educational opportunities:

- Non-credit special interest classes.
- Summer program for gifted youth.
- Hundreds of on-line courses for technology, business, personal, and professional programs.
- Non-credit classes for business, industry, and governmental organizations.

Inquiries should be directed to Continuing Education by calling (480) 732-7080.

## English as a Second Language

CGCC is committed to a partnership in learning with students who are non-native English speakers. The English as a Second Language (ESL) courses are designed to help foreign speakers from a variety of countries learn English by emphasizing four skill areas: listening, speaking, reading, and writing.

Students enrolling in ESL courses should be tested. Based on test scores, students are placed in the appropriate-level conversation, grammar, and writing courses. Call (480) 732-7205 to schedule an appointment for ESL testing.

Call (480) 732-7342 for more information about CGCC's ESL program or visit the Web site at <http://www.cgc.maricopa.edu/language/esl/>.

## Fitness, Wellness and Recreation

CGCC offers a variety of fitness, wellness, and recreation opportunities on the Pecos and Williams Campuses. The Williams Physical Education Center

is a multipurpose facility which houses the Fitness Center, gymnasium, and racquetball, volleyball, and indoor and outdoor basketball courts. The Pecos Fitness Center specializes in strength and cardiovascular training programs, and also has a multipurpose room for yoga, tai chi, aerobics, karate, and other activities.

### Fitness Centers

Both Fitness Centers feature state-of-the-art computerized cardiovascular equipment, as well as Cybex, and Hammer Strength weight training machines. Lockers, shower facilities, and workout towels are also available to students.

Individual fitness assessments and instruction are provided by degreed and certified professionals in the exercise field. All students must be enrolled in a credit or non-credit Lifetime Fitness course to utilize the facilities and have a current CGCC identification card. Additional information is available by calling the Pecos Campus Fitness Center at (480) 732-7200 or the Williams Campus Fitness Center at (480) 988-8400.

### Wellness

The wellness program offers students, faculty, staff, and community members the following opportunities:

- The Wellness Lectures present speakers on nutrition, weight control, exercise, sports performance, injury prevention and rehabilitation, successful aging, and stress management;
- Credit and non-credit courses in weight control, nutrition, Kajukenbo Karate, rock climbing, yoga, hiking, fly fishing, golf, cycling, aerobics, mountain biking, outdoor survival, backpacking, and more.
- Health education computer programs for dietary analysis and fitness;
- Health and fitness newsletters, journals, audio-video tapes and related information;
- Annual wellness activities such as health screenings, recreational sports tournaments, Senior Health and Fitness Day, Cancer Awareness Week, National Nutrition Month, Breast Cancer Walk, and AIDS Walk.

Students, faculty, staff, and community members interested in using wellness resources can contact the Pecos Campus Fitness Center at (480) 732-7200 or the Williams Campus Fitness Center at (480) 988-8400 for more information.

### Recreation

The Physical Education Center at the Williams Campus provides an array of intramural sports leagues and recreational activities, such as indoor and outdoor basketball, indoor and sand volleyball, racquetball, volleyball, softball, tennis, and soccer. These leagues and activities are available to MCCC and Arizona State University East students, staff, and their families. Students with current college identification cards may also check out equipment for Community Hour activities that include informal basketball, volleyball and table tennis. Call (480) 988-8400 for additional information.

### Honors Program

The CGCC Honors Program provides the opportunity for academically advanced students to participate in challenging and rewarding educational experiences. The purpose of the Honors Program is to foster greater depth of thought in reading, writing, and discussion with faculty and guest lecturers, which will better prepare Honors students to complete baccalaureate degrees or to begin their careers. A variety of academic scholarships and fee waivers are available to eligible Honors Program students.

Honors students enjoy:

- Fee-awards and scholarships
- Special recognition on transcripts and diplomas
- Cultural and social activities, such as the Honors Forum Lecture Series
- Enhanced intellectual growth through Honors courses and projects

Students with a grade point average of 3.25 or better on a 4.0=A scale based on at least 12 credit hours of previous Maricopa Community College coursework are invited to apply as a Fee Waiver Scholar. Those graduating in the top 15% from an accredited Maricopa County high school are invited to apply to the Honors Program as a Presidents' Scholar.

For full details on the Honors Program or Honors scholarships, visit [www.cgc.maricopa.edu/honors/](http://www.cgc.maricopa.edu/honors/) or contact the Honors Coordinator at (480) 732-7082.

### Performing Arts

The Performing Arts Program at CGCC offers an integrated approach to dance, theatre, and music. The classes, while separate, are coordinated to provide students a broader base to their education and more versatility in the performing arts.

A wide variety of opportunities exist for student involvement in the performing arts. Naturally, dance, music, and theatre performers are needed, but there are also many experiences available related to production:

- public relations, advertising, and promotion
- computer graphics
- video production
- newsletter publishing
- costumes
- scenery
- make-up
- lighting

College credit may be earned for some of the above. For more information on performing arts at CGCC, please call (480) 732-7040, (480) 732-7136, or (480) 732-7144.

# COURSE DESCRIPTIONS



2004-05



All courses offered by the Maricopa Community Colleges appear in a standardized format using six common course elements. Students are encouraged to become familiar with the course elements included in a course description. Please see "How to Read Course Descriptions" below.

The courses that follow are all of the courses offered at Chandler-Gilbert Community College (CGCC). Not all courses in this section will necessarily be offered during any given school year. Not all courses listed in the required courses and/or restricted elective areas of programs are offered at CGCC. Please check the current class schedule for course availability. The intent of the Course Description section is to enable students to review courses that are available at CGCC.

## How to Read Course Descriptions

All courses offered at the Maricopa Community Colleges are identified by a three-letter abbreviation of the academic subject plus a three-digit number (e.g., ENG101 identifies an English course). Course descriptions are listed alphabetically and in ascending numerical order.

Each course listing has six common elements:

1. **Course Prefix:** Three-letter subject code abbreviation indicating discipline/area of study (e.g., ENG).
2. **Course Number:** Three-digit number assigned to indicate sequence and academic level. Numbers range from 001-299. Courses numbered below 100 are offered for the purpose of strengthening skills and knowledge and cannot be applied toward degrees awarded by Maricopa Community Colleges. These courses cannot be transferred to four-year institutions. First-year courses are generally identified with 100-level numbers. Second-year courses are generally identified with 200-level numbers.
3. **Course Title:** Identifying name of the course. May also indicate course level (e.g., College Algebra or Beginning Spanish Conversation I).
4. **Course Description:** Brief statement describing the content of the course. Instructor's course syllabus gives additional information, including objectives and grading criteria.
5. **Course Credit Hours:** College credit hours awarded for satisfactory completion of the course.

6. **Course Prerequisites and/or Corequisites:** Requirements that must be met before or, in the case of corequisites, at the same time as enrollment in a course. Not all courses have prerequisites or corequisites.

### EXAMPLE:

- (1) = Course Prefix  
 (2) = Course Number  
 (3) = Course Title  
 (4) = Course Description  
 (5) = Course Credits  
 (6) = Course Prerequisites and/or Corequisites  
 \* = Periods: Weekly time in class during a typical 16-week semester; 50 minutes = 1 period.

(1) ENG (2) 101 (5) 3 CREDITS \*3 PERIODS

### (3) First-Year Composition

(4) Standard English writing skills. Emphasis on expository composition. (6) Prerequisites: Appropriate English placement test score or "C", or better, in ENG071.

## Accounting (ACC)

ACC111 3 CREDITS 3 PERIODS

### Accounting Principles I

Fundamental theory of accounting principles and procedures. Prerequisites: None.

ACC115 2 CREDITS 3 PERIODS

### Computerized Accounting

Mastery of a microcomputer accounting system including the general ledger, accounts receivable, accounts payable and payroll. Prerequisites: ACC107, or higher level accounting course, or permission of instructor.

ACC115AA 1 CREDIT 2 PERIODS

### Computerized Accounting: Quicken-Level I

Introduction to using Quicken to automate an accounting system. Prerequisites: ACC107, or higher level accounting course, or permission of instructor.

ACC115AB 1 CREDIT 2 PERIODS

### Computerized Accounting: Peachtree-Level I

Introduction to using Peachtree to automate an accounting system. Prerequisites: ACC107, or higher level accounting course, or permission of instructor.

ACC115BA 1 CREDIT 2 PERIODS

**Computerized Accounting: Quicken-Level II**  
Additional applications using Quicken to automate an accounting system. Prerequisites: ACC115AA.

ACC230 3 CREDITS 3 PERIODS

### Uses of Accounting Information I

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

ACC240 3 CREDITS 3 PERIODS

### Uses of Accounting Information II

Introduction to the uses of accounting information for internal and external purposes with emphasis on analysis for use by management. Prerequisites: ACC230.

ACC250 1 CREDIT 3 PERIODS

### Introductory Accounting Lab

Procedural details of accounting for the accumulation of information and generation of reports for internal and external users. Prerequisites: None.

ACC270AA 1 CREDIT 1 PERIOD

### Accounting Internship

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

ACC270AB 2 CREDITS 2 PERIODS

### Accounting Internship

Accounting work experience in a business or industry. Eighty hours of designated work per credit totaling 160 hours per semester. Maximum of 3 credits allowed. Prerequisites: Departmental approval.

ACC270AC 3 CREDITS 3 PERIODS

### Accounting Internship

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

## Administration of Justice Studies (AJS)

AJS101 3 CREDITS 3 PERIODS

### Introduction to Criminal Justice

An examination of the organization and jurisdiction of local, state and federal law enforcement, judicial and corrections systems; their history and philosophy; career opportunities and qualifying requirements, terminology and constitutional limitations of the system. Required in AJS curriculum. Prerequisites: None.

AJS109 3 CREDITS 3 PERIODS

### Substantive Criminal Law

Covers philosophy of legal sanctions and historical development from the common law to modern American criminal law, classifications of crimes, elements of and parties to crimes, general definition of crimes, common defenses utilized. Includes specific offenses and the essential elements of each offense. Required in AJS curriculum. Prerequisites: None.

AJS119 3 CREDITS 4 PERIODS

### Computer Applications in Justice Studies

Provides literacy in microcomputer applications in major areas of the criminal justice system. Examines availability and uses of current software packages in criminal justice work. Provides hands-on experience with appropriate integrated software packages pertaining to justice studies. Prerequisites: None.

AJS123 3 CREDITS 3 PERIODS

### Ethics and the Administration of Justice

Introduces and explores ethical issues and the justice system. Focuses on ethics and the law, the police, courts and corrections. Reviews ethical theory, concepts and practices as they relate to administration of justice. Encourages critical thinking and value decision making in criminal justice system situations. Prerequisites: None.

AJS139 3 CREDITS 3 PERIODS

### Emergency Response to Terrorism

Fundamentals of emergency response to suspected terrorist events. Historical perspective of terrorist activities and methods by which responders can identify and protect themselves and the public from these threats. Coordination of responding agencies. Prerequisites: None.

AJS146 3 CREDITS 3 PERIODS

**Disaster Recovery Operations**

Specialized knowledge and skills for the emergency manager in developing programs and activities associated with disaster recovery assistance and mitigation actions that reduce losses from future disasters. Prerequisites: None.

AJS147 3 CREDITS 3 PERIODS

**Emergency Preparedness**

Emergency preparedness related to natural and man-made 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 3 CREDITS 3 PERIODS

**Fundamentals of Emergency Management**

Emergency management systems including career opportunities, function, tasks and responsibilities of the emergency management program manager, role of the emergency manager in mitigation, preparedness, response, and recovery. Past civil defense and current emergency management systems since evolution from World War II. Prerequisites: None.

AJS149 3 CREDITS 3 PERIODS

**Hazard Mitigation**

Knowledge and skills required to develop programs to reduce losses from future disasters, emergencies, and other extreme events caused by natural and man-made hazards. Prerequisites: None.

AJS195 3 CREDITS 3 PERIODS

**International and Domestic Terrorism**

An overview of the history, structure, goals, and activities of domestic and international terrorist groups. Explores theories explaining terrorism and reviews methods used to combat it. Prerequisites: None.

AJS200 3 CREDITS 3 PERIODS

**Current Issues in Criminal Justice**

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

AJS201 3 CREDITS 3 PERIODS

**Rules of Evidence**

A practical insight into the rules of evidence to include how to recognize evidence: the general rules governing admissibility of evidence; the "hearsay" rule and its exceptions; the use of documentary evidence, written memoranda, photographs, and

recordings; corpus delicti; opinion evidence, circumstantial evidence, evidential privileges. Required in AJS curriculum. Prerequisites: None.

AJS212 3 CREDITS 3 PERIODS

**Juvenile Justice Procedures**

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

AJS213 3 CREDITS 3 PERIODS

**Evidence Technology/Fingerprints**

Fingerprint identification, interpretation, and classification. The fundamentals of fingerprinting and the problems in developing latent prints, preservation of evidence and the chain of evidence. Prerequisites: None.

AJS215 3 CREDITS 3 PERIODS

**Criminalistics: Physical Evidence**

The scientific analysis and examination of physical evidence with emphasis on scientific investigation, recognition, collection, and preservation of evidence. Topics include fingerprints, shoe prints, tool marks, firearms identification, paint chips and arson. Prerequisites: None.

AJS216 3 CREDITS 3 PERIODS

**Criminalistics: Biological Evidence**

The scientific analysis and examination of biological evidence with emphasis on collection and preservation of evidence. Topics discussed include blood, drugs, blood alcohol, hairs and fibers, and topics of special interest in criminalistics. Prerequisites: None.

AJS225 3 CREDITS 3 PERIODS

**Criminology**

Study of deviance, society's role in defining behavior; theories of criminality and the economic, social, and psychological impact of crime; relationships between statistics and crime trends. Examines crime victimization and the various types of crime and categories of offenders. Required in the AJS curriculum. Prerequisites: None.

AJS230 3 CREDITS 3 PERIODS

**The Police Function**

Theories of procedures and methods of operations of public police with emphasis on discretionary powers available to the working police officer. Career opportunities and current trends in law enforcement presented. Prerequisites: None.

AJS240 3 CREDITS 3 PERIODS

**The Correction Function**

Examines the history and development of correctional theories and institutions. Prerequisites: None.

AJS241 3 CREDITS 3 PERIODS

**Police Photography**

Emphasis on proper procedure for photographing crime scenes, accident scenes, and laboratory specimens. Discussion of photographic techniques, equipment, lighting techniques, aerial photography, video and motion pictures, macro and micro photography, filters, and preparation for court presentation using selected simulations. Prerequisites: None.

AJS258 3 CREDITS 3 PERIODS

**Victimology and Crisis Management**

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

AJS260 3 CREDITS 3 PERIODS

**Procedural Criminal Law**

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

AJS270 3 CREDITS 3 PERIODS

**Community Relations**

Examination, recognition and understanding of community problems; community action programs; methods of coping with human behavior, victimology, conflict and communication; ethnic and minority cultures and environments; the community and relationships with the criminal justice system. Prerequisites: None.

AJS275 3 CREDITS 3 PERIODS

**Criminal Investigation I**

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

**Aeronautics (AET)**

AET107 5 CREDITS 5 PERIODS

**Private Pilot Ground School**

Ground school in preparation for the Federal Aviation Administration (FAA) Private Pilot Certificate written examination. Includes aerodynamics, airplane systems, airports, airspace, communications, Federal Air Regulations, navigation, airplane performance, flight planning, and flight physiology. Requires passing a written exam similar to the FAA Private Pilot written exam. Prerequisites: None. Corequisite: AET110.

AET110 2 CREDITS 5 PERIODS

**Private Pilot Flight**

Flight course in preparation for the Federal Aviation Administration (FAA) Private Pilot Certificate practical examination. Includes preflight preparation and planning, ground operations, airport operations, departures, navigation, basic instrument flight, night flight, slow flight, ground reference maneuvers, emergency operations, and arrivals. Approximately 50 hours airplane flight experience at student's expense required. Requires passing check ride similar to the FAA Private Pilot check ride. Prerequisites: None. Corequisites: AET107.

AET115 3 CREDITS 3 PERIODS

**Aviation Meteorology**

Meteorology for professional pilots. Includes atmosphere, air mass circulation, cloud type identification, weather hazards, and high altitude, Arctic, and tropical weather systems. Basic forecasting, use of Direct User Access Terminal (DUAT) systems and reading and interpreting weather charts. Prerequisites: None.

AET203 2 CREDITS 2 PERIODS

**Basic Airplane Systems**

Initial instrument and commercial pilot ground course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot Certificate and Instrument rating written examinations. Includes night flight, flight instrument systems and operation, and basic engine, airplane, and altitude systems. Prerequisites: Permission of instructor. Prerequisites or Corequisites: AET115. Corequisites: AET207 and AET210.

AET205 4 CREDITS 4 PERIODS

**Aircraft Structures, Systems, and Maintenance**

Survey of airframe structures, systems, and maintenance regulations for pilots. Includes aircraft and airfoil design and construction, and electrical, instrumentation, and automatic flight control systems. Maintenance privileges and limitations, and forms and records. Prerequisites: Private Pilot Certificate or permission of instructor.

AET207 2 CREDITS 2 PERIODS

**Attitude Instruments and Navigation**

Continuing instrument and commercial pilot ground course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot Certificate and Instrument rating written examinations. Includes flight physiology, theory of instrument flight, radio navigation, flight and navigation aids, and instrument charts and approach plates. Prerequisites: Permission of instructor. Prerequisites or Corequisites: AET115. Corequisites: AET203 and AET210.

AET210 2 CREDITS 5 PERIODS

**Commercial Pilot Flight I**

Initial flight course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot Certificate with Instrument rating practical examination. Emphasis on night and instrument operations. Student must fly approximately 60 hours at own expense. Requires passing an operational phase check. Prerequisites: Permission of instructor. Prerequisites or Corequisites: AET115. Corequisites: AET203 and AET207.

AET213 2 CREDITS 2 PERIODS

**Aerodynamics and Performance**

Continuing instrument and commercial pilot ground course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot Certificate and Instrument rating written examinations. Includes aerodynamics, airport and airplane operation, stability and control, commercial maneuvers, and flight computer. Prerequisites: AET210. Corequisites: AET217 and AET220.

AET215 4 CREDITS 4 PERIODS

**Aircraft Powerplants**

Survey of engines and engine systems for pilots. Includes theory and analysis of reciprocating and turbine aircraft engines. Lubrication, ignition, fuel control, cooling, exhaust, and propellers. Prerequisites: AET205 or permission of instructor.

AET217 2 CREDITS 2 PERIODS

**Instrument Procedures**

Final instrument and commercial pilot ground course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot Certificate and Instrument rating written examinations. Includes Federal Aviation Regulations, instrument approach procedures, and instrument enroute considerations. Requires passing written exams similar to the FAA Commercial Pilot and Instrument rating written exams. Prerequisites: AET210. Corequisites: AET213 and AET220.

AET220 2 CREDITS 5 PERIODS

**Commercial Pilot Flight II**

Advanced flight course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot with Instrument rating practical examinations. Emphasis on commercial and high performance operations. Student must fly approximately 60 hours at own expense, including high performance operations. Requires passing commercial pilot and instrument rating check rides similar to the FAA check rides. Prerequisites: AET210. Corequisites: AET213 and AET217.

AET225 4 CREDITS 4 PERIODS

**Advanced Aircraft Systems**

Advanced aircraft systems for pilots. Pressurization, cabin atmosphere, ice control, rain control, fire detection and extinguishing, hydraulic, landing gear, anti-skid systems, and weight and balance for transport category airplanes. Prerequisites: AET215 or permission of instructor.

AET227 4 CREDITS 4 PERIODS

**Certified Flight Instructor: Airplane, Single Engine Land Ground School**

Ground school in preparation for the Federal Aviation Administration (FAA) Certified Flight Instructor and Fundamentals of Instruction written examinations. Includes fundamentals of instruction, aerodynamics, airplane performance, systems, operations, weight and balance, weather, federal regulations, navigation, maneuvers, pilot physiology, ethics, and aeronautical decision making. Requires passing written exams similar to the FAA Certified Flight Instructor: Airplane, and Fundamentals of Instruction written exams. Prerequisites: AET240 or FAA Commercial Pilot Certificate with instrument rating. Corequisite: AET230.



AET230 1 CREDIT 3 PERIODS

**Certified Flight Instructor: Airplane, Single Engine Land**

Flight course in preparation for the Federal Aviation Administration (FAA) Certified Flight Instructor: Airplane practical examination. Emphasis on demonstration and analysis of flight maneuvers. Includes preflight, ground operations, airport operations, takeoffs, climbs, flight fundamentals, stalls, spins, slow flight, basic instrument operations, performance maneuvers, ground reference maneuvers, emergency operations, approaches, landings, and postflight procedures. Requires approximately 25 hours of flight that includes high performance operations at student's expense. Also requires passing check ride similar to the FAA Certified Flight Instructor check ride. Prerequisites: AET240 or FAA Commercial Pilot Certificate with instrument rating. Corequisite: AET227.

AET237 2 CREDITS 2 PERIODS

**Multiengine Airplane Pilot Ground School**

Aeronautical knowledge necessary to meet requirements for a multiengine airplane rating including orientation, aerodynamics, airplane systems, airplane performance, flight planning, and emergency procedures. Prerequisites: AET220 or FAA Commercial Pilot Certificate with instrument rating. Corequisites: AET240.

AET240 .5 CREDIT 1.5 PERIODS

**Multiengine Airplane Pilot Flight**

Flight course in preparation for the Federal Aviation Administration (FAA) Multiengine Airplane practical examination. Approximately 15 hours of flight experience at the student's expense and passing check ride similar to the FAA Multiengine check ride are required. Prerequisites: AET220 or FAA Commercial Pilot Certificate with instrument rating. Corequisites: AET237.

AET253 3 CREDITS 3 PERIODS

**Avionics for Pilots**

Introduction to avionics for pilots or individuals constructing personal aircraft. Includes avionics history, theory, installation and antenna considerations, autopilots, and troubleshooting. Prerequisites: Private Pilot Certificate or permission of instructor.

AET257 3 CREDITS 4 PERIODS

**Readings in Aviation**

Critical inquiry of a particular aviation theme from a wide variety of sources. Structured to provide an

atmosphere of individualized research and study paralleled by professional expertise and guidance. International data communication facilities and equipment made available for student use. Prerequisites: ENG102 or ENG111, and permission of instructor.

AET259 2 CREDITS 2 PERIODS

**Human Factors in Aviation Flight Operations**

Introduction to the relationship between person and machine, the need to optimize design for better person-machine interaction, and the psychological and physiological limitations of humans in complex aviation operating environments. Prerequisites: None.

AET290 3 CREDITS 3 PERIODS

**Flight Physiology**

In-depth study of aeromedical factors for pilots. The causes, symptoms, prevention, and treatment of flight environment disorders, altitude effects, spatial disorientation, visual illusions, body heat imbalance, and psychological factors are included as they relate to pilot performance and survival. Two altitude chamber flights at the student's expense are required. Prerequisites: Current FAA (Federal Aviation Administration) medical certificate.

**Aircraft Construction Technologies (ACT)**

ACT201 3 CREDITS 3 PERIODS

**Aircraft Maintenance Forms and Documents**

Maintenance documentation typical of transport category aircraft including illustrated parts catalogs, troubleshooting guides, maintenance, structural repair, wiring, and standard practices manuals. Blueprint reading and maintenance forms. Prerequisites: (AMT124 or AMT124AA, AMT128 or AMT128AA, AMT220 or AMT220AA, and AMT224 or AMT224AA) or Federal Aviation Administration Airframe Mechanic License.

ACT205 3 CREDITS 5 PERIODS

**Introduction to Aircraft Structural Repair Technology**

History and types of composite and sheet metal materials used in typical transport category aircraft structures. Safety practices, corrosion control, and fabrication of projects using modern aircraft structural materials. Prerequisites or Corequisites: ACT201.

ACT213 3 CREDITS 5 PERIODS

**Transport Category Sheet Metal Repairs I**

Use of materials common to transport category aircraft metallic structures, special fasteners, bends, shaping, routing, pressure vessel repairs, sealing, and flight control repairs. Prerequisites: ACT205.

ACT217 3 CREDITS 5 PERIODS

**Transport Category Sheet Metal Repairs II**

Metal shaping techniques, heat treatment, built up (step) repairs, exotic metals, and intermediate repairs including complex shapes in accordance with Structural Repair Manuals. Prerequisites: ACT213.

ACT223 3 CREDITS 5 PERIODS

**Composite Structural Repairs I**

Basic composite materials, construction, and repair. Manufacturing methods and equipment. Assessment and repair of composite structures using vacuum bagging and other approved procedures. Prerequisites: ACT205.

ACT227 3 CREDITS 5 PERIODS

**Composite Structural Repairs II**

Corrosion control, electrical bonding, materials substitutions, machining of composite components, mold fabrication. Hot bond repair of composite components including complex shapes and varied materials in accordance with the appropriate Structural Repair Manual. Prerequisites: ACT223.

ACT240 4 CREDITS 6 PERIODS

**Aircraft Structural Damage Evaluation and Repair**

Practical application of intermediate repair skills on aircraft structures using appropriate documentation in a simulated repair station environment. Evaluation of damage, non-destructive testing, repair process planning, and cost estimating. Actual repairs accomplished to airworthy standards. Prerequisites: ACT217 or ACT227.

**Aircraft Maintenance Technology (AMT)**

AMT124 5 CREDITS 9 PERIODS

**Aircraft Forms and Regulations, Weight and Balance, Drawings, and Ground Operations**

Federal Aviation maintenance publications, forms and records. Overview of technician's privileges and limitations. Perform aircraft weight and balance, aircraft ground operations and fuel servicing tech-

niques. Drawings, symbols and schematic diagrams. Prerequisites: ENG071, RDG091, (MAT091 or MAT092), and permission of the Department or Division.

AMT124AA 5 CREDITS 9 PERIODS

**Aircraft Forms and Regulations, Weight and Balance, Drawings, and Ground Operations: Part 65**

Federal Aviation maintenance publications, forms and records. Overview of technician's privileges and limitations. Perform aircraft weight and balance, aircraft ground operations and fuel servicing techniques. Drawings, symbols and schematic diagrams. Prerequisites: ENG071, RDG091, (MAT091 or MAT092), and permission of the Department or Division.

AMT126 9 CREDITS 12 PERIODS

**Fundamentals of Mathematics and Electricity**

Mathematical computation of fundamental electrical circuit parameters. Basic definitions, laws, and concepts. Schematic, wiring, and parts placement diagrams. Test and troubleshoot electrical and electronic components and circuits. Prerequisites: ENG071, RDG091, (MAT091 or MAT092), and permission of the Department or Division.

AMT126AA 9 CREDITS 12 PERIODS

**Fundamentals of Mathematics and Electricity: Part 65**

Mathematical computation of fundamental electrical circuit parameters. Basic definitions, laws and concepts. Schematic, wiring and parts placement diagrams. Test and troubleshoot electrical and electronic components and circuits. Prerequisites: ENG071, RDG091, (MAT091 or MAT092), and permission of the Department or Division.

AMT128 5 CREDITS 9 PERIODS

**Fundamentals of Aviation Physics, Corrosion Control, Materials and Processes, Fluid Lines and Fittings**

Basic concepts of motion, fluid dynamics, heat and sound, aerodynamics, aircraft structure and theory of flight. Fluid lines and fittings, component identification, function, inspection, and installation. Cleaning and corrosion control, materials and processes, non-destructive testing, and precision measurement techniques. Prerequisites: ENG071, RDG091, (MAT091 or MAT092), and permission of the Department or Division.

AMT128AA 5 CREDITS 9 PERIODS

**Fundamentals of Aviation Physics, Corrosion Control, Materials and Processes, Fluid Lines and Fittings: Part 65**

Basic concepts of motion, fluid dynamics, heat and sound, aerodynamics, aircraft structure, and theory of flight. Fluid lines and fittings, component identification, function, inspection, and installation. Cleaning and corrosion control, materials and processes, non-destructive testing, and precision measurement techniques. Prerequisites: ENG071, RDG091, (MAT091 or MAT092), and permission of the Department or Division.

AMT220 3 CREDITS 6 PERIODS

**Fundamentals of Aircraft Wood Structures, Covering and Finishing, and Bonded Structures**

Theories and techniques of aircraft wood structures. Inspection, test and repair of aircraft fabric and wood structures. Aircraft structural design and methods of working with selected materials. Characteristics of composites, inspections and repairs. Prerequisites: Admission to the program.

AMT220AA 3 CREDITS 6 PERIODS

**Fundamentals of Aircraft Wood Structures, Covering and Finishing, and Bonded Structures: Part 65**

Theories and techniques of aircraft wood structures. Inspection, test and repair of aircraft fabric and wood structures. Aircraft structural design and methods of working with selected materials. Characteristics of composites, inspections and repairs. Prerequisites: Permission of Program Director.

AMT222 4 CREDITS 6 PERIODS

**Atmosphere Control, Fire Detection, Ice and Rain Protection Systems**

Operation and maintenance of aircraft auxiliary systems. Inspection, servicing, troubleshooting and repair of environmental control, ice and rain control, fire protection and warning systems. Prerequisites: Admission to the program.

AMT222AA 4 CREDITS 6 PERIODS

**Atmosphere Control, Fire Detection, Ice and Rain Protection Systems: Part 65**

Operation and maintenance of aircraft auxiliary systems. Inspection, servicing, troubleshooting and

repair of environmental control, ice and rain control, fire protection and warning systems. Prerequisites: Permission of Program Director.

AMT224 5 CREDITS 11 PERIODS

**Aircraft Sheet Metal**

Inspection, fabrication, and repair techniques of aircraft structural and nonstructural components. Sheet metal heat-treating techniques. Prerequisites: Admission to the program.

AMT224AA 5 CREDITS 11 PERIODS

**Aircraft Sheet Metal: Part 65**

Inspection, fabrication, and repair techniques of aircraft structural and nonstructural components. Sheet metal heat-treating techniques. Prerequisites: Permission of Program Director.

AMT226 7 CREDITS 12 PERIODS

**Aircraft Landing Gear, Hydraulic, Pneumatic, Fuel, Position and Warning Systems**

Identification, inspection, repair, and troubleshooting techniques of aircraft landing gear, hydraulic, fuel, pneumatic, and position and warning system components. Prerequisites: Admission to the program.

AMT226AA 7 CREDITS 12 PERIODS

**Aircraft Landing Gear, Hydraulic, Pneumatic, Fuel, Position and Warning Systems: Part 65**

Identification, inspection, repair, and troubleshooting techniques of aircraft landing gear, hydraulic, fuel, pneumatic, and position and warning system components. Prerequisites: Permission of Program Director.

AMT228 7 CREDITS 12 PERIODS

**Aircraft Electrical Systems, Instruments, Fuel Indicating, Communication and Navigation Systems**

Proper operation, inspection, servicing and troubleshooting of DC (Direct Current) and AC (Alternating Current) sources, systems, and components. Mechanical and electrical sensing and information display systems. Fuel indicator system inspections, repairs, and troubleshooting. Transmitter and receiver fundamentals. Avionics installation, inspection and testing. Prerequisites: Admission to the program.

AMT228AA 7 CREDITS 12 PERIODS

**Aircraft Electrical Systems, Instruments, Fuel Indicating, Communication and Navigation Systems: Part 65**

Proper operation, inspection, servicing and troubleshooting of DC (Direct Current) and AC (Alternating Current) sources, systems, and components. Mechanical and electrical sensing and information display systems. Fuel indicator system inspections, repairs, and troubleshooting. Transmitter and receiver fundamentals. Avionics installation, inspection and testing. Prerequisites: Permission of Program Director.

AMT230 6 CREDITS 11 PERIODS

**Airframe Assembly, Inspection and Welding**

Aircraft assembly and rigging. Flight control balancing and rigging. Airframe inspection techniques, reporting procedures, and aircraft jacking. Welding techniques, theory, and materials identification. Prerequisites: Admission to the program.

AMT230AA 6 CREDITS 11 PERIODS

**Airframe Assembly, Inspection and Welding: Part 65**

Aircraft assembly and rigging. Flight control balancing and rigging. Airframe inspection techniques, reporting procedures, and aircraft jacking. Welding techniques, theory, and materials identification. Prerequisites: Permission of Program Director.

AMT263 5 CREDITS 9 PERIODS

**Aircraft Turbine Engines**

Historical development and application of turbine engines. Theory of thrust and the design and environmental factors which influence thrust. Turbine engine troubleshooting, inspection, service, repair and overhaul. Operational characteristics and engine test techniques on the aircraft and in test cells. Prerequisites: Admission to the program.

AMT263AA 5 CREDITS 9 PERIODS

**Aircraft Turbine Engines: Part 65**

Historical development and application of turbine engines. Theory of thrust and the design and environmental factors which influence thrust. Turbine engine troubleshooting, inspection, service, repair and overhaul. Operational characteristics and engine test techniques on the aircraft and in test cells. Prerequisites: Permission of Program Director.

AMT264 7 CREDITS 11 PERIODS

**Aircraft Reciprocating Engines**

Historical development and application of reciprocating engines, theory, design, and operations. Techniques used in troubleshooting, overhaul, inspection, and repair of opposed and radial engines. Prerequisites: Admission to the program.

AMT264AA 7 CREDITS 11 PERIODS

**Aircraft Reciprocating Engines: Part 65**

Historical development and application of reciprocating engines, theory, design, and operations. Techniques used in troubleshooting, overhaul, inspection, and repair of opposed and radial engines. Prerequisites: Permission of Program Director.

AMT266 6 CREDITS 9 PERIODS

**Engine Fuel Systems, Fuel Metering and Induction System**

Inspection, servicing, troubleshooting, overhaul, and repair of aircraft fuel systems and components, fuel metering devices, injection systems, turbochargers, and superchargers. Induction system principles of operation and design. Prerequisites: Admission to the program.

AMT266AA 6 CREDITS 9 PERIODS

**Engine Fuel Systems, Fuel Metering and Induction System: Part 65**

Inspection, servicing, troubleshooting, overhaul, and repair of aircraft fuel systems and components, fuel metering devices, injection systems, turbochargers, and superchargers. Induction system principles of operation and design. Prerequisites: Permission of Program Director.

AMT268 6 CREDITS 12 PERIODS

**Engine Electrical, Ignition and Starter Systems**

Inspect, service, troubleshoot, overhaul, and repair of engine electrical, ignition, starter systems, and components. Prerequisites: Admission to the program.

AMT268AA 6 CREDITS 12 PERIODS

**Engine Electrical, Ignition and Starter Systems: Part 65**

Inspect, service, troubleshoot, overhaul, and repair of engine electrical, ignition, starter systems, and components. Prerequisites: Permission of Program Director.

AMT270 5 CREDITS 8 PERIODS

**Engine Instruments, Fire Protection and Lubrication, Cooling and Exhaust Systems**

Operation, maintenance, servicing, inspection, repair, and troubleshooting of engine instruments, fire detection and extinguishing, engine lubrication, cooling, and exhaust systems. Prerequisites: Admission to the program.

AMT270AA 5 CREDITS 8 PERIODS

**Engine Instruments, Fire Protection and Lubrication, Cooling and Exhaust Systems: Part 65**

Operation, maintenance, servicing, inspection, repair, and troubleshooting of engine instruments, fire detection and extinguishing, engine lubrication, cooling, and exhaust systems. Prerequisites: Permission of Program Director.

AMT272 4 CREDITS 8 PERIODS

**Propeller Systems and Engine Inspections**

Historical development, operation, disassembly, inspection, repair, and maintenance of propellers. Reciprocating and turbine engine inspection and documentation. Prerequisites: Admission to the program.

AMT272AA 4 CREDITS 8 PERIODS

**Propeller Systems and Engine Inspections: Part 65**

Historical development, operation, disassembly, inspection, repair, and maintenance of propellers. Reciprocating and turbine engine inspection and documentation. Prerequisites: Permission of Program Director.

**Anthropology (ASB)**

ASB102 3 CREDITS 3 PERIODS

**Introduction to Cultural and Social Anthropology**

Principles of cultural and social anthropology, with illustrative materials from a variety of cultures. The nature of culture; social, political, and economic systems; religion, aesthetics and language. Prerequisites: None.

ASB245 3 CREDITS 3 PERIODS

**Indians of the Southwest**

Comparative study of the cultures, including the histories and present status, of Indians of the Southwest. Prerequisites: None.

**Art (ART)**

ART100 1 CREDIT 2 PERIODS

**Introduction to Computer Graphic Art**

Conceptualization, visualization, and production of art using the computer. Prerequisites: None.

ART111 3 CREDITS 6 PERIODS

**Drawing I**

Fundamental principles of drawing. Emphasis on composition and facility in objective and expressive representation, using variety of drawing media. Prerequisites: None.

ART112 3 CREDITS 6 PERIODS

**Two-Dimensional Design**

Study of fundamental elements and principles of two-dimensional design. Prerequisites: None.

ART113 3 CREDITS 6 PERIODS

**Color**

Investigation seeking visual solutions to a variety of problems concerning color in two and three dimensions and modes of color appearances, including light and effects in design and theory of design. Prerequisites: ART112.

ART116 3 CREDITS 6 PERIODS

**Life Drawing I**

Use of form, structure and anatomy of draped and undraped human figure to develop basic principles of sound draftsmanship. Prerequisites: None.

ART117 3 CREDITS 6 PERIODS

**Life Drawing II**

Further study of form, structure, and anatomy of the draped and undraped human figure with emphasis on composition. Prerequisites: ART116.

ART131 3 CREDITS 6 PERIODS

**Photography I**

Basic black and white photographic principles and techniques. Camera functions and controls. Darkroom experience in film processing and print-making. Camera required. Prerequisites: None.

ART132 3 CREDITS 6 PERIODS

**Photography II**

Advanced camera and darkroom techniques. Aesthetic awareness with personal expression. Prerequisites: ART131 or permission of instructor.

ART142 3 CREDITS 6 PERIODS

**Introduction to Digital Photography**

Fundamentals of digital photography. Includes camera operations, exposure techniques, introduction to digital output, and theory of digital photography. Prerequisites: None. Course Note: Digital camera required.

ART161 3 CREDITS 6 PERIODS

**Ceramics I**

Introduction to ceramic materials and techniques of hand construction, decorating, glazing and throwing on potters' wheel. Prerequisites: None.

ART162 3 CREDITS 6 PERIODS

**Ceramics II**

Major emphasis on wheel throwing, glaze making and decorating techniques. Prerequisites: ART161.

ART167 3 CREDITS 6 PERIODS

**Painting I**

Exploration of technical and expressive possibilities of various painting media in easel painting. Prerequisites: (ART111 and ART112), or permission of instructor.

ART168 3 CREDITS 6 PERIODS

**Painting II**

Continued refinement of painting skills and investigation of new possibilities in painting. Prerequisites: ART167 or permission of instructor.

ART169 3 CREDITS 6 PERIODS

**Two-Dimensional Computer Design**

Generation of electronic two-dimensional images and traditional methods of visual problem solving. Understanding of computer techniques and art presentation methods. Prerequisites or Corequisites: ART100 or permission of instructor.

ART173 3 CREDITS 6 PERIODS

**Computer Art**

Introduction to the multiple elements of paint software programs using the microcomputer. Basic foundation in the use of computer techniques including color paint programs for the production of computer images. Use of electronic input and output devices. Prerequisites: ART100, or permission of instructor.

ART177 3 CREDITS 6 PERIODS

**Computer-Photographic Imaging**

Introduction to the multiple elements of microcomputer-photographic imaging. Basic foundation in the use of the photographic manipulation of images

using software programs. Special attention to aesthetic foundations underlying photographic composition. Prerequisites or Corequisites: ART100 or permission of instructor.

ART190 3 CREDITS 6 PERIODS

**Art of Web Site Design**

Print vocabulary, relationships, and typographic style for HTML (HyperText Markup Language) and World Wide Web publication. Discussion of color, proportion, and design emphasis. Producing Web sites using HyperText Markup Language (HTML), digital text, and graphics to produce artistic form and content for the Web. Prerequisites: ART180AB, or ART180AC, or ART180AE, or permission of instructor.

ART255AB 1 CREDIT 1 PERIOD

**The Portfolio**

Choosing the right pieces to include, presenting art work, developing the portfolio. Prerequisites: ART255AA or permission of instructor.

ART270 3 CREDITS 6 PERIODS

**Intermediate Computer Photographic Imaging**

Intermediate microcomputer-based photographic imaging techniques. Refinement of aesthetic awareness and personal expression. Prerequisites: ART177 or (ART177AA and ART177AB).

ART274 3 CREDITS 6 PERIODS

**Advanced Computer Photographic Imaging**

Advanced microcomputer-based photographic imaging techniques. Advanced manipulation techniques of photographic images. Continued development of aesthetic awareness and personal expression. Prerequisites: ART270.

ART289 3 CREDITS 6 PERIODS

**Computer Illustration**

Introduction to the multiple elements of commercial illustration using the microcomputer. Basic foundation in the use of computer techniques including color paint and draw programs for the production of commercial illustrations for publications and printed matter. Use of input and output devices. Prerequisites or Corequisites: ART100 or permission of instructor.

ART290 3 CREDITS 6 PERIODS

**Studio Art**

Studio course for art majors allowing continuation in a subject field. Prerequisites: All 100 and 200-level courses in subject matter area, or permission of instructor.

## Art Humanities (ARH)

ARH100 3 CREDITS 3 PERIODS

### Introduction to Art

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

ARH101 3 CREDITS 3 PERIODS

### Prehistoric Through Gothic Art

History of art from prehistoric through medieval period. Prerequisites: None.

ARH102 3 CREDITS 3 PERIODS

### Renaissance Through Contemporary Art

History of art from around the world from the Renaissance through contemporary period. Prerequisites: None.

ARH203 3 CREDITS 3 PERIODS

### Art of Ancient Egypt

The art and culture of ancient Egypt from prehistoric through the Greco-Roman period. Prerequisites: None.

## Astronomy (AST)

AST111 3 CREDITS 3 PERIODS

### Introduction to Astronomy I

Introduction to astronomy for the non-science major. History of astronomy, properties of light, instruments, the solar system and nearby stars. Prerequisites: MAT092 or equivalent.

AST112 3 CREDITS 3 PERIODS

### Introduction to Astronomy II

Introduction to astronomy for the non-science major. Structure and evolution of stars; star clusters; galaxies; cosmology. Prerequisites: MAT092 or equivalent.

AST113 1 CREDIT 3 PERIODS

### Astronomy I Laboratory

Astronomical observations and exercises to supplement AST111. Prerequisites or Corequisites: AST111.

AST114 1 CREDIT 3 PERIODS

### Astronomy II Laboratory

Astronomical observations and exercises to supplement AST112. Prerequisites or Corequisites: AST112.

## Automated Manufacturing Systems (AMS)

AMS101 2.5 CREDITS 2.5 PERIODS

### Introduction to Automated Manufacturing

An introduction to automated manufacturing and the role of the manufacturing technician. Includes general manufacturing techniques, industry standards, and statistical process control. Prerequisites: None.

AMS110 3 CREDITS 6 PERIODS

### Programming Automated Equipment

Automated equipment uses, characteristics, geometric movement, and performance measures. Programming, troubleshooting, operating, and maintaining an automated (robotic) equipment system. Prerequisites: None.

AMS120 3 CREDITS 6 PERIODS

### Fluid Power and Programmable Logic Controllers (PLC)

Fundamentals of fluid power and fluid power system components with an emphasis on pneumatic systems. Basic programmable logic controller (PLC) programming and operation. Prerequisites: MAT090, or MAT091, or MAT092, or equivalent, or satisfactory score on District Placement exam.

AMS130 3 CREDITS 3.75 PERIODS

### Vacuum Technologies

Vacuum systems technologies used in industry. Includes vacuum system fundamentals, pumps, gauges, and system assembly. Prerequisites: AMS120.

AMS150 4 CREDITS 6 PERIODS

### Digital Systems and Microprocessors

Fundamentals of digital systems and microprocessors with Boolean Algebra and combinational logic. Microprocessor programming and applications. Prerequisites: ELE113.

AMS160 3.5 CREDITS 6.5 PERIODS

**Linear Circuits**

Linear circuit fundamentals. Includes diodes, bipolar transistors, field effect transistors, and an operational amplifier. Prerequisites: ELE113.

AMS210 3 CREDITS 7 PERIODS

**Electro-Mechanical Devices**

Electro-mechanical devices including physics of simple machines. Gear and sensor assembly and troubleshooting. Designing, constructing, and troubleshooting power transmission and stepper motor drives. Prerequisites: ELE114.

AMS220 3 CREDITS 6.75 PERIODS

**Automated Manufacturing Processes**

Automated manufacturing including inventory management, computer aided processes, work-cell operation, advanced programmable logic controller (PLC) programming, and statistical methods and calculations. Prerequisites: AMS110 and AMS120.

**Avionics Technology (AVT)**

AVT110 6 CREDITS 8 PERIODS

**Introduction to Avionics**

Procedures and instructions for using aircraft manuals. Identify, inspect, repair, and service wires, wire harnesses, and various electrical connectors. Prerequisites: Permission of Department or Division.

AVT115 7 CREDITS 8 PERIODS

**Communication and Navigation Basic Circuits**

Theory of operation and circuitry of all transmitter and receiver circuitry including interfacing and troubleshooting of amplitude and frequency modulation transmitters and receivers, antennas, high and very high frequency communication and interphone systems. Prerequisites: Permission of Department or Division.

AVT120 6 CREDITS 8 PERIODS

**Avionics: Airframe Systems Interfacing I**

Theory of operation, interfacing, and troubleshooting of systems and components related to aircraft lighting, fire protection and extinguishing, electrical power systems, and instrument and warning systems for all types of aircraft. Theory of operation, interfacing, and adjustment of landing gear systems, hydraulic systems, and doors. Prerequisites: Permission of Department or Division.

AVT128 5 CREDITS 7 PERIODS

**Advanced Electrical and Electronics**

Advanced electronics theory and application of diodes, bipolar transistors, field effect transistors, AC (Alternating current) power control devices, transistor amplifiers, sine wave oscillators, square wave generators, bistable circuits, operation amplifiers, and power supply and voltage regulators. Prerequisites: AMT126, or AMT126AA, or permission of the Department or Division.

AVT155 6 CREDITS 8 PERIODS

**Avionics: Airframe and Engine Systems Interfacing II**

Theory of operation, interfacing, and troubleshooting of pneumatic, air-conditioning, ice and rain protection, engine, and fuel systems. Prerequisites: AVT120 or permission of Department or Division.

AVT225 6 CREDITS 6 PERIODS

**Navigation Systems: Basic**

Theory of operation, interfacing, and troubleshooting of instrument, flight environment data, air data pressure, altitude and direction, clocks, stall warning, cockpit voice recorder, static discharge, and audio and video monitoring systems. Prerequisites: Permission of Department or Division.

AVT250 6 CREDITS 8 PERIODS

**Navigation Systems: Advanced**

Theory of operation, interfacing, and troubleshooting of automatic directional finder, very high frequency range, instrument landing, microwave landing, air traffic control, traffic alert, and collision avoidance, distance measurement equipment, radio altimeter, altitude alert, and ground proximity warning systems. Prerequisites: AVT225 or permission of Department or Division.

AVT260 6 CREDITS 8 PERIODS

**Navigation Systems: Long Range**

Theory of operation, interfacing, and troubleshooting of long range navigational, weather radar, and airborne data integrated, weight and balance computations, and flight control systems. Prerequisites: AVT250 or permission of Department or Division.



## Biology (BIO)

BIO080 1-4 CREDITS 3-6 PERIODS

### Fundamentals of Life Science (Modules AA-AO)

Consists of modules corresponding to biology courses offered in Maricopa Community College District. If student performance inadequate for currently enrolled biology course, enrollment may be changed to appropriate BIO080 module. Change only allowed if prerequisite met for currently enrolled course. Prerequisites: None.

BIO100 4 CREDITS 6 PERIODS

### Biology Concepts

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

BIO105 4 CREDITS 6 PERIODS

### Environmental Biology

Fundamentals of ecology and their relevance to human impact on natural ecosystems. Field trips may be required at students' expense. Prerequisites: None.

BIO107 4 CREDITS 6 PERIODS

### Introduction to Biotechnology

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

BIO108 4 CREDITS 6 PERIODS

### Plants and Society

A global study of plants in relation to humans; as a source of food, fiber, drugs, and other products; for aesthetic value, survival, and energy. Prerequisites: None.

BIO109 3 CREDITS 3 PERIODS

### Natural History of the Southwest

Study of the common plants and animals of the Southwest including their distribution, adaptation, behavior, and ecology. Prerequisites: None.

BIO110 1 CREDIT 3 PERIODS

### Laboratory for Natural History of the Southwest

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. Weekend field trips required at students' expense. Prerequisites or Corequisites: BIO109 or permission of instructor.

BIO160 4 CREDITS 6 PERIODS

### Introduction to Human Anatomy and Physiology

Principles of scientific method. Structural organization, homeostasis and control mechanisms of the body. Specific chemistry concepts. Structure and function of the major systems of the body. Prerequisites: None.

BIO162 2 CREDITS 3 PERIODS

### Microbiology Concepts for Allied Health

Types of microorganisms. Principles of growth and reproduction for specific types of microorganisms. Chain of disease transmission and defense mechanisms. Use of compound microscope. Safe handling and culturing of specific microbes. Methods of sterilization and use of disinfectants and chemotherapeutic agents. Prerequisites: None.

BIO181 4 CREDITS 6 PERIODS

### General Biology (Majors) I

Principles of structure and function of living things at molecular, cellular, and organismic levels of organization. Field trips may be required at students' expense. Prerequisites: None. One year of high school chemistry or one semester of college-level chemistry is strongly recommended.

BIO182 4 CREDITS 6 PERIODS

### General Biology (Majors) II

Additional principles of structure and function of living things at molecular, cellular, and organismic and higher levels of organization. Field trips may be required at students' expense. Prerequisites: BIO181 or permission of instructor.

BIO201 4 CREDITS 6 PERIODS

**Human Anatomy and Physiology I**

Study of structure and function of the human body. Topics include cells, tissues, integumentary system, skeletal system, muscular system, and nervous system. Prerequisites: BIO156, or BIO181, or equivalent, or permission of instructor.

BIO202 4 CREDITS 6 PERIODS

**Human Anatomy and Physiology II**

Continuation of structure and function of the human body. Topics include endocrine, circulatory, lymphatic, respiratory, digestive, urinary, and reproductive systems; and fluid and electrolyte balance. Prerequisites: BIO201 or permission of instructor.

BIO205 4 CREDITS 6 PERIODS

**Microbiology**

Study of microorganisms and their relationship to health, ecology, and related fields. Prerequisites: BIO156, or BIO181, or equivalent, or permission of instructor.

BIO211AA 1 CREDIT 1 PERIOD

**Biotechnology Seminar: Biomedical Applications**

Special topics in biotechnology with an emphasis on current issues not covered in other life science courses. Prerequisites: None.

BIO247 4 CREDITS 6 PERIODS

**Applied Biosciences: Biotechnology**

Applies concepts of molecular and cellular biology of bacteria, animals, and plants to real-world problems. Prerequisites: BIO181 or equivalent. One semester of college-level chemistry or equivalent recommended.

**Business-Personal Computers (BPC)**

BPC101AA 1 CREDIT 2 PERIODS

**Introduction to Microcomputers I: IBM**

Microcomputer software applications for the IBM personal computer, including electronic spreadsheet and word processing, keyboarding review, and a desktop environment. Prerequisites: None.

BPC101BA 1 CREDIT 1 PERIOD

**Introduction to Microcomputers II: IBM**

Microcomputer software applications for the IBM personal computer, including database management,

computer graphics, electronic spreadsheet, and word processing, and operating system commands. Prerequisites: BPC101AA.

BPC101CA 1 CREDIT 1 PERIOD

**Introduction to Microcomputers III: IBM**

Individualized advanced applications of software selected to solve specific problems on the IBM. Prerequisites: BPC101BA or permission of instructor.

BPC102AD .5 CREDIT .5 PERIOD

**Using Windows: Level I**

Basic commands and methods associated with the Windows operating systems. Prerequisites: None.

BPC102BD .5 CREDIT .5 PERIOD

**Using Windows: Level II**

Advanced commands and methods of the Windows operating system. Prerequisites: BPC102AD or permission of instructor.

BPC106AH .5 CREDIT .5 PERIOD

**MS Outlook: Level I**

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

BPC106BH .5 CREDIT .5 PERIOD

**Microsoft Outlook: Level II**

Microsoft Outlook features including sort, filter and group items; templates and forms; information sharing by public folders and Net Folders; share and fax contacts; and record activities in the Journal. Outlook environment customization also covered. Prerequisites: BPC106AH or permission of instructor.

BPC110 3 CREDITS 4 PERIODS

**Computer Usage and Applications**

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

BPC111AA 1 CREDIT 1.7 PERIODS

**Computer Keyboarding I**

Mastery of essential microcomputer keyboarding skills. Emphasis on touch typing of alphabetic and numeric keys and symbols. Prerequisites: None.

BPC111AB 1 CREDIT 1.7 PERIODS

**Computer Keyboarding II**

Further development of microcomputer keyboard speed and accuracy. Emphasis on touch typing with speed and accuracy development of numerals as related to preparation and handling of documents. Prerequisites: BPC/OAS111AA or permission of instructor.

BPC114AE 1 CREDIT 2 PERIODS

**Excel Level I**

Computer spreadsheet skills for solving business problems using Excel, including calculations, forecasting, and projections. Prerequisites: None.

BPC114BE 1 CREDIT 2 PERIODS

**Excel Level II**

Additional Excel spreadsheet techniques, including macro programming, database searching, extraction, and linking to obtain prescribed reports and graphs. Prerequisites: BPC/CIS114AE or permission of instructor.

BPC114CE 1 CREDIT 1 PERIOD

**Excel:Level III**

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

BPC114DE 3 CREDITS 5 PERIODS

**Excel Spreadsheet**

Computer spreadsheet skills for solving business problems using Excel, including calculations, forecasting, projections, macro programming, database searching, extraction, linking, statistics, and matrix manipulation. Production of graphs and reports. Project design using multiple, integrated spreadsheets. Prerequisites: None.

BPC115AA 1 CREDIT 2 PERIODS

**Personal Finance Software:Quicken - Level I**

Introduction to the basic features of Quicken, a computerized personal finances software program. Prerequisites: None.

BPC115BA 1 CREDIT 1 PERIOD

**Personal Finance Software:Quicken - Level II**

Advanced business applications using Quicken 99 Home & Business to automate a computerized accounting system for a small business. Prerequisites: BPC115AA.

BPC117AM 1 CREDIT 2 PERIODS

**Database Management: Microsoft Access - Level I**

Introduction to the basic elements of a current version of the Microsoft Access database management program, for casual and beginning users. Prerequisites: None.

BPC117BM 1 CREDIT 2 PERIODS

**Database Management: Microsoft Access - Level II**

Exploration of additional components of the Microsoft Access database management program. Prerequisites: BPC117AM or CIS117AM or permission of instructor.

BPC117CM 1 CREDIT 1 PERIOD

**Database Management: Microsoft Access - Level III**

Application of the features of the Microsoft Access program to some common database management problems. Prerequisites: BPC117BM or CIS117BM.

BPC118AB 1 CREDIT 2 PERIODS

**PowerPoint: Level I**

Use of PowerPoint software to produce professional-quality presentation visuals. Prerequisites: None.

BPC121AB 1 CREDIT 2 PERIODS

**MS-DOS Operating System**

Use of the MS-DOS operating system: basic concepts, internal and external commands, subdirectories, and editor. Prerequisites: None.

BPC121AE 1 CREDIT 2 PERIODS

**Windows Operating System: Level I**

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 1 CREDIT 2 PERIODS

**Introduction to Desktop Publishing**

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.

BPC128AF 1 CREDIT 2 PERIODS

**Introduction to Desktop Publishing: MS Publisher**

Presents basic concepts of commercially prepared software used to do desktop publishing. Incorporates a combination of narrative and pictorial/graphic creation and presentation, including set-up, text entry, graphic generation, text and graphic merging, and other computer-based functions. Prerequisites: None.

BPC130DK 1 CREDIT 2 PERIODS

**Beginning Word**

Using Word for Windows to create, edit, and print documents. Prerequisites: Ability to keyboard a minimum of 20 wpm or permission of instructor.

BPC135DK 2 CREDITS 2 PERIODS

**Word:Level I**

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.

BPC170 3 CREDITS 4 PERIODS

**Computer Maintenance I: A+ Prep**

Technical aspects of the microcomputer, including system setup (hardware and software) and basic troubleshooting. Emphasis on basic troubleshooting, use of tools, hardware components and hardware/software interfacing. Prerequisites: CIS105 and BPC121AB or permission of instructor.

BPC171 1 CREDIT 2 PERIODS

**Recycling Used Computer Technology**

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.

BPC235DK 2 CREDITS 2 PERIODS

**Word:Level II**

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

BPC270 3 CREDITS 4 PERIODS

**Microcomputer Maintenance II**

Advanced technical aspects of maintaining and servicing microcomputers. Emphasis placed on installation, periodic maintenance, diagnosis, and/or problem resolution of power system, motherboard,

memory, storage devices, and network interface cards. Extensive use of software diagnostic and utility tools. Prerequisites: BPC170 with grade of C or better, or permission of instructor.

BPC273 3 CREDITS 4 PERIODS

**Advanced Server Computer Maintenance: Server+ Prep**

Focuses on complex technical aspects of the micro-computer server, including hardware installation, configuration, and trouble-shooting. 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.

**Chemistry (CHM)**

CHM130 3 CREDITS 3 PERIODS

**Fundamental Chemistry**

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 1 CREDIT 3 PERIODS

**Fundamental Chemistry Laboratory**

Laboratory experience in support of CHM130. Prerequisites or Corequisites: CHM130.

CHM138 3 CREDITS 3 PERIODS

**Chemistry for Allied Health**

Elements of fundamental and organic chemistry. Includes the general chemical behavior of inorganic matter and the structure of organic and biochemical systems. Course designed for specific allied health programs at MCCD. May not be applicable to other allied health programs or transferable. Prerequisites: Grade of "C" or better in CHM090; or one year of high school chemistry with a grade of "C" or better; or MAT092 or MAT102 or satisfactory score on placement exam.

CHM138LL 1 CREDIT 3 PERIODS

**Chemistry for Allied Health Lab**

Laboratory experience in support of CHM138, Chemistry for Allied Health. Prerequisites: None. Corequisites: CHM138.

CHM151 3 CREDITS 3 PERIODS

**General Chemistry I**

A detailed study of the principles of chemistry. Designed for science majors and students in pre-professional curricula. Completion of CHM151LL required to meet the Natural Science requirement. Prerequisites: (CHM130 and CHM130LL) or one year high school chemistry with a grade of "C" or better, and completion of Intermediate Algebra or equivalent.

CHM151LL 1 CREDIT 3 PERIODS

**General Chemistry I Laboratory**

Laboratory experience in support of CHM151. Prerequisites: CHM130LL or equivalent. Prerequisites or Corequisites: CHM151.

CHM152 3 CREDITS 3 PERIODS

**General Chemistry II**

A study of the chemical properties of the major groups of elements, equilibrium theory, thermodynamics, electrochemistry, and other selected topics. Completion of CHM152LL required to meet the Natural Science requirement. Prerequisites: CHM151 and CHM151LL.

CHM152LL 1 CREDIT 3 PERIODS

**General Chemistry II Laboratory**

Laboratory experience in support of CHM152. Prerequisites: CHM151LL or equivalent. Prerequisites or Corequisites: CHM152.

CHM154 3 CREDITS 3 PERIODS

**General Chemistry II with Qual**

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: CHM151 and CHM151LL.

CHM154LL 2 CREDITS 6 PERIODS

**General Chemistry II with Qualitative Laboratory**

Laboratory experience in support of CHM154. Includes qualitative analysis. Prerequisites: CHM151LL or equivalent. Prerequisites or Corequisites: CHM154.

CHM230 3 CREDITS 3 PERIODS

**Fundamental Organic Chemistry**

Chemistry of representative groups of organic compounds, emphasizing biological applications. Prerequisites: (CHM130 and CHM130LL), or (CHM151 and CHM151LL). Course Note: Course content designed to meet the needs of students in agriculture home economics, nursing, pre-physician assistant, and physical education among others.

CHM230LL 1 CREDIT 3 PERIODS

**Fundamental Organic Chemistry Laboratory**

Laboratory experience in support of CHM230. Prerequisites: CHM130LL, or CHM151LL, or equivalent. Prerequisites or Corequisites: CHM230.

CHM235 3 CREDITS 3 PERIODS

**General Organic Chemistry I**

Rigorous introduction to chemistry of carbon-containing compounds. Reaction mechanisms and recent methods of synthesis emphasized. Prerequisites: CHM152 and CHM152LL, or CHM154 and CHM154LL.

CHM235LL 1 CREDIT 4 PERIODS

**General Organic Chemistry I Laboratory**

Laboratory experience in support of CHM235. Prerequisites: CHM152LL, or CHM154LL, or equivalent. Prerequisites or Corequisites: CHM235.

CHM236 3 CREDITS 3 PERIODS

**General Organic Chemistry IIA**

Study of chemistry of carbon-containing compounds continued. Structural determination and additional reaction mechanisms and modern methods of synthesis emphasized. Prerequisites: CHM235 and CHM235LL.

CHM236LL 1 CREDIT 4 PERIODS

**General Organic Chemistry IIA Laboratory**

Laboratory experience in support of CHM236. Prerequisites: CHM235LL or equivalent. Prerequisites or Corequisites: CHM236.

## Child/Family Studies (CFS)

CFS114 1 CREDIT 1 PERIOD

### Working with the Hyperactive Child

Causes of hyperactivity in children; focus on the family's role in identification, treatment and school/community support. Prerequisites: None.

CFS176 3 CREDITS 3 PERIODS

### Child Development

Study of human development from the prenatal stage through adolescence, with consideration of parent and adult roles in the life experience of the growing child. Independent observation of children and personal investigation into child-related issues in contemporary America included. Prerequisites: None.

CFS185 1 CREDIT 1 PERIOD

### Developing IEPs for Children with Disabilities

Designed for classroom teachers, special needs teachers, and parents who will be contributing their unique perspectives as members of a team in the writing of an Individualized Education Plan (IEP). Includes legal requirements; perspectives, expertise, and responsibilities of members of the team; and communication techniques to facilitate the process. Prerequisites: CFS/ECH176 and ECH279.

CFS257 3 CREDITS 3 PERIODS

### Working with Families with Diverse Needs

A collaborative approach to working with families with diverse needs. Examines the effect of specific challenges on the family system. Presents techniques for those working with families to facilitate stress management, conflict resolution, and utilization of community and personal resources to aid in the strengthening of the family unit. Prerequisites: None.

CFS280 3 CREDITS 3 PERIODS

### Children with Special Needs in Early Childhood Education

Strategies for working with young children who have handicaps and disabilities in the preschool setting. Types of disabilities, assessment techniques, programming skills and activity design, types of programs, and working with families. Prerequisites: CFS176.

CFS290AA 1 CREDIT 1 PERIOD

### Child Abuse: Identification and Reporting in Child Care Settings

Identification, recording, and reporting by child care providers of sexual abuse, physical abuse, or neglect of young children. Prerequisites: None.

## Cisco Network Technology (CNT)

CNT140 4 CREDITS 6 PERIODS

### Cisco Networking Basics

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.

CNT150 4 CREDITS 6 PERIODS

### Cisco Networking Router Technologies

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.

CNT160 3 CREDITS 4 PERIODS

### Cisco Switching Basics and Intermediate Routing

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.

CNT170 3 CREDITS 4 PERIODS

### Cisco Wide Area Networks (WAN) Technologies

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 4 CREDITS 6 PERIODS

### Cisco Secure PIX Firewall Configuration

Describe, configure, manage, and troubleshoot the Cisco PIX Firewall product family and the Cisco IOS Firewall feature set. Prepare the student to take the CSPFA exam, which is one in a series of four exams that lead to the Cisco Security Specialist Certification. Prerequisites: CCNA certification, or CNT170, or permission of instructor.

CNT185 4 CREDITS 5 PERIODS

### Cisco Network Security

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 4 CREDITS 5 PERIODS

### Fundamentals of Wireless LANs

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 3 CREDITS 4 PERIODS

### Cisco Network Design

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 4 CREDITS 6 PERIODS

### Cisco Networking Advanced Routing

Development of knowledge and skills needed to manage Internet Protocol (IP) traffic and access, design Wide Area Networks (WANs), understand scalable internetworks and Quality of Service (QoS), configure advanced routing protocols (Routing Internet Protocol version 2 [RIPv2], Border Gateway Protocol [BGP], Intermediate System to Intermediate System [IS-IS], Enhanced Interior Gateway Routing Protocol [EIGRP], Open Shortest Path First [OSPF]), and perform advanced IP addressing (Network Address Translation [NAT], Variable Length Subnet Masking [VLSM]). Preparation for Cisco Certified Network Professional (CCNP) exam. Prerequisites: CNT170 or CCNA industry certification, or permission of instructor. Corequisites: CNT210 and CNT220.

CNT210 4 CREDITS 6 PERIODS

### Cisco Networking Remote-Access Networks

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 4 CREDITS 6 PERIODS

**Cisco Networking Multi-Layer Switching**

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.

**Communication (COM)**

COM095 3 CREDITS 3 PERIODS

**Basic Oral Communication Skills**

Listening, speaking, and related academic performance skills, including note taking. Emphasis on activities designed to improve and synthesize these skills. Prerequisites: None.

COM100 3 CREDITS 3 PERIODS

**Introduction to Human Communication**

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

COM110 3 CREDITS 3 PERIODS

**Interpersonal Communication**

Theory and practice of communication skills which affect day-to-day interactions with other persons. Topics may include using verbal and nonverbal symbols, interactive listening, resolving interpersonal conflict, developing and maintaining personal and professional relationships. Prerequisites: None.

COM120 3 CREDITS 3 PERIODS

**Pronunciation of American Speech**

Analysis of American speech production problems due to accents produced by another language, correction of misarticulated American speech sounds, critical listening to sound production, understanding American English speech patterns, practicing American idioms and expressions, and preparing and delivering group and individual speech presentations. Prerequisites: None.

COM207 3 CREDITS 3 PERIODS

**Introduction to Communication Inquiry**

Overview of theory and methodological practice in communication with particular attention to scholarly writing skills. Emphasis on development of critical

thinking skills through active participation in the research process. Prerequisites: ENG101 or ENG107 or equivalent, and COM100 or equivalent, or permission of instructor. Course Note: Recommended for the communication major.

COM225 3 CREDITS 3 PERIODS

**Public Speaking**

Designed to improve one's self-confidence and self-concept through improving communication skills used in public speaking. To enhance each student's ability to present his/her ideas in an organized, time constrained format. To improve critical thinking skills and enhance student's ability to express himself or herself objectively, subjectively, and creatively. Prerequisites: ENG101, or ENG107, or equivalent.

COM230 3 CREDITS 3 PERIODS

**Small Group Communication**

Principles and processes of small groups and development of skills for participation and leadership in small group settings. Practice in problem solving, decision making, and information sharing. Prerequisites: ENG101, or ENG107, or equivalent.

COM241 3 CREDITS 3 PERIODS

**Performance of Literature**

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.

COM250 3 CREDITS 3 PERIODS

**Introduction to Organizational Communication**

Introduction to the study of communication in organizations including identification of variables, roles and patterns influencing communication in organizations. Prerequisites: None.

COM259 3 CREDITS 3 PERIODS

**Communication in Business and Professions**

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

COM263 3 CREDITS 3 PERIODS

**Elements of Intercultural Communication**

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



COM275 3 CREDITS 3 PERIODS

**Nonverbal Communication**

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

**Computer-Aided Drafting (CAD)**

CAD103AA 1 CREDIT 1 PERIOD

**Basic Print Reading for Manufacturing**

Basic print reading knowledge and skills necessary for workers in the manufacturing field. Visualization, interpretation and analysis of common manufacturing drawings, and other design documentation. Prerequisites: None.

**Computer Information Systems (CIS)**

CIS100 .5 CREDIT .5 PERIOD

**Internet: A Tool for Learning**

Use of the Internet to promote learning. Focus on Internet services and access. Information provided on browsing, Internet addresses, naming conventions, search concepts and techniques, using bookmarks and capturing information. Prerequisites: None.

CIS102 1 CREDIT 1 PERIOD

**Interpersonal and Customer Service Skills for IT Professionals**

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.

CIS105 3 CREDITS 4 PERIODS

**Survey of Computer Information Systems**

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

CIS114AE 1 CREDIT 2 PERIODS

**Excel:Level I**

Computer spreadsheet skills for solving business problems using Excel, including calculations, forecasting, and projections. Prerequisites: None.

CIS114DE 3 CREDITS 5 PERIODS

**Excel Spreadsheet**

Computer spreadsheet skills for solving business problems using Excel, including calculations, forecasting, projections, macro programming, database searching, extraction, linking, statistics, and matrix manipulation. Production of graphs and reports. Project design using multiple, integrated spreadsheets. Prerequisites: None.

CIS117AM 1 CREDIT 2 PERIODS

**Database Management: Microsoft Access - Level I**

Introduction to the basic elements of a current version of the Microsoft Access database management program, for casual and beginning users. Prerequisites: None.

CIS118AB 1 CREDIT 2 PERIODS

**Powerpoint:Level I**

Use of PowerPoint software to produce professional-quality presentation visuals. Prerequisites: None.

CIS118BB 1 CREDIT 2 PERIODS

**Powerpoint:Level II**

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

CIS118CB 1 CREDIT 1 PERIOD

**Powerpoint:Level III**

Use of PowerPoint software for advanced desktop presentation techniques, including advanced animation and sound sequences. Prerequisites: BPC/CIS118BB.

CIS119DO 3 CREDITS 4 PERIODS

**Introduction to Oracle: SQL**

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 3 CREDITS 4 PERIODS

**Oracle: Database Administration**

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.

CIS121AB 1 CREDIT 2 PERIODS

**MS-DOS Operating System**

Use of the MS-DOS operating system: basic concepts, internal and external commands, subdirectories, and editor. Prerequisites: None.

CIS121AE 1 CREDIT 2 PERIODS

**Windows Operating System: Level I**

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.

CIS126AA 1 CREDIT 2 PERIODS

**UNIX Operating System: Level I**

Use of the UNIX operating system: system components, built-in commands, files and directories, editors, and UNIX Shell and command lines. Prerequisites: None.

CIS126AL 1 CREDIT 2 PERIODS

**Linux Operating System I**

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 1 CREDIT 1 PERIOD

**UNIX Operating System: Level II**

Installation, configuration, and maintenance of the UNIX operating system Prerequisites: CIS126AA.

CIS126BL 1 CREDIT 1 PERIOD

**Linux Operating System II**

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 1 CREDIT 1 PERIOD

**UNIX Operating System: Level III**

Create login scripts and batch files, and maintain system communications. Prerequisites: CIS126BA.

CIS126CL 1 CREDIT 1 PERIOD

**Linux Operating System III**

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 3 CREDITS 4 PERIODS

**UNIX Operating System**

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 3 CREDITS 4 PERIODS

**Linux Operating System**

Introduction to the Linux Operating system. Develop knowledge and skills required to install, configure and troubleshoot a Linux-based workstation including basic network functions. Learn basic command line and Graphical User Interface (GUI) desktop environment utilities and applications. Fundamental abilities to achieve the entry-level industry certification covered. Prerequisites: None.

CIS131AA 1 CREDIT 1 PERIOD

**Doing Business on the Internet**

Overview of different ways businesses are taking advantage of and using the Internet. Includes how companies are selling items and services over the Internet; techniques used to expand customer contacts; marketing strategies; availability of government and financial information; future potential and disadvantages; using the Internet for customer service; establishing a World Wide Web site. Some previous computer experience preferred. Prerequisites: None.

CIS133AA 1 CREDIT 2 PERIODS

**The Internet/World Wide Web:Level I**

Overview of the Internet and its resources. Hands-on experience with various Internet communication tools. Prerequisites: None.

CIS133BA 1 CREDIT 1 PERIOD

**The Internet/World Wide Web:Level II**

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.

CIS133CA 1 CREDIT 1 PERIOD

**The Internet/World Wide Web:Level III**

Web site development using enhancement codes. Includes frames, style sheets and javascript as well as design principles and typography. Prerequisites: BPC/CIS133BA.

CIS150 3 CREDITS 4 PERIODS

**Programming Fundamentals**

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.

CIS159 3 CREDITS 4 PERIODS

**Visual Basic Programming I**

Use of the Visual Basic programming language to solve problems using suitable examples from business or other disciplines. Prerequisites: CIS105, or permission of instructor.

CIS162AB 3 CREDITS 4 PERIODS

**C++: Level I**

Introduction to C++ programming including general concepts, program design, development, data types, operators, expressions, flow control, functions, classes, input and output operations, debugging, structured programming, and object-oriented programming. Prerequisites: CIS105, or permission of instructor.

CIS162AD 3 CREDITS 4 PERIODS

**C#: Level I**

Introduction to C# programming including general concepts, program design, development, data types, operators, expressions, flow control, functions, classes, input and output operations, debugging, structured programming, and object-oriented programming. Prerequisites: CIS105, or permission of instructor.

CIS163AA 3 CREDITS 4 PERIODS

**Java Programming: Level I**

Introduction to Java programming. Includes features needed to construct Java Applets, Java Applications, control structures, methods, arrays, character and string manipulation, graphics, and object-oriented programming. Prerequisites: CIS105.

CIS164AB 3 CREDITS 4 PERIODS

**Oracle: PL/SQL Programming**

Writing PL/SQL procedures, functions, and packages. Creating and managing PL/SQL program units

and database triggers in Oracle development environment. Managing dependencies and manipulating large objects. Prerequisites: CIS119DO, or permission of the instructor.

CIS164AC 3 CREDITS 4 PERIODS

**Oracle:Developer Forms I**

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.

CIS164AG 2 CREDITS 3 PERIODS

**Oracle: Data Modeling and Relational Database Design**

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 3 CREDITS 4 PERIODS

**Web Scripting/Programming**

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.

CIS190 3 CREDITS 4 PERIODS

**Introduction to Local Area Networks**

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 3 CREDITS 4 PERIODS

**Novell NetWare System Administration**

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.

CIS225AB 3 CREDITS 3 PERIODS

**Object-Oriented Analysis and Design**

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.

CIS233AA 1 CREDIT 1 PERIOD

**Web Design and Publishing I**

Design and creation of pages on the Internet's 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 1 CREDIT 1 PERIOD

**Web Design and Publishing II**

Hands-on experience designing Web presentations using advanced markup languages, programming languages, scripts and multimedia. Prerequisites: CIS233AA or permission of instructor.

CIS233BB 1 CREDIT 2 PERIODS

**Internet Web Publishing: FrontPage Level II**

Advanced hypertext markup language (HTML) using FrontPage. Covers tables, forms, image maps, gateway scripts, and multimedia. Hands-on experience of designed advanced Web presentations. Prerequisites: CIS233AB or permission of instructor.

CIS233DA 3 CREDITS 4 PERIODS

**Web Design and Publishing**

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.

CIS235 3 CREDITS 4 PERIODS

**e-Commerce**

Introduction to Electronic Commerce on the Internet. Designing an electronic storefront including web page content and development, e-commerce site marketing, advertisement, legal and security con-

siderations, credit card and other debit transaction covered. Also includes current issues in e-commerce. Prerequisites: CIS133CA, or CIS133DA, or permission of instructor.

CIS238 3 CREDITS 4 PERIODS

**Advanced UNIX System Administration**

System administration tasks using one or more versions of UNIX. Topics include: installing the operation system, configuring peripherals, security, monitoring system performance, networking, and troubleshooting. Prerequisites: CIS126DA, or permission of instructor.

CIS238DL 3 CREDITS 4 PERIODS

**Linux System Administration**

Managing Linux Operating Systems including sophisticated manipulation of file structures, backup systems, printing processes, troubleshooting, user account management, hard disk maintenance and configuration, process monitoring and prioritizing, kernel customization, and system resource control. Preparation for industry certifications such as the SAIR/GNU LCP and LCA certificates, CompTIA's Linux+, RHCT, RHCE, and LPIC. Prerequisites: CIS126AL, CIS126BL and CIS126CL; or CIS126DL or Permission of Instructor.

CIS239DL 3 CREDITS 4 PERIODS

**Linux Shell Scripting**

Linux Shell Scripting syntax and methods including the automation of system tasks as well as interpreted user-level programming. Course includes the Linux Borne Again Shell (BASH) as well as a variety of industry competitors. Prerequisites: CIS238DL or permission of instructor.

CIS240DL 3 CREDITS 4 PERIODS

**Linux Network Administration**

In depth networking based on Linux servers and the Transmission Control Protocol/Internet Protocol (TCP/IP) protocol suite. Integrating Linux servers and workstations into a network environment with multi-platform network operating systems including a variety of open-standard and proprietary protocols. Preparation for industry certifications such as the SAIR/GNU LCP and LCA certificates, CompTIA's Linux+, RHCT, RHCE, and LPIC. Prerequisites: CIS126AL, CIS126BL and CIS126CL; or CIS126DL or instructor approval.

CIS259 3 CREDITS 4 PERIODS

**Visual Basic Programming II**

Use of the Visual Basic programming language to identify and solve advanced problems using suitable

examples from business or other disciplines.

Prerequisites: CIS159 or permission of instructor.

CIS263AA 3 CREDITS 4 PERIODS

### Java Programming: Level II

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 3 CREDITS 4 PERIODS

### Essentials of Network and Information Security

Threats to security of information systems; responsibilities and basic tools for information security, including communication security, infrastructure security, organizational security and basic cryptography. Introduction to the language of network security and hardware, software and firmware components of an information security system for local, metropolitan, enterprise, and wide area networks. Helps prepare participants for the Comptia Security+ exam and the GIAC Security Essentials Certificate (GSEC). Prerequisites: CNT150, or (MST150 or MST150 any module), or permission of instructor.

CIS271DA 3 CREDITS 4 PERIODS

### Security Certified Professional (SCP)-Hardening the Infrastructure

Network security-related fundamentals, issues, and skills for systems administrators to implement network security. Includes network security basics, advanced Transmission Control Protocol/Internet Protocol (TCP/IP), IP packet structure and analysis, routing and access control lists, securing Windows computers, securing Linux computers, Internet security, and hacker attack techniques. Prerequisites: (CNT150 and MST 150) or permission of instructor. Course Note: Together with CIS272DA prepares students for the Security Certified Network Professional Level I exam.

CIS271DL 3 CREDITS 4 PERIODS

### Linux Security

Implementing in-depth security methods and techniques in a Linux-based network environment. Utilize programs, utilities and configuration techniques to provide user-level, file system, and network security. Gain knowledge in a variety of security cracking techniques and how to guard against them. In all aspects of security, the standard of practicing professional ethics seriously emphasized. Preparation for industry certifications such as the SAIR/GNU

LCP and LCA certificates, CompTIA's Linux+, RHCT, RHCE, and LPIC. Prerequisites: CIS240DL or Permission of Instructor.

CIS272DA 3 CREDITS 4 PERIODS

### Security Certified Professional (SCP)-Network Defense and Countermeasures

Architecture of network defense and skills for system administrators to implement network defense. Includes network defense fundamentals, designing and configuring firewalls, configuring Virtual Private Networks (VPNs), designing and configuring an Intrusion Detection System (IDS), analyzing intrusion signatures, performing risk analysis, and creating a security policy. Prerequisites: CIS271DA or permission of instructor. Course Note: Together with CIS271DA prepares students for the Security Certified Network Professional Level I exam.

CIS280 3 CREDITS 4 PERIODS

### Current Topics in Computing

Critical inquiry of current topics in computing. Application of industry trends to solve problems and/or investigate issues. Prerequisites: None.

CIS290AA 1 CREDIT 6 PERIODS

CIS290AB 2 CREDITS 12 PERIODS

CIS290AC 3 CREDITS 18 PERIODS

### Computer Information Systems Internship

Work experience in business or industry. Prerequisites: Permission of instructor.

## Computer Science (CSC)

CSC100 3 CREDITS 3 PERIODS

### Introduction to Computer Science for Non-Computer Majors

Concepts of problem solving, structured programming in C++, fundamental algorithms and techniques, and computer system concepts. Social and ethical responsibilities. Intended for majors other than Computer Science. Prerequisites: MAT120, or MAT121, or MAT122.

CSC110AA 3 CREDITS 4 PERIODS

### Introduction to Computer Science for Majors

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

CSC120 4 CREDITS 6 PERIODS

**Digital Design Fundamentals**

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

CSC181 3 CREDITS 3 PERIODS

**Applied Problem Solving with Visual BASIC**

Introduction to systematic definition of problems, solution formulation, and testing. Visual BASIC programming language applied to problems in mathematics, science, and business. Prerequisites: None.

CSC181AA 3 CREDITS 4 PERIODS

**Applied Problem Solving with Visual BASIC**

Introduction to systematic definition of problems, solution formulation, and testing. Visual BASIC programming language applied to problems in mathematics, science, and business. Prerequisites: None.

CSC200AA 3 CREDITS 4 PERIODS

**Principles of Computer Science (Java)**

Introduction to computer science. Issues and concepts throughout the field, including software development, data organization, machine architecture, algorithmic machines, and ethics in computing. Programming in Java. Prerequisites: CSC110 or (CSC100 or equivalent) and permission of instructor.

CSC225 4 CREDITS 5 PERIODS

**Assembly Language Programming on Motorola Microprocessors**

Assembly language programming including input/output programming and exception/interrupt handling. Register-level computer organization, I/O interfaces, assemblers, and linkers. Macintosh-based assignments. Prerequisites: [(CSC100 or CSC110 or CSC200) and CSC/EEE120] or permission of instructor.

**Counseling and Personal Development (CPD)**

CPD102AB 2 CREDITS 2 PERIODS

**Career Exploration**

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

CPD102AF 2 CREDITS 2 PERIODS

**Human Sexuality**

Enables students to view their own sexuality as a normal aspect of personal development. Examination of masculine and feminine differences and/or conflicts in social roles, emotions, and physical development. Prerequisites: None.

CPD102AH 2 CREDITS 2 PERIODS

**Stress Management**

Reviews the sources of stress, the physiological effects and the psychological impact of stress on the individual. Provides strategies to reduce stress. Prerequisites: None.

CPD103BA 2 CREDITS 2 PERIODS

**Women in Transition**

Designed to assist and support women who are experiencing life transitions. Emphasis on assessing self-potential, increasing self-confidence, managing life change, and exploring education/career/life options in terms of the realities of roles for women today. Prerequisites: None.

CPD103BH 2 CREDITS 2 PERIODS

**Male-Female Communication**

Designed to provide students with a better understanding of male-female characteristics and how that along with a renewed emphasis on basic communication skills will improve communication between the sexes. Prerequisites: None.

CPD104 3 CREDITS 3 PERIODS

**Career and Personal Development**

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 3 CREDITS 3 PERIODS

**Strategies for College Success**

Focus on increasing student success through college orientation and personal growth, study skills development, and educational and career planning. Prerequisites: None.

CPD150AA 1 CREDIT 1 PERIOD

**College Orientation & Personal Growth**

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.

CPD150AB 1 CREDIT 1 PERIOD

**Study Skills Development**

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.

CPD150AC 1 CREDIT 1 PERIOD

**Educational and Career Planning**

Emphasis on increasing student success through educational and career planning. Prerequisites: None.

CPD160 3 CREDITS 3 PERIODS

**Introduction to Multiculturalism**

Examination of the multiple cultures and subcultures within the contemporary United States. Personal exploration of awareness and appreciation of multiculturalism. Activities for experiencing diverse cultural perspectives. Skills for recognizing, analyzing, and mediating cultural and psychological factors impacting conflict and accord between diverse cultures. Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. Prerequisites: None.

**Crime and Intelligence Analysis (CIA)**

Course Notes for all Crime and Intelligence Analysis courses: For students to receive Az POST (Arizona Peace Officer Standards and Training) continuing education credits upon completion of this course, the student must be a sworn law enforcement officer, and the course must be taught by an Az POST General Instructor or specialized civilian instructor who has completed the Az POST General Instructor training.

CIA210 2 CREDITS 2 PERIODS

**Introduction to Crime and Intelligence Analysis I**

Basic crime analysis and intelligence analysis methodologies and functions in the law enforcement environment. Intelligence analysis includes types of intelligence, the intelligence process, intelligence cycle, and analytical charting. Crime analysis includes types of crime analysis, administration of crime analysis, data collection and data integrity, research methodology, statistics, spatial analysis, and tactical analysis. Information presentations and employment overview. Prerequisites: None.

CIA220 3 CREDITS 3 PERIODS

**Link Analysis, Visual Investigative Analysis (VIA), and Time Event Charting (TEC)**

Use of link analysis, visual investigative analysis (VIA), and time event charting (TEC) as analytical tools in a criminal justice environment. Includes analysis techniques, chart development, and an overview of commonly used software applications. Prerequisites: CIA210 or permission of instructor.

CIA230 3 CREDITS 3 PERIODS

**Telephone Toll and Flow Analysis**

Use of telephone toll analysis and flow charting as analytical tools in a criminal justice environment. Includes analysis techniques, chart development, and an overview of commonly used software applications. Prerequisites: CIA220 or permission of instructor.

CIA240 3 CREDITS 3 PERIODS

**Crime Analysis**

Basics of crime analysis and skills needed to predict future crime occurrences and create crime bulletins by using information to analyze crimes and crime trends. Includes crime analysis types and how they are used in the criminal justice environment, the crime analysis process, crime mapping, and computer software applications used in crime analysis. Prerequisites: Demonstrate sufficient knowledge and skills by passing the basic Microsoft Word word processing and basic Microsoft Excel spreadsheets sections within the Crime and Intelligence Analysis Course Prerequisite Assessment test, or permission of instructor.

CIA250 3 CREDITS 3 PERIODS

**Statistics for Crime Analysis**

Introduction to the use of statistics in crime analysis. Includes an overview of inferential and descriptive statistics, computing the types of statistics that are most frequently utilized in crime analysis, and using software tools to conduct statistical analysis. Prerequisites: Demonstrate sufficient knowledge and skills by passing the basic Microsoft Word word processing and basic Microsoft Excel spreadsheets sections within the Crime and Intelligence Analysis Course Prerequisite Assessment test, or permission of instructor.

CIA260 2 CREDITS 3.6 PERIODS

**Analysis Using Geographic Information Systems (GIS)**

Using Geographic Information Systems (GIS) ArcView software in the performance of intelligence analysis and the three phases of crime analysis: administrative, strategic, and tactical. Various types of maps, hot spot identification, crime patterns, crime reports, and spatial analysis are introduced. Extensions and other tools to support the three phases of crime analysis implementation. Prerequisites: Demonstrate sufficient knowledge and skills by passing the basic Microsoft Word word processing and basic Microsoft Excel spreadsheets sections within the Crime and Intelligence Analysis Course Prerequisite Assessment test, or permission of instructor. CIA250 suggested but not required.

**Critical Reading (CRE)**

CRE101 3 CREDITS 3 PERIODS

**Critical and Evaluative Reading I**

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.)

Also see Reading Education (RDG).

**Dance (DAN)**

DAN115 1 CREDIT 3 PERIODS

**Contemporary Dance Trends**

Theory and practice of current social dance trends. Development of movement quality and performance skills. Prerequisites: None. Course Note: May be repeated for a total of two (2) credits.

DAN131 1 CREDIT 3 PERIODS

**Ballet I**

Introduction to the theory and practice of ballet at the beginning level. Development of movement quality and performance skills. Prerequisites: None.

DAN132 1 CREDIT 3 PERIODS

**Modern Dance I**

Introduction to the theory and practice of modern dance at the beginning level. Development of movement quality and performance skills. Prerequisites: None.

DAN133 1 CREDIT 3 PERIODS

**Modern Jazz Dance I**

Introduction to the theory and practice of modern jazz dance at the beginning level. Development of movement quality and performance skills. Prerequisites: None.

DAN134 1 CREDIT 3 PERIODS

**Ballet II**

Theory and practice of ballet at the advanced beginning level. Development of movement quality and performance skills. Prerequisites: DAN131 or permission of instructor.



DAN135                    1 CREDIT            3 PERIODS

**Modern Dance II**

Theory and practice of modern dance at the advanced beginning level. Development of movement quality and performance skills. Prerequisites: DAN132 or permission of instructor.

DAN136                    1 CREDIT            3 PERIODS

**Modern Jazz Dance II**

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.

DAN138                    1 CREDIT            1 PERIOD

**Dance Seminar I**

Scientific and critical evaluation of work done in level I dance technique allowing the student to engage in in-depth discussion of the theory and practice of dance. Prerequisites: None. Corequisites: DAN131 or DAN132 or DAN133.

DAN139                    1 CREDIT            1 PERIOD

**Dance Seminar II**

Scientific and critical evaluation of work done in level II dance technique allowing the student to engage in in-depth discussion of the theory and practice of dance. Prerequisites: None. Corequisites: DAN134, or DAN135, or DAN136.

DAN140                    1 CREDIT            3 PERIODS

**Tap Dance I**

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

DAN141                    1 CREDIT            3 PERIODS

**Dance Workshop**

An intensive experience in the process of choreography, performance, and production elements. May be repeated for a total of two (2) semester credit hours. Prerequisites: None.

DAN150                    1 CREDIT            3 PERIODS

**Dance Performance I**

An introduction to the process and practice of dance performance. May be repeated for a total of two (2) semester credit hours. Prerequisites: None.

DAN164                    1 CREDIT            3 PERIODS

**Improvisation**

An introduction to and an exploration of basic improvisational dance skills. Prerequisites: None.

DAN210                    3 CREDITS            3 PERIODS

**Dance Production I**

Introduction to the elements of light, sound, and scenery as they relate to the art of dance. Prerequisites: None.

DAN211                    3 CREDITS            3 PERIODS

**Dance Production II**

Introduction to the theory and practice of makeup and costuming as they relate to dance. Prerequisites: None.

DAN221                    2 CREDITS            3 PERIODS

**Rhythmic Theory for Dance I**

Exploration of the ways in which music, time, pitch, and energy work with the art of dance. Emphasis on reading and writing music notation and performing movement that correlates to the notation and vice versa. Prerequisites: None.

DAN222                    2 CREDITS            3 PERIODS

**Rhythmic Theory for Dance II**

Study at the intermediate level of the ways in which music, time, pitch, and energy work with the art of dance with an emphasis on small group movement projects and their relationship to musical time and structure. Prerequisites: DAN221 or permission of instructor.

DAN231                    1 CREDIT            3 PERIODS

**Ballet III**

Theory and practice of ballet at the beginning intermediate level. Development of movement quality and performance skills. Prerequisites: DAN134 or permission of instructor.

DAN232                    1 CREDIT            3 PERIODS

**Modern Dance III**

Theory and practice of modern dance at the beginning intermediate level. Development of movement quality and performance skills. Prerequisites: DAN135 or permission of instructor.

DAN233 1 CREDIT 3 PERIODS

**Modern Jazz Dance III**

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.

DAN234 1 CREDIT 3 PERIODS

**Ballet IV**

Theory and practice of ballet at the intermediate level. Development of movement quality and performance skills. Prerequisites: DAN231 or permission of instructor.

DAN235 1 CREDIT 3 PERIODS

**Modern Dance IV**

Theory and practice of modern dance at the intermediate level. Development of movement quality and performance skills. Prerequisites: DAN232 or permission of instructor.

DAN236 1 CREDIT 3 PERIODS

**Modern Jazz Dance IV**

Theory and practice of modern jazz dance at the intermediate level. Development of movement quality and performance skills. Prerequisites: DAN233 or permission of instructor.

DAN238 1 CREDIT 1 PERIOD

**Dance Seminar III**

Scientific and critical evaluation of work done in level III dance technique allowing the student to engage in in-depth discussion of the theory and practice of dance. Prerequisites: None. Corequisites: DAN231, or DAN232, or DAN233.

DAN239 1 CREDIT 1 PERIOD

**Dance Seminar IV**

Scientific and critical evaluation of work done in level IV dance technique allowing the student to engage in in-depth discussion of the theory and practice of dance. Prerequisites: None. Corequisites: DAN234, or DAN235, or DAN236.

DAN264 3 CREDITS 3 PERIODS

**Choreography I**

Study of basic dance choreography to include construction of a phrase, structure and form in a composition, and the basic elements of time, space and energy. Prerequisites: None.

DAN265 3 CREDITS 3 PERIODS

**Choreography II**

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

DAN267 3 CREDITS 3 PERIODS

**Dance for Children**

Theory and practice of teaching creative, folk, square and other dance forms for children. Includes field experience. Prerequisites: None.

DAN280 2 CREDITS 6 PERIODS

**Dance Practicum**

A culmination of coursework for the dance major requiring completion of an extended choreographic work from conception to performance. Also requires a final evaluative paper on the successes and challenges encountered throughout the project. Prerequisites: DAH100, DAH190, DAN150, DAN210, DAN211, DAN222, DAN231, DAN232, DAN233, DAN238, DAN265, and ENG101, or permission of instructor. Corequisites: DAN234, or DAN235, or DAN236, or permission of instructor.

**Dance Humanities (DAH)**

DAH100 3 CREDITS 3 PERIODS

**Introduction to Dance**

Overview of the field of dance focusing on origins, historical development, and cultural characteristics of the various styles of dance. Prerequisites: None.

DAH190 1 CREDIT 1 PERIOD

**Discovering Dance Careers**

An overview of the professional opportunities available in dance and dance related fields. Prerequisites: None.

DAH201 3 CREDITS 3 PERIODS

**World Dance Perspectives**

Exploration, analysis, synthesis, and evaluation of the role of dance in various cultures around the world. Prerequisites: ENG101, or ENG107, or equivalent. DAH100 strongly suggested but not required.

## Economics (ECN)

ECN111 3 CREDITS 3 PERIODS

### Macroeconomic Principles

A descriptive analysis of the structure and functioning of the American economy. Emphasis on basic economic institutions and factors that determine national income and employment levels.

Consideration given to the macroeconomic topics of national income, unemployment, inflation and monetary and fiscal policies. Prerequisites: None.

ECN112 3 CREDITS 3 PERIODS

### Microeconomic Principles

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

ECN212 3 CREDITS 3 PERIODS

### The World Economy

An analysis of the economic interdependence among nations, with emphasis on international trade and finance. Consideration given to the role and function of the multinational enterprise. Prerequisites: ECN112 or permission of instructor.

## Education (EDU)

EDU160 3 CREDITS 3 PERIODS

### Introduction to Developmental Disabilities

Basic overview of causation, prevention and habilitation of developmentally disabled individuals. Historical development and influences affecting remediation and treatment of developmentally delayed or disabled individuals. Prerequisites: None.

EDU161 3 CREDITS 3 PERIODS

### Family Centered Services

Specific techniques and strategies available to families that enhance interactions with a special needs child. An overview of dynamics of family-child and parent-child relations. Legislation affecting children with special needs. Prerequisites: None.

EDU205 3 CREDITS 3 PERIODS

### Self-Assessment for Teaching

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.

EDU221 3 CREDITS 3 PERIODS

### Introduction to Education

Overview of education and educational institutions in our society, including current issues, responsibilities, and qualifications of educators. Opportunity for students to assess their interest in this area.

Prerequisites: None. Course Note: Requires minimum of 30 hours of field experience in elementary or secondary classroom environment.

EDU222 3 CREDITS 3 PERIODS

### Introduction to the Exceptional Learner

Overview of the exceptional learner, one who differs from the average or normal, with emphasis on factors relating to current practices, identification, characteristics, and educational adaptations. Issues related to mildly disabled, severely disabled, emotionally and behaviorally disordered, mentally retarded, and gifted students. Prerequisites: None. Course Note: May include approved school-based practicum.

EDU230 3 CREDITS 3 PERIODS

### Cultural Diversity in Education

Examination of the relationship of cultural values to the formation of the child's self-concept and learning styles. Examination of the role of prejudice, stereotyping and cultural incompatibilities in education. Emphasis on preparing future teachers to offer an equal educational opportunity to children of all cultural groups. Prerequisites: None.

EDU236 3 CREDITS 3 PERIODS

### Introduction to Relationships in a Classroom Setting

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. Course Note: Requires a 20-hour field experience in a K-12 classroom.

EDU250 3 CREDITS 3 PERIODS

**Overview of the Community Colleges**

The history, functions, organization and current issues in the community/junior college with emphasis on the Arizona community colleges. Prerequisites: None.

EDU291 3 CREDITS 3 PERIODS

**Children's Literature**

Review of folk and modern literature from a variety of world cultures, including application of literary criteria to folk and modern literature for children. Prerequisites: None.

**Electric Utility Technology (EUT)**

EUT110 2 CREDITS 2 PERIODS

**Line Work I**

Overview of line work industry including its history, technological developments and current practices. Examines industry equipment and tools. Focuses on safety practices and procedures used in utility line work industry. Prerequisites: None. Corequisites: EUT112 and EUT115.

EUT112 4 CREDITS 4 PERIODS

**Basic Electricity: AC and DC**

Reviews the basic principles of Alternating Current (AC) and Direct Current (DC) electricity. Examines the structure and function of AC and DC circuits including series, parallel and series-parallel circuits. Includes an overview of electric systems and their applications in the utility industry. Prerequisites: None. Corequisites: EUT110 and EUT115.

EUT115 6 CREDITS 18 PERIODS

**Field Training I**

Practice in the basics of climbing and working on utility poles. Focuses on apparatus and equipment, using ropes and rigging equipment, installations of single and double cross arms, pole framing and setting, use of hand line and building single-phase lines. Prerequisites: None. Corequisites: EUT110, EUT112.

EUT210 2 CREDITS 2 PERIODS

**Line Work II**

Overview of line work industry including its history, technological developments and current practices. Examines industry equipment and tools. Focuses on hot sticking, tag out and lock out procedures with emphasis on industry safety practices and procedures. Prerequisites: EUT110.

EUT211 4 CREDITS 4 PERIODS

**Electrical Apparatus**

Overview of transformers and how they operate. Reviews single and three-phase theory. Focuses on construction and hook-up of single-phase, three-phase, open Y and Delta transformer connections. Presents an overview of surge arresters, including applications and installation. Prerequisites: EUT110, EUT112 and EUT115. Corequisites: EUT215.

EUT215 6 CREDITS 18 PERIODS

**Field Training II**

Practice in the installation of electrical lines including transformers, reclosers, and service loops. Teaches rubber gloving, hot sticking techniques, and trenching of underground lines. Practice in the safe set-up and operation of equipment used in the line industry with a focus on the development of entry-level skills as drivers and operators. Includes procedures and practice in pole-top and bucket-truck rescues. Prerequisites: EUT110, EUT112, and EUT115. Corequisites: EUT211.

**Electrical Engineering (EEE)**

EEE120 4 CREDITS 6 PERIODS

**Digital Design Fundamentals**

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

EEE225 4 CREDITS 5 PERIODS

**Assembly Language Programming on Motorola Microprocessors**

Assembly language programming including input/output programming and exception/interrupt handling. Register-level computer organization, I/O interfaces, assemblers, and linkers. Macintosh-based assignments. Prerequisites: (CSC100 or CSC110 or CSC200) and CSC/EEE120, or permission of instructor.

## Electronic (ELE)

ELE113 4 CREDITS 6 PERIODS

### DC Circuit Analysis

Direct current (DC) electric circuits. Ohm's law, Kirchoff's laws, series, parallel and series-parallel circuits, network theorems, fundamentals of inductance and capacitance, and the transient behavior of circuits containing resistance and capacitance or resistance and inductance. Prerequisites: None.

Corequisites: ELE105, or MAT122, or equivalent.

ELE114 4 CREDITS 6 PERIODS

### AC Circuit Analysis

Alternating Current (AC) circuits containing resistance and reactance. Detailed coverage of AC circuit parameters, including theorems, impedance matching, and resonance. Prerequisites: ELE113.

## Electronics Technology (ELT)

ELT100 3 CREDITS 3 PERIODS

### Survey of Electronics

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.

## Engineering Science (ECE)

ECE102AA 2 CREDITS 4 PERIODS

### Engineering Analysis Tools and Techniques

Learning culture of engineering, engineering use of computer tools, and computer modeling as applied to engineering analysis and design. Prerequisites: Two years of high school algebra or MAT122 or departmental approval. Corequisites: MAT151 or MAT182 or MAT187.

ECE103AB 2 CREDITS 4 PERIODS

### Engineering Problem Solving and Design

Fundamentals of the design process: engineering modeling, communication and problem-solving skills in a team environment. Emphasis on process-based improvements to the design process. Introduction to engineering as a profession.

Prerequisites: ECE102 and (high school physics or PHY111).

ECE201 4 CREDITS 6 PERIODS

### Electrical Network I

Introduction to electrical networks. Component models, transient and steady state analysis.

Prerequisites: ECE103. Prerequisites or Corequisites: MAT262, and (PHY115 and PHY116) or (PHY121 and PHY131).

ECE211 3 CREDITS 5 PERIODS

### Engineering Mechanics-Statics

Mathematical treatment of the basic physical principles of statics. Methods of vector algebra and vector calculus. Prerequisites: ECE103, (MAT230 or MAT231), and (PHY115 or PHY121). Corequisites: MAT241.

ECE212 3 CREDITS 5 PERIODS

### Engineering Mechanics-Dynamics

Kinematics and kinetics of particles, translating and rotating coordinate systems, rigid body kinematics, dynamics of systems of particles and rigid bodies, and energy and momentum principles. Prerequisites: ECE211 and MAT241.

## English (ENG)

ENG061 3 CREDITS 3 PERIODS

### Basic Writing Skills

Emphasis on basic writing skills, including grammar and mechanics necessary to write clear and correct sentences in paragraphs. Prerequisites: Appropriate English placement test score, or ENG056 with a grade of "C" or better, or permission of department/division chair.

ENG071 3 CREDITS 3 PERIODS

### Fundamentals of Writing

Emphasis on the fundamentals of sentence, paragraph, and multi-paragraph structure. Prerequisites: Appropriate English placement test score, or ENG056 with a grade of "C" or better, or ENG061 with a grade of "C" or better, or permission of department/division chair.

ENG101 3 CREDITS 3 PERIODS

### First-Year Composition

Standard English writing skills. Emphasis on expository composition. Prerequisites: Appropriate English placement test score or (a grade of "C" or better in ENG071).

ENG102 3 CREDITS 3 PERIODS

**First-Year Composition**

Continued development of standard English writing skills. Introduction to research, note taking, organization, and documentation in the preparation and writing of a research paper. Prerequisites: ENG101 with a grade of "C" or better.

ENG107 3 CREDITS 3 PERIODS

**First-Year Composition for ESL**

Equivalent of ENG101 for students of English as a Second Language (ESL). Standard American English writing skills and emphasis on expository composition. Prerequisites: Appropriate ASSET/COMPASS placement test score, or a grade of "C" or better in ENG071 or ESL077. Course Note: Taking ESL040 and ESL042 may build skills tested by the ASSET/COMPASS placement.

ENG108 3 CREDITS 3 PERIODS

**First-Year Composition for ESL**

Equivalent of ENG102 for students of English as a Second Language (ESL). Continued development of standard English writing skills. Introduction to research, note taking, organization and documentation in the preparation and writing of a research paper. Not open to students who have completed ENG101. Prerequisites: Grade of "C", or better, in ENG107.

ENG111 3 CREDITS 3 PERIODS

**Technical Writing**

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.

ENG210 3 CREDITS 3 PERIODS

**Creative Writing**

Skills and techniques used in the production of marketable materials for contemporary publications that buy prose fiction, poetry, and expository articles. May be repeated for a total of six (6) credit hours with departmental approval. Prerequisites: ENG102 with a grade of "C", or better, or permission of department.

ENG216 3 CREDITS 3 PERIODS

**Persuasive Writing on Public Issues**

Advanced course in techniques of analyzing and writing persuasive arguments addressing topics of current public interest. Papers research based. Prerequisites: ENG102.

ENG217 3 CREDITS 3 PERIODS

**Personal and Exploratory Writing**

Using writing to explore one's self and the world one lives in; emphasis on expository writing as a means of learning. Prerequisites: ENG101 and ENG102.

**English as a Second Language (ESL)**

ESL001 6 CREDITS 6 PERIODS

**Basic English as a Second Language I**

Listening, speaking, reading, and writing in English at a basic level. Focus on survival skills related to life in the United States. Introduction to elementary grammatical patterns. Prerequisites: None.

ESL001 6 CRÉDITOS 6 PERÍODOS

**Inglés Como Segundo Idioma I**

Énfasis en conversación, pronunciación, vocabulario, y gramática básica. Énfasis en las habilidades de supervivencia en los Estados Unidos. Calificación estándar disponible de acuerdo a los procedimientos descritos en el catálogo. Este curso puede ser repetido por un total correspondiente a 12 créditos.

ESL010 3 CREDITS 3 PERIODS

**English as a Second Language I: Grammar**

First level of English as a Second Language (ESL). Emphasis on basic conversational skills, pronunciation, vocabulary building and grammar. Some reading and sentence level writing. Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. May be repeated for a maximum of six (6) credits. Prerequisites: Appropriate ESL placement test score.

ESL010 3 CRÉDITOS 3 PERÍODOS

**Inglés Como Segundo Idioma I: Gramática Nivel 1**

Corresponde al primer nivel de inglés como segundo idioma con énfasis en las habilidades básicas de pronunciación, enriquecimiento del vocabulario y construcción gramática. Incluye cierto nivel de lectura y escritura de oraciones. Calificación estándar disponible de acuerdo a los procedimientos descritos

en el catálogo. Este curso puede repetirse por un máximo de 6 créditos. Requisitos previos: un examen de inglés.

ESL011 3 CREDITS 3 PERIODS

### English as a Second Language I: Listening and Speaking

Emphasis on listening and speaking skills involving survival skills. Asking and answering questions related to work, shopping, and personal safety. May be repeated for a maximum of six (6) credits.

Prerequisites: Appropriate ESL placement test score or ESL002.

ESL011 3 CRÉDITOS 3 PERÍODOS

### Inglés Como Segundo Idioma I: Escuchar y Conversar

Este curso hace énfasis en las habilidades para escuchar y conversar en inglés incluyendo temas de la vida cotidiana, tales como preguntando y contestando preguntas relacionadas con el trabajo, cómo ir a compras y seguridad personal. Calificación estándar disponible de acuerdo a los procedimientos descritos en el catálogo. El curso puede ser repetido por un máximo de seis créditos. Requisitos previos: un examen de inglés o ESL002.

ESL020 3 CREDITS 3 PERIODS

### English as a Second Language II: Grammar

Second level of English as a Second Language (ESL). Continued emphasis on conversational skills, pronunciation, vocabulary building and grammar with some reading and sentence level writing. Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. May be repeated for a maximum of six (6) credits.

Prerequisites: Appropriate ESL placement test score, or a grade of "P" or "C" or better in ESL010, or (ESL010AA, ESL010AB, and ESL010AC).

ESL020 3 CRÉDITOS 3 PERÍODOS

### Inglés Como Segundo Idioma II: Gramática Nivel 2

En este segundo nivel de inglés como segundo idioma, se continua con el énfasis en el desarrollo de las habilidades conversacionales, de pronunciación, vocabulario y gramática, involucrando algún nivel de lectura y escritura de oraciones. Calificación estándar de acuerdo a los procedimientos descritos en el catálogo. Este curso puede ser repetido por un máximo de 6 créditos. Requisitos previos: un examen de inglés o un grado de "P," "C," o mas elevado en ESL010, o (ESL010AA, AB, AC).

ESL021 3 CREDITS 3 PERIODS

### English as a Second Language II - Listening and Speaking

Emphasis on listening and speaking skills involving social exchange. Asking and answering questions, using tag questions. Practice with question and answer patterns. Polite questions and responses. May be repeated for a maximum of six (6) credits.

Prerequisites: Appropriate ESL placement test score or ESL010 or ESL011 or ESL012 or RDG010.

ESL021 3 CRÉDITOS 3 PERÍODOS

### Inglés Como Segundo Idioma II - Escuchando y Conversando Nivel 2

Se realiza énfasis en el desarrollo de las habilidades de comprensión y conversación en las relaciones sociales (de comunidad). Puede ser repetido por un máximo de 6 créditos. Calificación estándar de acuerdo a los procedimientos descritos en el catálogo. Requisitos previos: un examen de inglés o un grado de "P," "C," o mas elevado en ESL010, ESL011, ESL012, o RDG010.

ESL030 3 CREDITS 3 PERIODS

### English as a Second Language III: Grammar

Third-level of English as a Second Language (ESL). Emphasis on sentence structure and paragraph building. Extensive grammar study and writing practice. Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. May be repeated for a maximum of six (6) credits.

Prerequisites: Appropriate ESL placement test score, or a grade of "P" or "C" or better in ESL020, or (ESL020AA, ESL020AB, and ESL020AC).

ESL030 3 CRÉDITOS 3 PERÍODOS

### Inglés Como Segundo Idioma III: Gramática Nivel 3

En este curso de tercer nivel de inglés como segundo idioma, se da especial atención a la estructura de la oración y la escritura de párrafos. Comprende un extensivo estudio de la gramática y práctica de escritura. Puede ser repetido por un máximo de 6 créditos. Requisitos previos: un examen de inglés o un grado de "P," "C," o mas elevado en ESL020, o (ESL020AA, AB, AC).

ESL031 3 CREDITS 3 PERIODS

**English as a Second Language III - Listening and Speaking**

Emphasis on listening and speaking skills related primarily to the academic environment. Asking questions, working in small groups, using college resources, informal oral presentation. May be repeated for a maximum of six credits. Prerequisites: Appropriate ESL placement test score or ESL020 or ESL021 or ESL022 or RDG020.

ESL031 3 CRÉDITOS 3 PERÍODOS

**Inglés Como Segundo Idioma III - Escuchando y Conversando Nivel 3**

El desarrollo de las habilidades de comprensión y conversación; principalmente dentro del ámbito académico, constituye el mayor énfasis de este curso. Se adelantan prácticas de cómo hacer preguntas, trabajar en grupos pequeños, como usar los medios ofrecidos por la institución académica y se realiza una presentación oral informal. Puede ser repetido por un máximo de 6 créditos. Requisitos previos: un examen de inglés o un grado de "P," "C," o mas elevado en ESL020, ESL021, ESL022, o RDG020.

ESL040 3 CREDITS 3 PERIODS

**English as a Second Language IV: Grammar**

Fourth-level of English as a Second Language (ESL). Continued emphasis on sentence structure and paragraph building. Extensive grammar study and writing practice. Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. May be repeated for a maximum of six (6) credits. Prerequisites: Appropriate ESL placement test score, or a grade of "P" or "C" or better in ESL030, or (ESL030AA, ESL030AB, and ESL030AC).

ESL040 3 CRÉDITOS 3 PERÍODOS

**Inglés Como Segundo Idioma IV: Gramática Nivel 4**

Se continúa con el énfasis en la estructura de la oración y la escritura de párrafos, abarcando un extensivo estudio de la gramática y práctica de escritura. Puede ser repetido por un máximo de 6 créditos. Calificación estándar disponible e acuerdo a los procedimientos descritos en el catálogo. Requisitos previos: un examen de inglés o un grado de "P," "C," o mas elevado en ESL030, (ESL030AA,AB,AC).

ESL041 3 CREDITS 3 PERIODS

**English as a Second Language IV: Listening and Speaking**

Emphasis on academic skills. Listening to lectures, notetaking, peer interaction, accessing and using media resources, formal oral presentations. May be repeated for a maximum of six (6) credits. Prerequisites: Appropriate ESL placement test score or ESL030 or ESL031 or ESL032 or RDG030.

ESL041 3 CRÉDITOS 3 PERÍODOS

**Inglés Como Segundo Idioma IV: Escuchando y Conversando**

Diseñado para preparar a aquellos estudiantes que deseen adelantar estudios superiores, este curso continua con el desarrollo de las habilidades académicas requeridas por quienes lo adelantan. Escuchar lecturas, tomar notas, revisar escritos de otros estudiantes. Puede ser repetido por un máximo de 6 créditos. Requisitos previos: un examen de inglés o un grado de "P," "C," o mas elevado en ESL030, ESL031, ESL032, o RDG030.

ESL050 3 CREDITS 3 PERIODS

**Review Grammar For ESL**

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 placement test score, or a grade of "C" or better in ESL010, or (ESL010AA, ESL010AB, and ESL010AC), or permission of instructor.

ESL051 3 CREDITS 3 PERIODS

**Pronunciation Improvement for ESL Speakers**

Individualized pronunciation practice and drills for English as a second language (ESL) speakers. May be repeated for a maximum of six (6) credits. Prerequisites: None.

ESL054 3 CREDITS 3 PERIODS

**Introduction to the Culture of the United States**

Reading and writing about American customs, traditions, major historical events, and celebrations. Appropriate for students enrolled in ENG010 or higher level ESL courses. May be repeated for a total of six (6) credits. Prerequisites: Appropriate ESL placement test score, or a grade of "C" or better in ESL010, or (ESL010AA, ESL010AB, and ESL010AC), or permission of instructor.



## English Humanities (ENH)

ENH110 3 CREDITS 3 PERIODS

### Introduction to Literature

Introduction to international literature through various forms of literary expression; e.g., poetry, drama, essay, biography, autobiography, short story, and novel. Provides a global overview of literature with special emphasis on diverse cultural contributions of women, African Americans, Asian Americans, Hispanic Americans, and Native Americans. Prerequisites: None.

ENH201 3 CREDITS 3 PERIODS

### World Literature Through the Renaissance

Includes a selection of the world's literary masterpieces in their cultural background, beginning with ancient Oriental and Occidental writings and concluding with Renaissance writings. Prerequisites: None.

ENH202 3 CREDITS 3 PERIODS

### World Literature After the Renaissance

Includes a selection of the world's literary masterpieces from the Renaissance to modern times. Prerequisites: None.

ENH221 3 CREDITS 3 PERIODS

### Survey of English Literature Before 1800

Emphasizes the social and political backgrounds as well as the form and content of English literature from Anglo-Saxon times to the end of the eighteenth century. Prerequisites: None.

ENH222 3 CREDITS 3 PERIODS

### Survey of English Literature After 1800

Emphasizes the social and political backgrounds as well as the form and content of English literature in the nineteenth and twentieth centuries. Prerequisites: None.

ENH241 3 CREDITS 3 PERIODS

### American Literature Before 1860

Includes literature written prior to 1860 in the United States. Prerequisites: None.

ENH242 3 CREDITS 3 PERIODS

### American Literature After 1860

Includes literature written after 1860 in the United States. Prerequisites: None.

ENH251 3 CREDITS 3 PERIODS

### Mythology

Deals with the myths and legends of civilizations with the greatest influence upon the development of the literature and culture of the English speaking people, and compares those myths with myths from other cultures. Prerequisites: None.

ENH254 3 CREDITS 3 PERIODS

### Literature and Film

Presents works of literature and their film versions and analyzes distinguishing techniques of each medium. Prerequisites: ENG101, or ENG107, or equivalent.

ENH255 3 CREDITS 3 PERIODS

### Contemporary U.S. Literature and Film

Strengths and weaknesses of literature and film. Challenges of adapting literature to film. Addressing racial, ethnic, gender, class and religious differences between cultures and mediums. Use of narrative in each medium and how it translates various cultural values and assumptions. Specific genres present in literature and film. Cultural metaphors and symbols used in literature and film. Prerequisites: ENG101.

ENH259 3 CREDITS 3 PERIODS

### American Indian Literature

Contemporary American Indian forms of literary expression. Selected oral traditions of American Indians. Trends and movements within American Indian literary history. Prerequisites: None.

ENH260 3 CREDITS 3 PERIODS

### Literature of the Southwest

Investigates major themes in Southwestern American literature including the Western myth, minority roles in the region's literature, control of nature versus primacy of nature, and growth. Both prose and poetry are examined with an emphasis on contemporary Southwestern writing. Prerequisites: None.

ENH284 3 CREDITS 3 PERIODS

### 19th Century Women Writers

Investigates major themes in literature by women writing in the 19th century including the nature of women's lives in the family, in work situations, and in society. Poetry, prose, essays and drama are examined with an emphasis on common themes. Prerequisites: None.

ENH285 3 CREDITS 3 PERIODS

**Contemporary Women Writers**

Explores twentieth century literature (short stories, essays, plays, and poetry) written by women and about women. Focus on themes relevant to women's lives regardless of age, creed, or ethnic background. Prerequisites: None.

ENH291 3 CREDITS 3 PERIODS

**Children's Literature**

Review of folk and modern literature from a variety of world cultures, including application of literary criteria to folk and modern literature for children. Prerequisites: None.

**Equine Science (EQS)**

EQS105 3 CREDITS 3 PERIODS

**Principles of Equine Science**

Breeds, colors and markings; horse selection; basic conformation; form to function; structures of the hoof; footfall sequences; vision, managed health program; nutrition principles and management practices. Prerequisites: None.

EQS120 3 CREDITS 3 PERIODS

**Equine Anatomy and Physiology**

Study of structure and function of the equine. Includes cell structure and anatomy and physiology of major systems with emphasis on skeletal, muscular, and digestive systems. Prerequisites: None.

EQS130 3 CREDITS 3 PERIODS

**Equine Business and Law**

Practices and records used in the equine business. Includes record keeping systems and basic accounting principles; taxes; personnel management practices; computer programs for record keeping and operations management. Addresses legal aspects and laws unique to equine businesses. Prerequisite: None.

EQS145 3 CREDITS 6 PERIODS

**Basic Horsemanship**

Rudimentary knowledge concerning horse handling safety, basic riding equipment, grooming techniques, saddling, bridling, mounting, dismounting, and basic control of the horse at the walk and trot. English or western equipment used. Emphasis on position of rider as it relates to basic control of the horse. Prerequisites: None.

EQS150 4 CREDITS 4 PERIODS

**Equine Management**

Hands-on practice sessions devoted to good horse-keeping skills. Includes assessment of vital signs, methods of restraint, intermuscular injections, oral medications, leg wraps, leg sweats and poultice applications, body clipping and fitting sheets and blankets. Prerequisites: (EQS105 and EQS145), or permission of department.

EQS160 3 CREDITS 3 PERIODS

**English Horsemanship I**

Basic ground work and safety procedures; control of the horse at the walk, trot, and canter; rider position and use of fundamental aids. Prerequisites: None.

EQS165 3 CREDITS 3 PERIODS

**Western Horsemanship I**

Basic ground work and safety procedures; control of the horse at the walk, jog, and lope; rider position and use of fundamental aids. Prerequisites: None.

EQS215 3 CREDITS 3 PERIODS

**Feeding Programs for Production and Performance**

Explores the feeding and care of the equine in various stages of production, growth and performance. Identifies specific nutritional needs of each class of equine and formulates feeding programs based on these specific needs. Prerequisites: EQS200 or permission of department.

EQS220 3 CREDITS 3 PERIODS

**Equine Reproduction**

Reproductive anatomy and physiology; care and management of the breeding stallion; breeding procedures and artificial insemination. Care of pregnant mare; foaling procedures. Prerequisites: Prerequisites: EQS105, EQS120 or permission of department.

EQS225 3 CREDITS 3 PERIODS

**Equine Health and Disease Management**

Aspects of equine health and disease prevention. Emphasis on preventive maintenance. Preventive medicine and necessary managerial practices needed to keep the equine athlete, broodmare, or family horse in good health. Prerequisites: (EQS105 and EQS120) or department approval.

## Fire Science Technology (FSC)

FSC134 3 CREDITS 4.6 PERIODS

### Fitness & Conditioning/Firefighters

Overview of all aspects of fitness for current and prospective firefighters. Includes mental aspects of performance for optimal achievement on fire department agility tests and firefighting tasks; physical fitness and workout techniques as they apply to performing specific firefighting tasks; individual conditioning strategies, nutritional guidelines, and basic exercise principles. Lifelong fitness and conditioning. Prerequisites: None.

FSC205 3 CREDITS 3 PERIODS

### Command Strategies for Major Emergencies

Effective methods of managing major emergency incidents including multiple alarm structural fires, high rise fires, major brush fires, complex hazardous materials incidents and multi-casualty medical incidents. Includes incidents that require the commitment of resources based on a transitional situation and/or managing the effective interaction between numerous agencies to achieve control. Prerequisites: FSC204.

## Food and Nutrition (FON)

FON100 3 CREDITS 3 PERIODS

### Introductory Nutrition

Basic nutrition concepts for health and fitness. Emphasizes current dietary recommendations for maximizing well-being and minimizing risk of chronic disease. Focuses on use of tables, food guides, and guidelines for making healthy food choices. Includes unique nutrition needs for selected stages of the lifecycle, methods for evaluating credibility of nutrition claims, principles of vegetarian nutrition, safe and economic use of supplements, principles of energy balance, basic elements of food safety, diet for exercise and sports, and personal dietary evaluation techniques. Not for pre-dietetics or selected other pre-professional majors. May not be taken for credit if credit has been earned in FON100AA and/or FON100AC. Prerequisites: None.

FON104 1 CREDIT 1 PERIOD

### Certification in Food Service Safety and Sanitation

Preparation for and certification in a national food sanitation and safety program. Emphasis on food from purchasing, receiving, and storing to prepara-

tion, holding, and serving. Focuses on safe and sanitary food service facilities and equipment, employee habits and personal hygiene, and role of management in safety and sanitation. Includes time-temperature principles, foodborne illnesses, pest control, accident prevention, standards for cleaning and sanitizing, and regional regulations and standards. Prerequisites: None.

FON125 1 CREDIT 1 PERIOD

### Introduction to Professions in Nutrition and Dietetics

Introduction to professions in nutrition and dietetics, including history, current practice, and future trends. Emphasis on the integration of nutrition and dietetics within health care systems and public policy. Highlights professional ethics, standards of practice, education requirements and areas of practice. Prerequisites: None.

FON140AS 1 CREDIT 1 PERIOD

### Nutrition for Senior Adults

Managing the nutritional needs of the senior adult; emphasis on solutions to routine dietary problems resulting from the aging process. Prerequisites: None.

FON140BD 1 CREDIT 1 PERIOD

### Weight Control

Principles of and participation in weight management. Emphasis on low-fat eating, nutrition, exercise, and evaluation of weight management programs. Prerequisites: None.

FON142AB 3 CREDITS 5 PERIODS

### Applied Food Principles

Exploration and applications of scientific principles involved in food preparation; experiences with basic cooking methods; emphasis on the rationale of cooking techniques. Prerequisites: None.

FON207 3 CREDITS 3 PERIODS

### Introduction to Nutrition Services Management

Principles, knowledge, and techniques required for effective nutrition services management. Includes nutrition service issues in relation to health care trends, leadership skills, management theories and styles, food service manager responsibilities, and laws which pertain to nutrition service operations. Prerequisites: MAT092 or equivalent, or satisfactory score on district placement exam.

FON225 3 CREDITS 3 PERIODS

**Research in Complementary and Alternative Nutrition Therapies**

Introduction to basic research methods and statistics as applied to complementary and alternative nutrition therapies. Emphasis on the analysis and interpretation of health-related research. Prerequisites: MAT092 or equivalent, or satisfactory score on district placement exam.

FON241 3 CREDITS 3 PERIODS

**Principles of Human Nutrition**

Scientific principles of human nutrition. Emphasis on health promotion and concepts for conveying accurate nutrition information in a professional setting. Addresses therapeutic nutrition principles for treatment of common health conditions. Includes exploration of food sources of nutrients, basic metabolism of nutrients in the human body, relationship between diet and other lifestyle factors, use of supplements, current recommendations for food selection throughout the life cycle, and use of nutrition tools for planning food intake or assessment of nutritional status. Prerequisites or Corequisites: One year high school chemistry with grade of "C" or better, or CHM130 and CHM130LL, or BIO100, or BIO156, or BIO181, or approval of instructor.

FON242 3 CREDITS 3 PERIODS

**Introduction to Medical Nutrition Therapy**

Introduction to fundamental principles of medical nutrition therapy. Emphasis on development and analysis of diets that fit an individual's personal and therapeutic needs. Includes strategies to promote dietary adherence and the development of educational programs for a diverse adult population. Prerequisites: FON241.

FON244AA 2 CREDITS 2 PERIODS

**Practicum I: Food Service Management Lecture**

Classroom preparation and training, under the instruction and supervision of a registered dietitian. Understanding of principles, knowledge, and skills required for the delivery of medical nutrition therapy. Comprehension of nutritional screening, assessment, monitoring, and evaluation for common and complex medical conditions, medical documentation, patient interviewing and counseling, and education in health promotion and disease prevention. Competencies in the classroom met prior to their application in supervised practice settings during the practicum lab (FON245AB). Prerequisites: FON125, FON242, HCE103 or equivalent, and

MAT092 or equivalent, or satisfactory score on district placement exam. Corequisite: FON245AB.

FON244AB 3 CREDITS 15 PERIODS

**Practicum I: Food Service Management Lab**

Practicum experience under the supervision of a registered dietitian. Application of principles, knowledge, and skills required in the delivery of nutrition services for food service management including food service operations, quantity food production, procurement, organizing and management principles, facility design and equipment, financial management, food safety and sanitation, menu planning, and marketing. Competencies in the classroom met prior to their application in supervised practice settings during the practicum lab (FON244AB). Prerequisites: FON104, FON125, FON142AB, FON207 and FON242. Corequisite: FON244AA.

FON245AA 2 CREDITS 2 PERIODS

**Practicum II: Medical Nutrition Therapy Lecture**

Classroom preparation and training, under the instruction and supervision of a registered dietitian. Understanding of principles, knowledge, and skills required for the delivery of medical nutrition therapy. Comprehension of nutritional screening, assessment, monitoring, and evaluation for common and complex medical conditions, medical documentation, patient interviewing and counseling, and education in health promotion and disease prevention. Competencies in the classroom met prior to their application in supervised practice settings during the practicum lab (FON245AB). Prerequisites: FON125, FON242, HCE103 or equivalent, and MAT092 or equivalent, or satisfactory score on district placement exam. Corequisite: FON245AB.

FON245AB 2 CREDITS 10 PERIODS

**Practicum II: Medical Nutrition Therapy Lab**

Practicum experience under the supervision of a registered dietitian. Application of principles, knowledge, and skills required for the delivery of medical nutrition therapy. Perform nutritional screening, assessment, monitoring, and evaluation for common and complex medical conditions, medical documentation, patient interviewing and counseling, and education in health promotion and disease prevention. Competencies in the classroom met prior to their application in supervised practice settings during the practicum lab (FON245AB). Prerequisites: FON125, FON242, HCE103 or equivalent, and MAT092 or equivalent, or satisfactory score on district placement exam. Corequisite: FON245AA.

FON246AA 2 CREDITS 2 PERIODS

**Practicum III: Community Nutrition Lecture**

Classroom preparation and training, under the instruction of a registered dietitian. Understanding of principles, knowledge and skills required in the delivery of nutrition services in community-based agencies, outpatient health care settings, and social service agencies. Includes knowledge and understanding of nutrition intervention and wellness promotion for individuals and groups across the lifespan, i.e. infants through geriatrics with a diversity of cultural, religious and social backgrounds. Competencies in the classroom met prior to their application in supervised practice settings during the practicum lab (FON246AB). Prerequisites: FON125 and FON242. Corequisite: FON246AB.

FON246AB 2 CREDITS 10 PERIODS

**Practicum III: Community Nutrition Lab**

Practicum experience under the supervision of a registered dietitian. Application of principles, knowledge and skills required in the delivery of nutrition services in community-based agencies, outpatient health care settings, and social service agencies. Includes nutrition intervention and wellness promotion for individuals and groups across the lifespan, i.e. infants through geriatrics with a diversity of cultural, religious and social backgrounds. Prerequisites: FON125 and FON242. Corequisite: FON246AA.

**French (FRE)**

FRE101 4 CREDITS 4 PERIODS

**Elementary French I**

Basic grammar, pronunciation and vocabulary of the French language. Includes the study of French culture, practice of listening, speaking, reading and writing skills. Prerequisites: None.

FRE102 4 CREDITS 4 PERIODS

**Elementary French II**

Continued study of grammar and vocabulary of the French language along with the study of French culture. Emphasis on speaking, listening, reading and writing skills. Prerequisites: FRE101 or equivalent.

FRE201 4 CREDITS 4 PERIODS

**Intermediate French I**

Review of essential grammar of the French language and study of French culture. Continued practice and development of reading, writing, and speaking skills. Prerequisites: FRE102 with a grade of "C" or better, two years of high school French with an average of "C" or better, or departmental approval.

FRE202 4 CREDITS 4 PERIODS

**Intermediate French II**

Review of grammar, continued development of French language skills, and continued study of the French culture. Prerequisites: FRE201 with a grade of "C" or better or three years of high school French with an average of "C" or better.

**General Business (GBS)**

GBS110 3 CREDITS 3 PERIODS

**Human Relations in Business and Industry**

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 3 CREDITS 3 PERIODS

**Business Calculations**

Review of basic arithmetic and application of mathematics to business problems, includes percentage, interest, discount, and markups. Prerequisites: None.

GBS132 3 CREDITS 3 PERIODS

**Personal and Family Financial Security**

Principles and practices of personal and family financial planning, includes savings, budgeting, credit, buying versus renting and general principles of consumerism. Prerequisites: None.

GBS151 3 CREDITS 3 PERIODS

**Introduction to Business**

Characteristics and activities of current local, national, and international business. An overview of economics, marketing, management and finance. Prerequisites: None.

GBS205 3 CREDITS 3 PERIODS

**Legal, Ethical, and Regulatory Issues in Business**

Legal theories, ethical issues and regulatory climate affecting business policies and decisions. Prerequisites: None.

GBS220 3 CREDITS 3 PERIODS

**Quantitative Methods in Business**

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 3 CREDITS 3 PERIODS

**Business Statistics**

Business applications of descriptive and inferential statistics, measurement of relationships, and statistical process management. Prerequisites: Grade of "C" or better in GBS220 or MAT172.

GBS233 3 CREDITS 3 PERIODS

**Business Communication**

Internal and external business communications, including verbal and nonverbal techniques. Prerequisites: ENG101 or ENG107 with grade of "C" or better, or permission of department/division.

**Geology (GLG)**

GLG101 3 CREDITS 3 PERIODS

**Introduction to Geology I - Physical Lecture**

A study of the kind and arrangement of materials composing the earth's crust and the geological processes at work on and within the earth's surface. Prerequisites: None.

GLG102 3 CREDITS 3 PERIODS

**Introduction to Geology II - Historical Lecture**

Outlines the origin and history of the earth with emphasis on North America--its dynamic, geographic, and climatic changes; animals and plants of the past; the evolution of life. Prerequisites: None.

GLG103 1 CREDIT 3 PERIODS

**Introduction to Geology I - Physical Lab**

May accompany GLG101. Study of common rock-forming minerals, rocks, and maps. Prerequisites: None.

GLG104 1 CREDIT 3 PERIODS

**Introduction to Geology II - Historical Lab**

May accompany GLG102. Study of geological structures and rocks, fossils, and geologic maps. May require field trips. Prerequisites: None.

GLG110 3 CREDITS 3 PERIODS

**Geologic Disasters and the Environment**

Acquaints students with the use and importance of geological studies as they apply to the interactions between people and the earth. Includes geological processes and hazards such as floods, earthquakes, and landslides; use of fossil fuels; mining of raw materials. Prerequisites: None.

GLG111 1 CREDIT 3 PERIODS

**Geological Disasters and the Environment Lab**

May accompany GLG110. Basic geological processes and concepts. Emphasis on geology-related environmental problems concerning Arizona. Case histories and field studies. May require field trips. Prerequisites: None.

**Golf Course Operations (GCO)**

GCO138 1 CREDIT 2 PERIODS

**Clubfitting/Repair**

Basic principles of golf club design. Includes personal fitting of golf clubs to customer needs as well as repair. Prerequisites: None.

**Health Care Related (HCR)**

HCR210 3 CREDITS 3 PERIODS

**Clinical Health Care Ethics**

An introduction to health care ethics with emphasis on analysis and ethical decision making at both the clinical and health policy levels for health care professionals. Theoretical foundation of bioethics reviewed within historical and contemporary contexts. Prerequisites: ENG102.

HCR220 3 CREDITS 3 PERIODS

**Health Care Organizations**

Overview of United States health care delivery systems; financing, health policy, impact of managed care, and basic principles of budgeting, cost-benefit analysis, and resource management. Prerequisites: ENG102.

HCR230 3 CREDITS 3 PERIODS

**Culture and Health**

Relation between cultures of diverse groups and health/illness. Emphasis on cross-cultural communication, including awareness of own cultural influences and indigenous and complementary healing practices. Prerequisites: None.

HCR240 4 CREDITS 4 PERIODS

**Human Pathophysiology**

Chemical, biological, biochemical, and psychological processes as a foundation for the understanding of alterations in health. The structural and functional pathophysiology of alterations in health; selected therapeutics considered. Prerequisites: BIO202 or equivalent.

## Health Core Curriculum (HCC)

HCC130 3 CREDITS 3 PERIODS

### Fundamentals in Health Care Delivery

Overview of current health care professions including career and labor market information. Health care delivery systems, third party payers, and facility ownership. Health organization structure, patient rights and quality care. Health care and life values. Definition and importance of values, ethics, and essential behaviors in the workplace. Worker rights and responsibilities. Healthful living practices to include nutrition, stress management and exercise. Occupational Safety and Health Administration (OSHA) standard precautions and facility safety. Use of principles of body mechanics in daily living activities. Basic communication skills which facilitate teamwork in the health care setting. Focus on development of personal communication skills and an understanding of how effective communication skills promote teamwork. Focus on intercultural communication strategies. Prerequisites: None.

HCC145AA 1 CREDIT 1 PERIOD

### 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 1 CREDIT 1 PERIOD

### 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.

## Health Science (HES)

HES100 3 CREDITS 3 PERIODS

### Healthful Living

Health and wellness and their application to an optimal life style. Explores current topics of interest such as stress management, nutrition, fitness, and environ-

mental health. Evaluates common risk factors associated with modern lifestyles. Prerequisites: None.

HES154 3 CREDITS 3 PERIODS

### First Aid/Cardiopulmonary Resuscitation

Cardiopulmonary Resuscitation and first aid for the adult, child and infant patients includes Automated External Defibrillator(AED), rescue breathing, obstructed airway, and other first aid procedures. Designed to train citizen responders in skills and procedures required during emergency situation. Prerequisites: None.

HES271 3 CREDITS 3 PERIODS

### Prevention and Treatment of Athletic Injuries

Prevention and care of athletic injuries, emphasizing use of modern training techniques and support materials. Utilization of preventive taping, strapping, bandaging, cardiopulmonary resuscitation, massage, cryotherapy, hydrotherapy, and practical application of muscle reconditioning. Prerequisites: None.

## History (HIS)

HIS102 3 CREDITS 3 PERIODS

### History of Western Civilization 1789 to Present

Survey of origin and development of Western civilization and its institutions from French Revolution through the present. Prerequisites: None.

HIS103 3 CREDITS 3 PERIODS

### United States History to 1870

The political, economic, and social development of United States from Colonial through Reconstruction period. Prerequisites: None.

HIS104 3 CREDITS 3 PERIODS

### United States History 1870 to Present

The political, economic, and social development of United States from Reconstruction period up to present time. Prerequisites: None.

HIS106 3 CREDITS 3 PERIODS

### Southwest History

Survey of Hispanic, Anglo, African-American and Native cultures of the peoples who have settled the American Southwest. Emphasis on cattle, mining, fur trade and transportation industries and role development of the region. Prerequisites: None.

HIS201 3 CREDITS 3 PERIODS

**History of Women in America**

Introduction to women's history from the colonial period to the present. Deals chronologically with changes and developments which have influenced the lives of women. Prerequisites: None.

HIS273 3 CREDITS 3 PERIODS

**US Experience in Vietnam 1945 - 1975**

Survey of the US experience in Vietnam, 1945-1975, in view of political, economic, and social forces of the Cold War. Prerequisites: None.

HIS277 3 CREDITS 3 PERIODS

**The Modern Middle East**

Survey of the political and economic development of the Middle East since 1500. Emphasis on the decline of the Moslem empire, the resurgence of contemporary Pan-Arabian, the Palestinian-Israeli question and the impact of oil production on the region and the rest of the world. Prerequisites: None.

**Humanities (HUM)**

HUM108 3 CREDITS 3 PERIODS

**Contemporary Humanities**

An exploration of human expression in contemporary arts and sciences. Prerequisites: None.

HUM120 3 CREDITS 3 PERIODS

**Cultural Viewpoints in the Arts**

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.

HUM250 3 CREDITS 3 PERIODS

**Ideas and Values in the Humanities**

An historical analysis of the interrelationships of art, architecture, literature, music, and philosophy from the early civilizations to the Renaissance, including western and non-western cultures. Prerequisites: ENG101.

HUM251 3 CREDITS 3 PERIODS

**Ideas and Values in the Humanities**

An historical analysis of the interrelationships of art, architecture, literature, music, and philosophy from the Renaissance to modern period, including Western and Non-Western cultures. Prerequisites: ENG101.

**Industry (IND)**

IND133 3 CREDITS 3 PERIODS

**Speaking in Business**

Practical, effective speech techniques for everyday business interactions. Listening skills and stages of and barriers to the perception process. Examination of effective message preparation skills and communication styles and techniques. Interaction emphasizing conflict management and resolution in oral communication. Prerequisites: None.

**Journalism (JRN)**

JRN201 3 CREDITS 5 PERIODS

**News Writing**

Writing news for the print media. Composing at the computer keyboard. Associated Press editing style, writing skills, and organizational structure for news. Prerequisites: ENG101, ENG107, or equivalent.

**Management (MGT)**

MGT101 3 CREDITS 3 PERIODS

**Techniques of Supervision**

Overview of the foundations of supervision and how to get things done within an organization through other people. The functions of planning, organizing, staffing, motivating and controlling presented. Prerequisites: None.

MGT175 3 CREDITS 3 PERIODS

**Business Organization and Management**

Covers basic principles of managing quality and performance in organizations. Covers management functions: planning, organizing, leading, and controlling. Emphasizes continual improvement, ethics, and social responsibility. Prerequisites: None.

MGT179 3 CREDITS 3 PERIODS

**Utilizing the Human Resources Department**

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 3 CREDITS 3 PERIODS

**Management and Leadership I**

Covers management concepts and applications for business, industry, and government organizations. Prerequisites: None.

MGT251 3 CREDITS 3 PERIODS

**Human Relations in Business**

Analysis of motivation, leadership, communications, and other human factors. Cultural differences that may create conflict and affect morale individually and within organizations. Prerequisites: None. MGT101 or MGT175 or MGT229 suggested, but not required.

MGT253 3 CREDITS 3 PERIODS

**Owning and Operating a Small Business**

Starting, organizing, and operating a small business, including location, finance management processes, advertisement and promotion, credit, inventory control and ethics. Prerequisites: None.

MGT276 3 CREDITS 3 PERIODS

**Personnel/Human Resources Management**

Human resource planning, staffing, training, compensating, and appraising employees in labor management relationships. Prerequisites: None. MGT101, or MGT175, or MGT229 suggested but not required.

**Marketing (MKT)**

MKT267 3 CREDITS 3 PERIODS

**Principles of Salesmanship**

Analyzes and applies the steps and techniques used in personal selling. Highlights the role of the professional sales representative and his/her functions as they relate to the company's mission and customer expectations. Prerequisites: None.

MKT268 3 CREDITS 3 PERIODS

**Merchandising**

Surveys structure and operation of retail organizations. Emphasizes merchandising to include price, location, time promotion and quantity. Prerequisites: None. MKT271 suggested but not required.

MKT271 3 CREDITS 3 PERIODS

**Principles of Marketing**

An analysis of the marketing process and environment with regard to the product, pricing, distribution, and communication in order to satisfy buyer needs. Prerequisites: None.

**Mass Communications (MCO)**

MCO120 3 CREDITS 3 PERIODS

**Media and Society**

Study of historical and contemporary roles of media and its pervasiveness in society as it related to politics, education and culture. Prerequisites: ENG101 or ENG107, or equivalent.

**Mathematics (MAT)**

MAT065 1 CREDIT 1 PERIOD

**Graphing Calculator**

Computations, graphing, matrices, and elementary programming using a graphing calculator. Prerequisites: None.

MAT081 4 CREDITS 4 PERIODS

**Basic Arithmetic**

Primary emphasis placed on fundamental operations with whole numbers, fractions, decimals, integers, and rational numbers; proportions, and percentages. Other topics include representations of data, geometric figures, and measurement. Prerequisites: None.

MAT082 3 CREDITS 3 PERIODS

**Basic Arithmetic**

Primary emphasis placed on fundamental operations with whole numbers, fractions, decimals, integers, and rational numbers; proportions, and percentages. Other topics include representations of data, geometric figures, and measurement. Prerequisites: None.

MAT090 5 CREDITS 5 PERIODS

**Developmental Algebra**

Linear behavior; linear equations and inequalities in one and two variables; graphs; systems of equations in two variables; function notation, graphs, and data tables; operations on polynomials; properties of exponents; applications. 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 4 CREDITS 4 PERIODS

**Introductory Algebra**

Linear behavior; linear equations and inequalities in one and two variables; graphs; systems of equations in two variables; function notation, graphs, and data tables; operations on polynomials; properties of exponents; applications. 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 3 CREDITS 3 PERIODS

**Introductory Algebra**

Linear behavior; linear equations and inequalities in one and two variables; graphs; systems of equations in two variables; function notation, graphs, and data tables; operations on polynomials; properties of exponents; applications. 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.

MAT102 3 CREDITS 3 PERIODS

**Mathematical Concepts/Applications**

A problem solving approach to mathematics as it applies to life and the world of work. Development, demonstration, and communication of mathematical concepts and formulas that relate to measurement, percentage, statistics, and geometry. Prerequisites: Grade of "C" or better in MAT082, or equivalent, or satisfactory score on District placement exam.

MAT120 5 CREDITS 5 PERIODS

**Intermediate Algebra**

Quadratic, rational, radical, exponential, and logarithmic functions and equations; graphs of quadratic, exponential, and logarithmic functions; equations quadratic in form; operations on rational expressions, radical expressions, and complex numbers; rational exponents; applications. 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 4 CREDITS 4 PERIODS

**Intermediate Algebra**

Quadratic, rational, radical, exponential, and logarithmic functions and equations; graphs of quadratic, exponential, and logarithmic functions; equations quadratic in form; operations on rational expressions, radical expressions, and complex numbers; rational exponents; applications. 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.

MAT122 3 CREDITS 3 PERIODS

**Intermediate Algebra**

Quadratic, rational, radical, exponential, and logarithmic functions and equations; graphs of quadratic, exponential, and logarithmic functions; equations quadratic in form; operations on rational expressions, radical expressions, and complex numbers; rational exponents; applications. Prerequisites: Grade of "B" 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 3 CREDITS 3 PERIODS

**College Mathematics**

Working knowledge of college-level mathematics and its applications to real-life problems. Emphasis on understanding mathematical concepts and their applications rather than on manipulative skills. Appropriate for the student whose major does not require college algebra or pre-calculus. Prerequisites: Grade of "C" or better in MAT120 or MAT121 or MAT122 or equivalent, or satisfactory score on District placement exam.

MAT150 5 CREDITS 5 PERIODS

**College Algebra/Functions**

Analysis and interpretation of the behavior and nature of functions including polynomial, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions; systems of equations, modeling and solving real world problems. Additional topics may include matrices, combinatorics, sequences and series, and conics. Prerequisites: Grades of "C" or better in MAT120, or MAT121, or MAT122 or equivalent, or satisfactory score on District placement exam.

MAT151 4 CREDITS 4 PERIODS

**College Algebra/Functions**

Analysis and interpretation of the behavior and nature of functions including polynomial, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions; systems of equations, modeling and solving real world problems.

Additional topics may include matrices, combinatorics, sequences and series, and conics. Prerequisites: Grade of "C" or better in MAT120, or MAT121, or MAT122, or equivalent, or satisfactory score on District placement exam.

MAT152 3 CREDITS 3 PERIODS

**College Algebra/Functions**

Analysis and interpretation of the behavior and nature of functions including polynomial, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions; systems of equations, modeling and solving real world problems.

Additional topics may include matrices, combinatorics, sequences and series, and conics. Prerequisites: Grade of "C" or better in MAT120, or MAT121, or MAT122, or equivalent, or satisfactory score on District placement exam.

MAT156 3 CREDITS 3 PERIODS

**Mathematics for Elementary Teachers I**

Focuses on numbers and operations. Algebraic reasoning and problem solving integrated throughout the course. Prerequisites: Grade of "C" or better in MAT142 or MAT150 or MAT151 or MAT152 or equivalent, or satisfactory score on District placement exam.

MAT157 3 CREDITS 3 PERIODS

**Mathematics for Elementary Teachers II**

Focuses on measurement, geometry, probability and data analysis. Appropriate technologies, problem solving, reasoning, and proof are integrated throughout the course. Prerequisite: MAT156 or equivalent.

MAT172 3 CREDITS 3 PERIODS

**Finite Mathematics**

An introduction to the mathematics required for the study of social and behavioral sciences. Includes combinatorics, probability, descriptive statistics, matrix algebra, linear programming and the mathematics of finance. Includes applications of technology in problem-solving. Prerequisites: Grade of "C" or better in MAT150, or MAT151, or MAT152, or MAT187 or equivalent, or satisfactory score on District placement exam.

MAT182 3 CREDITS 3 PERIODS

**Plane Trigonometry**

A study of measures of angles, properties of graphs of trigonometric functions, fundamental identities, addition and half-angle formulas, inverse trigonometric functions, solutions of trigonometric equations, complex numbers and properties of triangle solution. May receive credit for only one of the following: MAT182 or MAT187. Prerequisites: Grade of "C" or better in MAT150, or MAT151, or MAT152, or equivalent, or concurrent registration in MAT150, or MAT151, MAT152, or satisfactory score on District placement exam.

MAT187 5 CREDITS 5 PERIODS

**Precalculus**

A precalculus course combining topics from college algebra and trigonometry. Preparation for analytic geometry and calculus. May receive credit for only one of the following: MAT150, MAT151, MAT152, or MAT187. Prerequisites: Grade of "B" or better in MAT120, MAT121, or MAT122, or equivalent, or satisfactory score on a placement test. Course Note: Strongly recommended that students have some knowledge of trigonometry.

MAT206 3 CREDITS 3 PERIODS

**Elements of Statistics**

Basic concepts and applications of statistics, including data description, estimation and hypothesis tests. Prerequisites: Grade of "C" or better in MAT150 or MAT151 or MAT152 or equivalent or satisfactory score on District placement exam.

MAT212 3 CREDITS 3 PERIODS

**Brief Calculus**

Introduction to the theory, techniques and applications of the differential and integral calculus of elementary 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.

MAT216 3 CREDITS 3 PERIODS

**Technical Calculus I**

Analytic geometry, differential, and integral calculus of elementary functions, emphasizing physical interpretation and problem solving. Prerequisites: Grade of "C" or better in MAT187, or (MAT150, or MAT151, or MAT152) and MAT182, or equivalent, or satisfactory score on District placement exam.

MAT220 5 CREDITS 5 PERIODS

**Analytic Geometry and Calculus I**

Topics from analytic geometry with special emphasis on inequalities and absolute value expressions, limits, continuity, the fundamental principles and formulae for differential and integral calculus along with their applications to geometry and mechanics, the mean value theorems and the fundamental theorem of calculus. May receive credit for only one of the following: MAT220 or MAT221. 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.

MAT221 4 CREDITS 4 PERIODS

**Calculus with Analytic Geometry I**

Real numbers, limits, continuity, differential and integral calculus of functions of one variable. May receive credit for only one of the following: MAT220 or MAT221. Prerequisites: Grade of "C" or better (MAT150 or MAT151 or MAT152) and (MAT182 or MAT187 or equivalent), or satisfactory score on district placement exam.

MAT225 3 CREDITS 3 PERIODS

**Elementary Linear Algebra**

Introduction to matrices, systems of linear equations, determinants, vector spaces, linear transformations and eigenvalues. Emphasizes the development of computational skills. Prerequisites: Grade of "C" or better in MAT212 or MAT220, or MAT221, or equivalent.

MAT226 3 CREDITS 3 PERIODS

**Technical Calculus II**

Differential, and integral calculus of trigonometric, exponential, and logarithmic functions including partial derivatives, double integrals, and polar coordinates. Prerequisites: Grade of "C" or better in MAT216.

MAT227 3 CREDITS 3 PERIODS

**Discrete Mathematical Structures**

Introduction to lattices, graphs, Boolean algebras, and groups. Emphasis on topics relevant to computer science. Prerequisites: Grade of "C" or better in CSC100 and (MAT220, or MAT221, or equivalent) or permission of instructor.

MAT230 3 CREDITS 3 PERIODS

**Analytical Geometry and Calculus II**

Includes working on the elementary transcendental functions, techniques of integration, vector functions, and infinite series. May receive credit for only

one of the following: MAT230 or MAT231.

Prerequisites: Grade of "C" or better in MAT220 or MAT221 or equivalent.

MAT231 4 CREDITS 4 PERIODS

**Calculus with Analytic Geometry II**

Methods of integration, applications of calculus, elements of analytic geometry, improper integrals, sequences and series. May receive credit for only one of the following: MAT230 or MAT231.

Prerequisites: Grade of "C" or better in MAT220, or MAT221, or equivalent.

MAT236 3 CREDITS 3 PERIODS

**Technical Calculus III**

Infinite series, an introduction to differential equations of elementary linear algebra. Prerequisites: Grade of "C" or better in MAT226.

MAT240 5 CREDITS 5 PERIODS

**Calculus with Analytical Geometry III**

Vector-valued functions of several variables, multiple integration, introduction to vector analysis.

Prerequisites: Grade of "C" or better in MAT230 or MAT231.

MAT241 4 CREDITS 4 PERIODS

**Calculus with Analytic Geometry III**

Vector-valued functions of several variables, multiple integration, introduction to vector analysis.

Prerequisites: Grade of "C" or better in MAT230 or MAT231.

MAT261 4 CREDITS 4 PERIODS

**Differential Equations**

Ordinary differential equations with applications including Laplace transforms with numerical methods. Prerequisites: Grade of "C" or better in MAT230, or MAT231, or equivalent.

MAT262 3 CREDITS 3 PERIODS

**Differential Equations**

Ordinary differential equations with applications including Laplace transforms with numerical methods. Prerequisites: Grade of "C" or better in MAT230, or MAT231, or equivalent.

MAT282AA 1 CREDIT 1 PERIOD

MAT282AB 2 CREDITS 2 PERIODS

MAT282AC 3 CREDITS 3 PERIODS

**Volunteerism for Mathematics: A Service Learning Experience**

Service learning field experience within private/public agencies, educational institutions, and citizen vol-

unteer groups. Prerequisites: Permission of instructor. Course Note: May be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.

## Microsoft Technology (MST)

MST140 3 CREDITS 4 PERIODS

### Microsoft Networking Essentials

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.

MST145 3 CREDITS 4 PERIODS

### Microsoft Client System Administration

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.

MST146 2 CREDITS 3 PERIODS

### Data Modeling and Relational Database Design

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 MST140, or permission of instructor.

MST150 3 CREDITS 4 PERIODS

### Microsoft Windows Professional

Knowledge and skills necessary to perform day-to-day administration tasks in a Microsoft Windows-based network. Preparation for Microsoft certification examination. Prerequisites: None. CIS190, or CNT140, or MST140 suggested but not required.

MST150DA 3 CREDITS 5 PERIODS

### Microsoft Windows 2000 Professional

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 3 CREDITS 4 PERIODS

### Microsoft Windows XP Professional

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 4 CREDITS 5 PERIODS

### Microsoft Windows Server

Knowledge and skills necessary to install, configure, customize, optimize, network, integrate, and troubleshoot Windows Server. Preparation for Microsoft certification examination. Prerequisites or Corequisites: Any MST150 course or permission of instructor.

MST152DA 4 CREDITS 6 PERIODS

### Microsoft Windows 2000 Server

Knowledge and skills necessary to install, configure, customize, optimize, network, integrate, and troubleshoot Microsoft Windows 2000 Server. Preparation for Microsoft certification examination. Prerequisites or Corequisites: Any MST150 course or permission of instructor.

MST152DB 4 CREDITS 5 PERIODS

### Microsoft Windows 2003 Server

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.

MST155 3 CREDITS 4 PERIODS

### Implementing Windows Network Infrastructure

Knowledge and skills to install, configure, maintain, and support a Microsoft Windows network infrastructure. Preparation for Microsoft certification examination. Prerequisites or Corequisites: Any MST152 course or permission of instructor.

MST157 3 CREDITS 4 PERIODS

### Implementing Windows Directory Services

Knowledge and skills to install, configure, and administer Microsoft Windows Active Directory directory services. Preparation for Microsoft certification examination. Prerequisites: Any MST152 course or permission of instructor.

MST170 4 CREDITS 5 PERIODS

**Visual Basic Desktop Application Development**

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 3 CREDITS 4 PERIODS

**Microsoft FrontPage**

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 4 CREDITS 5 PERIODS

**Visual Basic .NET Web Application Development**

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 3 CREDITS 4 PERIODS

**Microsoft Visual InterDev**

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.

MST176 3 CREDITS 4 PERIODS

**Visual Basic .NET XML Web Services Development**

Knowledge and skills required to develop XML Web Services and Server components with Microsoft.NET Framework with Visual Basic. Preparation for the MCAD (Microsoft Certified Applications Developer) certification examination. Prerequisites: CIS259 or permission of the instructor.

MST230 3 CREDITS 4 PERIODS

**Supporting a Microsoft Windows New Technology (NT) 4.0 Network**

Knowledge and skills required to support and maintain networks using Microsoft Windows New Technology (NT) Server 4.0 as a primary operating system. Preparation for Microsoft Certification Exam, which may be used as a Windows 2000 Microsoft Certified Systems Engineer (MCSE) elective. Prerequisites: Any MST150 course or permission of instructor.

MST232 3 CREDITS 4 PERIODS

**Managing a Windows Network Environment**

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 3 CREDITS 4 PERIODS

**Microsoft Transmission Control Protocol/Internet Protocol (TCP/IP)**

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 4 CREDITS 5 PERIODS

**Microsoft Exchange Server**

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 3 CREDITS 4 PERIODS

**Microsoft SQL Server Administration**

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 2 CREDITS 3 PERIODS

**Implementing Microsoft Internet Explorer**

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 2 CREDITS 3 PERIODS

**Microsoft Proxy Server**

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 3 CREDITS 4 PERIODS

**Microsoft Windows Network Upgrade**

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 3 CREDITS 4 PERIODS

**Designing a Microsoft Windows 2000 Directory Services Infrastructure**

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 3 CREDITS 4 PERIODS

**Microsoft SQL Server Design and Implementation**

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 3 CREDITS 4 PERIODS

**Designing Windows Network Infrastructure**

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 3 CREDITS 4 PERIODS

**Designing Windows Network Security**

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 3 CREDITS 4 PERIODS

**Microsoft Solution Architectures**

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.

**Music: Commercial/Business (MUC)**

MUC109 3 CREDITS 3 PERIODS

**Music Business: Merchandising and the Law**

Operation, scope, and career opportunities in the music business. Focuses on music in the marketplace, songwriting, publishing, copyright procedures, and business affairs, agents, artist management, and concert production. Prerequisites: None.

MUC110 3 CREDITS 3 PERIODS

**Music Business: Recording and Mass Media**

The operation, scope, and career opportunities in the music business. Focuses on the record industry; environmental music; uses of music in radio, telecommunications, and film; and career options. Prerequisites: None.

MUC111 3 CREDITS 5 PERIODS

**Digital Audio Workstation I (DAW I)**

Pro Tools editing and recording using the Digidesign Pro Tools LE package. Emphasis on the Digi 001. Includes Macintosh computer operation, troubleshooting, and file management. Prerequisites: MUC195 or MUC195AA.

MUC195 3 CREDITS 5 PERIODS

**Studio Music Recording I**

Basic principles of studio sound recording. Emphasis on musical acoustics, operation of recording equipment, studio setups, and multitrack recording. Includes studio session process and musical production decisions. Prerequisites: None.

MUC196 3 CREDITS 5 PERIODS

**Studio Music Recording II**

Emphasis on signal-processing equipment, mixing consoles, and advanced musical recording session procedures, production, and engineering. Includes mix-down and resultant master tape of a musical recording session. Prerequisites: MUC195.

MUC295AA 1 CREDIT 1 PERIOD

**Self Promotion for Music**

Career goal development. Includes self-presentation and communication skills, keeping files and records, and developing self-promotional materials. Prerequisites: None.

MUC297AB 2 CREDITS 2 PERIODS

**Music Internship**

Music Internship work experience in a business or industry. Eighty (80) hours of designated work per credit totaling 160 hours per semester. A maximum of 12 credits allowed. Prerequisites: Departmental approval.

**Music: History/Literature (MHL)**

MHL140 3 CREDITS 3 PERIODS

**Survey of Music History**

Study of composers, compositions, styles, and periods in music history. Prerequisites: None.

MHL143 3 CREDITS 3 PERIODS

**Music in World Cultures**

Non-European musical traditions including the study of music in rituals, musical instruments and the impact of cultures on musical styles. Prerequisites: None.

MHL145 3 CREDITS 3 PERIODS

**American Jazz and Popular Music**

The study of cultural and social contributions to the evolution of American jazz and popular music from the mid-1800's to present. Prerequisites: None.

MHL146 3 CREDITS 3 PERIODS

**Survey of Broadway Musicals**

Survey of Broadway musicals traced from their origins to the present viewed in their cultural, political, and socio-economic contexts. Emphasis on stylistic periods, composers, lyricists, directors, and choreographers. Prerequisites: None.

MHL153 3 CREDITS 3 PERIODS

**Rock Music and Culture**

History of Rock music and how cultural, social, political, and economic conditions have shaped its evolution. Prerequisites: None.

MHL155 3 CREDITS 3 PERIODS

**Survey of American Music**

History of the music of North America from the earliest American Indian music to the present. Introduction to the musical trends, composers, socioeconomic developments and trends, musical forms and styles that influence our modern American musical sense. Prerequisites: None.

MHL156 3 CREDITS 3 PERIODS

**Music in Latin America and the Caribbean**

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.

MHL241 3 CREDITS 3 PERIODS

**Music History and Literature to 1750**

In-depth study of music history from the primitive era through the Baroque period. Prerequisites: MTC155 and MTC156 or permission of instructor.

MHL242 3 CREDITS 3 PERIODS

**Music History and Literature 1750 to Present**

In-depth study of music history from the Classical period through the Contemporary period. Prerequisites: MHL241 or permission of instructor.

**Music: Performance (MUP)**

MUP101 1 CREDIT .6 PERIOD

MUP151 1 CREDIT .6 PERIOD

MUP201 1 CREDIT .6 PERIOD

MUP251 1 CREDIT .6 PERIOD

**Private Instruction**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. May be repeated for credit. Prerequisites: None.



MUP102	2 CREDITS	1.2 PERIODS
MUP152	2 CREDITS	1.2 PERIODS
MUP202	2 CREDITS	1.2 PERIODS
MUP252	2 CREDITS	1.2 PERIODS

### Private Instruction

Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. May be repeated for credit. Prerequisites: None.

MUP131	2 CREDITS	3 PERIODS
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### Class Piano I

Development of beginning piano techniques and the fundamentals of music including basic hand position, music reading skills of melodic and harmonic material, major scales, transposition, and harmonizations including the I, IV, V7 chords. Prerequisites: None.

MUP132	2 CREDITS	3 PERIODS
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### Class Piano II

Continuation of Piano I with emphasis on elementary piano techniques including major and minor scales, transposition, improvisation, and sight reading. Prerequisites: MUP131 or permission of instructor.

MUP133	2 CREDITS	3 PERIODS
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### Class Voice I

Introduction to the fundamentals of vocal production. Emphasis on breathing techniques, tone production and performances in class of solo vocal literature. Prerequisites: None.

MUP134	2 CREDITS	3 PERIODS
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### Class Voice II

Continuation of Class Voice I including the elements of stage presence and diction. Prerequisites: MUP133 or permission of instructor.

MUP150	1 CREDIT	3 PERIODS
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### Community Chorus

A mixed chorus with emphasis on college/community participation and preparation of a variety of choral literature for public performance. Auditions may be required. May be repeated for credit. Prerequisites: None.

MUP153	2 CREDITS	5 PERIODS
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### A Cappella Choir

A mixed choir designed to emphasize choral techniques and performance of all styles of choral literature. Public performances are scheduled during the year including a concert tour. Auditions may be required. May be repeated for credit. Prerequisites: None.

MUP154AA	1 CREDIT	3 PERIODS
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### Jazz Vocal Ensemble

Practical and performing experience in vocal jazz. Includes music from the 1920's through the present. Prerequisites: Auditions required or permission of instructor. Course Note: May be repeated for up to three (3) credits.

MUP159	1 CREDIT	3 PERIODS
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### Community Orchestra

Emphasis on college/community participation and the preparation of orchestral literature for public performance. Auditions may be required. May be repeated for credit. Prerequisites: None.

MUP161	1 CREDIT	3 PERIODS
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### Community Band

Emphasis on college/community participation and the preparation of band literature for public performance. Auditions may be required. May be repeated for credit. Prerequisites: None.

MUP163	1 CREDIT	3 PERIODS
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### Jazz Ensemble

Practical and performance experience in various jazz styles. Open to all students on the basis of auditions. May be repeated for credit. Prerequisites: None.

MUP164	2 CREDITS	3 PERIODS
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### Jazz Improvisation I

Theoretical and performance skills in many styles of jazz improvisation. May be repeated for a total of six (6) credit hours. Prerequisites: None.

MUP181	1 CREDIT	2 PERIODS
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### Chamber Music Ensembles

Practical and performance experience in instrumental, vocal, and mixed ensembles. May be repeated for credit. Prerequisites: None.

MUP182 1 CREDIT 3 PERIODS

**Chamber Singers**

Practical and performance experience in various styles of vocal music. Open to all students on the basis of auditions. May be repeated for credit. Prerequisites: None.

MUP209 2 CREDITS 2 PERIODS

**Elements of Conducting**

Essentials of conducting techniques used in choral and instrumental ensembles including terminology, interpretation, and styles. Prerequisites: None.

MUP225 2 CREDITS 3 PERIODS

**Class Guitar I**

Emphasis on note-reading and folk-style harmonic accompaniment. Includes finger-style playing. Stresses development of efficient practice techniques and proper sitting and hand positions. Prerequisites: None.

MUP226 2 CREDITS 3 PERIODS

**Class Guitar II**

Note-reading range including second position and parts of higher positions. Classical, popular, Latin, and other styles of music. Theory including scales, keys, and chord construction. Technical exercises of both hands. Prerequisites: MUP225 or permission of instructor.

MUP227 2 CREDITS 3 PERIODS

**Class Guitar III**

Additional fingerboard positions. Ensemble techniques and performance. Prerequisites: MUP226 or permission of instructor.

MUP228 2 CREDITS 3 PERIODS

**Class Guitar IV**

Advanced fingerboard positions. Duet and trio performances. Advanced ensemble techniques. Prerequisites: MUP227 or permission of instructor.

MUP231 2 CREDITS 3 PERIODS

**Class Piano III**

Development of intermediate piano techniques including selected solo literature, transposition of harmonic patterns, and secondary dominants. Prerequisites: MUP132 or permission of instructor.

MUP232 2 CREDITS 3 PERIODS

**Class Piano IV**

Continuation of Piano III including modulation techniques, improvisation of piano accompaniments, advanced chromatic harmony, and sight reading of

advanced literature. Prerequisites: MUP231 or permission of instructor.

MUP233 2 CREDITS 3 PERIODS

**Class Voice III**

Interpretive singing through a closer examination of coloring, tone production, dynamics, and tempo indications. Prerequisites: MUP134.

MUP234 2 CREDITS 3 PERIODS

**Class Voice IV**

Emphasis on the preparation of solo vocal literature for the purpose of evaluation and the integration of the music with the drama of the music. Prerequisites: MUP233 or permission of instructor.

MUP270 2 CREDITS 5 PERIODS

**Musical Theatre Workshop**

Workshop in the study and performance of Musical Theatre repertoire. Including audition techniques, talent evaluation criticism, rehearsal techniques, vocal acting styles, stage movement, and performance. May be repeated for credit. Prerequisites: None.

**Music: Theory/Composition (MTC)**

MTC100 2 CREDITS 3 PERIODS

**Fundamentals of Music**

Introduction to music notation and theory. Emphasis on fundamental concepts, including meter, rhythm, scales, keys, intervals and triads. Designed for the nonmusic major, but may be advised for music majors. Prerequisites: None.

MTC101 3 CREDITS 3 PERIODS

**Introduction to Music Theory**

Designed to develop written and aural skills necessary for advanced study of music theory and skills. Recommended for music majors. Prerequisites: None.

MTC103 2 CREDITS 2 PERIODS

**Introduction to Aural Perception**

An introduction to the aural skills necessary to hear relationships of intervals, rhythms, melody, and harmony in music. May be repeated for a total of four (4) credit hours. Prerequisites: None.

MTC105 3 CREDITS 3 PERIODS

**Music Theory I**

The chronological study of music theory including: harmony, melody, texture, structure and timbre

through analysis, original compositions and basic exercises to demonstrate musical concepts. Prerequisites: MTC100, or MTC101, or permission of instructor. Corequisites: MTC106.

MTC106 1 CREDIT 2 PERIODS

### Aural Perception I

The development of listening and performing skills through dictation, sight singing and keyboard harmony. Prerequisites: None. Corequisites: MTC105.

MTC155 3 CREDITS 3 PERIODS

### Music Theory II

A continuation of Music Theory I with emphasis on harmony and part-writing procedures. Prerequisites: MTC105. Corequisites: MTC156.

MTC156 1 CREDIT 2 PERIODS

### Aural Perception II

A continuation of Aural Perception I, including harmonic practices. Prerequisites: None. Corequisites: MTC155.

MTC205 3 CREDITS 3 PERIODS

### Music Theory III

The study of chromatic harmony and melody, modulation techniques and expanded chords. The analysis of formal structure. Prerequisites: MTC155. Corequisites: MTC206.

MTC206 1 CREDIT 2 PERIODS

### Aural Perception III

A development of listening and performing skills, including an introduction of chromatic harmonic techniques and concepts of style. Prerequisites: None. Corequisites: MTC205.

MTC240 3 CREDITS .6 PERIODS

### Composition

Introduction to the basics of music composition, stressing techniques and procedures for developing original ideas. May be repeated for total of twelve (12) credit hours. Prerequisites: (MTC105 and MTC106, or equivalent) , and permission of instructor.

MTC255 3 CREDITS 3 PERIODS

### Music Theory IV

A continuation of Music Theory III, including 20th century theories and techniques. Prerequisites: MTC205. Corequisites: MTC256.

MTC256 1 CREDIT 2 PERIODS

### Aural Perception IV

A continuation of Aural Perception III, including extended chords. Prerequisites: None. Corequisites: MTC255.

## Networking Technology (NET)

NET181AA 1.5 CREDITS 2.5 PERIODS

### Visual BASIC for the Technologies I

System familiarization, flowcharting, pseudocoding, formatting, subprograms, BASIC language mathematics and numbers. Prerequisites: None.

## Office Automation Systems (OAS)

OAS108 3 CREDITS 3 PERIODS

### Business English

Comprehensive coverage of correct use of English grammar including spelling, punctuation, capitalization, and number style mechanics in a business context. Prerequisites: None.

OAS135DK 2 CREDITS 2 PERIODS

### Word:Level I

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 (PHI)

PHI101 3 CREDITS 3 PERIODS

### Introduction to Philosophy

General consideration of human nature and the nature of the universe. Knowledge, perception, freedom and determinism, and the existence of God. Prerequisites: None.

PHI103 3 CREDITS 3 PERIODS

### Introduction to Logic

Informal logic, logical fallacies, elementary symbolic logic, analysis of argument forms, and construction of proofs for validity. Prerequisites: ENG101 or ENG107 or equivalent.

PHI105 3 CREDITS 3 PERIODS

**Introduction to Ethics**

Major theories of conduct. Emphasis on normative ethics, theories of good and evil from Plato to the present. Prerequisites: None.

**Physical Education (PED)**

PED101 1 CREDIT 2 PERIODS

PED102 1 CREDIT 2 PERIODS

PED201 1 CREDIT 2 PERIODS

PED202 1 CREDIT 2 PERIODS

**Physical Activities**

Individual, dual, or team sports activities as listed in the schedule of classes. May be repeated for credit. Prerequisites: None.

PED115 2 CREDITS 4 PERIODS

**Lifetime Fitness**

Fitness activity and wellness study to help develop a lifetime of regular exercise, stress management, and proper nutrition. Workout includes warm-up/stretch, aerobic exercise, selected strength exercises, and cool down/stretch. May be repeated for credit. Prerequisites: None.

PED117 2 CREDITS 4 PERIODS

**Weight Training for Wellness**

Weight training activity and wellness study to help develop a lifetime of regular exercise, stress management, and proper nutrition. Workout includes warm-up/stretch, selected endurance/strength exercises, and cool down/stretch. May be repeated for a maximum of eight (8) credits. Prerequisites: None.

PED121 1 CREDIT 2 PERIODS

**Physical Conditioning for Massage Therapists**

Physical fitness necessary for current and prospective massage therapists. Includes physical fitness and workout techniques as related to performing massage therapy; individual conditioning strategies, and basic nutritional guidelines. Prerequisites: None.

PED144 3 CREDITS 5 PERIODS

**Strategies in Diabetes Management**

Introduction to strategies in diabetes mellitus management and prevention for individuals diagnosed with diabetes and their caretakers. Includes a physical activity component. Prerequisites: None.

PED200 3 CREDITS 3 PERIODS

**Introduction to Exercise Science and Physical Education**

Introductory course for students considering or just beginning a course of study in exercise science and physical education. Overview of each of the disciplines, sub-disciplines, and professions in the cross-discipline field of exercise science/physical education, including historical and philosophical foundations. Course emphasizes the study of physical activity. Prerequisites: None.

PED210JX 1 CREDIT 3 PERIODS

**Movement Analysis: Golf**

Practical application of biomechanical, physiological, psychological, and teaching/learning principles in the analysis of skill acquisition and performance. Prerequisites: None.

PED210TP 1 CREDIT 3 PERIODS

**Movement Analysis: Soccer**

Practical application of biomechanical, physiological, psychological, and teaching/learning principles in the analysis of skill acquisition and performance. Prerequisites: None.

PED210XP 1 CREDIT 3 PERIODS

**Movement Analysis: Weight Training**

Practical application of biomechanical, physiological, psychological, and teaching/learning principles in the analysis of skill acquisition and performance. Prerequisites: None.

PED212CR 2 CREDITS 3 PERIODS

**Instructional Competency Laboratory: Cardiorespiratory Exercises and Activities**

Fundamental methods of instructing and leading fitness activities including cardiorespiratory exercises and activities. Core competencies identified by professional certification agencies. Prerequisites: None.

PED212FL 2 CREDITS 3 PERIODS

**Instructional Competency Laboratory: Flexibility and Mind-Body Exercises**

Fundamental methods of instructing and leading fitness activities including flexibility activities. Core competencies identified by professional certification agencies. Prerequisites: None.

PED212SC 2 CREDITS 3 PERIODS

**Instructional Competency Laboratory:  
Muscular Strength and Conditioning**

Fundamental methods of instructing and leading fitness activities including strength and conditioning activities. Core competencies identified by professional certification agencies. Prerequisites: None.

PED215 3 CREDITS 3 PERIODS

**Fitness for Life**

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.

**Physical Geography (GPH)**

GPH111 4 CREDITS 6 PERIODS

**Introduction to Physical Geography**

Spatial and functional relationships among climates, landforms, soils, water, and plants. Prerequisites: None.

**Physical Science (PHS)**

PHS110 4 CREDITS 6 PERIODS

**Fundamentals of Physical Science**

Survey of the principles of physics and chemistry. Prerequisites: Grade of "C" or better in MAT091, or MAT092, or satisfactory score on Math placement exam.

**Physics (PHY)**

PHY101 4 CREDITS 6 PERIODS

**Introduction to Physics**

A survey of physics emphasizing applications of physics to modern life. Designed for students who need a course in physics in order to understand the physical basis of modern technology. Prerequisites: Grade of "C" or better in MAT091 or MAT092, or satisfactory score on Math Placement exam.

PHY111 4 CREDITS 6 PERIODS

**General Physics I**

Includes motion, energy, and properties of matter. Prerequisites: Trigonometry or department consent. Course Note: Recommended for preprofessional and suggested for certain other majors.

PHY112 4 CREDITS 6 PERIODS

**General Physics II**

Includes electricity, electromagnetism, and modern physics. Prerequisites: PHY105 or PHY111.

PHY121 4 CREDITS 6 PERIODS

**University Physics I: Mechanics**

Kinematics, Newton's laws, work, energy, momentum, conservation laws, dynamics of particles, solids, fluids, mechanical waves, and sound. Prerequisites: MAT220, or MAT221, or department consent. One year of High School physics or PHY111 and PHY112 suggested but not required.

PHY131 4 CREDITS 6 PERIODS

**University Physics II: Electricity and Magnetism**

Electric charge and current, electric and magnetic fields in vacuum and in materials, and induction. AC circuits, displacement current, and electromagnetic waves. Prerequisites: MAT230, or MAT231, or department consent, and PHY121. Corequisites: MAT241 or department consent.

PHY252 4 CREDITS 6 PERIODS

**University Physics III: Thermodynamics, Optics, and Wave Phenomena**

Heat, entropy, and laws of thermodynamics; wave propagation; geometrical and physical optics; introduction to special relativity. Prerequisites: PHY131.

**Political Science (POS)**

POS100 3 CREDITS 3 PERIODS

**Introduction to Political Science**

Introduction to the discipline of political science and its relation to other disciplines with emphasis on the major philosophies and institutions of government. Prerequisites: None.

POS110 3 CREDITS 3 PERIODS

**American National Government**

Study of the historical backgrounds, governing principles, and institutions, of the national government of the United States. Prerequisites: None.

POS120 3 CREDITS 3 PERIODS

**World Politics**

Introduction to the principles and issues relating to the study of international relations. Evaluation of the political, economic, national, and transnational rationale for international interactions. Prerequisites: None.

POS220 3 CREDITS 3 PERIODS

**U.S. and Arizona Constitution**

Examination of the United States Constitution and the constitution and government of the State of Arizona. Prerequisites: None.

POS221 1 CREDIT 1 PERIOD

**Arizona Constitution**

Examination of the Constitution of the State of Arizona. Equivalent to the second part of POS220. May not enroll in POS220 and POS221 concurrently. Prerequisites: None.

POS222 2 CREDITS 2 PERIODS

**U.S. Constitution**

Examination of the United States Constitution. Equivalent to the first part of POS220. May not enroll in POS220 and POS222 concurrently. Prerequisites: None.

**Psychology (PSY)**

PSY101 3 CREDITS 3 PERIODS

**Introduction to Psychology**

To acquaint the student with basic principles, methods and fields of psychology such as learning, memory, emotion, perception, physiological, developmental, intelligence, social and abnormal. Prerequisites: None.

PSY123 3 CREDITS 3 PERIODS

**Psychology of Parenting**

The demonstration and application of psychological principles to the development and guidance of children and adolescents. Prerequisites: None.

PSY132 3 CREDITS 3 PERIODS

**Psychology and Culture**

Presents current knowledge about human diversity in behavior and culture using examples from a variety of contexts and nations. Highlights topics in cross-cultural psychology, such as intergroup relations, ethnocentrism, gender, personality, emotion, language, communication, work and health. Emphasis on applications of behavioral and cognitive principles to enhance interactions in a multicultural world. Prerequisites: None.

PSY210 3 CREDITS 3 PERIODS

**Educational Psychology**

Scientific research and psychological principles as they apply to teaching and learning. The role of psychology in educational settings, human diversity, theories of learning, intelligence, memory, creativity, assessment, and factors influencing effective instruction and learning. Prerequisites: PSY101 with a grade of "C" or better or permission of instructor.

PSY230 3 CREDITS 3 PERIODS

**Introduction to Statistics**

An introduction to basic concepts in descriptive and inferential statistics, with emphasis upon application to psychology. Consideration given to the methods of data collection, sampling techniques, graphing of data, and the statistical evaluation of data collected through experimentation. Required of psychology majors. Prerequisites: PSY101 with a grade of "C" or better and MAT092 or equivalent, or permission of instructor.

PSY231 1 CREDIT 2 PERIODS

**Laboratory for Statistics**

Applications of inferential and descriptive statistics to computers in the field of psychology. Prerequisites: None. Corequisites: PSY230.

PSY235 3 CREDITS 3 PERIODS

**Psychology of Gender Differences**

To assess historical and psychological perspectives on women and men and to evaluate contemporary viewpoints regarding the psychology of women and men. Prerequisites: PSY101 with a grade of "C" or better or permission of instructor.

PSY240 3 CREDITS 3 PERIODS

**Developmental Psychology**

Human development from conception through adulthood. Includes: physical, cognitive, emotional and social capacities that develop at various ages. Recommended for students majoring in nursing, education, pre-med, and psychology. Prerequisites: PSY101 with a grade of "C" or better or permission of the instructor.

PSY241 3 CREDITS 3 PERIODS

**Understanding and Changing Behavior**

Theory and methods for observing, analyzing, and modifying behavior. Prerequisites: PSY101 with grade of "C" or better or permission of the instructor.

PSY242 1 CREDIT 2 PERIODS

**Understanding and Changing Behavior Lab**

Designed to apply the principles of behavior modification. Application of behavior modification principles, techniques, and treatment(s) to modify self-behavior or the behavior of others. Exposure to the "hands-on" application of behavioral programming, including the identification, development, implementation, assessment, and modification of a behavioral program. Prerequisites: PSY101. Prerequisites or Corequisites: PSY241.

PSY243 3 CREDITS 3 PERIODS

**The Psychology of Developmental Disabilities**

The interrelationships among the physical, intellectual, social, and psychological aspects of developmental disabilities (DD). Various service approaches, policies, and programs designed to foster an adequate adjustment for individuals with DD and their families. Values and beliefs relating to persons with developmental disabilities. Prerequisites: PSY101.

PSY244 1 CREDIT 1 PERIOD

**Developmental Disabilities Internship**

Experience in working with persons with developmental disabilities and their families. 80 hours of designated work. Prerequisites: PSY101, PSY241, PSY242, and PSY243, and departmental approval.

PSY266 3 CREDITS 3 PERIODS

**Abnormal Psychology**

Distinguishes between normal behavior and psychological disorders. Subjects may include stress disorders, problems with anxiety and depression, unusual and abnormal sexual behavior, schizophrenia and addictive behaviors. Causes and treatments of psychological problems and disorders are discussed.

Prerequisites: PSY101 with a grade of "C" or better, or permission of instructor.

PSY270 3 CREDITS 3 PERIODS

**Personal & Social Adjustment**

Surveys the basic mental health principles as they relate to coping with stress, interpersonal relationships, sex, marriage, and working. Emphasis on learning to become a more competent and effective person. Prerequisites: PSY101 with a grade of "C" or better or permission of the instructor.

PSY290AB 4 CREDITS 6 PERIODS

**Research Methods**

Planning, execution, analysis, and written reporting of psychological research. Surveys the literature, procedures, and instruments in representative areas of psychological research. Prerequisites: ENG101, ENG107 or equivalent. Prerequisites or Corequisites: PSY230 (or equivalent) with a grade of "C" or better, or permission of instructor.

PSY290AC 4 CREDITS 5 PERIODS

**Research Methods**

Planning, execution, analysis, and written reporting of psychological research. Surveys the literature, procedures, and instruments in representative areas of psychological research. Prerequisites: ENG101, ENG107 or equivalent. Prerequisites or Corequisites: PSY230 (or equivalent) with a grade of "C" or better, or permission of instructor.

**Reading (RDG)**

RDG030 3 CREDITS 3 PERIODS

**Reading English as a Second Language III**

Designed for students who are learning English as a second language. Includes instruction for more advanced vocabulary and reading comprehension skills. Prerequisites: Appropriate ESL placement test score, or grade of "C" or better in RDG020, or permission of instructor.

RDG040 3 CREDITS 3 PERIODS

**Reading English as a Second Language IV**

Developed for students of English as a second language. Includes development of advanced vocabulary, comprehension skills, and culture awareness. Prerequisites: Appropriate ESL placement test score, or grade of "C" or better in RDG030, or permission of instructor.

RDG081 3 CREDITS 3 PERIODS

**Reading Improvement**

Designed to improve basic reading skills. Includes word recognition, 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 3 CREDITS 3 PERIODS

**College Reading Skills I**

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 (REC)**

REC120 3 CREDITS 3 PERIODS

**Leisure and the Quality of Life**

Overview of the historical, psychological, social, and cultural aspects of play, leisure, and recreation and their role in contemporary society. Nature of play and leisure behavior in human development within different cultures and the contribution play, recreation, and leisure make to the quality of life for individuals in today's society. Prerequisites: None.

REC150AA 1 CREDIT 2 PERIODS

**Outdoor Living Skills Field Experience**

Practical application of camping and outdoor skills including camping, equipment selection and use, cooking, fire building, camp programs, backpacking, and safety. Prerequisites: None.

REC150AB 3 CREDITS 3 PERIODS

**Outdoor Adventure Skills**

Camping and outdoor skills including types of camping, equipment selection and use, cooking and fire building, camp programs, backpacking, and safety. Prerequisites: None.

REC250 3 CREDITS 3 PERIODS

**Recreation Leadership**

An examination of roles and methods of leadership in leisure services settings. Overview of theories and models of leadership, group dynamics, participant motivation, communication, and face-to-face leader-

ship. Exploration of leadership contexts, including coaching and officiating sports, leading community groups and volunteers, working with persons in various life stages and with varying abilities, and leading different recreation activity areas. Prerequisites: None.

**Religious Studies (REL)**

REL243 3 CREDITS 3 PERIODS

**World Religions**

The development of various religions from the pre-historic to modern times. Political, economic, social and geographic relationships among world religions. Consideration of both Eastern and Western religions. Prerequisites: None.

REL270 3 CREDITS 3 PERIODS

**Introduction to Christianity**

The nature and content of the Christian tradition developed over time, with overview of the New Testament, major historical trends and figures, major Christian ideas and practices, and survey of denominations. Prerequisites: None.

**Sign Language (SLG)**

SLG101 4 CREDITS 4 PERIODS

**American Sign Language I**

Introduction of principles, methods, and techniques for communicating with deaf people who sign. Development of expressive and receptive sign skills, manual alphabet, numbers, and sign vocabulary. Overview of syntax, grammar, and culture related to American Sign Language (A.S.L.). Prerequisites: None. SLG103 suggested as a corequisite but not required.

SLG102 4 CREDITS 4 PERIODS

**American Sign Language II**

Continued development of knowledge and language skills for communicating with deaf people who sign. Includes numbers, fingerspelling, and culture. Emphasis on enhancement of receptive sign skills and continued development of expressive sign skills. Application of rudimentary, syntactical, and grammatical structure stressed with continued development of sign vocabulary. Prerequisites: SLG101, with a grade of "C" or better, or permission of department/division.



SLG103 1 CREDIT 1 PERIOD

**Introduction to Deafness**

History and development of American Sign Language and English codes. Overview of education for hearing-impaired children. Common adaptive devices used by this special population. Prerequisites: None.

SLG110 2 CREDITS 2 PERIODS

**Fingerspelling I**

Introduction to basic fingerspelling techniques. Concentration on receptive and expressive skills including manual alphabet production and numbers. Focus on methods, theory, and applications. Prerequisites: SLG101, or permission of department/division.

SLG120 2 CREDITS 2 PERIODS

**Fingerspelling II**

Continued skill development including speed, dexterity, clarity, and loan signs. Advanced use of numbers, prefixes, suffixes, and polysyllabic words. Prerequisites: SLG102, SLG110 with a grade of "C" or better, or permission of department/division.

SLG201 4 CREDITS 4 PERIODS

**American Sign Language III**

Linguistics of American Sign Language (A.S.L.) including non-manual behaviors and signing English idioms with conceptual accuracy. Emphasis on practical application of A.S.L. skills, expanded vocabulary, and cross-cultural communication. Prerequisites: SLG102, with a grade of "C" or better, or permission of department/division. Suggested but not required: (ENG101 or ENG107) and, (CRE101 or CRE111 or exemption by score on the reading placement test (ASSET)).

SLG202 4 CREDITS 4 PERIODS

**American Sign Language IV**

Advanced American Sign Language skills including continued vocabulary. Emphasis on conversational techniques in a cross-cultural framework. Continued work on conceptual accurate signing of English idioms and words with multiple meanings. Prerequisites: 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).

**Small Business Management (SBS)**

SBS230 2 CREDITS 2 PERIODS

**Financial and Tax Management for Small Business**

An overview of accounting and record-keeping for the successful management of a small business. Develops an understanding of the accounting cycle and preparation of financial statements. Includes section on tax consequences and the choice of legal entity choice based on taxation. Prerequisites: None.

**Sociology (SOC)**

SOC101 3 CREDITS 3 PERIODS

**Introduction to Sociology**

Fundamental concepts of social organization, culture, socialization, social institutions and social change. Prerequisites: None.

SOC157 3 CREDITS 3 PERIODS

**Sociology of Marriage & Family**

The study of courtship, marriage, and family patterns, their historical development, their adaptation to a changing culture, and their impact on individuals. Prerequisites: None.

**Spanish (SPA)**

SPA055 1 CREDIT 1 PERIOD

**Fundamentals of Spanish Grammar**

Introduces basic concepts of Spanish pronunciation and grammar for successful study of the language. Emphasis on grammar, sentence structure, and practice of simple dialogues. Prerequisites: None.

SPA101 4 CREDITS 4 PERIODS

**Elementary Spanish I**

Basic grammar, pronunciation and vocabulary of the Spanish language. Includes the study of the Spanish-speaking cultures. Practice of listening, speaking, reading, and writing skills. Prerequisites: None.

SPA102 4 CREDITS 4 PERIODS

**Elementary Spanish II**

Continued study of grammar and vocabulary of the Spanish language and study of the Spanish-speaking cultures. Emphasis on speaking, reading, and writing skills. Prerequisites: SPA101 or departmental approval.

SPA115 3 CREDITS 3 PERIODS

**Beginning Spanish Conversation I**

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 3 CREDITS 3 PERIODS

**Beginning Spanish Conversation II**

Continued development of speaking and listening skills for effective communication in Spanish. Prerequisites: SPA115 or departmental approval.

SPA117 3 CREDITS 3 PERIODS

**Health Care Spanish**

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 4 CREDITS 4 PERIODS

**Intermediate Spanish I**

Continued study of essential Spanish grammar and Spanish-speaking cultures. Continued practice and development of reading, writing, and speaking skills in Spanish. Emphasis on fluency and accuracy in spoken Spanish. Prerequisites: SPA102 or two years of high school Spanish, or departmental approval.

SPA202 4 CREDITS 4 PERIODS

**Intermediate Spanish II**

Review of grammar, continued development of Spanish language skills with continued study of the Spanish-speaking cultures. Prerequisites: SPA201 or departmental approval.

SPA225 3 CREDITS 3 PERIODS

**Intermediate Spanish Conversation I**

Continued development of skills in conversational Spanish. A review of the major grammatical and pronunciation problems. Prerequisites: SPA116, or SPA102 or departmental approval.

SPA226 3 CREDITS 3 PERIODS

**Intermediate Spanish Conversation II**

Continued development of skills in conversational Spanish with a review of grammatical problems. Prerequisites: SPA225, two years Spanish or the equivalent or departmental approval.

SPA235 3 CREDITS 3 PERIODS

**Advanced Spanish Conversation I**

Continued development of skills in conversational fluency. Class conducted completely in Spanish. Prerequisites: SPA226 or equivalent or departmental approval.

SPA236 3 CREDITS 3 PERIODS

**Advanced Spanish Conversation II**

Further development of skills in conversational fluency. Grammar presented only to clarify student errors. Prerequisites: SPA235, or equivalent, or departmental approval.

SPA265 3 CREDITS 3 PERIODS

**Advanced Spanish I**

Introduction and study of Spanish and Spanish-American literature. Selected readings from most Spanish-speaking countries. All discussions, oral reports, and written assignments are in Spanish. Prerequisites: SPA202 or departmental approval.

SPA266 3 CREDITS 3 PERIODS

**Advanced Spanish II**

Further study of Spanish and Spanish-American literature. Reading selections from most Spanish-speaking countries. All oral reports, discussions, and written reports in Spanish. Graduated level of difficulty from the literature studied in SPA265. Prerequisites: SPA265 or departmental approval.

**Telecommunications (TCM)**

TCM108 3 CREDITS 5 PERIODS

**Video Production**

Video production technology including Electronic News Gathering (ENG) & Electronic Field Production (EFP) styles and equipment usage. Corporate, cable, and broadcast applications. Basic production techniques in scriptwriting; single camera film style shooting; lighting, audio recording; and editing; post-production techniques, production personnel and their roles, budgeting and copyright issues. Prerequisites: None.

TCM111 3 CREDITS 3 PERIODS

**Screenwriting I**

Provides an introduction to screenwriting for feature films. Prerequisites: None.

## Theater (THE)

THE111 3 CREDITS 3 PERIODS

### Introduction to Theatre

A survey of theatre, including basic elements and principles of production, styles, and/or historical perspectives of theatre, dramatic literature, and criticism. Prerequisites: None.

THE118 3 CREDITS 3 PERIODS

### Playwriting

Practice and study of theories and techniques of writing for the stage; creating characters, dialogue, and plot for monodramas, scenes, and plays. Prerequisites: None.

THE205 3 CREDITS 3 PERIODS

### Introduction to Cinema

Survey of the history and development of the art of motion pictures, including criticism of aesthetic and technical elements. Prerequisites: None.

THE206 3 CREDITS 3 PERIODS

### Introduction to Television Arts

History and development of electronic media and its impact on popular arts. Prerequisites: None.

THE220 3 CREDITS 3 PERIODS

### Modern Drama

Analysis of dramatic literature studied within political, historical, and cultural contexts and examined from the perspective of the playwright's structure and style. Prerequisites: ENG101 or ENG107 or equivalent.

THE260 3 CREDITS 3 PERIODS

### Film Analysis

Understanding and enjoyment of film and its correlation to literature, art, music, and other disciplines. Prerequisites: None.

## Theater Performance/ Production (THP)

THP112 3 CREDITS 4 PERIODS

### Acting I

Fundamental techniques and terminology of acting through physical and vocal expression, improvisation, and monologue and scene work. Emphasis on characterization. Prerequisites: None.

THP115 3 CREDITS 4 PERIODS

### Theatre Makeup

Purposes, materials, and techniques of theatrical makeup. Prerequisites: None.

THP201AA 1 CREDIT 2 PERIODS

### Theatre Production I

Designed to give college credit to the cast and technical production crews of college theatre productions. May be repeated for up to a maximum of four (4) credits. Prerequisites: None.

THP201AB 2 CREDITS 4 PERIODS

### Theatre Production II

Designed to give college credit to the cast and technical production crews of college theatre productions. May be repeated for up to a maximum of four (4) credits. Prerequisites: None.

THP212 3 CREDITS 4 PERIODS

### Acting II

Fundamental techniques of acting through script analysis, rehearsal, and performance. Prerequisites: THP112 or departmental approval.

THP213 3 CREDITS 5 PERIODS

### Introduction to Technical Theatre

Procedures of technical theatre production and demonstration. Topics include design and construction of scenery; lighting and properties. Prerequisites: None.

THP216 3 CREDITS 4 PERIODS

### Beginning Stage Lighting

Basic theories and methods of stage lighting for all production types. Emphasis on technical/theoretical facts, artistic/design concept development, and "teamwork" structure of theatre. Examines stage lighting optics, instrument selection and application, color theory, circuiting and control systems, and basic design. Prerequisites: THP213 or permission of instructor.

THP241 3 CREDITS 3 PERIODS

### Performance of Literature

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.

## Total Quality Management (TQM)

TQM101 3 CREDITS 3 PERIODS

### Quality Customer Service

Examines the nature of quality customer service and the attitudes, knowledge, and skill needed to work effectively in a quality customer service environment. Foundation skills for quality customer services are taught, applied, and practiced. Prerequisites: None.

TQM105 2 CREDITS 2 PERIODS

### Writing for Quality Results

Theory and practice of writing business correspondence in a quality-oriented organization. Includes the orientation of the writer to the internal/external customer's needs and writing in positive, negative and persuasive settings. Prerequisites: Appropriate English placement test score in ENG101, or "C" or better in ENG071. OAS108 and TQM101 or TQM101AA and TQM101AB are recommended.

## Wellness Education (WED)

WED100 2 CREDIT 2 PERIODS

### Personal Wellness

Overview of wellness and its relationship to personal health. Understanding of personal wellness through lifestyle assessments. Introduction to wellness and health-related topics including fitness, relationships, nutrition, self care, abusive behaviors, mind/body connection, and other current issues in health. Prerequisites: None.

WED121 1 CREDIT 2 PERIODS

### Physical Conditioning for Massage Therapists

Physical fitness necessary for current and prospective massage therapists. Includes physical fitness and workout techniques as related to performing massage therapy; individual conditioning strategies, and basic nutritional guidelines. Prerequisites: None.

WED144 3 CREDITS 5 PERIODS

### Strategies in Diabetes Management

Introduction to strategies in diabetes mellitus management and prevention for individuals diagnosed with diabetes and their caretakers. Includes a physical activity component. Prerequisites: None.

WED145 3 CREDITS 3 PERIODS

### Spirituality and Aging

Exploration of the spiritual dimensions of aging; relationship of major life tasks and transitions to spirituality; exploration of conscious aging, including a literary analysis; reflective and contemplative tools used in conscious aging; interrelationships between wisdom, ritual, and spirituality; and development of a new vision of aging. Prerequisites: None.

WED151 3 CREDITS 3 PERIODS

### Introduction to Alternative Medicine

Definition of health; exploration of mind-body-spirit connection in health; various therapeutic modalities; identification of strengths and limitations of alternative therapies. Also includes development of ability to critically review written material in the alternative therapy area. Prerequisites: None.

WED156 1 CREDIT 1 PERIOD

### Humor and Play

Physiological, psychological, emotional, and intellectual effects of humor and play; suggestions for planning periods of play and incorporating it into one's life. Prerequisites: None.

WED162 1 CREDIT 1 PERIOD

### Meditation and Wellness

Physiology of meditation and its effects on physical and mental health; scholastic abilities and interpersonal relationships; differentiation between meditation and other relaxation techniques. Prerequisites: None.

WED165 2 CREDITS 2 PERIODS

### Overview of Massage Therapy

History of massage; overview of bodywork systems; benefits and indications of massage; legal requirements for practice in Arizona. Prerequisites: None.

WED170 1 CREDIT 1 PERIOD

### Principles of Homeopathy

Origins of homeopathy; key concepts; perceptions of disease; schools of homeopathy; scientific studies; preparation of remedies; case taking. Prerequisites: None.

WED172 1 CREDIT 1 PERIOD

**Overview of Herbal Remedies**

History and evolution of herbs for healing applications. Preparation, usage, and effects of certain herbs used for healing purposes. Basic literature review skills in the area of herbal medicine. Prerequisites: None.

WED176 1 CREDIT 1 PERIOD

**Flower Essences**

Healing properties of Bach flower remedies; Bach's development of remedies and his philosophy of healing; use and preparation of a variety of flower essences. Prerequisites: None.

WED210 2 CREDITS 3 PERIODS

**Sports Massage**

Purpose, benefits, and contraindications of sports massage; principles of sports physiology; massage techniques, applications, and procedures; treatment of injuries. Prerequisites: WED165 and WED230, or permission of Program Director.

WED215 2 CREDITS 5 PERIODS

**Self-Care for Health Care Providers**

Emphasis on mind-body methods for personal wellness through integration of physical, emotional, social, and spiritual dimensions of being. Development of a personal practice to achieve and sustain a balanced program to support personal health and well being. Prerequisites: None.

WED218 1 CREDIT 1 PERIOD

**Aromatherapy**

Physiology of aromatherapy; methods of use; preparation of oils; uses in sports, beauty care, massage, child care, health care, at work, and in the home. Prerequisites: None.

WED230 6 CREDITS 9 PERIODS

**Therapeutic Massage Practices I**

Principles of professionalism, ethics, and legalities. Includes use of terminology related to massage therapy. Applications, indications, and contraindications of the nine strokes of Swedish massage. Study of the human osseous and muscular structure. Emphasis on normal movement patterns, origins, insertions, and functions of the muscular system. Prerequisites: (BIO160 and WED165) or permission of Program Director.

WED231 6 CREDITS 9 PERIODS

**Therapeutic Massage Practices II**

Refined application of the nine strokes of Swedish massage and contraindications to avoid. Application of advanced principles and techniques of trigger point therapy, muscle energy technique, stretching, hydrotherapy protocols, hot and cold applications, reflexology, and corporate massage. Study of the human osseous and muscular structure. Emphasis on normal movement patterns and the origin, insertion, and function of the muscular system. Prerequisites: WED230.

WED232 6 CREDITS 10 PERIODS

**Therapeutic Massage Practices III**

Refinement and integration of technical skills, psychosocial competencies, and role identity. Exploration of techniques to assess and facilitate range of motion and function; purpose, benefits, indications, and contraindications of therapeutic massage for specific neuro-musculoskeletal disorders/injury and special populations. Application of massage techniques with therapists pre- and post-client evaluations of the client. Adaptation of massage techniques for special populations. Prerequisites: WED231. Corequisite: WED250, or permission of Program Director.

WED250 3 CREDITS 6 PERIODS

**Clinical Practicum**

Application of fundamental massage techniques. Prerequisites: WED231. Corequisites: WED232, and permission of Program Director.

WED262 2 CREDITS 3 PERIODS

**Acupressure/Shiatsu I**

Overview of the principles of Traditional Chinese Medicine and the Meridian System; history, purpose, benefits, indications, and contraindications of Acupressure/Shiatsu. Therapeutic techniques and applications of Acupressure/Shiatsu; pre and post evaluations of intervention procedures. Prerequisites: WED250, and permission of instructor.

WED264 2 CREDITS 3 PERIODS

**Acupressure/Shiatsu II**

Therapeutic techniques and applications for Anma massage used to disperse heat and stagnant "Ki;" hands-on techniques to balance Kyo and Jitsu energy; meridian rebalancing stretches and visualizations for release of acute/chronic muscle tension. Prerequisites: WED262, or permission of instructor.

WED297AC 3 CREDITS 3 PERIODS

**Special Topics: Therapeutic Massage**

Explores a special topic related to therapeutic massage. Topics vary and include concepts relevant to those pursuing careers in therapeutic massage. Prerequisites: None.

**Writing Across Curriculum (WAC)**

WAC101 3 CREDITS 3 PERIODS

**Writing Across the Curriculum**

Emphasis on the elements of sentence and paragraph structure, the four stages of the writing process for personal-based and expository. Extensive journal entries, editing and revision of written assignments. Prepare and write multi-paragraph essays. Assigned readings, participation in extensive workshops and groupwork. Prerequisites: Appropriate English placement test score, or permission of instructor.

**Information Regarding Special Courses Not Listed in the College Catalog****Cooperative Education (courses numbered 296)**

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: None. Corequisites: Must be concurrently enrolled in at least one class related to job/co-op subject area; must maintain an enrollment ratio of two (2) hours of credit in other courses for every one (1) hour of Cooperative Education credit (excluding radio and television); a maximum of sixteen (16) hours of Cooperative Education credit is allowable in a college program.

**Special Projects (courses numbered 298)**

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: None.

# ADMINISTRATION, FACULTY, MANAGEMENT & STAFF

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# 2004-05



## Administration

### Maricopa Community College Governing Board

Maricopa County Community College District  
District Support Services Center  
2411 West 14th Street  
Tempe, Arizona 85281-6942  
(480) 731-8889

#### Dr. Donald R. Campbell

Reelected 2001-2007  
District Precinct #5  
Phoenix, South and West

#### Mr. Ed Contreras

Elected 2001-2007  
District Precinct #1  
East Valley

#### Mr. Scott Crowley

Appointed 2004  
District Precinct #4  
Phoenix North and West to Wickenburg

#### Mrs. Linda B. Rosenthal

Reelected 1996-2009  
District Precinct #3  
North Central Maricopa County  
including New River

#### Ms. Nancy Stein

Reelected 1999-2005  
District Precinct #2  
Scottsdale, Northeast Phoenix and East Valley

### Maricopa Community College District Administration

2411 West 14th Street  
Tempe, Arizona 85281-6942  
(480) 731-8000

#### Dr. Rufus Glasper

CHANCELLOR

#### Dr. Anna Solley

VICE CHANCELLOR,  
ACADEMIC AFFAIRS

#### Dr. Steven Helfgot

VICE CHANCELLOR,  
STUDENT DEVELOPMENT AND COMMUNITY  
AFFAIRS

#### Mr. Ronald Bleed

VICE CHANCELLOR,  
INFORMATION TECHNOLOGIES

#### Ms. Debra Thompson

ACTING VICE CHANCELLOR,  
BUSINESS SERVICES

#### Dr. Jose Leyba

ACTING VICE CHANCELLOR,  
HUMAN RESOURCES



## Chandler-Gilbert Community College Administration

### HESSE, Maria L.

PRESIDENT

B.S., M.B.A., Arizona State University;  
M.Ed., Northern Arizona University.

### BARTHOLOMEW, Lois M.

DEAN, STUDENT SERVICES

A.A., Phoenix College;  
B.S., Arizona State University;  
M.A., Northern Arizona University.

### MASON, Mark J.

DEAN, ADMINISTRATIVE SERVICES

B.S., M.B.A., Arizona State University.

### GUERRIERO, William

DEAN, INSTRUCTION

B.A., Aquinas College;  
M.S., Central Michigan University.

### CRAWFORD III, William H.

SENIOR ASSOCIATE DEAN, OCCUPATIONAL  
EDUCATION

B.S., Arizona State University;  
M.Ed., Northern Arizona University.

### SCHROEDER, John R.

DIRECTOR, WILLIAMS CAMPUS

A.T.A., A.A.S., Everett Community College;  
B.A.Ed., Central Washington University;  
M.A., Azusa Pacific University.

## Faculty

### ADAMSON, Scott

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# GLOSSARY OF COLLEGE TERMINOLOGY



2004-05



**Academic Load**

Also called academic load. The total number of credit hours taken in a term. Twelve credit hours is considered a full-time load.

**Academic Program Advisor**

A designated staff member who has received training to provide students with academic information that will direct them to the appropriate classes to achieve their educational goals and enhance their academic success.

**Admission**

Acceptance into a college after the student has filed a completed Student Information Form with the Admissions, Records and Registration Office and has been admitted according to admissions criteria. Students who have been admitted are eligible to register for courses.

**Alumnus/Alumna**

A graduate of a college or university. (Plural: alumni/alumnae)

**Assessment**

Evaluation of students' present skills in English, reading, and mathematics using tests known as Assessment of Skills for Successful Entry and Transfer (ASSET). Scores are used as a guide for proper course placement so students can choose courses that match their skills. Such a match leads to greater success.

**ASSET**

See Assessment.

**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), 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.

**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).

**Class Period**

Time spent in class and/or lab each week. One period is equivalent to 50 minutes per week.

**Class Schedule**

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.

**Cocurricular Activities**

Also known as extracurricular. Activities, clubs, or organizations students may participate in above and beyond their academic courses.

**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, excluding 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 faculty member professionally trained in counseling who helps students with educational, career, or personal concerns as well as goal setting and decision making.

**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 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 ENG101).

**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 Selection Form**

This form is used by students to list their course selections for a particular term. In most cases, an advisor must approve the courses and sign the form before a student can register.

**Course Title**

The name of a specific course that indicates subject and content (e.g., First-Year Composition, 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 for an academic or occupational goal. Also referred to as a program of study.

**Division**

A group of faculty who teach classes in related subjects, such as accounting, management and computer information systems in the Business Division.

**Drop/Add Period**

A specified period of time at the beginning of a term when schedule changes (i.e., adding or dropping one or more classes) are allowed without a refund penalty. Courses added or dropped during the Drop/Add Period do not appear on students' transcripts.

**Electives**

Non-required courses that students may select to complete their program of study.

**Extended Probation**

A student on academic probation is placed on extended probation if they do not raise their cumulative grade point average to the required minimum standard. Enrollment is limited to six (6) credit hours for a period of one semester.

**Faculty**

Instructors, teachers. Counselors and librarians are also faculty.

**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 Class Schedule.

**Financial Aid**

Dollars available which help students attend college to complete their education. Includes grants, loans, scholarships, and work study funds. Sources are varied with funds coming from federal and state governments, colleges, private donors, and local agencies and organizations.

**Fiscal Services**

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.

### FTSE

Full-Time Student Equivalents. Known as FTSE (Pronounced "Foot see").

### Grade Point

The numerical value of a 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 points x 3 (credit hours) = 12 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.

### 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 also offer 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 journalism, nursing, or aircraft maintenance.

### New Student Orientation

A session during which new students are introduced to academic programs, facilities, and services provided by a college.

### Official Absence

Absence from class approved by the Dean of Student Services for students who are participants in an official college activity. Approved absence documentation must be presented by students to their instructors before the official absence. Students 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.



**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.

**Scholastic Suspension**

Students on suspension from any accredited institution of higher education may appeal to the Admissions and Standards Committee or campus designee for permission to register. The student will be limited to twelve (12) credit hour unless approved by Admissions and Standards Committee.

**Section Number**

A unique, four-digit code used to identify each class section of each course offered. Section numbers are listed in the Class Schedule.

**Self-Paced Classes**

Also called open-entry/open-exit (OE/OE). Essentially self-study courses that permit students to set flexible schedules. Students may enroll in self-paced courses throughout most of a semester. Self-

paced courses are recommended for students who are self-motivated, are strong readers, have good problem-solving skills, can manage time well, and can set their own deadlines.

**Semester**

Traditionally half an academic year, about 16 weeks in length. Fall semester begins in August and spring semester begins in January.

**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.

**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.

**Tutoring**

Additional learning assistance provided by tutors to students in individual or group sessions. Tutoring is centralized in the Learning Assistance Center.

**Withdrawal**

Officially dropping any or all courses during a semester.

**APPENDIX: SCHOLARSHIP DONORS**



2004-05



CGCC gratefully acknowledges the following scholarship donors for their support of our students:

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- Chandler Educational Foundation
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- Chandler High School Booster Club
- Chandler Horizon Rotary Club
- Chandler Ojo Rojo Lions Club
- Chandler Regional Hospital
- Chandler Regional Hospital Auxiliary
- Chandler Republican Women's Club
- Chandler Rotary
- Chandler Service Club
- Chandler Unified School District
- Chick-fil-A
- Choral Parents Association
- The Circle K Corporation
- Citizen's Scholarship Foundation of America
- Coca-Cola Scholarship Foundation
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- Community Church of Buckeye
- Community Kids
- James Comstock Memorial Scholarship
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- Delta and Pine Land Company
- Desert Club of Mesa

- Desert General Surgeons, LTD
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- Dobson High School
- Dougherty Foundation
- Eastern Arizona College Foundation
- Eastern Pinal County 4-H
- East Valley Chapter of ABWA
- East Valley Institute of Technology
- East Valley Hispanic Women's Association
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- Kiwanis Club Queen Creek
- Kodalak Area Native Association
- Las Vegas Invitational Scholarship Fund
- Mancos Lodge #100 A.F. & A.M.
- Mancos School District
- Marsha Lewicki Scholarship
- Lincoln Foundation, Inc.
- Major League Baseball
- Marcos de Niza High School
- Maricopa Community Colleges Foundation
- Maricopa County Fair
- Marine Corps Scholarship Foundation
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- Mesa Foundation for Educational Excellence
- Mesa Public Schools
- Mesa Unified School District
- Mesquite Area Chamber of Commerce
- Mesquite High School Booster Club
- Miami Rotary Club
- Middletown Lions Club
- Miss America Pageant
- Miss Black Arizona Pageant
- Dr. Marvin Morrison

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- Motorola Retirees
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- Mountain Pointe High School
- Mountain View Booster Club (Toros)
- Nana Corporation
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- Otto and Edna Neely Foundation
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- Robert Aqqaluk Newlin, Sr. Memorial Trust
- Nucor Corporation
- The Tommy Nunez National Hispanic Basketball Classic
- Ohio Elks Association
- O'Odham Tash
- Page Unified School District
- Palmer Lodge BPO Elks
- Pan American Golf Association
- Robert Pastor Memorial
- Father Joseph N. Patterson Foundation
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- Phoenix Cotton Women
- Phoenix Scottish Rite Foundation, Inc.
- Phoenix Suns Charities
- Phoenix Union Partnerships
- Professional Aviation Maintenance Association
- Professional Chemicals Corporation
- Professional Secretaries International
- Pueblo de Laguna
- Pueblo Grande Museum Auxiliary
- George M. Pullman Education Foundation
- Queen Creek Unified School District
- Ray Chapter-Order Eastern Star
- Red Mountain High School
- Red Mountain High School Booster Club
- Roadway Package Systems
- Rotary Club of Gilbert
- Rural Metro Corporation
- Nancy Rutledge Memorial Fund
- Safford High School
- Salt River, Pima-Maricopa Indian Community
- Si Se Puede Foundation
- Sitnasuk Foundation
- Soroptimist International of the San Tans
- Southwest Airlines
- State Compensation Fund
- Sun Lakes Rotary Club
- Supima Association of America
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- Tempe Schools Credit Union
- Tempe St. Luke's Hospital
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- Valley of the Sun YMCA
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- Women's Sport Foundation
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- Young American Bowling Alliance
- Youth Singers Foundation
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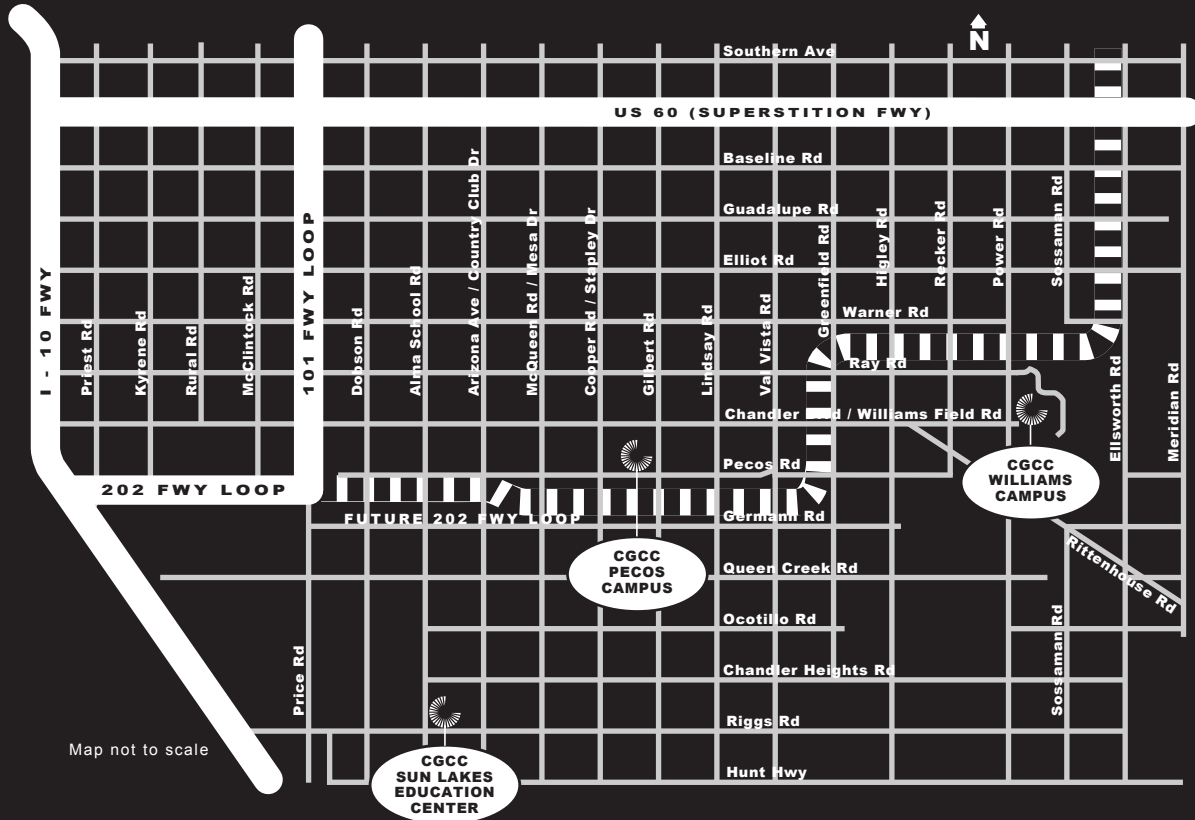
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## ONE COLLEGE THREE CAMPUSES

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2626 East Pecos Road  
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480.732.7000

### WILLIAMS CAMPUS

7360 East Tahoe Avenue  
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### SUN LAKES EDUCATION CENTER

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